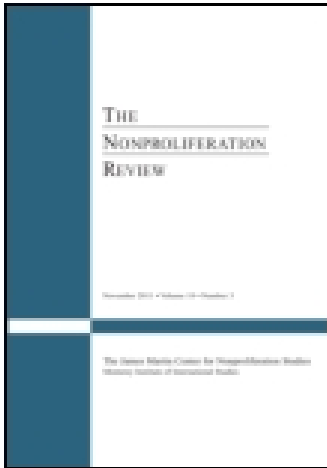


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BETTER THAN THE BOMB

Anne I. Harrington © 2014

Politics and the Bomb: The Role of Experts in the Creation of Cooperative Nuclear Non-Proliferation Agreements, Sara Z. Kutchesfahani. Routledge, 2013. 188 pages, \$130.

The Politics of Nuclear Non-Proliferation: A Pragmatist Framework for Analysis, by Ursula Jasper. Routledge, 2013. 240 pages, \$135.

KEYWORDS: Proliferation; theory; Libya; Argentina; Brazil; Switzerland; former Soviet Union; Cooperative Threat Reduction; cooperative security

There is a bias toward searching for the next bomb woven into the very fabric of (non) proliferation studies. This bias is traceable to the conceptual origins of nuclear proliferation: Albert Wohlstetter's 1961 article on the "N + 1" problem.¹ In it, Wohlstetter hypothesized that there would be a domino effect as each new state to acquire a nuclear weapon created an incentive for its neighbor to acquire one as well. The term "proliferation" captures the perceived automaticity of the cascade that would ensure—almost as if nuclear weapons would become self-reproducing, populating the earth with warheads unless someone limited their fertility.²

Instead of going in search of the next Bomb, the two books reviewed here study states that renounced, rolled back, or dismantled their nuclear programs. They go beyond a simple negation of the central question in nonproliferation studies, which is typically formulated as "What are the causes of nuclear proliferation?" Instead, authors Sara Kutchesfahani and Ursula Jasper inquire into the politics of nuclear policy formation, studying what states do instead of building the Bomb. In other words, their studies are not focused on what these states lack (a nuclear bomb) but rather are inquiries into the policies that states have created.

This review begins by placing these two texts on the disciplinary map of international relations (IR). This short historical sketch reveals how two books that both focus the IR disciplinary gaze on the political processes through which scientists and policy makers produce nuclear nonproliferation policies are very different when viewed through the IR lens. It is also appropriate to the texts under consideration because both authors do the careful work typical of dissertations, in which the authors not only present their analyses but also explain their methodologies. In other words, these authors not only share what they know, but also share with the reader why they know it. Whereas Kutchesfahani chooses a well-established American constructivist approach, Jasper

reaches beyond disciplinary boundaries to construct a pragmatist framework that is in and of itself a contribution to the field. The states Kutchesfahani and Jasper have chosen are all in good standing with respect to their nuclear nonproliferation commitments: Brazil, Argentina, Ukraine, Kazakhstan, Belarus, Switzerland, and Libya. However, each of these states went through its own period of transition before producing robust nonproliferation policies, and while Muammar Qaddafi's decision to roll back Libya's illicit nuclear program is still fresh in our disciplinary memory because of the ongoing turmoil there, the possibility of Brazil, Argentina, or Switzerland becoming the next nuclear weapon state has faded into the past. For that reason, the case studies in these books are valuable contributions to the field. Both Kutchesfahani and Jasper perform the type of careful primary source analyses that are all too often absent from the field. In conclusion, this review draws out policy implications from their arguments for current international political conflicts over access to and possession of nuclear technology.

Is There a Theory of Nonproliferation?

In 1996, Tanya Ogilvie-White won the James Martin Center for Nonproliferation Studies's research competition for her article "Is There a Theory of Nuclear Proliferation? An Analysis of the Contemporary Debate."³ Ogilvie-White's article provides a snapshot of the proliferation debate at a transitional moment in the history of nonproliferation. The positivist foundations of international relations had been badly shaken by the failure of the discipline to predict the peaceful end to the Cold War.⁴ As anthropologist Hugh Gusterson has argued, security studies in particular was so focused on the nuclear balance that it missed the economic and political signs of impending change in the Soviet Union.⁵ By the mid-1990s, the academic study of nuclear deterrence and nonproliferation had largely fallen out of favor at major US universities as graduate students turned their attention to ethnic conflict, democratization, and the expansion of NATO.⁶ Meanwhile, political events continued to contravene commonplace assumptions within security studies about the desirability of nuclear weapons. A year earlier, in 1995, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) had been indefinitely extended at its mandated twenty-five-year review conference. The vote for indefinite extension was accompanied by a wave of new NPT signatories including Uzbekistan, Ukraine, and Kazakhstan, all of which had dismantled their inherited nuclear arsenals with financial assistance from the Cooperative Threat Reduction (CTR) program, a US policy based on principles of cooperative security.

In her article, Ogilvie-White reviews the existing literature on nuclear proliferation, dividing it into three categories: realist threat-based explanations, domestic and institutional perspectives, and cognitive and psychological approaches. Her three-part structure maps loosely onto the larger structure of the IR paradigm debate between realists, who focus on the anarchic structure of the international system as driving states to seek security; domestic institutionalists, who focus on the bureaucratic sources of foreign policy; and a third category, the substance of which was in transition at the time of her writing, but which she identifies as being occupied by social and psychological factors occluded by the theoretical lens of structural realism.

This third category of social and psychological—as opposed to rational materialist—factors took on added significance for scholars who were concerned about the failure of positivist approaches to predict change in international politics. Rather than abandoning the intellectual project of positivist social science, including social factors such as identity and norms as a competing variable, the positivist paradigm held out the possibility of incorporating transformative ideas like the ones that played a role in the peaceful power transition that ended the Cold War. This alternative, known as social constructivism, avoided taking the same cultural and linguistic turn in American IR that decades earlier had brought postmodern approaches in from the margins in anthropology, sociology, and history. Social factors such as norms, identity, ideas, and prestige could be incorporated as “social objects,” a phrase borrowed from social constructivist scholar Alexander Wendt. Social objects are never directly observable because they have no material or physical form, but rather are only detectable in their effects.⁷ From this perspective, a norm, like the norm of nonproliferation codified in the NPT, is a type of invisible object that functions by blocking certain kinds of behaviors and permitting others. This is a very different approach to the idea of a norm as a discursive practice that creates meaning by organizing human interactions and shaping environments. By incorporating ideas propagated by a group of experts, all of whom share a common epistemic approach as a competing factor within a broader explanatory framework, Kutchesfahani relies on an American constructivist approach. Jasper, by contrast, utilizes discourse analysis to reveal the process by which policy makers make meaning of events and articulate possibilities.

The American social constructivist approach has had the positive effect of widening the disciplinary lens to create space for case studies on the effect of ideas, and this space is Kutchesfahani’s entry point into the debate. Kutchesfahani’s book is an application of the epistemic community framework to the production of two nuclear nonproliferation programs: the Brazilian-Argentine Agency for the Accounting and Control of Nuclear Materials (ABACC) and the CTR program. The epistemic community framework is an approach pioneered in the early 1990s by IR scholars including University of Massachusetts-Amherst’s Peter Haas and, in application to arms control, University of Toronto’s Emanuel Adler. Epistemic communities are networks of professionals who share normative and causal beliefs and agree upon a common standard of validity and proposed solutions to a policy problem. Kutchesfahani uses this framework to great effect as a vehicle for the data she collected through fieldwork, including an impressive number of interviews. By focusing attention on the interlocking networks of physical scientists, social scientists, and policy makers that generate frameworks for understanding complex nuclear policy problems, Kutchesfahani’s book highlights the process through which experts impact policy outcomes by proposing novel ideas and reducing uncertainty.

However, relegating social factors to one among many competing variables in a positivist paradigm also keeps constructivist arguments about the impact of ideas at the periphery of a field of study in which military force is considered the *ultima ratio* of international politics. Wendtian-style constructivists always have to cope with what Wendt refers to as a “rump materialism.”⁸ Think of it as the realist trump card: no matter how effective an argument about social norms, as long as you begin with a Cartesian mind-body dualism (derived from French philosopher René Descartes’s philosophy of the

distinction between mind and body), which Wendt defends as necessary to the scientific paradigm he endorses, the relationship between materials and ideas is conflictual. Materials and ideas may be “co-constituting” but they are two different forces, each with independent agency. Even if “in the fullness of time, all material restraints are negotiable, in the meantime, they are not. Whether we like it or not, the distribution and composition of material capabilities at any given moment help define the possibility of our action.”⁹ Ultimately, there is always an excess of materiality that resists being conquered by social forces. Hence, in the article that would go on to become a touchstone for the field, “Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb,” Stanford University’s Scott D. Sagan could argue that, although the realist model may best explain most cases, the evidence supports a multicausal approach. States do build the bomb when their security is threatened as a realist would contend, but there are also cases in which state behavior is better explained by bureaucratic bargaining processes or as a desire for international standing and prestige.¹⁰ And, perhaps more importantly for the purposes of this review, in his most recent review of the field, Sagan notes that, in contrast to the significant role it plays in the books by Kutchesfahani and Jasper, one of the few points of consensus among the positivist studies on which he focuses is that “the NPT does not have significant effects on the likelihood of proliferation.”¹¹

In addition to these three competing schools of positivist thought, Ogilvie-White—citing the groundbreaking work of sociologist Donald MacKenzie on nuclear missile guidance systems—included a fourth “alternative” in her review article: historical sociology. Today this fourth alternative includes the work of science and technology studies (STS) scholars like MacKenzie, critical security studies scholars such as Itty Abraham, and feminist and gender studies scholars such as Carol Cohn. What all of these approaches share in common is a commitment to the social construction of knowledge—not the causal effect of social “objects” like norms, identity, or prestige, but the role of social factors in creating the appearance of inevitability inherent to determinist explanations. Rather than producing a theory that competes within the existing positivist paradigm, this alternative calls into question the paradigm itself. Scholars eschew natural science frameworks in favor of discourse analysis, historiography, and ethnography. STS, for instance, uses interpretive historical methods to reveal how scientific knowledge is itself a social construction that enables some technological and political possibilities and forecloses others.

Jasper fits into this fourth category of historically and sociologically oriented scholars. In her book, Jasper expresses a desire to break with “positivist orthodoxy” and redirect the disciplinary gaze of nonproliferation studies. Instead of postulating cause-and-effect relationships and testing their hypotheses against statistical or historical data, her case studies of Switzerland and Libya focus on the social and political processes through which experts and policy makers make sense of complex problems, articulate what is politically possible, and build consensus around a viable course of action. In other words, she is interested in the meaning-making processes through which implicit and explicit beliefs about cause and effect shape a state’s decisions about its nuclear energy and security policy.

Jasper aligns herself with security studies scholars who took a linguistic turn in the mid-1990s, but rather than adopting one of their approaches, starts by building a

metatheoretical framework of her own. Drawing on the body of literature known as “American pragmatism,” Jasper lays out a pragmatist theory of action. Pragmatists eschew thinking of the social world in terms of systems and orders and instead favor the study of practices. They “pay tribute to human agency, reflexivity, and historical contingency, rather than parsimony, causality and universality.” Their priority is to inquire into “what makes agents believe the world is ordered in a particular way and why they have to act the way they do under the circumstances.” Therefore, rather than studying the systemic dynamics of proliferation, Jasper studies specific “procurement decisions” using a two-step process. She starts with process-tracing, a thick description of the underling historic currents of the time, and then proceeds to a discourse analysis of primary source documents according to the principles of grounded theory—an iterative process of data collection, concept formation, and theory building. Jasper’s method of discourse analysis is well-suited to the empirics of her first case study. In contrast to states in which decisions about nuclear programs are made entirely behind closed doors, Jasper reports that “Switzerland is the only country in the world that has held referenda on the issue of nuclear acquisition.” She is also well suited to perform such an analysis because of her native fluency in German. The production of a detailed case study that does the work of translation for an English-speaking audience is itself a useful contribution. Libya is a tougher case for Jasper because there is far less information available for analysis than in the case of Switzerland. However, the fact that Libya under the leadership of Muammar Qaddafi had an illicit nuclear weapon program in spite of being a signatory to the NPT has heightened interest in it among Western scholars. Thus, Jasper is able to supplement her analysis of Qaddafi’s public statements with citations to secondary sources.

Case Studies

A theme that runs through the case studies in these two books is the character of nonproliferation agreements: the discriminatory nature of the NPT and the recognition afforded to the beneficiaries of CTR. All of the states covered are currently in good standing with their commitments under the NPT, but each state had to come to terms with what it meant to give up, not only the weapons themselves, but also the right to nuclear weapons they would forswear when signing the NPT. Of the states covered, only Belarus was eager to give up its inherited nuclear arsenal because of the strong antinuclear sentiment of a population that had lived through the 1986 Chernobyl disaster.

Contrary to arguments that attribute Switzerland’s decision to sign the NPT in 1969 to changing threat perceptions, Jasper’s analysis of primary source documents reveals that threat perceptions were less of a concern than perceptions of whether or not nuclear weapons supported Switzerland’s long-standing commitment to neutrality. Initially, the Swiss people interpreted nuclear weapons as an instrument of armed-neutrality, but in the 1960s, that changed as Switzerland developed an active humanitarian foreign policy. The indiscriminate nature of nuclear destruction contravenes an ideal of neutrality inflected, not with an isolationist bent, but with an international humanitarian agenda. Yet even during the early years of the Cold War, when Switzerland’s nuclear program was most active, the government position was to keep its options open and maintain freedom of

action. The decision to sign the NPT was preceded by a debate about its discriminatory nature. However, the desire to support the goal of nuclear disarmament, combined with the promise of nuclear assistance, tipped policy makers in favor of signing. At the same time, however, a covert Working Group on Nuclear Issues was formed in 1969 and not disbanded until 1988.

In the case of Libya, Jasper finds that nuclear weapons were never a nationalist project like they were for Switzerland because Libya's society is tribalistic. However, nuclear weapons were a desirable emblem of global equality and empowerment for the Arab world. Qaddafi repeatedly labeled the NPT an instrument of unjust repression. However, once the idea of a weapon of mass destruction (WMD)-free zone in the Middle East became a focus of other Arab states, Qaddafi began to warm to the idea of regional cooperation. By bringing these strands together, Jasper tells an interesting story of Libyan reversal. Libya's nuclear program was never very developed because it lacked the political momentum of a strong national state. Not being very developed, it was also easy to give up, especially since by 2003, Qaddafi had already embraced the alternative vision of an Arab-led WMD-free zone.

Argentina and Brazil are among the small number of states that have mastered the two most technically challenging aspects of the nuclear fuel cycle: uranium enrichment and plutonium reprocessing. Kutchesfahani argues that common interests in technological autonomy and resisting the discriminatory nature of the nuclear nonproliferation regime brought these two rivals together. She points out that in the 1970s and 1980s, the United States and the International Atomic Energy Agency (IAEA) considered both to be nuclear "threshold" states. Also considered threshold states at the time were India, Israel, Pakistan, and South Africa, all of which developed nuclear weapons. By the 1980s, Brazil and Argentina each had pilot programs for enrichment and reprocessing, along with long histories of resisting the nonproliferation regime (neither state signed the NPT until the 1990s). It was entirely possible that one or both of these states could have developed a nuclear weapon. In fact, as Kutchesfahani notes, in a demonstration of Brazil's credible commitment to peaceful nuclear activities, in 1990, Brazilian President Fernando Collor de Mello staged a media event at which he closed a 320-meter shaft allegedly dug by the armed forces as a nuclear test site. Both states maintain a uranium enrichment capability today, yet neither is on the UN Security Council's political radar as a proliferation threat.

At the same time, their common resistance to the NPT led them to develop a single strategy for nuclear diplomacy, a development that would ultimately lead the two states to act on a third common interest in avoiding a costly arms race, instead building a safeguards and inspections regime on their own terms. In spite of their long-standing rivalry, diplomats from the two states collaborated in multilateral nuclear negotiations, appointing joint representatives to the IAEA in the late 1950s, and developing common positions on sensitive nuclear issues during the 1967 Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (also known as the Treaty of Tlatelolco, which laid the foundation for the first nuclear-weapon-free zone). Kutchesfahani also reports collaboration between physical scientists from the 1950s onward. Academic collaboration was one of the first steps toward confidence building between the two states. In addition to joint research projects between different academic institutions, and

opportunities to discuss the policy-relevant aspects of their work at meetings of the prestigious Pugwash Conferences on Science and World Affairs, in the mid-1970s, Argentinean nuclear scientists and technicians, fleeing poor working conditions and political persecution, sought work in Brazil. These trends intensified in the 1980s, culminating in the 1991 agreement that established the ABACC to implement their bilateral commitment to the peaceful uses of nuclear technology through the development of a common system of safeguards and verification procedures.

Kutchesfahani's second case study concerns the US Cooperative Threat Reduction program. She focuses on the denuclearization of the newly independent states of Belarus, Kazakhstan, and Ukraine, all of which acquired Soviet nuclear weapons by virtue of the location of the weapons, laboratories, and test sites within their territories. As Kutchesfahani notes, the scholarly consensus is that Belarus, Kazakhstan, and Ukraine denuclearized because of the "high economic and strategic costs and low benefits attached to maintenance of their inherited nuclear arsenals, coupled with all three states wanting greater attention and financial assistance from the United States," which is consistent with her findings. The primary value of her case study lies in her reconstruction of the intellectual history of the CTR program. Funded and facilitated by the Carnegie Corporation of New York, the research on cooperative security at the Brookings Institution, Stanford University, and Harvard University yielded a novel approach to a complex and unprecedented policy challenge. The biggest hurdle to what would ultimately prove to be a successful program was overcoming resistance to the idea of foreign aid in the US political context. Reframing the issue as an urgent response to an imminent security threat garnered the necessary support. Kutchesfahani argues that the US-Soviet/Russian epistemic community that conceived of providing financial and political support for the former-Soviet states to relinquish their inherited weapons played an important role in formulating a response to a novel and unprecedented disarmament challenge.

Conclusion

Both of these books open the disciplinary lens in valuable ways and point toward at least two important policy recommendations. First, the realist security framework dismisses claims about the injustice of the NPT as cheap talk. The analyses in these books suggest otherwise. Diplomatic language is not a realm of unbridled freedom and what politicians say in these highly constrained diplomatic environments provides important information. Therefore, policy makers should take into account perceptions of whether or not the IAEA and the UN Security Council are fairly adjudicating conflicts over disputed aspects of the NPT regime—such as the right to uranium enrichment technology—as a factor in a state's decision about whether or not to comply with the nonproliferation regime. Second, creating and maintaining relationships between nuclear scientists and engineers is an important step in any confidence-building program, and the interests of these scientists are not necessarily the same as the states for which they work. All policies should be evaluated in terms of their effects on the larger epistemic community.

Kutchesfahani begins her book with a call to scholars to properly document and explain history in order to provide policy makers opportunities to learn. Without a record

of how states made peace with and through nuclear technology, decision makers cannot learn from those experiences. Given the human bias toward believing that what we see is all there is, documenting the history of successful nonproliferation policies and agreements is an important contribution to the project of nonproliferation.

NOTES

1. Albert Wohlstetter, "Nuclear Sharing: NATO and the N+1 Country," *Foreign Affairs* 39 (April 1961), pp. 355–87.
2. David Mutimer, *The Weapons State: Proliferation and the Framing of Security* (Boulder: Lynne Rienner, 2000).
3. Tanya Ogilvie-White, "Is There a Theory of Nuclear Proliferation? An Analysis of the Contemporary Debate," *Nonproliferation Review* 2 (Fall 1996), pp. 43–60.
4. As Kenneth N. Waltz himself argues, the value of a theory is measured in terms of its "explanatory and predictive powers." Kenneth Waltz, *Theory of International Politics* (Reading, MA: Addison-Wesley, 1979), p. 8.
5. Hugh Gusterson, "Missing the End of the Cold War in International Security," in Jutta Weldes, Mark Laffey, Hugh Gusterson, and Raymond Duvall, eds., *Cultures of Insecurity: States, Communities, and the Production of Danger* (Minneapolis, MN: University of Minnesota Press, 1999), pp. 319–45.
6. Stephen Walt, "A Renaissance in Nuclear Security Studies?" January, 21, 2010, <www.foreignpolicy.com/posts/2010/01/21/a_renaissance_in_nuclear_security_studies>.
7. Alexander Wendt, *Social Theory of International Politics* (Cambridge: Cambridge University Press, 1999).
8. Wendt, *Social Theory of International Politics*, p. 112.
9. *Ibid.*, p. 113.
10. Scott D. Sagan, "Why Do States Build Nuclear Weapons? Three Models in Search of a Bomb," *International Security* 21 (Winter 1996/97), pp. 54–86.
11. Scott D. Sagan, "The Causes of Nuclear Weapons Proliferation," *Annual Review of Political Science* 14 (2011) pp. 225–44.