

likely that the Excomm's evolving preferences for the blockade rendered some of McNamara's objections less relevant, especially when compared with the more worrisome objections related to less appealing alternatives, like air strikes. In other words, suppression was a reasonable by-product (*effect*) of a rationally derived blockade consensus, not a *cause* of that consensus.

As a side note, it seems a little odd that "suppression" (what is *not* said) emerges as the key variable in a study that spends so much time highlighting the importance of applying specific microsociology techniques for interpreting the mechanics of what *is* said and how. Presumably, written transcripts would be more than sufficient to identify what was not said, so why do we need the tapes?

In any case, perhaps the most significant problem with Gibson's analysis is his failure to actually engage the "what if" counterfactual analysis he claimed was necessary for defending his argument. Simply posing a what-if question is never sufficient to establish the case for contingency. What Gibson should have provided is a carefully constructed counterfactual analysis of the following question: Had McNamara's objections not been suppressed later in the crisis (by him or others), would the blockade have been rejected in favor of some other strategy? The comparative strengths of at least two mutually exclusive counterfactual outcomes should have been evaluated: a) Kennedy would have selected a different strategy, thereby changing the course of history, or b) the blockade would still have emerged as the preferred strategy, regardless of the presence of McNamara's persistent objections.

Based on the evidence presented in the book (and in most other literature on the crisis), the blockade still emerges as the most reasonable option when compared with the potential risks and costs of other choices. The ability to control escalation was always the most appealing feature of the blockade. In fact, Gibson himself provides a perfectly reasonable interpretation concerning why McNamara ultimately came to accept the blockade strategy, despite his reservations; he "supported the version of the blockade that did not carry with it the threat of subsequent military action, and eventually decided to defend it against that very critique" (p. 102). In other words, McNamara came to understand that the United States would not necessarily have to attack operational missiles, even if the blockade failed, and Kennedy would still retain at least some measure of control by pushing the responsibility for military escalation over to Nikita Khrushchev. With respect to Gibson's assertion, therefore—that "the Cuban missile crisis has contingency written all over it insofar as there are so many ways in which it could have gone differently" (p. 4)—the evidence presented in the book does not, in my opinion, support this view. Gibson does not provide a clear account of the relationship between the conversational mechanics he identifies (e.g., suppression) and the choices made,

and he offers no clear reason why another round of identical objections by McNamara would have changed the blockade's appeal, let alone the course of history. "Speculation" and "counterfactual analysis" are not the same things.

Moreover, I am not sure that the evidence from meticulously crafted portrayals of tape recordings of Excomm conversations constitutes the "best data" for understanding the evolution of individual or group preferences in this case. The assumption here is that Excomm conversations were central to the decision-making process, a perfectly reasonable position shared by many scholars writing on the crisis. But it is not unreasonable to believe that there were dozens (perhaps hundreds) of other conversations that could conceivably have influenced judgments and preferences. I can imagine many one-on-one conversations between John and Robert Kennedy, or between the president and secretary of defense, outside the Excomm meetings, that would have shaped, changed, and solidified preferences. It would not be at all surprising to me that McNamara decided against repeating his objections to the blockade, with the same level of intensity, as a result of these exchanges.

The "new" information compiled in *Talk at the Brink* certainly provides a more vivid and colorful depiction of Excomm conversations, but these data do not come close to seriously challenging conventional accounts. In fact, as I worked my way through the mechanics of these conversations, I found that the findings essentially reconfirmed that existing literature did not miss anything significant, and the blockade option was the most sensible choice that emerged from an essentially rational process.

Achieving Nuclear Ambitions: Scientists, Politicians, and Proliferation. By Jacques E. C. Hymans. New York: Cambridge University Press, 2012. 328p. \$95.00 cloth, \$32.99 paper.

Sanctions, Statecraft, and Nuclear Proliferation. Edited by Etel Solingen. New York: Cambridge University Press, 2012. 402p. \$99.00 cloth, \$32.99 paper.
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— Matthew Kroenig, *Georgetown University*

Why do countries build nuclear weapons? What, if anything, can the international community do to stop them? As Iran pushes dangerously close to achieving a nuclear weapons capability in the face of intense international resistance, few questions are more important for the maintenance of international peace and security. Fortunately, two recent books by established scholars astutely address these critical questions.

In *Sanctions, Statecraft, and Nuclear Proliferation*, Etel Solingen and a stable of experts examine the role of economic sanctions in dissuading states from pursuing nuclear weapons. Solingen's earlier work on the relationship between domestic political coalitions and nuclear

proliferation (*Nuclear Logics*, 2007) provides a theoretical starting point that helps tie the volume together. He argues that states governed by liberalizing coalitions are less likely to pursue nuclear weapons because they do not want to jeopardize international trade and investment by adopting potentially controversial foreign policies. On the other hand, states ruled by inward-looking, nationalistic coalitions have less to lose and more to gain from going nuclear and are, therefore, more likely to seek the bomb. The edited volume picks up on this insight by examining how sanctions, both positive and negative, employed by international actors might affect the strength of certain types of domestic political coalitions and, in turn, national decisions on whether to pursue nuclear weapons. This and other hypotheses are then explored in subsequent chapters that variously employ verbal argumentation, simple quantitative analysis, and in-depth case studies in order to assess how sanctions might affect the spread of nuclear weapons.

Many of the individual chapters are superb and could stand on their own. The chapter by Arthur Stein delivers a masterful explication of economic sanctions as a tool of statecraft and is so clearly written that it could be assigned in undergraduate courses. A chapter by Celia L. Reynolds and Wilfred T. Wan provides a useful service to this volume and to subsequent scholarship by presenting a detailed list of every positive and negative sanction (more than 400 in all) that the international community has directed against Iraq, Libya, Iran, and North Korea from 1990 to 2009. Daniel Drezner outlines nine distinct causal pathways by which we might expect sanctions to result in a change of policy in the target state. And David Palkki and Shane Smith provide a fascinating discussion of the effect of sanctions on nuclear decision making in Iraq, drawing on transcripts captured by coalition forces during their invasion of Iraq in 2003 that were recently translated, including those of meetings in which Saddam Hussein himself was a participant.

While individual chapters shine, the whole is certainly greater than the sum of the parts, which should be the standard by which to judge the effectiveness of an edited volume. As the first academic work devoted to the specific question of the relationship between sanctions and nuclear proliferation, the volume makes an undeniable contribution to the field.

Scholarship on nuclear proliferation can be grouped into studies that emphasize the demand side (i.e., why states want nuclear weapons) and those that privilege the supply side (i.e., the factors that enable states to build nuclear weapons). While the Solingen volume focuses largely, but not exclusively, on the demand side, *Achieving Nuclear Ambitions* by Jacques Hymans drills down on the supply side. Hymans explores why some determined proliferators take so long to build nuclear weapons and why others ultimately fail in their quest. He argues that

the answer can be found in variations in the ways in which nuclear programs are managed cross-nationally. Successful “big science” programs require a motivated workforce that enjoys professional autonomy, conditions, he contends, that are more commonly found in Weberian legal-rational states. On the other hand, leaders in neopatrimonial states are more likely to engage in short-sighted meddling in scientific matters, undermining the professional autonomy of the scientific workforce, and ultimately crippling nuclear weapons programs.

The plausibility of the argument is first established in brief sketches of the nuclear programs of the first five nuclear powers (United States, Soviet Union, United Kingdom, France, and China), accompanied by some crude, bivariate statistical regressions.

The empirical heart of the book, however, is a careful, paired comparison of nuclear programs in Saddam Hussein’s Iraq and communist China. In brilliant detail, Hymans chronicles the many ways in which meddling by Saddam and his cronies undermined the nuclear program they were ostensibly trying to promote. For example, when Saddam’s cousin, Hussein Kamel Hassan al-Majid, assumed leadership of the program in 1987, he commanded the scientific team that was to build a prototype gas-centrifuge enrichment machine, a project estimated by the scientists to take two years, in only 45 days. In an attempt to meet Kamel’s impossible demands, the team turned to an immediately-available but outmoded centrifuge design and ran the machine so hard that the rotor cracked under the pressure. Many more such misguided political interventions stymied Iraq’s nuclear progress and, in the end, Saddam never joined the nuclear club.

Hymans argues that China, in contrast, provided its scientific workforce with the autonomy and resources needed to conduct its nuclear work under the leadership of an “organizational genius” (p. 126), Nie Rongzhen. While Saddam’s Iraq spent a decade spinning its wheels, China went from zero to mushroom cloud in a mere six years. Mao Tse-Tung’s China could certainly be characterized as a neopatrimonial state, but Hymans argues that the period of China’s nuclear development, the late 1950s and early 1960s, was a brief window during which China was transitioning toward a Weberian legal-rational system. Exploiting within-case variation, Hymans even shows how the amazing efficiency of the Chinese nuclear program was only upset by Mao’s infrequent political interventions.

Having demonstrated his argument in these two cases, Hymans valiantly takes on the leading alternative supply-side explanation for nuclear proliferation. Scholars (e.g., Matthew Kroenig, *Exporting the Bomb*, 2010) argue that states that receive sensitive nuclear assistance from more advanced nuclear states are better able to build nuclear weapons than states that are not the beneficiaries of such help, and that understanding patterns of nuclear

technology transfer is, therefore, critical to explaining the international spread of nuclear weapons. Hymans cleverly argues, however, that nuclear cooperation can also undermine a state's ability to build nuclear weapons by facilitating a brain drain of nuclear scientists out of the recipient state. He illustrates this argument with a discussion of Marshal Tito's Yugoslavia, describing how many of the country's best and brightest people leveraged transnational scientific ties to immigrate to Western Europe and the United States. While the logic of this countervailing argument is valid, the single case study does not and cannot begin to call into question the array of previously published quantitative and qualitative evidence demonstrating a powerful link between nuclear assistance and nuclear proliferation.

In a penultimate chapter, Hymans extends the logic of his argument to explain the development of nuclear programs in the more recent cases of Libya, Pakistan, North Korea, and Iran, before concluding with policy recommendations. Along with other advice, Hymans implores policymakers to understand that, when left to their own devices, nuclear programs in neopatrimonial states will often succumb to their own internal failings.

In short, Hymans's book makes a contribution by staking out an original theoretical position on the causes of nuclear proliferation and marshaling empirical evidence in its defense. Scholars have long understood that more capable states are better able to build nuclear weapons, and Hymans provides the useful insight that capability goes beyond mere industrial capacity to include domestic political institutions and managerial styles. In some ways, the argument parallels recent literature on military effectiveness (Stephen Biddle, *Military Power*, 2004), which shows that military success is not determined by the material capabilities of a state's armed forces alone but by the way in which those capabilities are employed on the battlefield. In both domains, Saddam's Iraq serves as the poster child for what not to do.

Turning to a comparison of the reviewed works, it is interesting to note the divergent ways in which the two books treat the same case material. In the Solingen volume, the authors seek to understand how positive inducements, comprehensive and targeted economic sanctions, and threats of military force influenced Saddam's decision to abandon his nuclear program after the 1991 Gulf War. Hymans argues, however, that this outcome can be understood as the direct result of Iraqi mismanagement: "After 10 years and a billion dollars spent for a few grams of low-enriched uranium, [Iraq's leaders] had quite reasonably concluded that the project was essentially dead already" (p. 118).

These different perspectives raise a larger question about whether the international community can have a significant influence in shaping proliferation decisions in other countries, or if our nonproliferation policies are con-

ducted largely in vain. Hymans places causal weight on developments in the nuclearizing state and admonishes US officials "to come to grips with the reality that this story isn't about us" (p. 267). Contrarily, authors in the edited volume, while realistic about the limits of international influence, are generally united in the belief that packages of carrots and sticks can influence the behavior of proliferant states. In actuality, a variety of both domestic and international factors probably matter, which points to a limitation in both books' research designs.

Scholars have long recognized that nuclear proliferation is a multicausal and probabilistic phenomenon, which makes statistical analysis a useful tool for understanding its determinants. Neither book, however, employs multivariate statistical regression, making it difficult to disentangle the appropriate causal weight to assign to the authors' highlighted variables relative to other known correlates of proliferation, such as security environment, industrial capacity, and nuclear assistance. This is a shortcoming of the literature under review, but also an opportunity for future scholars to incorporate better measures of sanctions and regime type into their statistical tests.

Nonetheless, in the originality of the positions they advance and the robust qualitative analysis they provide, both books make an important contribution to the scholarly literature and are must-reads for serious students of nuclear proliferation.

Security Assurances and Nuclear Nonproliferation.

Edited by Jeffrey W. Knopf. Stanford: Stanford University Press, 2012.

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— James Lebovic, *George Washington University*

In this welcome edited volume on nuclear nonproliferation, the contributing authors develop the concept of security "assurances," that is, "promises to respect or ensure the security of others" (p. 1). Most generally, the authors ask whether "negative" assurances—here, a commitment to refrain from nuclear attacks upon a country—or "positive" assurances—a commitment to come to the aid of a country under nuclear attack—can convince that country not to acquire or retain nuclear weapons. Thus, the authors recognize importantly that preventing proliferation, like preventing the use of nuclear weapons, is not simply a coercion problem. As editor Jeffrey Knopf notes, assurance also undergirds deterrence: A party cannot deter another unless the latter believes—is *assured*—that its actions will prevent the former from acting on its threat.

The volume gives emphasis, then, to the (too often neglected) point that "cooperation" is required to halt an incipient nuclear-weapons program, and backs it with convincing evidence. The case evidence is taken to suggest that negative assurances helped halt the weapons program in Libya and, maybe, the retention of nuclear weapons by