

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.

320p. \$50.00.

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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

Ukraine, and that positive assurances helped halt nuclear proliferation by South Korea, Japan, and perhaps Sweden. The volume correctly acknowledges, however, that the effect of assurances is typically “modest” rather than “decisive” (p. 6); “that when states are faced with a critical threat from a third party, negative assurances seem to fade into insignificance” (p. 279); that various confounding factors mute the effects of assurances (including domestic politics, broader strategy, and the credibility of actions); and that profound trade-offs are required when negative assurances are provided to one conflicting party with positive assurances to another (p. 7).

In some ways, the volume is a model of inquiry. To judge when assurances might work, the authors employ 13 hypotheses that are drawn from relevant theoretical literatures. These hypotheses include whether the assurances are explicit or legally binding; backed by forward-deployed troops; “strong enough to overcome cognitive biases”; “tailored to take account of unique features of the target state’s culture, decision-making procedures, and leadership concerns”; and used “in a way that alters internal debates in the target in a favorable direction” (p. 32). The chapter authors stay on message when evaluating their respective cases; they conclude by commenting on the validity, invalidity, or partial validity of the hypotheses, and they supply testable (inductive) hypotheses when the initial hypotheses prove deficient. James Wirtz, a proliferation expert, renders the final judgment about whether the hypotheses have held.

That said, *Security Assurances and Nuclear Nonproliferation* is not without limitations, as the authors—to their credit—do often recognize. Scholars should take note of these limitations when seeking to advance this important program of research.

Both the hypotheses and the testing strategy are problematic in some respects. First, the hypotheses are, at times, tautological. Because some of the independent variables are not clearly operationalized, the hypotheses are too easily validated or invalidated on the basis of whether proliferation did or did not occur in a given case. This is true, for example, of the hypothesis that effective assurances must overcome cognitive biases. What exactly are these biases, and could we know that they are overcome should a country retain its weapons capabilities? Likewise, the test of whether assurances are tailored “to take account of unique features” appears to come down to whether assurances actually work. A valid test of the hypothesis requires a standard for judging the adequacy of tailoring apart from the value of the dependent variable.

Second, the binary dependent variable—countries either did or did not pursue nuclear weapons—sacrifices some explanatory leverage. What about cases—like Iran, perhaps—of a country choosing to keep its options open by stopping just short of a nuclear weapons capability or possessing but not testing a nuclear weapon?

Third, the hypotheses are given equal standing when the independent variables in some of them arguably stand as necessary or permissive conditions in others. Although the authors hypothesize (Hypothesis 1) that “assurances are more likely to be effective when a target state’s interest in nuclear weapons is driven to a significant degree by security concerns” (p. 32), the remaining hypotheses seem to assume the presence of a security threat. For that matter, the host of potential causal factors that the authors identify in their case studies could conceivably contribute to the outcomes in others. For instance, part of the story about Libya is that it lacked requisite indigenous nuclear weapons capabilities, suffered severely under a multilateral embargo, had a leader who felt vulnerable to the threat of a US-imposed regime change, and might have seen the United States as a potential ally against a radical Islamic threat. Might these same variables explain the workings of the key independent variables in other cases?

Fourth, the hypotheses center narrowly on assurances that relate to nuclear weapons use, and nonuse, although the authors recognize that positive nuclear weapons assurances are often used to allay concerns about conventional threats and that critical negative assurances often have nothing to do with nuclear weapons: for example, threats to regime survival preoccupied Muammar Gadhafi, not a US nuclear strike on Libya.

Fifth, as the authors recognize, seemingly validated relationships are potentially spurious. Because positive assurances often come with economic and military aid, it might only appear that the assurance, provided by aid, led a country to renounce the nuclear option. As the author of the Swedish case notes, “the threat that the United States might withdraw assistance was more important than the promise of new assistance” (p. 239).

Various issues also arise in the case studies. First, because authors of a case-by-case analysis tend to think of their cases in isolation from others, the findings rest primarily on temporal rather than cross-national variation. Thus, the author of the Iran case concludes, “In the main, the hypotheses reviewed here are not sustained. . . . One cannot help but suspect that even if Iran had faced no credible external threat, it still would have pursued a nuclear program, be it under the Shah or under the Islamic Republic” (p. 127). But does not the case provide strong support for Hypothesis 1, linking the success of assurances to security concerns? Second, as Knopf acknowledges, the cases betray a selection bias—apparently toward failure: They were selected for success and failure but “all involve countries that were at some point deemed serious proliferation risks” (p. 6). Whether or not that bias is mitigated by the editor’s purported selection of cases, as well for the relevance of positive and negative assurances (and, thus, cases in which assurances might work), the selection strategy clearly oversamples proliferation. The study concludes, then, that assurances are only moderately effective, although

nuclear weapons status remains relatively rare among contemporary states. Implicitly, the analysis downplays the role of multilateral negative and positive assurances that could sway some states—indeed, might reinforce a “nuclear taboo” that dissuades most states—from acquiring these weapons.

Despite these deficiencies, which reflect the challenges of conducting research in this field, the contributors deserve substantial credit for developing a useful concept, exploring its implications (in negative and positive forms), pulling the concept into explanatory propositions drawn from various theories, and testing the hypotheses on a set of relevant cases. They also deserve credit for producing a work that will provide a valuable reference on a topic with enduring scholarly and policy relevance.

The Rise of China vs. the Logic of Security. By Edward N. Luttwak. Cambridge, MA: Harvard University Press, 2012. 320p. \$26.95.

China and Coexistence: Beijing's National Security Strategy for the Twenty-First Century. By Liselotte Odgaard. Washington, DC: Woodrow Wilson Center Press, 2012. 242p. \$45.00.
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— Allen Carlson, *Cornell University*

The yin-yang, or Taiji, symbol is one of the most well-known visual facets of Chinese philosophy. It plays a particularly central role in Taoist iconography. In addition, the motif is frequently found within traditional Chinese art, perhaps most prominently in the depiction of a pair of koi circling each other in a round body of water. Liselotte Odgaard's *China and Coexistence* makes appropriate use of this elegant image on its dust cover. Such imagery is all the more apt in the context of this review; it neatly captures the complementarity that exists between Odgaard's largely inductive analysis of China's place in the world and the deductive perspective on the same issue that is forwarded in Edward N. Luttwak's *The Rise of China vs. the Logic of Strategy*.

While the proverbial wisdom that it is best not to judge a book by its cover normally holds true, it does not apply to *China and Coexistence*. Odgaard's choice of the iconic Chinese koi painting for her publication's exterior deeply resonates with the book's central contention that Chinese grand strategy encompasses a neat, if not always stable, pairing between the promotion of cooperation on the broader world stage and the protection of more immediate national interests closer to home. Such a contention goes a long way toward making sense of the apparent tensions between various strands of Chinese foreign policy and national security, presenting them less as contradictions and more as parts of a holistic approach to the solidification of China's place within the international system. While far from Pollyannaish about what such a

stance portends for China's relations with its neighbors (and the United States), Odgaard generally envisions a period of relative stability within such dynamics in the coming years.

The book's main point of innovation, outlined in its opening pages, is to take seriously a concept, “peaceful coexistence,” that has long been featured in Chinese statements on foreign policy but generally denigrated by most outside analysts as being little more than empty rhetoric. Instead of following the dominant conventional wisdom in the extant literature that it is best to dismiss the term out of hand, Odgaard seeks to lend it analytical substance by identifying the key operational components of “coexistence” (“a strategy that promotes the establishment of a system for comanaging global security issues between great powers that subscribe to different programs of international order”; p. 2). In Chapters 2 and 3, she then contrasts such an approach to world politics with a series of other grand strategic visions extrapolated from the existing work on great powers and the historical experiences of such states.

The remainder of the book, its empirical core, measures subsequent Chinese behavior against such benchmarks. Chapter 4 outlines patterns within Beijing's cautious pursuit of policies that are designed to diminish the likelihood of conflict along China's contested territorial periphery, albeit without sacrificing its core national interests within such disputes. Chapter 5 moves farther afield through a consideration of the pragmatic stance that China has carved out on international order (specifically, multilateral intervention and sanctions toward Iran, Sudan, and Myanmar) via its position as a permanent member of the United Nation's Security Council. Chapter 6 returns to Asia and describes the thorny problems faced by Beijing in regard to legitimacy challenges emanating from Taiwan, Xinjiang, and Japan.

Each of these chapters contains fine-grained analyses of the issue arenas they cover. More impressively, in composite they do an excellent job of demonstrating the diverse sets of policies that Beijing has employed in its interactions with the rest of the international system since the end of the Cold War. However, the persuasiveness of such observations is limited by two broad shortcomings. First, the absence of Chinese language sources throughout the book is rather disappointing, especially as foreign policy elites within China have written extensively about the topic at hand. Second, and more importantly, Odgaard fails to fully explore the interactions between coexistence and nationalism that, she contends, stand at the core of China's relationship with the outside world.

She only partially overcomes such a defect in Chapter 6, where she notes that “[p]eaceful coexistence implies the right to be left alone to concentrate on the pursuit of national interests and to exercise political authority without outside interference” (p. 178), and again in the book's