

## The Diffusion of Military Power: Causes and Consequences for International Politics

By Michael C. Horowitz Princeton University Press 273 pp. \$26.95 ISBN: 978-0-691-14396-5

> Reviewed by CLARK CAPSHAW

n The Diffusion of Military Power, University of Pennsylvania professor Michael C. Horowitz conducts an in-depth examination of the diffusion of four military innovations to address his assertion that "there is a big difference between the introduction of a technology on the battlefield and the full integration of that technology into national strategy . . . warfare and coercive diplomacy . . . [and that] it is the employment of technologies . . . rather than the technologies themselves, that most often makes the difference" (p. 2). He uses both qualitative case studies and quantitative analysis "to determine how states respond to new major military innovations, and how these responses affect international politics" (p. 60). Horowitz uses the innovation itself as his unit of analysis, rather than focusing on countries or regions.

In the book, which is designed as an academic study, four cases are analyzed: "early twentieth-century battlefleet warfare, mid-twentieth-century carrier warfare, nuclear weapons, and suicide terrorism" (pp. 61–62). Each case is explored in a separate chapter.

Horowitz argues that the adoption of a major military innovation by a country depends on two intervening variables: financial intensity and organizational capital. Although it may seem strange to the reader that such markedly different strategies as "battlefleet warfare" and "carrier warfare" are addressed alongside "suicide terrorism" as military innovations, the choice of cases provides a rich mix along these two intervening variable axes. Case number one, carrier warfare, is high in both financial intensity and organizational capital. By contrast, nuclear warfare—the second case—is high in financial intensity but low in organizational capital. Case three, battlefleet warfare, is medium on both axes, and the fourth case, suicide terrorism, is low in financial intensity but high in organizational capital.

Embedded within
Horowitz's discussion of theory
are some real gems worthy of
further study on their own. For
example, in the second chapter,
he writes, "The more specifically
a military organization defines
its critical task, the harder it
should be for the military to
adopt an innovation. Entrenched
interests within the organization will be more likely to rebel
on the grounds that a proposed
innovation is outside the scope of
acceptable activities" (p. 36).

For the carrier warfare case, speaking of the Cold War–era Soviet Union, the author offers: "It is striking that even the second-biggest military power in the world did not have the financial resources or organizational capabilities to adopt carrier warfare" (p. 92), and "The nondiffusion of carrier warfare, the acknowledged key to naval supremacy in the post–World War II era, is an interesting puzzle of how military

power spreads. The immense complexities, both financial and organizational, involved in building and operating aircraft carriers have made it . . . one of the most difficult innovations to adopt" (p. 95).

Regarding the nuclear weapons case, Horowitz posits, "The evidence shows that relative financial intensity levels powerfully predict both the ability of a state to initiate a nuclear weapons program, and whether or not it will eventually acquire nuclear weapons" (p. 133). This case is also useful in examining countries that have abandoned their efforts to develop nuclear weapons.

Battlefleet warfare, the "Fisher Revolution" in early 20thcentury British naval strategy, is examined in chapter five. The development and diffusion of this naval innovation presage many of the same issues that were later confronted in the more expensive and complex case of carrier warfare, examined earlier in the book. Because battlefleet warfare is so similar, the author might have been wiser to choose a different case to illustrate both medium financial intensity and medium organizational capital.

In the penultimate chapter, the author acknowledges that suicide terrorism is different in kind from the other military innovations studied—specifically in that it is almost exclusively employed by nonstate actors as a means to conduct irregular warfare (the one possible exception being the use of kamikaze pilots by Japan at the end of World War II)—and states that "when examining a conventional innovation, analysts tend to inquire, 'Why didn't country X adopt this military innovation?" whereas, with suicide terrorism the question is more often posed as "Why did group X adopt suicide terrorism?" (p. 175, italics in original). Furthermore, suicide terrorism is the only case studied here in which religion plays a part as a control variable. Yet this case does provide an example of an innovation that is low in financial intensity and high in organizational capital.

The concluding chapter has a brief but illuminating discussion of precision bombs, cyber war, robotics, and unmanned aerial vehicles, perhaps presaging a second volume on this subject.

While the author develops his cases using "adoption capacity theory," he fails to address how this theory differs from the theory of "absorptive capacity," introduced in a seminal article by Wesley Cohen and Daniel Levinthal in 1990 ("Absorptive Capacity: A New Perspective on Learning and Innovation," Administrative Science Quarterly 35, 1990). He does, however, reference the work of other technology diffusion luminaries such as Clayton Christensen (Disruptive Innovation) and Everett Rogers (Diffusion of Innovations) in developing his thesis.

As an academic study, this book has merit in the fields of both diffusion of innovation and military science. As a more general read, it is challenging but rewarding, though the casual reader may choose to skip some of the more theoretical parts of the book. JFQ

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144 JFQ / issue 64, 1st quarter 2012 ndupress.ndu.edu