with wisdom and discernment, informed by a deep understanding of philosophical and social science literatures. I hope this book influences scholars, activists, policymakers, and the public at large; it should be widely studied and discussed, its arguments and insights put to productive use.

—Jamie Mayerfeld

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Surrogate Warfare: The Transformation of War in the Twenty-First Century, Andreas Krieg and Jean-Marc Rickli (Washington, D.C.: Georgetown University Press, 2019), 244 pp., cloth $104.95, paperback $34.95.

In this excellent survey and analysis of the debates raised by the use of surrogates in war, Andreas Krieg and Jean-Marc Rickli make a compelling case for both the extent to which surrogacy is changing the nature of war and the seriousness with which this issue needs to be taken. Surrogacy in the context of warfare refers to the process in which the burdens of war are shifted from state and nonstate actors to human and/or technological substitutes. Recognizing that surrogates have been a feature of warfare for as long as there has been war, Krieg and Rickli offer neat historical summaries of past surrogate uses to establish that contemporary developments, and some likely future ones, are stretching earlier ways of thinking about this phenomenon to a breaking point, necessitating new analytical approaches. Surrogates have traditionally served as force multipliers or provided specialist functions within conventional wars, or functioned as disposable actors to be disowned by a state sponsor and provide distance from actions that bring political,

ethical, legal, and military risks. Krieg and Rickli argue that in contemporary warfare, surrogacy is increasingly taking on different forms.

The authors' claim regarding the contemporary turning point in surrogate warfare rests on two sets of distinct developments. The first is the shift to what Krieg and Rickli describe as "neo-trinitarian" warfare. This view argues that the use of surrogates and proxies effectively relocates many of the most serious costs of warfare outside the Clausewitzian triangle of political authority (the state), political agent (the soldier), and the people. As states find direct engagement in complex conflicts increasingly unpalatable and ineffective—as they are often characterized by blends of insurgency, terrorism, state failure, and criminality—Krieg and Rickli argue that surrogates offer attractive options, although at considerable potential costs. In some respects, there is a clear connection to the long history of surrogates and proxies: states use surrogates to shield themselves

from certain types of risk, but, in doing so, they sacrifice a certain level of control over the surrogates and their actions. As a result, states necessarily allow surrogates to pursue a degree of their own agendas and priorities in a conflict. At its most extreme, this can mean simply piggybacking on benefits for state priorities arising from the autonomous actions of fortuitous—and loosely defined—surrogates. More typically, states use techniques ranging from embedding special forces to train, advise, and support proxies in the field; to more remote "equip and train"–type operations; to simple financial incentives and bankrolling of organizations and operations. In one of the book's most significant contributions, Krieg and Rickli provide an account of contemporary Iran as the most extensive and effective innovator in using surrogates as a central aspect of its grand strategy, not just as adjuncts or ad hoc contributors to specific missions. Iran's Islamic Revolutionary Guards Corps and, especially, the Quds Force, have created, nurtured, trained, and equipped surrogates operating at strategic, operational, and tactical levels to externalize Iran's front lines and ensure the disruption and distraction of potential state threats to the revolution.

The second major development explaining why surrogate warfare is increasingly qualitatively different from past iterations is the advancement of technologies that produce nonhuman surrogates. Placing these developments alongside innovations in human surrogate use and the move away from a Clausewitzian trinity, Krieg and Rickli reinforce their case for paradigm shift. They argue that current drone operations are a starting point for the development of increasingly autonomous military systems, which now function across the domains of intelligence, surveillance, and reconnaissance, all the way through to, potentially, kinetic strike functions. On this view, the emergence of ever greater levels of autonomy, up to artificially intelligent systems, could revolutionize warfare. Krieg and Rickli pick up here on some already familiar themes in debates over autonomy, such as the nature of "meaningful human control," accountability for autonomous systems, and the challenges of potentially allowing autonomous machines to kill humans. Where they innovate is in seeing wider developments in cyber operations as integral to the emergence of nonhuman surrogates, creating an "assemblage" of technological surrogates that may, in the future, become capable of operating with growing levels of autonomy and in ways and at speeds that render meaningful human control increasingly redundant. Importantly, much of the technological innovation behind these possibilities lies outside of the governmental and military sectors, meaning that traditional regulatory structures, such as arms control conventions, international law, and control over R & D budgets, will be less effective. While they analyze whether, and to what extent, systems such as chain-of-command responsibility may be able to mitigate some of these impacts, Krieg and Rickli do not consider certain propositions, such as bringing software engineers within the potential purview of law of armed conflict, or how cultural adaptation within the technology sector may be a means of creating "soft" regulation. This is despite the authors noting that Google's withdrawal from working with the U.S. military on Project Maven was in no small part the result of the disquiet expressed by the company's staff about the potential for their AI developments to have military applications.

Chapter 6 of the book directly addresses the ethics of surrogate warfare, although important ethical themes such as accountability are present throughout the book. This chapter is likely to be of the most interest to readers of *Ethics & International Affairs*, but it is unfortunately probably the weakest chapter in the book. The summary history of just war theory that opens the chapter is too crude to persuade, and the discussion of *jus ad bellum* issues becomes something of a checklist of the problems surrogate warfare raises for issues such as just cause, legitimate authority, right intention, proportionality, last resort, and reasonable prospects of success. This discussion outlines familiar problems that surrogate warfare presents on these counts, such as the likelihood of reduced exposure to the costs of war resulting in a lower threshold than "last resort" might suggest, and that "legitimate authority" is difficult to maintain when one is subcontracting violence in order to avoid accountability. *Jus in bello* is treated as synonymous with contemporary law of armed conflict (LOAC). Crucially, what is lacking is a sense that there is a two-way street, with the revolution Krieg and Rickli see in the complementary neotrinitarian and technological transformations of surrogate war producing an innovation in ethical thinking about war and peace. The historically symbiotic relationship between just war thinking and the evolution of the politics,

philosophy, theology, and practice of war is absent, and thus the potential for just war theorizing to be a part of the present and the future of surrogate warfare is lost. Instead, just war concepts and LOAC are detached from the practice they help us assess; something that is made more surprising, and disappointing, given the book's repeated commitment to the idea that war, and the thinking around it, is a social construct.

Nevertheless, Krieg and Rickli establish their core claims about the transformative nature and effect of surrogate war via the neotrinitarian paradigm of human surrogate operations and the potentially revolutionary effects of technological surrogacy. The book confidently puts forward a research agenda that many will want, and need, to follow in order to better engage with these important developments. Though the authors do a good job of showing how that agenda will likely play out in multiple arenas, those looking for such an agenda for the just war tradition are likely to find less to build on, even if the questions raised clearly demand sustained critical engagement.

—JOHN WILLIAMS

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