

I

Military Emulation in the International System

From the time humans began to organize into political collectives, states have imitated the best practices of one another: the latest in military weaponry, industrial processes, regulatory policy, even entire organs of state, such as central banks. This deliberate imitation – and the resulting crossnational convergence that results from it – has been a recurring feature of the international system. Today this crossnational borrowing can range from simple copying of new stand-alone technologies to more complex forms such as nuclear proliferation and emulation of industrial policy. In the 1980s much public discourse in the United States focused on the need to adopt Japanese corporate governance, production-line practices, and even Japan's education policy. Meanwhile, on the other side of the Pacific, the Japanese were busy xeroxing U.S. securities regulations. A century earlier, the United States, Japan, Brazil, Argentina, Chile, France, and a number of other countries emulated, to varying degrees, Prussia's famed Imperial Army. These countries avidly copied Prussia's general staff, field regulations, armaments, conscription system, even its uniforms and marshal music. In some cases this foreign military influence proved superficial and fleeting, in others more lasting. The occasional tourist today in downtown Santiago, Chile may witness a military parade and identify vestiges of this past in the Chilean army's goose-stepping and spiked helmets. Meiji Japan's voracious copying of Western practices is the most familiar and notable historical case of large-scale, sustained crossnational borrowing.

Less well known is the extensive copying of the Prussian / German military system by the major South American republics during the last quarter of the nineteenth-century. Starting with Chile in 1885, the South Americans began importing the Prussian mass army. This period marks the founding of their modern military establishments. They recreated their armies on the basis of foreign models, embodying a radical departure from established practices and traditions. The South Americans, along with Meiji Japan, France, the Ottomans, and others, invested considerable treasure and political capital

remaking their military systems – a process in itself fraught with political peril and organizational upheaval. They did so by introducing practices that were alien to their own societies and traditions.

Equally puzzling is that, despite becoming avid importers of Germany's Imperial army, before 1870 they copied the French army extensively. Before and after 1870 they used the British Royal navy as the sole model for their navies. Remarkable, too, is that the South Americans appeared to be unfazed by the wider social and political ramifications of importing the mass army. The mass army not only represented a different stage of warfare, but it also entailed changes beyond the military itself. Its adoption was socially and politically disruptive. Its underlying principle of the nation-in-arms meant, in practice, universal conscription, which everywhere put strains on state-society relations. It altered the domestic political power balance between the executive and other branches, between the central government and the provinces, between the state and society.

These late nineteenth-century emulators of Prussia/Germany were geographically dispersed, culturally and politically disparate, in different stages of social and economic development, shared little in common with each other and even less with Prussia, yet each attempted to refashion its military along the lines of Prussia's (see Table 1.1). A constitutional democracy imported military practices from the paragon of militarism and monarchism. Poor, weak, and peripheral countries copied the ways of the rich and powerful. Latin South America, whose ruling aristocracy was educated in and consumed everything French, had much closer cultural and historical affinity to Latin Europe than Prussia, with whom even commercial and diplomatic ties were thin at the time.

States rich and poor, new and established, culturally homogenous and fragmented, Western and non-Western, republican and dictatorial, deliberately engaged in large-scale efforts to reconstitute their military establishments on the basis of the same foreign model. Since countries so different from each other imitated identical military practices, and came to share similarities in their military organization, the explanation for these outcomes cannot be found in the peculiarities of their national culture, history, or traditions. What, then, explains this puzzle? The causes of military emulation are to be found not in the cultural, political, historical, or institutional attributes of states, but outside of them in their external security environment.

This study explains crossnational military emulation – the deliberate systematic imitation of the military technology, organization, and doctrine of one country by another. It develops an area of neorealism (structural realism) that has been overlooked by critics and defenders alike. I construct a neorealist theory of emulation to explain four key aspects of military emulation:

- why states emulate the military practices of other states
- when they emulate (the timing of emulation)

Military Emulation in the International System

TABLE 1.1. *Selected Major Episodes of Military Emulation in South America, 1870–1930*

Country	Emulation Start Date	System Emulated
Chile	1885	Germany
Ecuador	1895	France
Ecuador	1903	Chile
Peru	1896	France
Argentina	1899	Germany
Venezuela	1904	Chile
Colombia	1907	Chile
Bolivia	1910	Germany
Paraguay	1913	Germany
Paraguay	1926	France
Brazil	1906	Germany
Brazil	1919	France
Non–South American Cases		
Japan	1866	France
Japan	1878	Germany
France	1870	Germany

Note: As a proxy for the start of emulation, I use the date when military training missions are contracted. In most cases this is misleading, since emulation typically starts much earlier, and not all cases of emulation involve training missions.

- what model, or country, they choose to emulate (as well as why and when they may “switch” to other models)
- the speed and scale of their emulation efforts

The work is a qualitative comparative study, and it offers three rich, and uncommon, historical cases: Argentina, Brazil, and Chile. I examine each case across a sixty-year time span, 1870–1930, which allows me to analyze them longitudinally before and after the start of military emulation. The research is based exclusively on primary documents drawn from military and diplomatic archives in the countries under study. I want to stress right away that this work is neither structured nor intended as comparative theory testing, whereby I might address competing explanations systematically. My sole purpose here is to unearth a neglected dimension of neorealism, refine it, test it, and build a new and better neorealist theory of emulation. I will address issues raised by alternative explanations as they pertain to particular points under discussion.

The Argument

This book is about the relationship between the state, military organization, and the state system. While the empirical story I tell deals with military

modernization in Argentina, Brazil, and Chile over a century ago, the theory I develop is about the timeless relationship between external security, the organization of violence, and the international system. It is about the political foundations of violence in the system and the political criterion states use to organize the instruments of violence. I explain why the three South American governments decided to import military practices alien to their own societies. My theory is about why governments make the security decisions they do and how the structure of the international system constrains and molds their choices. The book is about the behavioral and organizational outcomes in a realm in which states lack a higher authority to protect them, provide for their welfare and safety, or adjudicate their relations. In the absence of such authority, this relationship and these outcomes have characterized the life of states with monotonous persistence and frequency despite the great many changes in political forms and internal conditions they have experienced. The South Americans were neither the first nor the last to engage in cross national borrowing.

Emulating the best military practices of others is an enduring behavioral pattern in the international system, irrespective of the many changes in forms, shapes, and sizes of states or the endless variety in their internal makeup. Given the centrality of power and conflict in the state system, it is not surprising that the emulation of violence technology would be so pervasive. Cross-national emulation is thus a product of the underlying nature of the international system, not the peculiar characteristics or aims of individual states. Emulation is one of the two main predictions in neorealism, as elucidated more fully in the next chapter.¹ Neorealist theory is based on two key predictions about the behavior of states: they will balance against external threats and they will emulate the best practices

¹ My interpretation of neorealism is based exclusively on the works of Kenneth N. Waltz, principally *Theory of International Politics* (Reading, MA: Addison-Wesley, 1979). Other works by Waltz cited include: Kenneth N. Waltz, "The Emerging Structure of International Politics," *International Security* 18, no. 2 (Fall 1994): 44–79; "Realist Thought and Neorealist Theory," *Journal of International Affairs* 44, no. 1 (Summer 1990): 21–38; "Reflections on *Theory of International Politics*: A Response to My Critics," in *Neorealism and Its Critics*, ed. Robert O. Keohane (New York: Columbia University Press, 1986): 322–47; "The Origins of War in Neorealist Theory," in *The Origin and Prevention of Major Wars*, ed. Robert I. Rotberg and Theodore K. Rabb (Cambridge: Cambridge University Press, 1989): 39–52; *Man, the State, and War* (New York: Columbia University Press, 1959). Neorealism is also often referred to as structural realism by Waltz and others. See Robert O. Keohane, "Theory of World Politics: Structural Realism and Beyond," in Keohane, ed., *Neorealism and Its Critics*, 158–203; Barry Buzan, Charles Jones, and Richard Little, *The Logic of Anarchy: Neorealism to Structural Realism* (New York: Columbia University Press, 1993); Fareed Zakaria, "Realism and Domestic Politics: A Review Essay," in *The Perils of Anarchy: Contemporary Realism and International Security*, ed. Michael E. Brown, Sean Lynn-Jones, and Steven E. Miller (Cambridge, MA: MIT Press, 1995): 462–483; Colin Elman, "Horses for Courses: Why Not Neorealist Theories of Foreign Policy?" *Security Studies* 6, no. 1 (Autumn 1996): 7–51.

Military Emulation in the International System

5

of one another.² The explanation for balancing and emulation can be found in the theory's three foundational assumptions about the international system. First, the international system is an anarchic realm. As I elaborate in Chapter 2, from the assumption of anarchy we are able to derive logically other ubiquitous features of the system. Among the most important characteristics are its conflictual or competitive nature, self-help imperative, and the insecurity and uncertainty that pervade the life of states. From the assumption of anarchy, we also derive the long-standing realist verities about the international system – the centrality of power and military force in the relations of states. The second assumption is that the primary actors in the system are states. The third assumption is that security is their highest end. Even among realists, there are disagreements over these assumptions and their implications, and none more so than the third. To these I will return later.

My argument is: First, military emulation is a security-enhancing strategy in response to external threats. In the face of major threats, military emulation is the quickest and most dependable way to increase power and bolster security. Timing, pace, and scale will correspond with the timing and magnitude of external threats. At a more general level, it is the result of states' preoccupation with relative *competitive effectiveness*, or its overall capacity to meet the changing requirements of viability and success in the system. Relative competitive effectiveness is a comprehensive notion, the core of which is the state's military capabilities and its fiscal-administrative-coercive apparatus. States put a premium on their relative competitive effectiveness. While they continually worry about how well they are organized and equipped, when faced with episodes of major threats they will engage in sustained restructuring and re-tooling in order to keep up with and adjust to the changed minimum requirements of competition.

Second, emulation is a form of balancing behavior. States adopt various measures and strategies to respond to threats and keep up with the power of others. Neorealism maintains that states balance against threats in one of two generic strategies or in their combination: A state may adopt a strategy of alliance-making or coalition with others (external balancing), or it may choose to mobilize its domestic resources (internal balancing). A state may align with others and pool collective resources to deal with a common threat, or it may choose to muster its own domestic resources. Military emulation is a form of internal balancing. Realist scholars, like their critics, have focused exclusively on the former type of balancing and neglected the latter – even though the two predictions are inextricably linked. Overlooked too is that predictions about emulation, and all forms of large-scale internal balancing, entail organizational consequences. This is not a study of whether or not

² Waltz, *Theory of International Politics*, 118, 124, 127–28.

states balance, a debate settled by the works of Walt and others.³ Rather, it examines what they often do internally when they engage in a particular kind of internal balancing; why there is variation in the pace and scope of their efforts, while occasionally highlighting some of the organizational ramifications of this form of internal mobilization.

Third, I build on the neorealist assumption that states exist in an international system which is dynamic and competitive. Thus it is a system that presses states continually to attend to how well they are internally organized and equipped for that competition. Whether firms in the market or states in the system, units in competitive realms are continually pressed to ensure they are internally well organized and equipped to thrive and to survive. States are especially preoccupied with the relative size and effectiveness of their military power.⁴ They worry about the consequences to their security and autonomy of falling behind. States continually attend to the relative strength of their military power, although qualitative improvements such as large-scale emulation occur in spurts and tend to be discontinuous. The distinction here is fine but important. Pressure of competition spurs states to worry about relative competitiveness, but it is episodes of sustained direct threat that press them to make improvements in their tools and methods of competition. Put differently, crossnational emulation in the system will be sporadic, clustered, uneven, and discontinuous.

Military emulation is driven by a competitive security logic. It is a response to external threats, and will correspond to the timing and scale of external threats. When faced with a major threat, emulating the military organization and technology proven most effective is the surest and quickest strategy for a state to bolster its military power and enhance its security. Since timing, pace, and scale are functions of threats, emulation, especially large scale, is discontinuous rather than continual. Emulation is only one of several possible strategies states adopt to enhance their security. I specify the conditions under which states will choose emulation over other internal balancing strategies, such as innovation and arms buildup. I will show that whether and how much states emulate will be influenced by the availability of external balancing options, whether in the form of alliances or indirect free riding on the power of others. Finally, all states – big and small, great powers and secondary states, even innovation-capable states – emulate.

Fourth, states emulate on the basis of proven effectiveness, which is a political criterion. This proposition is one of the amendments I introduce into Kenneth Waltz's original formulation. As discussed in the next chapter,

³ Stephen Walt, *The Origins of Alliances* (Ithaca: Cornell University Press, 1987); Barry Posen, *The Sources of Military Doctrines: France, Britain, and Germany Between the Wars* (Ithaca: Cornell University Press, 1984).

⁴ Barry Posen, "Nationalism, the Mass Army, and Military Power," *International Security* 18, no. 2 (Fall 1993): 80–124, 82.

Military Emulation in the International System

7

Waltz claims that states emulate the most powerful in their numbers, and that emulation occurs among adversaries. I rectify these two related flaws by showing that states, including adversaries, emulate prevailing international best practices. Given their preoccupation with competitive effectiveness, states prefer to emulate only practices and technologies demonstrated to be the most effective among synchronic alternatives. In the area of military emulation, states use battlefield performance, especially victory in war, as the truest observable measure of effectiveness. States thus emulate the military system that emerges victorious in great power wars. It may often be the case that the military system drawing the most emulation appeal is that of the most powerful state in the system. Likewise, in the absence of a test of effectiveness, emulators may reasonably use aggregate power as an approximation. However, it is useful to keep the distinction between proven effectiveness and capabilities, since the two will not always coincide. (Indeed, some versions of realist theory, such as power transition, and much of the work in industrial economics, posit that innovation and best practice will be introduced by challengers.) Proven success in war provides states with a closer approximation of the true utility of certain military practices. It reduces the uncertainties that surround such practices.

Similarly, states display a selective approach to emulation. They emulate specific categories of military capabilities. The United States, Japan, and the South Americans copied elements of the kaiser's army, but it was to the British Royal Navy they looked as naval model. There may have been reasonable squabbles over whether Britain was the most powerful overall among the great powers – the *primus inter pares* – during the last quarter of the century, but they all emulated Germany's victorious mass army. In each category of military capabilities, or military mission requirements, states emulate only what has been tested and proven successful among existing alternatives.

States are continually preparing for the next war by copying the best practices of the previous war. This appears irrational, since these practices often turn out to be inappropriate or obsolete for the next war. That states repeatedly do so reinforces the point about proven effectiveness. A further conundrum for states is that, in the end, borrowed best practices may or may not prove effective in terms of purchasing greater security or enhancing military power because of faulty copying, failure to copy ancillary practices, inability to integrate properly and utilize borrowed methods, or simply the lack of the necessary human skill and know how. Yet in the context of structural uncertainty and insecurity, and as security competition stiffens, emulating the proven and tested best practices of others remains a sensible strategy that offers states speed and greater certainty in building up their power.

Fifth, as mentioned already, the timing, pace, and scale of military emulation will vary with shifts in the intensity of external security competition in

the state's immediate strategic environment. The ability to account for when, how quickly, and how much emulation takes places is crucial, because it sets apart the neorealist theory of emulation from competing theories, especially ones that give causal primacy to cultural factors. Simply put, the higher and more intense the threat level, the deeper and more sustained the adverse shift in the external security environment, the more rapid and large scale the emulation. Rather than place all explanatory weight on shifts in the global distribution of power, as Waltz does, I emphasize the importance of the state's local strategic environment.

I borrow the structural elements of Walt's balance of threat theory and offense-defense theory, both of which emphasize the importance of changes in the state's immediate security environment. Like Walt, I argue that it is more reasonable to examine state behavior in terms of the source, direction, and nature of security threats in its immediate strategic setting, rather than just the narrower variable of global distribution of capabilities.⁵ The nature, source, and intensity of the security dilemma that inheres in the system are not the same for all states, even if the underlying logic of behavior is the same. Nor is it one global or uniform security dilemma stemming from the global distribution of capabilities. Local or geographically clustered subsystems of power balancing, and local patterns of amity and enmity shape the immediate security environment of states, especially secondary states. Unless they have global capabilities, states give more significance to threats and adverse shifts that are local and immediate. The qualitative measure of threat levels stresses the importance of military (technology, doctrine, deployment) and geographic factors (advantages and liabilities, terrain, proximity). In addition, I argue that a state's level of threat will be affected by the availability of external balancing options. The availability of allies and free-riding opportunities lowers threat level, and dampens the scale and pace of emulation; while the absence of such options heightens the threat and spurs greater emulation, all else being equal.

In summation, the book is about what causes states to emulate the military technologies and organizational structures of others. The topic of military emulation is understudied in international relations theory. The few works on the topic are either descriptive or emphasize cultural explanations. Few,

⁵ Walt, *Origins of Alliances*. A good deal of debate is involved here, especially Walt's use of perceptual factors, which I exclude. See Michael E. Brown and Sean Lynn-Jones, "Preface," in *The Perils of Anarchy: Contemporary Realism and International Security*, ed. Michael E. Brown, Sean Lynn-Jones, and Stephen E. Miller (Cambridge, MA: MIT Press, 1995): ix-xxi; Benjamin Frankel, "The Reading List," *Security Studies* 5, no. 1 (Autumn 1995): 183-94; Robert Powell, "Anarchy in International Relations Theory: The Neorealist-Neoliberal Debate," *International Organization* 48, no. 2 (Spring 1994): 313-44; Sean Lynn-Jones, "Offense-Defense Theory and Its Critics," *Security Studies* 4, no. 4 (Summer 1995): 660-91; Charles Glaser and Chaim Kaufmann, "What is the Offense-Defense Balance, and Can We Measure It?" *International Security* 22, no. 4 (Spring 1998): 44-82.

What Is Military Emulation?

9

if any, base their analysis on systematic, archival empirical supports.⁶ Unlike other works, I develop a fresh and powerful theory of emulation to explain why states emulate, when they do so, why they discriminate among whom they choose to emulate, and why there is variance in the speed and magnitude of their emulation efforts. In building a theory of emulation, I work within structural realism. I connect some previously unconnected ideas and open up new spaces. I correct and refine flaws and clarify some major concepts.

To do this requires that I limit the scope of the book. My work focuses exclusively on why states emulate and not on the results or efficacy of their emulation. The success or failure of emulation does not concern me; only the underlying causes and substance of the process itself. It is natural to ask whether emulation actually results in improved military effectiveness given all the energy and resources states devote to it. Since effectiveness is a product of a number of variables, and ultimately can only be known in combat, I focus instead on the state's attempt and efforts to improve its power. This distinction is worth highlighting because cultural explanations often conflate the results and effectiveness of emulation with the effort itself. I do not focus on the wider scale military, political, cultural, social, or any other hypothesized consequences and secondary effects of military emulation. Military emulation has state-making effects. These organizational effects are not the primary focus of the book, though I make preliminary observations on some of these effects.

WHAT IS MILITARY EMULATION?

Military emulation is the deliberate imitation by one state of any aspect of another state's military system that bears upon its own military system. This emulation brings the emulator's military (or specific components of it) into reasonably close correspondence with the model being emulated. Emulation, as a generic form of state behavior, is the voluntary, purposeful, and systematic imitation by one state of the techniques and practices of another. Crossnational emulation occurs in a wide variety of areas and by an equal variety of state and nonstate entities. Although I focus on state-directed emulation in the military area, states have also emulated one another's economic,

⁶ See the edited volume by Emily O. Goldman and Leslie C. Eliason, *The Diffusion of Military Technology and Ideas* (Stanford: Stanford University Press, 2003). See also Emily O. Goldman, "Cultural Foundations of Military Diffusion," *Review of International Studies* 32, no. 1 (January 2006): 69–91; *The Culture of National Security: Norms and Identity in World Politics*, ed. Peter J. Katzenstein (New York: Columbia University Press, 1996); David B. Ralston, *Importing the European Army: The Introduction of European Military Techniques into the Extra-European World, 1600–1914* (Chicago: University of Chicago Press, 1990); Frederick M. Nunn, *Yesterday's Soldiers: European Military Professionalism in South America, 1890–1940* (Lincoln: University of Nebraska Press, 1983).

regulatory, administrative, and even constitutional practices.⁷ While private, nonstate entities, such as business firms, may also engage in emulation domestically or internationally, the kind of emulation examined here is characterized by a centrally coordinated, national-level planning.

As noted above, emulated practices and techniques may range widely from industrial, to military, to public administration, to policy and regulatory measures. Emulation in all forms, by firms or states, whether in economic or military areas, is driven by the same pressures of competition and based on the same political criterion. The theory I develop applies to emulation in all areas, including both state-directed and nonstate emulation provided they share one quality in common – they are realms organized on the basis of anarchy and self-help. In essence, emulation is a process by which states observe, learn, and copy the ways and practices of one another – though the process itself implies nothing about its causes. Conceptually, emulation is akin to, but different from, diffusion. The latter term is a purely descriptive notion that says nothing about the causes, nature, intent, direction, or content of the process. Emulation leads to the diffusion of best practices, though it is not the only path of diffusion and isomorphism in the system.

Three aspects of this definition must be emphasized at the outset. First, military emulation is a conscious, voluntary, and deliberate act. It involves a deliberate decision to copy, in part or in whole, the military system of another country. To be sure, there are any number of other ways in which certain state practices spread and converge. Historically, external coercion and imposition have been salient in the life of states. Similarly, there are likely to be ambiguous cases bordering between voluntary emulation and coercion. For instance, many states today adopt standardized economic and regulatory policies, even restructure their administrative apparatus, as a result of so-called structural adjustment programs dictated by the International Monetary Fund (IMF). The European Union acts as a force of convergence and standardization among its members. One commonality in all three types of crossnational diffusion and convergence is the central role of power differentials.

Second, emulation results in similarity, but we cannot realistically expect an identical, carbon copy to result. As Waltz noted, similar is not the same as identical. Emulation is not perfect replication, for there are practical and human limits to exact copying.⁸ There has always been a good deal of debate in the literature, across various disciplines, as to whether foreign borrowing results in replicas, or whether states simply graft borrowed practices onto

⁷ A classic work is D. Eleanor Westney, *Innovation and Imitation: The Transfer of Western Organizational Patterns to Meiji Japan* (Cambridge: Harvard University Press, 1987). See also *National Diversity and Global Capitalism*, ed. Suzanne Berger and Ronald Dore (Ithaca: Cornell University Press, 1996).

⁸ Robert Boyer, “The Convergence Hypothesis Revisited: Globalization But Still the Century of Nations?” in Berger and Dore, eds., *National Diversity*, 29–59.