Escape from the State of Nature

Authority and Hierarchy in World Politics

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International relations theory has long assumed that the modern international system is a state of nature devoid of political authority. This assumption of international anarchy is a foundation of realist thought and is believed to lead to the security dilemma that pervades relations between all states.[1] It is equally central to neoliberal institutionalism, which argues that institutions constrain state behavior and facilitate cooperation despite the absence of international political authority.[2] Even constructivism, maintaining that "anarchy is what states make of it," nonetheless accepts systemic anarchy as a basic condition of world politics.[3]

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1. The role of anarchy is most fully developed in Kenneth N. Waltz, *Man, the State, and War: A Theoretical Analysis* (New York: Columbia University Press, 1959); and Kenneth N. Waltz, *Theory of International Politics* (Reading, Mass.: Addison-Wesley, 1979). On the security dilemma, see Robert Jervis, "Cooperation under the Security Dilemma," *World Politics,* Vol. 30, No. 2 (January 1978), pp. 167–214.
2. On neoliberal institutionalism, see Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton, N.J.: Princeton University Press, 1984). On the ambition of neoliberal institutionalism to explain cooperation on the basis of realist assumptions, see Robert O. Keohane, "Theory of World Politics: Structural Realism and Beyond," in Ada W. Finifter, ed., *Political Science: The State of the Discipline* (Washington, D.C.: American Political Science Association, 1983), pp. 503–540. Although less focused on institutions, Kenneth A. Oye, ed., *Cooperation under Anarchy* (Princeton, N.J.: Princeton University Press, 1985) shares this same ambition.
3. The phrase is from Alexander Wendt, "Anarchy Is What States Make of It: The Social Construction of Power Politics," *International Organization,* Vol. 46, No. 2 (Spring 1992), pp. 391–425. On constructivism and the meaning of anarchy, see Hedley Bull, *The Anarchical Society: A Study of Order in World Politics* (New York: Columbia University Press, 1977); Christian Reus-Smit, *The Moral Purpose of the State: Culture, Social Identity, and Institutional Rationality in International Relations* (Princeton, N.J.: Princeton University Press, 1999); and Alexander Wendt, *Social Theory of International Politics* (New York: Cambridge University Press, 1999). Not all constructivists accept the importance of systemic anarchy. Many of the authors in Peter J. Katzenstein, ed., *The Culture of National Security: Norms and Identity in World Politics* (New York: Columbia University Press, 1996) challenge its relevance. Theorists of global civil society largely ignore this trait and focus on the diffusion of ideas and norms across national boundaries. See Margaret E. Keck and Kathryn Sikkink, *Activists beyond Borders: Advocacy Networks in International Politics* (Ithaca, N.Y.: Cornell University Press, 1998); and Sanjeev Khagram, James A. Riker, and Kathryn Sikkink, eds., *Restructuring World Politics: Transnational Social Movements, Networks, and Norms* (Minneapolis: University

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Yet, there has always been a wide variety of hierarchical relationships within the international system, including empires, protectorates, spheres of influence, dependencies, and other relationships in which the sovereignty of the subordinate polity is ceded in whole or in part to a dominant state.[4] With the advent of unipolarity, and the emergence of the United States as the "indispensable nation," international hierarchy is once again in the news.[5] Writing in May 2003, shortly after the start of the Iraq War, Ivo Daalder and James Lindsay observed that the phrase "American empire," which had virtually disappeared from common parlance, appeared more than 1,000 times in news stories in the previous six months.[6] In the absence of a global government or single, universal empire, the fact of anarchy remains a truism for the contemporary international system as a whole. But, it is nonetheless a fallacy to infer that all relationships within this system are anarchic.[7]

The nature, meaning, and consequences of international hierarchy are poorly understood by policymakers and scholars alike. This is most evident, perhaps, in the debates over whether the United States today is a new empire. When asked by the Arab news network al-Jazeera if the administration of George W. Bush was bent on empire building, then Secretary of Defense Donald Rumsfeld simply denied the possibility, declaring: "We don't seek empires. We're not imperialistic. We never have been. I can't imagine why you'd even

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of Minnesota Press, 2002). Alexander Wendt and Daniel Friedheim, "Hierarchy under Anarchy: Informal Empire and the East German State," *International Organization,* Vol. 49, No. 4 (Autumn 1995), pp. 689–721, develop a constructivist view of hierarchy in international relations.

4. See Ian Clark, *The Hierarchy of States: Reform and Resistance in the International Order* (New York: Cambridge University Press, 1989); and Robert W. Tucker, *The Inequality of Nations* (New York: Basic Books, 1977). On contractual theories of hierarchy in world politics, see David A. Lake, *Entangling Relations: American Foreign Policy in Its Century* (Princeton, N.J.: Princeton University Press, 1999); Katja Weber, *Hierarchy amidst Anarchy: Transaction Costs and Institutional Choice* (Albany: State University of New York Press, 2000); Chad Rector, *Federations: Federal and International Approaches to Cooperation* (forthcoming); and Kathleen J. Hancock, *Delegated Sovereignty and Economic Integration: Lessons from Eurasia, Southern Africa, and Prussia* (forthcoming). See also the large literature on empire, including Michael W. Doyle, *Empires* (Ithaca, N.Y.: Cornell University Press, 1986); Craig Calhoun, Frederick Cooper, and Kevin W. Moore, eds., *Lessons of Empire: Imperial Histories and American Power* (New York: New Press, 2006); and Hendrik Spruyt, *Ending Empire: Contested Sovereignty and Territorial Partition* (Ithaca, N.Y.: Cornell University Press, 2005).

5. The phrase "indispensable nation" appears to have been first used by President Bill Clinton in his second inaugural address. William J. Clinton, *Inaugural Address of President William J. Clinton* (Washington, D.C.: White House, January 20, 1997), http://clinton6.nara.gov/1997/01/1997-01-20-presidents-inaugural-address.html.

6. Ivo H. Daalder and James M. Lindsay, "American Empire, Not 'If' but 'What Kind,'" *New York Times,* May 10, 2003.

7. Waltz focused on the fallacy of composition, arguing that scholars of international relations cannot theorize a system from its parts. See Waltz, *Man, the State, and War;* and Waltz, *Theory of International Politics.* But in accepting this point, many appear to have committed the opposite fallacy of division in reasoning about the parts from the whole.

ask the question."[8] On the same day in a speech at the Council on Foreign Relations, however, British economic historian Niall Ferguson took a diametrically opposed view: "The great thing about the American empire is that so many Americans disbelieve in its existence. . . . They think they're so different that when they have bases in foreign territories, it's not an empire. When they invade sovereign territory, it's not an empire."[9] These contrasting statements embody the widespread and profound confusion today over the nature of international hierarchy, of which empire is merely an extreme form.

Focusing on the anarchy of the international system, extant theories of international relations offer few guides to these hierarchical relationships. This article attempts to fill this gap by providing a general framework for understanding international hierarchy in the contemporary world. I endeavor to make three points. First, I argue that the discipline of international relations, via juristic theories of the state, imported a formal-legal conception of authority that precludes, by definition, the possibility of hierarchy between political units. I pose an alternative, relational conception of authority that uncovers hierarchical relationships between states now hidden by the formal-legal approach.

Second, I outline a conception of international hierarchy as variations in authority exerted by a dominant state over a subordinate party. I then identify salient forms of hierarchy across the dimensions of security and economic relations. Although operationalizing international hierarchy is difficult and remains tentative, it is possible to measure the construct in ways that appear conceptually valid.

Third, I examine the effect of hierarchy on defense spending in all countries from 1950 to 2000. As explained in greater detail below, in a relational conception, the legitimate authority of a dominant state rests on the provision of a stable social order for its subordinates. This exchange of social order for compliance implies that countries subordinate to a dominant state should spend less on their militaries as a proportion of gross domestic product (GDP) than countries not in such authority relationships, all else constant. Security hierarchy, as predicted, but not economic hierarchy exerts a statistically and substantively significant effect on military spending.

Each argument is developed in a separate section below. Together, they build a new foundation that integrates hierarchy into the core of international

8. Quoted in Eric Schmitt, "Aftereffects: Military Presence; Rumsfeld Says U.S. Will Cut Forces in Gulf," *New York Times,* April 29, 2003.
9. Quoted in Maureen Dowd, "Hypocrisy and Apple Pie," *New York Times,* April 30, 2003.

relations theory. As developed in the conclusion, a focus on hierarchy further erodes the distinction between domestic and international politics and suggests new avenues for research. It also sheds light on the role of the United States in the world today and the growing backlash against the country's "imperialist" policies. In pursuing a unilateral policy of preventive regime change in Iraq, the United States has overstepped the bounds of what its subordinates and others regard as its legitimate authority. This threatens to undermine the fragile hierarchy nurtured by successive U.S. presidents over the last century.

Political Authority in World Politics

A political relationship is anarchic if the units—in this case, states—possess no authority over one another. It is hierarchic when one unit, the dominant state, possesses authority over a second, subordinate state. To understand this distinction, and the role it has assumed in international relations theory, requires revisiting the concept of political authority and, then, examining how a particular conception became enshrined into the discipline.

THE CONCEPT OF POLITICAL AUTHORITY

Political authority is most simply defined as rightful rule.[10] When political authority is exercised, the dominant state commands a subordinate state to alter its behavior, where command implies that the former has the right to order the latter to take certain actions. This right, in turn, implies a correlative obligation or duty by the subordinate state to comply, if possible, with the dominant state's order. As Richard Flathman observes, "If A has authority X, those persons who are in A's jurisdiction therefore have an obligation or obligations Y." In short, the subordinate "surrenders judgment" and accepts the force of the dominant state's command.[11] The subordinate state's obligation implies a further correlative right by the dominant state to enforce its command in the event of noncompliance. As John Day notes, "Those who possess authority in political life, the rulers, are authorized not only to make laws and take decisions but to use coercive power when necessary to ensure obedience to those laws and acquiescence in those decisions."[12] In an authority relationship, the subordinate state recognizes both that the dominant state has the right to issue

10. The literature on authority is substantial. For a useful guide to the various approaches and debates, see John A. Simmons, "Political Obligation and Authority," in Robert L. Simon, ed., *Blackwell Guide to Social and Political Philosophy* (Malden, Mass.: Blackwell, 2002), pp. 17–37.
11. Richard E. Flathman, *The Practice of Political Authority: Authority and the Authoritative* (Chicago: University of Chicago Press, 1980), p. 35 and chap. 5.
12. John Day, "Authority," *Political Studies,* Vol. 11, No. 3 (October 1963), p. 260.

certain commands and that it should, within the limits of its abilities, follow those commands or suffer appropriate consequences. In short, the subordinate accepts the dominant state's commands as legitimate.

Two implications of this simple definition of political authority deserve elaboration. First, authority is a form of power. Following Robert Dahl's famous definition, power is the ability of one state to get another to do something it would otherwise not do.[13] In the case of authority, the subordinate state's behavior is driven by obligation, not force. The operative condition, however, is the same: because of the dominant state's will, the subordinate does something it would otherwise not do. The commonly asserted opposition between power and authority is, thus, ill founded.

Second, as legitimate domination, political authority is analytically distinct from coercion, but it is intimately bound up with this second form of power. Purely coercive relationships—as when a mugger demands "your money or your life"—are characterized by power, but they are not authoritative. Although complying in the face of superior force may be wise, no obligation exists to do so. Indeed, the purpose of coercion is to manipulate incentives so that it is in the target's interests to comply, but again this implies no obligation. It is the duty to comply with the dominant state's commands—or, alternatively, the legitimacy of those commands—that renders authority and coercion conceptually distinct.

The difference between political authority and coercion is nicely captured in Kenneth Waltz's first and third dimensions of political structure. The first dimension is the ordering principle, or the way in which the units stand in relationship to one another. In Waltz's conception, this refers to the authority relationship between the units, embodied in the difference between anarchy, in which "none is entitled to command; none is required to obey," and hierarchy, in which some are so entitled and others so required.[14] The third dimension is the distribution of capabilities, which is often mistaken for the distribution of power. Capabilities matter for Waltz because they create opportunities for coercion: more capable states can impose their will on others, up to and including eliminating states as independent entities; less capable states suffer the wills of others.[15] Waltz remains true to his realism in emphasizing power. But in a way that is not widely appreciated, his dimensions of political structure are defined by different forms of power.

Although distinct, political authority and coercion are intimately related,

13. Robert A. Dahl, "The Concept of Power," *Behavioral Science,* Vol. 2, No. 3 (July 1957), p. 202.
14. Waltz, *Theory of International Politics,* p. 88.
15. Ibid., p. 118.

with the latter constituting a necessary component of the former. The capacity for coercion, if not actual coercion, is necessary to buttress or sustain authority in the face of incentives to flout rules designed to constrain behavior. Even as it recognizes that it should comply with the dominant state's edicts, any subordinate state may choose to violate any rule. An obligation creates only an expectation of compliance, but this does not require perfect obedience. One can exceed the speed limit, for instance, without calling into question the government's authority to impose such limits. The obligatory nature of the dominant state's command, however, also permits it to punish a subordinate for noncompliance, implying that in choosing to violate a command, a subordinate is also choosing to accept the sanction that the dominant state may impose. Given incentives by subordinates not to comply in specific instances, the dominant state must use coercion to enforce edicts and, by example, to deter defection by other subordinates. Especially in large groups where free riding is possible, coercion may be necessary to prevent widespread violation of commands and, thus, the erosion of authority.

Yet, even as political authority and coercion are complements over some range, they can be substitutes as well in the short run or when the ruler has exogenous sources of coercive capability. Domestically, when their authority is contested, rulers may increase their use of coercion in an attempt to stay in power, employing the proverbial policeman on every corner and informant in every group to deter challengers. When rulers have access to resources that can be mobilized for coercion independent from those over whom they rule—such as monarchical lands in feudal times and oil, diamonds, or other natural resources today—they may be able to maintain power through coercion even in the absence of authority. Regimes that rely on coercion instead of authority are often called (ironically) "authoritarian" or, more graphically, "tyrannies."[16] In international relations, states that rely on coercion rather than authority in their relationships with other states are often referred to as "imperialist."[17] In an imperialist strategy, one state tries to dominate another through force. This strategy is tempting because states typically have sources of power—their own domestic resources—separate from those they seek to subordinate. In this way, imperialism is the international analog to tyranny.

16. Day, "Authority," p. 265.
17. Stephen Howe, *Empire: A Very Short Introduction* (New York: Oxford University Press, 2002), pp. 22–28. The common root of the terms "empire" and "imperialism" produces confusion. Imperialism was originally a term of opprobrium coined to describe Napoleon's ambitions in Europe. It implies illegitimate coercion. Empire first described Rome, which was largely authoritative in the sense used here. Today, many who criticize the new American empire are more accurately criticizing the imperialism inherent in the strategy of preventive regime change.

Despite their clear analytic differences, political authority and coercion are hard to distinguish in practice. They are deeply intertwined, making it difficult for analysts to conclude whether, in any given instance, a subordinate state followed a dominant state's command out of obligation or force. There is no "bright line" separating these two analytic concepts, and I offer none here. Below, I operationalize hierarchy, and the authority that underlies this variable, in ways that aim to capture the legitimacy of an authority relationship between dominant and subordinate states. But even in these measures, authority is buttressed by the capacity for coercion. This is not a failure of the analysis or measures, but a reflection of the intimate connection between political authority and coercion.

formal-legal to relational authority in international relations

Modern conceptions of political authority, including those in international relations, are given fullest expression in the work of Max Weber who, in describing the modern bureaucratic state, developed an ideal type of formal-legal authority.[18] For Weber, and nearly everyone else since, the ruler's ability to command subordinates, and the willingness of the subordinates to comply, follows from the lawful position or office that the ruler holds. In this conception, the ruler possesses the right to issue laws due to the office that she occupies, not to any personal qualities that she may possess.[19] Authority does not inhere in the ruler as a person, but in the ruler as an officer. By analogy, authority is law, and vice versa.

Building on juristic theories of the state, popular at the turn of the last century, international relations scholars imported this formal-legal conception of authority into the discipline's theoretical foundation.[20] It immediately follows from this conception that international politics lack authority. Because there is no lawful position or institution above the state, there can be no authority above the state. International relations, therefore, are a realm of anarchy, and all relations between duly constituted states are also anarchic. As noted in the introduction, this line of reasoning has been accepted by theorists working in all of the discipline's major paradigms.

Although perhaps useful for analyzing established domestic hierarchies, a formal-legal conception of authority is of dubious utility for the study of international relations. Despite its debt to Thomas Hobbes, formal-legal theory

18. Max Weber, *Economy and Society*, 2 vols. (Berkeley: University of California Press, 1978), pp. 215–226.
19. Flathman, *The Practice of Political Authority*, p. 17.
20. Brian C. Schmidt, *The Political Discourse of Anarchy: A Disciplinary History of International Relations* (Albany: State University of New York Press, 1998), especially chap. 3.

founders on how authority emerges from the state of nature, which it obviously did at some distant point in time to create the states that now make up the international system. If political authority derives from lawful office, law must precede authority. But if political authority creates law, then authority must precede lawful office. In building the preconditions necessary to transcend the state of nature, the formal-legal approach cannot conceive of law without authority or authority without law. The origins of authority must rest on something other than a formal-legal order.[21] It cannot follow, therefore, that absent a formal-legal structure there can be no authority. Authority must be able to exist independent of any formal-legal structure. This has important repercussions for the prevailing view of international relations as a state of nature.

Rather than conceiving of authority as a product of formal-legal structures, the literatures on emergent social structures and contractual theories of the state contain an alternative, relational conception of authority.[22] In this approach, authority rests on a bargain between the ruler and the ruled premised on the former's provision of a social order of value sufficient to offset the latter's loss of freedom. Social order requires a measure of security for individuals, the protection of property rights, and an expectation that promises between individuals will be kept.[23] Authority then becomes a contingent relationship in which the ruler provides the order demanded by subordinates, and they in turn accept the authority of the ruler to impose taxes or other extractions and to exert the restraints on their behavior necessary to provide that social order. In this exchange of social order for compliance, both sides are made better off, at least with regard to the state of nature that would otherwise exist. The ruler bears the administrative and coercive costs of providing the social order, but gains the consent of subordinates to her rules and exactions. Subordinates gain the benefits of social order and give up a measure of autonomy or, in the case of states, sovereignty. In this conception, authority is not law, but a contract.

Relational authority is inherently strategic. Both ruler and ruled are integral

21. For Weber, formal-legal authority typically grew out of charismatic authority. Given that charisma is one possible source of relational authority, this is not inconsistent with the argument developed below.
22. There is a long philosophical tradition underpinning contractual theories of the state, but several of the most important contemporary works include Douglass C. North, *Structure and Change in Economic History* (New York: W.W. Norton, 1981); Margaret Levi, *Of Rule and Revenue* (Berkeley: University of California Press, 1988); and Mancur Olson, *Power and Prosperity: Outgrowing Communist and Capitalist Dictatorships* (New York: Basic Books, 2000).
23. Bull, *The Anarchical Society,* pp. 4–6.

to the contract: the former must produce an acceptable social order; the latter must consent to the former's authority. In a relational approach, the focus of analysis subtly shifts from ruler to ruled. Obligation flows not from the commands of the ruler, but from the consent of the ruled; a ruler does not possess authority unless her subordinates acknowledge an obligation to comply with her will. Importantly, the ruler's authority and her ability to use coercion legitimately follow from the subordinate's satisfaction with the social order so produced. Obligation springs not from coercion. Rather, authority and the capacity to coerce legitimately derive from the interest of the ruled in social order.[24]

This relational conception provides a more complete and consistent account of the origins of political authority. Although the formation of authority from within the state of nature is, of course, shrouded in the mists of time, a relational conception appears consistent with what scholars know about the process. In the anthropological literature on contact-era Melanesia, to cite one example from the literature on early authority structures, one prominent form is the local "big man," an individual who uses his comparative advantage in material accumulation to generate wealth and, in turn, to earn authority over those who become his followers. In a related conception drawn from the same region and period, Maurice Godelier posits a "great man" model in which individuals use their comparative advantage in hunting and fighting, gardening, or ritual knowledge to attain authority over others. Productive abilities, knowledge, and fighting skill all appear to be resources that potential leaders can use to produce a local social order and, in turn, authority.[25] Importantly, formal-legal institutions, to the extent they exist at all, follow rather than drive this process. In this example, as in others, authority rests on the ruler's ability to deliver the "goods" demanded by the ruled and the latter's willingness to recognize as legitimate the status of the former.

If authority can emerge as part of an equilibrium between ruler and ruled from the state of nature, then it cannot be excluded by definition in relations between states within the global system. A relational conception of authority, based on the exchange of social order for compliance, opens the possibility

24. Flathman, *The Practice of Political Authority;* and Peter Alexis Gourevitch, "The Governance Problem in International Relations," in David A. Lake and Robert Powell, eds., *Strategic Choice and International Relations* (Princeton, N.J.: Princeton University Press, 1999), pp. 137–164.
25. Marshall Sahlins, *Culture in Practice: Selected Essays* (New York: Zone Books, 2000); Maurice Godelier and Marilyn Strathern, eds., *Big Men and Great Men: Personifications of Power in Melanesia* (New York: Cambridge University Press, 1991); and Paul Roscoe, "New Guinea Leadership as Ethnographic Analogy: A Critical Review," *Journal of Archaeological Method and Theory,* Vol. 7, No. 2 (June 2000), pp. 79–126.

that political authority can exist at the international level, at least for certain dyads. The long history of European empire is a case in point, but so is the Soviet Union's informal empire in Eastern Europe; the United States' protectorates over Japan, the Philippines, and Micronesia after World War II; and the weak protectorate formed by the United States and Saudi Arabia during the 1990–91 Persian Gulf War—none of which had prior "legal" standing.[26] States can escape the state of nature, at least in part, by building relationships founded on relational rather than formal-legal authority. Understood in relational terms, the nature and degree of political authority in international relations together become a variable for empirical investigation.

Hierarchy in International Relations

Hierarchy exists when one actor, the dominant state, possesses authority over another actor, the subordinate state. Authority is never total, of course, but varies in extent. A dominant state may possess authority over a subordinate and issue commands regulating possible actions 1–5 but not on actions 6–*n*, which remain beyond its ability to expect compliance. In other words, the subordinate state may recognize the legitimacy of the dominant state's commands regulating actions 1–5, but not that of commands it may issue on other possible actions. In this case, a partial hierarchy exists; the dominant state possesses some limited authority over the subordinate state. In turn, hierarchy increases with the number of the subordinate's actions the dominant state can legitimately regulate. If the dominant state expands its authority from issues 1–5 to include 6–8, the relationship is more hierarchical. So defined, hierarchy is a continuous variable defined by the number of actions over which the dominant state can legitimately issue commands.[27]

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26. These cases and others are discussed in Lake, *Entangling Relations,* chaps. 5, 6.

27. At least three analytic approaches of long standing in the field have employed the term hierarchy in ways very similar to one another but different from that developed here. Power transition theory posits global and regional hierarchies of power that produce struggles for system leadership and periods of intense warfare. See A.F.K. Organski, *World Politics* (New York: Alfred A. Knopf, 1958); A.F.K. Organski and Jacek Kugler, *The War Ledger* (Chicago: University of Chicago Press, 1980); and Douglas Lemke, *Regions of War and Peace* (New York: Cambridge University Press, 2002). Hegemonic stability theory predicts that a single, dominant country will produce higher levels of international public goods and economic openness. See Charles P. Kindleberger, *The World in Depression, 1929–1939* (Berkeley: University of California Press, 1973); Robert Gilpin, *U.S. Power and the Multinational Corporation: The Political Economy of Foreign Direct Investment* (New York: Basic Books, 1975); and Stephen D. Krasner, "State Power and the Structure of International Trade," *World Politics,* Vol. 28, No. 3 (April 1976), pp. 317–347. Although focused on hegemony, this theory is at least implicitly about hierarchy. See Robert Gilpin, *War and Change in World Politics* (New York: Cambridge University Press, 1981), pp. 27–34. Dependency theory, in its various

Although sovereignty is often assumed to be indivisible, recent research demonstrates that, in practice, it is frequently divided, with one state acquiring more or less authority over the actions of another.[28] In a prominent set of examples, the United States, asserting an "international police power" under the so-called Roosevelt corollary to the Monroe Doctrine, intervened in Caribbean states more than thirty times between 1898 and 1934 to regulate their foreign and domestic policies. In the case of the Dominican Republic in 1904, for instance, looming debt and fear of European intervention—European warships had entered Dominican waters in 1900 and 1903, and France was again threatening to confiscate tariff revenues—led the local government to request that the United States take over management of its customshouses. This arrangement was later codified in an executive agreement under which the United States appointed a customs collector and provided military protection for the republic, and the Dominican government agreed not to increase debts or lower taxes without the consent of Washington.[29]

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guises, also posits a hierarchy within the international economy defined by levels of development. See André Gunder Frank, "The Development of Underdevelopment," *Monthly Review,* Vol. 18, No. 4 (September 1966), pp. 17–31; G. Palma, "Dependency: A Formal Theory of Underdevelopment or a Methodology for the Analysis of Concrete Situations of Dependency," *World Development,* Vol. 6, Nos. 7–8 (July–August 1978), pp. 881–924; and Fernando Henrique Cardoso and Enzo Faletto, *Dependency and Development in Latin America* (Berkeley: University of California Press, 1979). All three theories treat hierarchy as a structural characteristic, with either a global or regional system organized into a single pyramid for all relevant states. Each defines hierarchy as a function of power and, in turn, as material or economic capabilities. "Systemic" in Waltz's use of that term, hierarchy is thus most typically used as a synonym for the distribution of capabilities and, especially, for a highly skewed or unipolar distribution. On the concept of a system, see Waltz, *Theory of International Politics,* especially chap. 5. Hierarchy as stratified capabilities is entirely consistent with a view of international politics as a self-help system. See Clark, *The Hierarchy of States,* p. 3. The concept of hierarchy developed here differs on two counts. First, hierarchy is conceived as a dyadic relationship between two polities that varies across pairs within any system from complete anarchy to full dominance. A single state may possess varying degrees of hierarchy across many dyads, as does the United States today. Nonhegemonic states have certainly exercised more or less authority over other neighboring states and even over distant colonies. Second, as I define and use the construct, hierarchy rests on authority, not just on coercive capabilities.

28. See Stephen D. Krasner, *Sovereignty: Organized Hypocrisy* (Princeton, N.J.: Princeton University Press, 1999); Andreas Osiander, "Sovereignty, International Relations, and the Westphalian Myth," *International Organization,* Vol. 55, No. 2 (June 2001), pp. 251–287; John Agnew, "Sovereignty Regimes: Territoriality and State Authority in Contemporary World Politics," *Annals of the Association of American Geographers,* Vol. 95, No. 2 (June 2005), pp. 437–461; and Edward Keene, *Beyond the Anarchical Society: Grotius, Colonialism, and Order in World Politics* (New York: Cambridge University Press, 2002). For a normative defense of divisible sovereignty, see Robert O. Keohane, "Political Authority after Intervention: Gradations in Sovereignty," in J.L. Holzgrefe and Robert O. Keohane, eds., *Humanitarian Intervention: Ethical, Legal, and Political Dilemmas* (New York: Cambridge University Press, 2003), pp. 275–298.

29. Walter LaFeber, *The American Age: U.S. Foreign Policy at Home and Abroad, 1750 to the Present,* 2d ed. (New York: W.W. Norton, 1994), p. 247; and Peter H. Smith, *Talons of the Eagle: Dynamics of U.S.-Latin American Relations* (New York: Oxford University Press, 1996), pp. 52–62.

Similarly, the United States acquired a partial protectorate over Saudi Arabia during the 1990–91 Gulf War. Faced with a possible threat of invasion from Iraq, Saudi Arabia followed plans first formulated nearly two decades earlier and reluctantly invited more than 500,000 U.S. troops onto its territory to defend the kingdom and expel Iraq from Kuwait. Although Saudi Arabia self-consciously maintained the trappings of sovereignty during the crisis and eventual war—U.S. Gen. Norman Schwarzkopf and His Royal Highness Gen. Khaled bin Sultan of Saudi Arabia were formally equal partners who symbolically held their daily meetings in the latter's office—there was little doubt that the United States controlled the negotiations with Iraq (if any), the planning and fighting of the war, and the terms of the peace. For all practical purposes, and at least regarding policy toward the Persian Gulf region, the United States assumed substantial authority over Saudi Arabia's foreign policy with the full knowledge and consent of the king.[30] Even with the redeployment of U.S. troops to nearby states or offshore in 2003, the continued dependence of the kingdom on U.S. protection creates a residual subordination.[31] These and other similar instances are best classified as cases of divided sovereignty or, in my terms here, partial hierarchy. As the example of Saudi Arabia makes clear, these relationships persist into the current day.

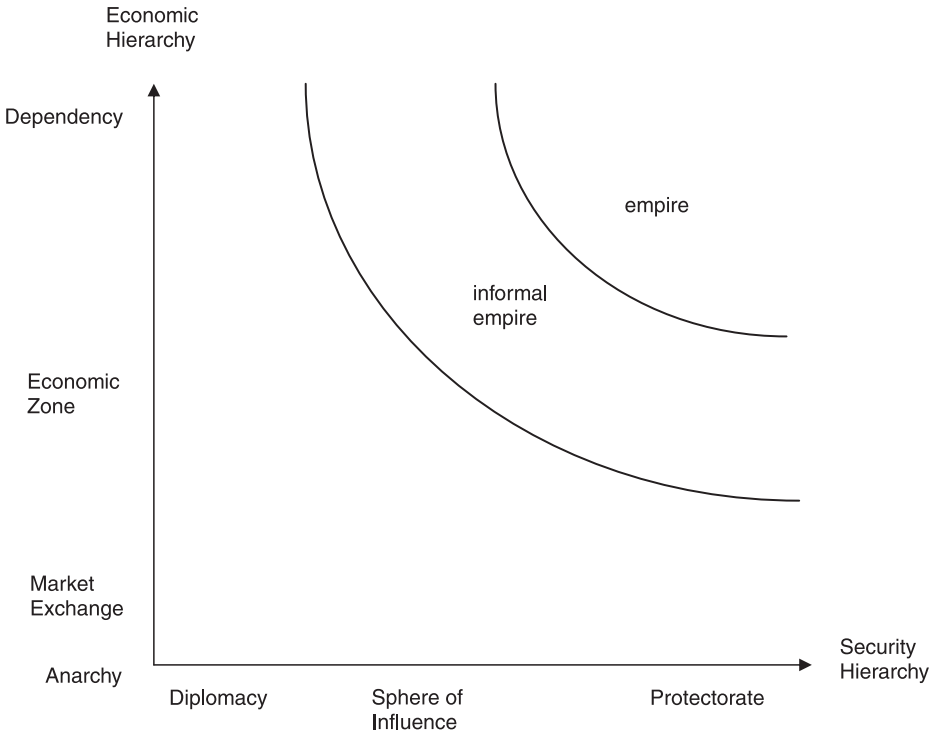
dimensions of international hierarchy

A relational approach to authority expects that states within the international system will possess varying degrees of hierarchy. Some states will have few external constraints on their sovereignty. Others will yield authority to other states over some issues for some purposes. Still others will forfeit their authority entirely, being subsumed into another state or empire. In short, there will be a variety of authority relationships, few of which conform fully with the principles of Westphalian sovereignty. Although general principles may serve as guidelines or focal points for negotiations, no two authority relationships are likely to be the same. The contract reached between the two states is likely to

30. See Lake, *Entangling Relations,* chap. 6. On the contracting challenges of this relationship, see Alexander Thompson, "Screening Power: International Organizations as Informative Agents," in Darren G. Hawkins, David A. Lake, Daniel L. Nielson, and Michael J. Tierney, eds., *Delegation and Agency in International Organizations* (New York: Cambridge University Press, 2006), pp. 229–254.

31. On April 29, 2003, Secretary of Defense Donald Rumsfeld announced that U.S. troops would be withdrawn from Saudi Arabia and Prince Sultan air base returned to Saudi control by August 2003. Approximately 4,500 troops were transferred to Qatar, leaving 500 military trainers in Saudi Arabia. Secretary Rumsfeld linked the move to the termination of the "no fly" zone restrictions in Iraq. The Combined Air Operations Center at Prince Sultan base, however, remains intact and ready to use should the United States and Saudi Arabia deem it necessary.

Figure 1. Two Dimensions of International Hierarchy



reflect a host of internal considerations as well as external conditions. What it means to be "sovereign" in any particular case is likely to vary substantially. These relationships of varying authority constitute international hierarchies.

Authority can be disaggregated and hierarchy constructed in any number of ways. Following common practice in international relations, I first distinguish between the broad issue areas of security and economics, across which the same states often construct relations with different degrees of hierarchy. I then disaggregate these broad issues into the near infinite number of actions that states might perform that constitute security or economic policy to produce two continua.

Security relationships (the horizontal axis in Figure 1) vary from diplomacy, at the anarchic end of the continuum, to protectorates, at the hierarchic end.[32] In diplomacy, polities interact while retaining complete authority over their

32. See Lake, *Entangling Relations,* pp. 24–41; and Weber, *Hierarchy amidst Anarchy,* p. 4.

own actions—including the right to interpret the terms of agreements into which they may enter. This is the ideal of Westphalian sovereignty, again, but limited to the area of security policy and, in extant theory, commonly understood to constitute nearly all security relationships. At the other extreme, one state cedes complete authority to another over its security policy. Such extreme authority relationships, however, seldom exist. Following tradition, I use the term "protectorate" for security hierarchies in which a dominant state exercises authority over many (but not necessarily all) of the subordinate state's possible security policies. In addition to numerous examples in the nineteenth century, including Great Britain's relationships with monarchies in the Persian Gulf and South Asia, the Federated States of Micronesia and Republic of the Marshall Islands today are close to full protectorates of the United States. Following World War II, the Federal Republic of Germany was also a protectorate of the United States, but it has been steadily asserting a more independent security policy since the end of the occupation in 1954.[33] Between these ideal types lie a range of security relationships of increasing hierarchy.

Economic relationships between polities vary from market exchange, at the anarchic end of the continuum, to dependency, at the hierarchic end (the vertical axis in Figure 1).[34] Under market exchange, in a manner similar to diplomacy, parties choose to trade, invest, or otherwise engage in economic interactions while retaining full authority over their actions. Like diplomacy, market exchange approximates the ideal of Westphalian sovereignty. Examples include contemporary U.S. economic relationships with many states in Africa. At the opposite end of the continuum, one polity cedes complete authority over all of its economic policies to another polity. Again, such extreme cases are rare, and I use the term "dependency" to cover a range of relationships with near but not necessarily total transfers of authority over economic policy. Relations between the United States and Nicaragua in the early decades of the twentieth century came close to full dependency, in that the former controlled all customs revenues—the primary form of government financing—in the latter. "Dollarization," in which the subordinate adopts the dominant country's currency as its own and imports its monetary policy, also creates a dependency relationship. The most prominent cases of fully dollarized econo-

33. Lake, *Entangling Relations,* pp. 176–180.
34. Kathleen J. Hancock, "Surrendering Sovereignty: Hierarchy in the International System and the Former Soviet Union," Ph.D. dissertation, University of California, San Diego, 2001, was the first to develop such a continuum of economic hierarchy in these terms. For a more complete discussion, see David A. Lake, "The New Sovereignty in International Relations," *International Studies Review,* Vol. 5, No. 3 (September 2003), pp. 303–323.

mies today are Ecuador and Panama, which rely exclusively on the U.S. dollar as their legal tender. As with security relationships, there is a range of intermediate forms.

When both security and economic hierarchies exist between two polities, the relationship becomes what is commonly known as either an informal empire or, at an extreme, empire (see Figure 1). Informal empire combines moderate levels of both security and economic hierarchy, with the subordinate polity ceding substantial but not all authority to a dominant state in both arenas. Relationships between the United States and the countries of Latin America, especially the states in or bordering on the Caribbean, often take the form of informal empire. The Soviet Union's domination of Eastern Europe during the Cold War is a second example. Empire unites high levels of security and economic hierarchy, with the subordinate polity retaining little or no independent authority over either policy area. The classic cases, of course, were the European overseas empires. The Soviet empire was revealed clearly only when internal instability in 1991 allowed the constituent republics to break free and form independent states—many of which remain in at least partly hierarchical relationships with Moscow.[35] Despite the frequent references to a new American empire after 2003 and the start of the Iraq War, few U.S. relationships today approximate this extreme—found, perhaps, only in the United States' rule over Afghanistan and Iraq prior to the creation of new "sovereign" governments.

operationalizing hierarchy

Identifying and, even more so, measuring patterns of authority are extremely difficult tasks. The core problem is that obligation, central to the difference between authority and other forms of power, is inherently unobservable, even in domestic political systems typically regarded as hierarchic. In international relations, where hierarchy has long been neglected, problems of identifying and measuring authority loom particularly large. Yet, to assess the importance and effects of international hierarchy requires some systematic cross-national indicators. This is, to my knowledge, the first attempt to provide such measures.[36]

All theoretical constructs are measured only indirectly, akin to seeing shad-

35. Hancock, *Delegated Sovereignty and Economic Integration;* and Karen Dawisha and Bruce Parrott, eds., *The End of Empire? The Transformation of the USSR in Comparative Perspective* (Armonk, N.Y.: M.E. Sharpe, 1997).

36. Hancock, "Surrendering Sovereignty," originally developed many of the measures used here, but was limited to Russia and the post-Soviet states. I am deeply indebted to this work. See also Hancock, *Delegated Sovereignty and Economic Integration.*

ows cast on a wall rather than objects themselves. The unobservable nature of authority does not separate this concept from others. Even the concept of "power" or coercive capability in international relations, central to the field, is captured only by proxy through such measures as population, military personnel, GDP, major power status, or the CINC score from the Correlates of War National Material Capabilities data set. Indicators are never direct measures, only more or less valid reflections of the underlying theoretical constructs.

Equally difficult is developing measures that discriminate between hierarchy, defined as variations in authority, and coercive capabilities, the next most closely related form of power. To test for the effects of hierarchy on state behavior, such measures must capture the construct of authority but not correlate highly with the indicators of material capabilities normally associated with coercive capability; that is, the indicators should converge on the construct of hierarchy and discriminate between authority and coercion. The measures here, as a result, aim to capture the legitimacy of the unequal relationships between states, not just differential capabilities in coercion.

All measures are compiled for the United States and all other countries for which data are available from 1950 to 2000. Similar data are not available for other potentially dominant states, limiting analysis here for practical purposes to patterns of U.S. hierarchy in the world system.

Security hierarchy is measured by two indicators. The first is the deployment of military forces from the dominant country, the United States, on the territory of each subordinate state. Military troops enable a dominant state to influence the security policies of its subordinate. The dominant country can embroil the subordinate in foreign conflicts if it chooses; by launching attacks from the subordinate's territory, for instance, the dominant state automatically implicates the other in the conflict and makes it a target for retaliation by its antagonist, as in the case of the United States and Saudi Arabia in the 1990–91 Gulf War. In turn, the presence of military personnel enables the dominant state to restrain possible foreign policy initiatives of the subordinate. U.S. forces in both Germany and Japan after 1945, for example, not only protected those countries against a possible Soviet invasion but also served to reassure their neighbors against the revival of militarism. Thus, military personnel give a dominant state positive and negative control over a subordinate's security policy. The larger the deployment of forces in the subordinate, the more control the dominant state is likely to exert. To the extent that the subordinate accepts the dominant state's personnel, this control can be regarded as legitimate and, therefore, authoritative.

Overseas troop deployments by the United States are reported annually by

the Department of Defense. In the measures of hierarchy used here, these deployments are divided by national population, to adjust for differences in country size. The indicator is then normalized to one by its highest value in 1995 to make the measure comparable both over time and with the others explained below. The average level of U.S. troop deployments relative to population has been falling each decade since the 1950s.

The second indicator of security hierarchy is the number of independent alliances possessed by the subordinate state. Two states may share many alliances, indicating only that they are embedded in a common security system. Such shared alliances may contain within them a security hierarchy, but this cannot be discerned simply by observing the pattern of relationships. If the dominant and subordinate states possess an alliance but also enter into alliances with other states that are not shared—what I refer to here as "independent alliances"—this is prima facie evidence of foreign policy autonomy. Neither is then obviously dependent on the aid of the other. Most important, the potentially subordinate member has an "outside option" that reduces the dominant state's ability to exercise control. Alternatively, if all of a subordinate's alliances are shared with the dominant state, this may indicate a security hierarchy. The subordinate is then dependent on the dominant state or that state's other allies for assistance. The larger the number of such independent alliances possessed by the subordinate, the less hierarchical the security relationship is likely to be.

The index of independent alliances is defined as one divided by the number of alliance partners of the subordinate that are not also alliance partners of the dominant state. Higher values represent fewer independent alliances and, by implication, greater hierarchy. In cases where the two states are not themselves allied, the number of independent alliances is treated as zero (no security hierarchy). A striking fact is that in the contemporary era, alliance patterns are strictly exclusive; if a state is allied with one great power, it possesses no other alliances outside the web of alliances held by that great power.[37]

The number of independent alliances is an even more indirect measure of hierarchy than is military personnel. Accepting foreign troops is a conscious policy decision and implies at least tacit acceptance by the subordinate of the dominant country's authority. By contrast, the absence of independent alliances need not imply that the state is complicit in its own subordination. A

37. The exceptions are NATO, which though an exclusive network has three great power members, and Canada, which hosts British troops and is connected to Britain through NATO but is also connected to a distinct set of alliances through the United States.

subordinate may have many reasons why it does not form alliances with countries other than the dominant state, including the absence of significant external security threats. Yet, to be allied with the dominant state and its other allies but not other states creates a dependence of which the subordinate is surely aware. That the subordinate chooses not to alter this situation implies that it regards the dominant state's influence as legitimate and, like military personnel, authoritative. This suggests that smaller numbers of independent alliances are, on average, associated with increasing security hierarchy.

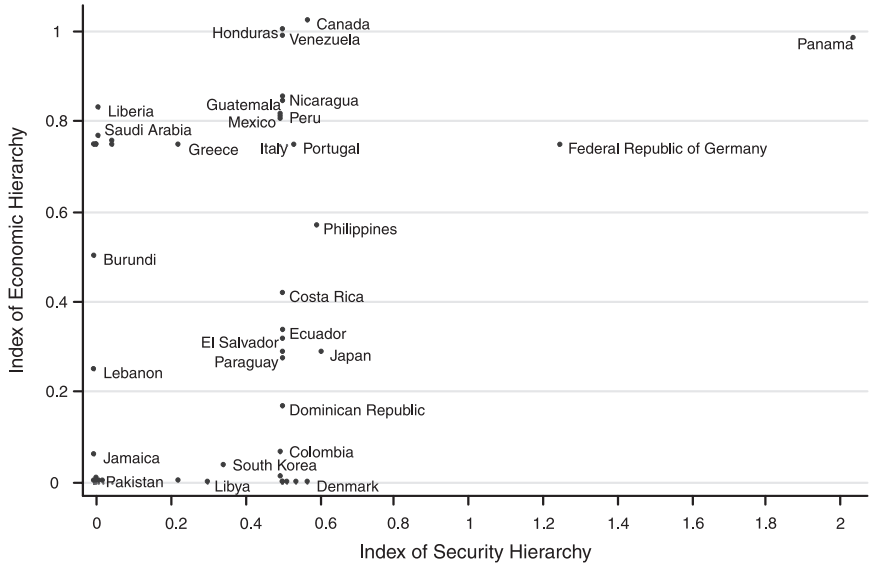
I combine these two measures into an aggregate indicator of U.S. security hierarchy, constructed as the sum of the military personnel and independent alliance indices and itself normalized to one for the highest value in 1995. Given the correlation between the indicators, this facilitates statistical testing (see below). The aggregate index also appears to have better predictive validity, suggesting that it is somewhat more "accurate" than the individual components.

These measures of security hierarchy possess some degree of substantive plausibility or face validity. Mirroring Figure 1, countries are arrayed along both dimensions of international hierarchy in Figure 2 for 1965 and Figure 3 for 1995. The aggregate index of security hierarchy is arrayed along the horizontal axis. Panama is the most subordinate country in 1995, creating the baseline of one against which other countries are arrayed.[38] Other countries fall into an intuitive pattern, with nearly all Latin American and European states reflecting a degree of security hierarchy in their absence of any independent alliances. Those states commonly regarded as U.S. "clients," such as the Philippines, or "supporters," such as Japan, generally take on higher values. Other states highly subordinate to the United States in security include South Vietnam (1966–70), South Korea (1951–53), and the Federal Republic of Germany (1955–89). As can be seen by comparing Figures 2 and 3, levels of security hierarchy change over time.

Economic hierarchy is similarly captured by two indicators. First, economic hierarchy varies inversely with a country's monetary policy autonomy, which is determined, in turn, by its exchange rate regime.[39] Key to any economy's prices and monetary stability is how the price of its national currency is set relative to other currencies. There are three basic types of currency regimes. At

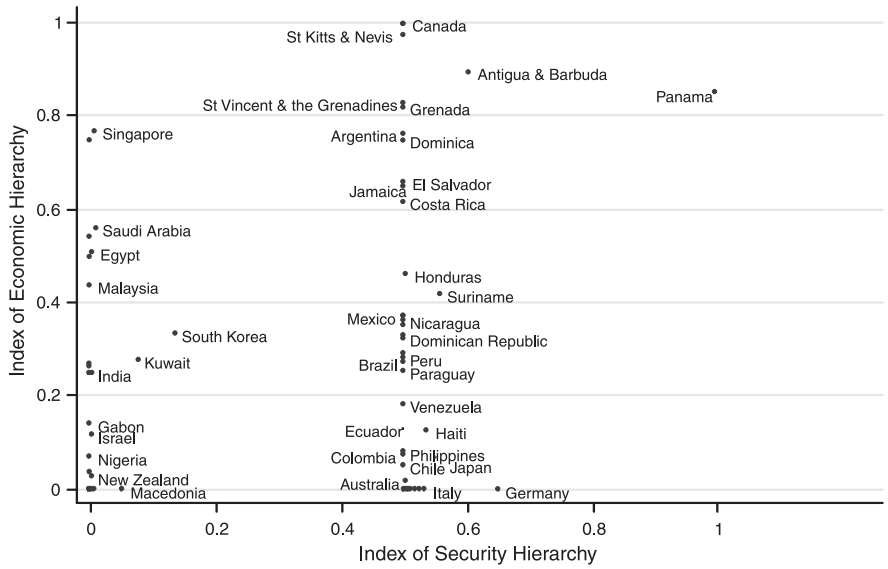
38. With no military forces of its own, a significant deployment of approximately 2,000 U.S. soldiers, and a small national population, Iceland would be the most subordinate country by this measure (but comparable to South Vietnam in 1968). Data for Iceland, however, are spotty and it drops out of most statistical analyses. For this reason, I calibrate the measure to Panama in 1995.
39. On exchange rate regimes as hierarchies, see Benjamin J. Cohen, *The Geography of Money* (Ithaca, N.Y.: Cornell University Press, 1998), especially chap. 5.

Figure 2. Economic and Security Hierarchy, 1965



NOTE: Each dot in Figures 2 and 3 represents a different country. Due to space constraints, not every country is labeled.

Figure 3. Economic and Security Hierarchy, 1995



one extreme, a country can allow its currency to float against other currencies, with its exchange rate being determined (more or less) by financial markets. Under floating exchange rates, domestic monetary policy is freed from concerns about the current account balance and, thus, implies no economic hierarchy. Second, a country can fix its exchange rate to a single foreign or "anchor" currency, most commonly the dollar or now the euro. By fixing its exchange rate to an anchor currency, the subordinate state indirectly imports or adopts the monetary policy of the dominant country. Third, a country can adopt the currency of a foreign state as its own, a process known as dollarization. Even though small amounts of the national currency may remain in circulation, the country uses the foreign country's currency as its primary legal tender. Without variable foreign reserves to cushion the impact of external shocks, however, the country directly imports the dominant country's monetary policy. At each step here, the tie between the country's currency and its anchor currency becomes tighter and more costly to break, giving the dominant country more control over the subordinate country's monetary policy. The decision to adopt another country's currency as one's own has enormous symbolic significance, similar to adopting another country's flag.[40] Debates over fixed exchange rates and, especially, dollarization typically focus on issues of economic independence and foreign control. To either fix its exchange rate or dollarize is to consciously acknowledge that the country is subordinating itself, at least in part, to the decisions of another. Because exchange rate regimes are typically chosen with only minimal pressure from the dominant state, but are nonetheless constraining, the control acquired by that state must have at least some measure of legitimacy.

Exchange rate regimes have been studied in some detail and coded in standardized form.[41] I first code a four-point scale ranging from various floating exchange rate mechanisms, to a crawling peg tied to the dollar (a mixed system between floating and fixed rates), an exchange rate fixed to the dollar, and finally a "merged" currency in the form of either a currency board or dollar-

40. Ibid., pp. 119–122.

41. Carmen M. Reinhart and Kenneth S. Rogoff, "The Modern History of Exchange Rate Arrangements: A Reinterpretation," *Quarterly Journal of Economics*, Vol. 119, No. 1 (February 2004), pp. 1–48, differentiate between the formal or announced exchange rate regime reported by the IMF and the de facto exchange rate regime actually followed by countries, which is preferred because it is closer to the relational conception of authority used here. Christopher M. Meissner and Nienke Oomes extend Reinhart and Rogoff's data to identify the "anchor" currency (if any), or the currency to which another fixes its currency. Meissner and Oomes, "Why Do Countries Peg the Way They Peg? The Determinants of Anchor Currency Choice," paper presented at the Political Economy of Finance conference, University of California, San Diego, La Jolla, California, February 2004.

ization. This scale is then normalized to one for the highest value in 1995. Overall, the role of the dollar, and thus U.S. monetary hierarchy, slipped over the 1970s and 1980s as more countries adopted floating exchange rates after the collapse of the Bretton Woods monetary system. Monetary hierarchy rebounded in the 1990s, however, as more countries outside of Europe either returned to an exchange rate fixed to the dollar or adopted the dollar as their primary currency.

The second indicator of economic hierarchy is relative trade dependence. Trade has long been understood to create the potential for political influence.[42] The key insight here parallels that on independent alliances in security hierarchies. If a state has many trading partners, it is likely to have greater political autonomy; and any attempt to manipulate trade for political purposes will be ineffective. If a country is highly trade dependent on another, however, it is vulnerable to the influence of that state. Relative trade dependence is measured as each country's total trade with the United States divided by its own GDP, minus similar ratios for the other permanent members of the United Nations Security Council (China, France, Great Britain, and Russia). The index is truncated at zero (no hierarchy) and normalized to one for the highest value in 1995. The average level of relative trade dependence has fluctuated over time, reaching highs in the 1980s and 1990s as the U.S. economy led the world into a new era of globalization.

Countries trade for many reasons. In most cases, governments only indirectly influence the dyadic pattern of trade as firms and entrepreneurs make the microlevel decisions on imports and exports that aggregate into trade dependence. Unlike military personnel and exchange rate regimes, and more like independent alliances, trade patterns may well arise without explicit government decisions being made. Nonetheless, the failure of governments over the long term to diversify their trading partners indicates a tacit acceptance of the dominant state's potential influence and therefore its legitimacy and authority.

As with the security measures, an aggregate measure of economic hierarchy is formed by summing the exchange rate and relative trade dependence indices and, again, normalizing the value to one in 1995. According to the aggregate index, Canada is the country most economically subordinate to the United States in 1995, with a high level of relative trade dependence and a cur-

42. Albert O. Hirschman, *National Power and the Structure of Foreign Trade* (Berkeley: University of California Press, 1980); Robert O. Keohane and Joseph S. Nye Jr., *Power and Interdependence: World Politics in Transition* (Boston: Little, Brown, 1977); and David A. Baldwin, *Economic Statecraft* (Princeton, N.J.: Princeton University Press, 1985).

rency fixed to the dollar. This aggregate measure of economic hierarchy is displayed along the vertical axis of Figure 2 for 1965 and Figure 3 for 1995. Again, providing a measure of face validity, countries fall mostly into intuitive categories, with many states in Central America and widely regarded clients of the United States such as Saudi Arabia taking relatively high values.

These measures of security and economic hierarchy are intended to capture not purely coercive relations between states but, rather, the authority, obligation, and legitimate coercion that are central to hierarchical relationships.[43] The four indicators reflect the more or less discretionary nature of the ties between dominant and subordinate states, and thus at least the passive acquiescence if not the active embrace by subordinates of the dominant state's authority. As Waltz argues, the distribution of capabilities is beyond the ability of any one country to change, and it is these inequalities in capabilities that allow one state to coerce another.[44] The measures here, conversely, imply a degree of voluntarism and, unlike the distribution of capabilities, an ability to alter outcomes unilaterally. As noted, states consent more or less to the authority of dominant states when they accept foreign troops on their soil or fix their exchange rates. Likewise, states are indirectly signaling their consent when they fail to make efforts to diversify their alliances or trading partners. Without detailed, case-specific information, knowing whether subordinate states and their populations accept these hierarchical relationships as legitimate is impossible. But the discretion in these policies and their enduring nature clearly separate these measures analytically from those intended to capture more purely coercive relationships between states.

As noted, all theoretical constructs are inherently unobservable, and all measures are imperfect. In addition to their substantive plausibility or face validity, the indicators are further validated if the several measures of each dimension of hierarchy correlate relatively highly (convergent validity) and each set fails to correlate highly with the next most closely related analytic construct (discriminant validity), which I have suggested above is coercive capabilities or "power" as it is traditionally conceived in international relations theory.[45]

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43. These measures of security and economic hierarchy are clearly tailored to the modern international system. Although I believe that they may be generalizable and appropriate for other historical periods—the British Empire rested as well on overseas troops, the special role of the pound, and trade dependence—they likely reflect a contemporary conception of international authority and hierarchy. Premodern hierarchies most likely rested on other sources and markers of authority. Future hierarchies may well take different forms and manifest themselves in different ways. The indicators are not intended to be universally valid.

44. Waltz, *Theory of International Politics,* pp. 97–99.

45. William M.K. Trochim, *The Research Methods Knowledge Base,* 2d ed. (Cincinnati, Ohio: atomicdogpublishing.com, 2001), pp. 71–73.

Table 1 presents correlations between the measures of security hierarchy, economic hierarchy, and coercive capabilities for 1995 only. The correlations for other years are very similar.

The coercive capabilities of a state are traditionally measured by material resources, especially by population, number of military personnel, GDP, major power status, and overall CINC score. As expected, and as a baseline for further comparison, the various indicators of coercive capabilities all correlate highly with one another at 0.59. Although not perfectly congruent, this correlation implies that these widely used indicators are all capturing the same underlying construct of coercive capabilities. Likewise, the indicators of security hierarchy are closely related with one another, averaging 0.56 in 1995, as are the indicators of economic hierarchy, averaging 0.53. Like the indicators of coercive capabilities, the measures of security and economic hierarchy possess relatively strong convergent validity.[46]

Perhaps more important, neither security nor economic hierarchy is closely related to measures of coercive capability. The correlations between the measures of security hierarchy and coercive capabilities are quite low, averaging only 0.07 in 1995. Surprisingly, security hierarchy is sometimes positively related to the measures of coercive capability, especially GDP and CINC. This positive relationship implies that the countries normally considered to be among the most capable of exerting coercion in international politics are also likely to be among those most subordinate to the United States in security affairs. Indicators of economic hierarchy and coercive capabilities are virtually unrelated to one another, averaging −0.02 in 1995. Thus, the hierarchy indicators possess not only convergent validity but also strong discriminant validity. This fact does not necessarily "prove" that these indicators are capturing the inherently unobservable construct of hierarchy, but it does show that these measures are capturing something distinct from traditional measures of "power" in international relations.

An Exchange That Matters: Hierarchy and Defense Effort

In contrast to extant theories of international relations, which expect all states to respond to a similar logic of anarchy, the arguments developed above imply

46. One possible objection is that the average correlations are inflated by including both the component measures and the aggregate measures of security and economic hierarchy. CINC, however, is also an aggregate indicator composed of measures of energy consumption, iron and steel production (both highly correlated with real GDP), military expenditures, military personnel, total population, and urban population. Not surprisingly, the highest correlations between the various measures of coercive capacity are those between CINC and its components.

Table 1. Convergent and Discriminant Validity: Correlations between Indicators of Security Hierarchy, Economic Hierarchy, and Coercive Capabilities, 1995 (n = 135)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Index of military personnel	1.0										
2. Index of independent alliances	**0.20**	1.0									
3. Index of security hierarchy	**0.58**	**0.91**	1.0								
4. Index of exchange rate regime	0.05	0.24	0.22	1.0							
5. Index of relative trade dependence	0.00	0.39	0.32	***0.15***	1.0						
6. Index of economic hierarchy	0.04	0.37	0.32	***0.91***	***0.54***	1.0					
7. Population	−0.02	−0.02	−0.03	*0.03*	*−0.03*	*0.01*	1.0				
8. Real GDP (1996 dollars)	0.03	0.24	0.21	*−0.04*	*0.06*	*−0.01*	*0.59*	1.0			
9. Major power (dummy)	0.09	0.18	0.18	*−0.07*	*−0.01*	*−0.06*	*0.11*	*0.72*	1.0		
10. Number of military personnel	−0.01	−0.03	−0.03	*0.03*	*−0.08*	*−0.06*	*0.71*	*0.57*	*0.14*	1.0	
11. CINC score	0.01	0.13	0.11	*−0.03*	*0.03*	*−0.02*	*0.79*	*0.93*	*0.54*	*0.78*	1.0

Average of security hierarchy indicators (boldface): 0.56
Average of economic hierarchy indicators (boldface italics): 0.53
Average of coercive capabilities indicators (italics): 0.59
Average of security hierarchy and economic hierarchy indicators (regular font): 0.22
Average of security hierarchy and coercive capabilities indicators (regular font underlined): 0.07
Average of economic hierarchy and coercive capabilities indicators (italics underlined): −0.02

that a variety of hierarchical relationships exist and, furthermore, that these relationships will have policy consequences. In a relational approach, authority is understood to rest on an exchange relationship between dominant and subordinate states, in which the former provide a social order in return for compliance and legitimacy from the latter. Protected by a dominant state, it follows that subordinate countries should, all else constant, spend fewer of their own resources on security. This relationship, moreover, will be continuous. The greater the hierarchy, the less effort the subordinate country will expend on its own defense.[47] Lower defense expenditures are one of the benefits that subordinate states receive from giving up a measure of their sovereignty.[48]

Anecdotal evidence supports this hypothesis. Japan, a protectorate of the United States after 1945, enjoyed legendarily low levels of defense effort. Even in the 1990s, Japanese politicians were reluctant to acknowledge that they were breaking a self-imposed cap on defense spending of 1 percent of GDP, and engaged in some creative accounting to maintain the fiction (standard methods

47. Defense effort has attracted relatively little attention in the scholarly literature. For work by economists using this same definition, see Marc Aufrant, "France and Its Allies: A Comparative Study of Defense Spending Trends since 1985," *Defense and Peace Economics,* Vol. 10, No. 1 (February 1999), pp. 79–102; Ron Smith, "The Demand for Military Expenditure," in Keith Hartley and Todd Sandler, eds., *Handbook of Defense Economics* (New York: Elsevier, 1995), pp. 69–88; and Keith Hartley and Todd Sandler, "NATO Burden-Sharing: Past and Future," *Journal of Peace Research,* Vol. 36, No. 6 (November 1999), pp. 665–680. For related literatures that focus on burden sharing in alliances, see John R. Oneal and Hugh Carter Whatley, "The Effect of Alliance Membership on National Defense Burdens, 1953–88: A Test of Mancur Olson's Theory of Collective Action," *International Interactions,* Vol. 22, No. 2 (1996), pp. 105–122. In an extension of the democracy and victory literature, political scientists have begun to look at defense effort and regime type. See Benjamin O. Fordham and Thomas C. Walker, "Kantian Liberalism, Regime Type, and Military Resource Allocation: Do Democracies Spend Less?" *International Studies Quarterly,* Vol. 49, No. 1 (March 2005), pp. 141–157; Benjamin E. Goldsmith, "Bearing the Defense Burden, 1886–1989: Why Spend More?" *Journal of Conflict Resolution,* Vol. 47, No. 5 (October 2003), pp. 551–573; and Benjamin E. Goldsmith, "Defense Effort and Institutional Theories of Democratic Peace and Victory: Why Try Harder?" National University of Singapore, Singapore, 2004. This hypothesis is similar to that in Michael F. Altfeld, "The Decision to Ally: A Theory and Test," *Western Political Quarterly,* Vol. 37, No. 4 (December 1984), pp. 523–544; James D. Morrow, "Alliances and Asymmetry: An Alternative to the Capability Aggregation Model of Alliances," *American Journal of Political Science,* Vol. 35, No. 4 (November 1991), pp. 904–933; and James D. Morrow, "Arms versus Allies: Trade-Offs in the Search for Security," *International Organization,* Vol. 47, No. 2 (Spring 1993), pp. 207–233. These works, however, limit the range of variation in external ties to alliances, which are a relatively anarchic type of security relationship in which states give up comparatively little sovereignty for little protection. Morrow, "Alliances and Asymmetry," also adopts a different definition of autonomy as the ability to alter the status quo. In the approach here, states are simply giving up their ability to set their policies free from external control for greater security, regardless of their preferences over the status quo.

48. For suggestive discussions of other possible benefits, see Michael Mandelbaum, *The Case for Goliath: How America Acts as the World's Government in the 21st Century* (New York: PublicAffairs, 2005); and William E. Odom and Robert Dujarric, *America's Inadvertent Empire* (New Haven, Conn.: Yale University Press, 2004), especially pp. 44–46.

put Japan's defense spending at about 1.4 percent of GDP during this period). By comparison, many West European states, also subordinate to the United States, were spending on average 1.8 percent of GDP on defense, and the United States itself was spending 4.0 percent. In Central America and the Caribbean, which the United States has long dominated, states spend about 26 percent of the global average on their militaries. In South America, in a sphere of influence dominated by the United States, defense spending is also relatively low, averaging only 47 percent of the global average, despite numerous territorial disputes and provocative actions by historic rivals and long periods of military rule. States and regions subordinate to the United States appear to spend significantly less on defense than others.

To test this hypothesis more systematically, I undertook a time-series cross-sectional study of defense spending in all states from 1950 to 2000. Defense effort was operationalized as military expenditures as a share of GDP and then regressed on the indicators of U.S. security and economic hierarchy described above.

In identifying the effects of hierarchy on defense effort, it would be naive to assume that hierarchy is entirely exogenous. If states intentionally choose one or another type of relationship with the United States, it is important to control for the possible determinants of this decision in order to estimate accurately the effect of hierarchy on defense effort. This article does not present a fully developed theory of the formation of hierarchy.[49] Prior theory and an eclectic set of auxiliary arguments suggest three sets of control variables.

First, countries that are more threatened by others are more likely to subordinate themselves to the will of a dominant state in exchange for protection and, thus, are more likely to enter hierarchical relationships. The countries that are most threatened, in other words, are most likely to be willing to yield the sovereignty that subordination entails and, all else constant, to carry a higher than normal defense burden. To identify the effect of hierarchy, therefore, I controlled for foreign threats and measured them in two ways. I created a dummy variable indicating whether the country was involved in a militarized interstate dispute (MID), as defined by the Correlates of War MID data set. Involvement in a MID indicates the presence of issues between the country and others with a strong potential to escalate to violence. Somewhat more indirectly, I also counted the number of allies other than the United States possessed by the country. This measure is conceptually different from the number

49. See Lake, *Entangling Relations*, chap. 2.

of alliances that are independent from the United States, one of the component indicators of security hierarchy. A large number of allies—whether or not they are independent of the United States—suggests a strong need for assistance, which would follow from a perception of external threat.[50]

Second, richer countries possess smaller opportunity costs in defense spending. They may therefore be less willing to trade autonomy for external protection and less likely to enter hierarchical relationships. If security is a normal good whose consumption increases with income, this implies that richer countries will both spend more on defense and enter fewer hierarchies. GDP per capita is entered as a control.

Third, to the extent that democracies are more likely to "flock together," they may be more willing to enter into hierarchical relationships with the United States.[51] If democracies are also more efficacious in their use of military force, they may bear a smaller defense burden, on average.[52] To separate the effects of hierarchy on defense effort from that of democracy, I included as another control the level of democracy, measured by the Polity2 scale from the Polity IV data set.

The results are presented in Table 2.[53] Security hierarchy is, as predicted, consistently negative and statistically significant. Countries that are subordinate to the United States on the security dimension do spend proportionately less of their national income on defense. The substantive impact of security hierarchy is substantial. Within the sample of countries used in this estimate, the average country spends approximately 2.57 percent of its GDP on defense each year (standard deviation = 4.74 percent; maximum value = 106 percent for

50. The correlation between the number of independent alliances and total alliances is a relatively high 0.78 (for 1995), potentially introducing problems of multicolinearity. Nonetheless, both variables are consistently significant in the regressions below. Dropping "number of other allies" from model 3 in Table 2 does not change the sign or significance level of the index for independent alliances.

51. Randolph M. Siverson and Juliann Emmons, "Birds of a Feather: Democratic Political Systems and Alliance Choices in the Twentieth Century," *Journal of Conflict Resolution,* Vol. 35, No. 2 (June 1991), pp. 285–306.

52. David A. Lake, "Power Pacifists: Democratic States and War," *American Political Science Review,* Vol. 86, No. 1 (March 1992), pp. 24–37; and Dan Reiter and Allan C. Stam, *Democracies at War* (Princeton, N.J.: Princeton University Press, 2002).

53. There is no consensus on the appropriate model for time-series cross-section data. This is especially true when serial correlation is a significant problem, as it is in this study even after including a lagged dependent variable. Given this lack of consensus, the model is estimated in two ways in STATA (version 8.0). Models 1, 3, and 4 are estimated with panel corrected standard errors (xtpcse). See Nathaniel Beck and Jonathan N. Katz, "What to Do (and Not to Do) with Time-Series Cross-Section Data," *American Political Science Review,* Vol. 89, No. 3 (September 1995), pp. 634–664. Model 2 is estimated with country fixed effects (using xtregar). With the exception of two control variables, the results are robust to these alternative specifications.

Table 2. Defense Effort and Security and Economic Hierarchy, 1950–2000
Time-Series Cross-Sectional Regression (with correction for first-order autoregression [AR1] and panel corrected standard errors [PCSE] or country fixed effects. All independent variables lagged one year.)

Dependent variable: Defense Expenditures/ GDP	Model 1 (PCSE)	Model 2 (fixed effects)	Model 3 (PCSE)	Model 4 (PSCE)
Index of security hierarchy	−0.0109***	−0.0084**		−0.0110***
	(0.0030)	(0.0034)		(0.0030)
Index of military personnel			−0.0018	
			(0.0027)	
Index of independent alliances			−0.0090***	
			(0.0027)	
Index of economic hierarchy	0.0015	0.0011		0.0015
	(0.0013)	(0.0015)		(0.0012)
Index of exchange rate regime			−0.0000	
			(0.0012)	
Index of relative trade dependence			0.0077	
			(0.0074)	
Lagged defense effort	0.6653***	0.6856***	0.6441***	0.6663***
	(0.0700)	(0.0115)	(0.0728)	(0.0699)
MID involvement (dummy)	0.0033***	0.0015	0.0033***	0.0032***
	(0.0010)	(0.0008)	(0.0010)	(0.0010)
Number of other allies	0.0002**	0.0002*	0.0003**	0.0002***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Real GDP per capita (in 1996 dollars)	6.64e−07*	−9.64e−08	7.24e−07*	6.60e−07*
	(3.28−07)	(1.32e−07)	(3.47e−07)	(3.23e−07)
Democracy (Polity2)	−0.0003*	−0.0002*	−0.0003*	−0.0003*
	(0.0001)	(0.0001)	(0.0001)	(0.0001)
CINC score				0.0154
				(0.0294)
Constant	0.0023	0.0064	−0.0003	0.0028
	(0.0016)	(0.0013)	(0.0017)	(0.0015)
Number of observations	4522	4396	4522	4522
Number of groups	126	125	126	126
R-squared	0.4603	0.4630 (within) 0.9736 (between) 0.6790 (overall)	0.4441	0.4619

*$p \leq 0.05$
**$p \leq 0.01$
***$p \leq 0.001$

Kuwait in 1992). A one-unit increase in security hierarchy alone, equivalent to moving from no hierarchy to the level of Panama in 1995, reduces defense effort by 1.1 percent of GDP, or by about 43 percent of the mean level (based on model 1). A maximal increase in security hierarchy, from zero to the highest level observed in the sample for South Vietnam in 1968, reduces defense expenditures by 5.6 percent of GDP. Model 3 breaks the aggregate indicator into

its component indices. Both the coefficients for the index of military personnel relative to population and the index of independent alliances are negative; but controlling for the effects of the other, only the latter is statistically significant. This suggests that the measure of independent alliances has greater explanatory power.

Economic hierarchy is never statistically significant and indeed carries the wrong sign. Countries that are economically subordinate to the United States do not enjoy lower defense expenditures. This may be because monetary and trade dependence do not create a sufficiently credible commitment by the United States for subordinates to lower their defense efforts on these grounds alone. It may also reflect a reluctance by countries that are economically dependent on the United States to become dependent in security policy as well. Alternatively, the measures may not be adequately capturing the theoretical construct of economic hierarchy. Interestingly, the two component indices reported in model 3 carry opposite signs, implying that, controlling for the other, they are exerting countervailing effects on defense effort within the aggregate indicator. This requires further research and testing.

In all the models, the covariates carry the anticipated sign and are generally statistically significant. Accounting for levels of security and economic hierarchy, greater external threats and wealth lead to higher levels of defense effort, and democracy leads to lower levels of effort.

To check for robustness, I also included controls for possibly confounding factors not predicted by theory. In results not reported here, dummy variables for the Cold War period (1950–91), geographic location in the Middle East, and membership in the Organization of the Petroleum Exporting Countries in the Middle East were all positively related to defense effort and statistically significant. In addition, a dummy variable for membership in the Warsaw Pact,[54] a dummy variable for the presence of an ongoing civil war, and a measure of the similarity of a country's voting record with that of the United States in the United Nations General Assembly were all positive but not significant. None of these additional controls, however, exerted any substantial effect on the size and significance of the security hierarchy measures.

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54. Given the availability of data on hierarchy only for the United States, the test here is biased against finding a significant effect of hierarchy on defense effort. It is likely that a number of countries coded as wholly anarchic are, rather, subordinate to some other state. If such states enjoy lower levels of defense effort, as predicted, then identifying the effect of United States hierarchy will be harder. The unmeasured subordination of these other countries creates, in essence, an omitted variables bias that is expected to reduce the magnitude of the estimated effects of United States hierarchy. The most likely alternative set of hierarchical relationships in the period examined here is the Soviet Union's informal empire over much of Eastern Europe, which I attempt to capture by including membership in the Warsaw Pact. This is, of course, a blunt measure.

A final set of tests examines the relationship between hierarchy and defense effort, controlling for alternative indicators of coercive capabilities. Only the results for overall CINC scores are reported here (see model 4), but those for other measures of capabilities are similar. These results demonstrate clearly that, controlling for levels of hierarchy, measures of coercive capability are not systematically related to defense effort.[55] Countries with larger CINC scores do not spend significantly more or less on defense as a share of GDP than others, nor do major powers or countries with larger economies, as measured by GDP. More populous countries do expend significantly less defense effort, while states with larger numbers of personnel in the military spend significantly more. Interestingly, these results contradict expectations of collective action theory, which predicts that smaller states will free ride on the efforts of larger states, which should (but apparently do not) bear a disproportionately large share of the collective defense burden.[56]

Most important, controlling for coercive capabilities does not significantly alter the effect of security hierarchy on defense effort. As seen in Table 1, there is a small but positive correlation between GDP and CINC scores, on the one hand, and the measures of security hierarchy, on the other. Yet, controlling for coercive capabilities does not change the central effect of security hierarchy on defense effort. The coefficients on the index of security hierarchy in models 1 and 4 are nearly identical, demonstrating that the effect of security hierarchy is not spurious or produced by some process related to overall international "power" as traditionally conceived.

These results generally support the hypothesis that hierarchy leads to lower levels of defense effort. Countries subordinate to the United States in security affairs enjoy lower defense expenditures as a proportion of national income. Economic hierarchy, though, appears not to produce lower defense effort. Why this is so requires further investigation. Overall, the strong effect of security hierarchy implies that states do not rely on self-help or balance against their dominant protectors. Rather, they trade subordination for protection, or at least take advantage of their subordination to lower their military burdens and

55. This model is, admittedly, not designed as a test of coercive capability on defense effort. Most important, the covariates for coercive capability are not likely to be the same as for security and economic hierarchy. Before concluding that coercive capabilities have no effect on defense effort, one would want to identify and control for those variables that correlate with both coercive capabilities and defense effort.

56. Mancur Olson and Richard Zeckhauser, "An Economic Theory of Alliances," *Review of Economics and Statistics*, Vol. 48, No. 3 (August 1966), pp. 266–279; Hartley and Sandler, "NATO Burden-Sharing"; and James C. Murdoch and Todd Sandler, "A Theoretical and Empirical Study of NATO," *Journal of Conflict Resolution*, Vol. 26, No. 2 (June 1982), pp. 237–263.

place responsibility for their defense on the dominant state. States do not give up their sovereignty lightly, of course, but the material benefits of subordination can be substantial.

Conclusion

To accept that hierarchy exists within the international system is not to negate everything known about world politics. As the empirical analysis suggests, states may still respond to and adjust their defense efforts to the threats they confront. Great powers may still engage in realpolitik in their more anarchic relations with each other. But uncovering the international hierarchies now ignored by international relations theory reveals an alternate, more complex, and less than unique political world that, as the empirical results demonstrate, affects national behavior whether scholars choose to acknowledge it or not.

Reintegrating hierarchy into theories of international relations will prompt significant changes in the collective research agenda of scholars. A next step should be to document other behavioral implications of international hierarchy. Defense effort is one key policy, of course, central to realist and other security-oriented theories of international relations. Further theorizing and empirical analyses may suggest, for instance, that hierarchy produces higher rates of economic growth, as well as longer tenures for leaders. Hierarchy is also likely to affect the policies and behavior of dominant states. Future research should focus on if and how dominant states produce social order for their subordinates, how they discipline subordinates that defect from the rules of that social order, and how they credibly commit not to abuse the authority conferred on them by subordinates. Finally, to the extent that hierarchy exerts important effects on state behavior, future research will need to consider how the number and extent of international hierarchies affect the nature and dynamics of the international system as a whole.

More generally, anarchy has long been understood as the distinguishing feature of international relations. Even though in recent years scholars have challenged the separation of domestic and international politics, anarchy has remained central to the latter.[57] Hierarchy in international relations further erodes the supposed differences between domestic and international politics.

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57. David A. Lake and Robert Powell, eds., *Strategic Choice and International Relations* (Princeton, N.J.: Princeton University Press, 1999); and Helen V. Milner, "The Assumption of Anarchy in International Relations: A Critique," *Review of International Studies*, Vol. 17, No. 1 (March 1991), pp. 67–85.

Just as scholars now accept that anarchic, self-governing institutions such as the United States Congress exist in the domestic arena, so may hierarchic, authoritative relationships such as that between the United States and Germany or Japan exist in the international realm. Rather than separating analysis into autonomous spheres, our understanding would be better served by arraying different sets of political institutions, issue areas, and historical periods along continua of more or less political hierarchy.

A focus on hierarchy also raises a host of new questions for international relations research. If it does not arise from formal-legal institutions, where does authority "come from"? What makes a state's command authoritative in one context, but purely coercive in another? Both the dominant state's ability to provide a beneficial social order to its subordinates and the prevailing ideas and norms on appropriate action are likely to matter, but in different times, places, and ways.[58] This article has sought to open up a role for authority in international relations theory without prejudging its ultimate sources. But to the extent that hierarchy matters in international relations, it prompts new attention to the origins and nature of legitimate action between states.

Finally, a focus on hierarchy promises new insights into current international politics and, especially, the role of the United States in the world today. That the United States dominates the global system like none before is often repeated but little understood. Analysts talk of various forms of soft power believed to enhance the ability of the United States to accomplish its aims.[59] Some even speak of the international legitimacy enjoyed (or not) by the United States, even though this trait can have but small import in the realist theories that often inform these analyses.[60] Few recognize or acknowledge the authority self-consciously constructed and exercised by the United States, first, over Latin America in the early twentieth century, then over its Western allies during the Cold War, and now over broad areas of the globe.[61]

Today the world is witnessing a backlash against the authority of the United

58. See Ian Hurd, "Legitimacy and Authority in International Relations," *International Organization,* Vol. 53, No. 2 (Spring 1999), pp. 379–408; and Mlada Bukovansky, *Legitimacy and Power Politics: The American and French Revolutions in International Political Culture* (Princeton, N.J.: Princeton University Press, 2002).
59. Joseph S. Nye Jr., *The Paradox of American Power: Why the World's Only Superpower Can't Go It Alone* (New York: Oxford University Press, 2002).
60. See Stephen M. Walt, *Taming American Power: The Global Response to U.S. Primacy* (New York: W.W. Norton, 2005), pp. 229–232.
61. An important exception is G. John Ikenberry, *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order after Major Wars* (Princeton, N.J.: Princeton University Press, 2001). See also Robert W. Tucker and David C. Hendrickson, "The Sources of American Legitimacy," *Foreign Affairs,* Vol. 83, No. 6 (November/December 2004), pp. 18–32.

States. In demanding the right to change the regime in Baghdad, the United States overstepped its authority and was forced to fight the war in Iraq without the legitimacy provided by broad international support. In the Islamic world and beyond, growing numbers resent, challenge, and possibly deny the legitimacy of U.S. actions in the Middle East. Central to a relational conception of authority is the insight that rule rests on the consent of the ruled. If current resentments reach a critical mass, the international authority of the United States might evaporate overnight—much as the authority of the East European governments simply dissolved in the face of mass dissent in 1989. At the same time, the administration of President George W. Bush, seeing the world through Hobbesian lenses, has shifted U.S. foreign policy away from a reliance on authority to one increasingly dependent on coercion, provoking cries of a new imperialism and a debate on a new empire, referenced in the introduction. The hierarchies created and nurtured by the United States over the last century have been a source of order and, in turn, peace and prosperity for both the United States and its subordinate states. Yet, dependent on the legitimacy conferred by subordinates, hierarchy is a fragile relationship, easily abused. We fail to recognize the nature and role of authority in the international system at our peril.