3 How Knowledge Is Acquired and Used

Having discussed the forms that relevant knowledge may assume, and the comparative advantages that academia may have in its production, we ask *how* such knowledge can shape the conduct of foreign policy. Two broad issues will be addressed in this chapter. The first concerns the processes and institutions that govern the relationship between scholarship and policymaking, for this largely determines how the knowledge is used. This relationship is structured around the manner in which knowledge, typically in the form of general propositions, enters the policy process, and the shape it assumes when it does so. The second issue involves four distinct organizational settings within which policy relevant knowledge is generated, the forms of relevant knowledge each is likely to yield, and the relationships between these contexts.

Policy-Relevant Knowledge and the Policymaking Process

The structure of the link between scholarly knowledge and foreign-policymaking can be examined from two perspectives. The first involves the *sequence* (logical or chronological) in which the policy challenge and the knowledge relevant to addressing it enter the policy process. The second is defined by the nature of the *path(s)* by which scholarly knowledge is conveyed to policymakers responsible for meeting the challenge.

The sequence can be of two types. In the first, the policy challenge precedes the quest for relevant understanding, determining what sort of

knowledge is called for. Here, a problem is defined, a gap in the understanding required to deal with it is identified, and knowledge needed to fill the gap is sought from the academic community. In the second, acquired knowledge appears before a policy challenge is acknowledged, and it then proceeds to shape that challenge. In this case, the knowledge helps to characterize the problem as well as to contribute to its solution. Sequence, then, determines the purpose of the relevant scholarship: in the first case, to solve an existing and specific problem; in the second case, to define and characterize the problems that foreign policy must address. Other consequences also follow from sequence, including the form that the knowledge is likely to assume (how specific and focused it tends to be), and how closely it may reflect the values and objectives of the incumbent policymakers.

Paths, in turn, can be direct and singular (e.g., a straight path from scholar to decisionmaker), or else they can be multiple and indirect (operating, for example, via interest groups, or the media). The applicable type of path determines how direct and unmediated an impact the social-scientific knowledge produces, and, by implication, how clearly defined is the link between the two. Not only does awareness of the type of path involved illuminate the connection between scholarship and statesmanship; it also clarifies important but often implicit assumptions about the appropriate way of conceiving of the manner in which national policy decisions are made.

Theoretically, then, four possibilities suggest themselves, but the two underlying dimensions are not independent, since the nature of the path is often determined by the sequence involved (see figure 2).

When an issue on the foreign policy agenda cannot be dealt with effectively because of a gap in the required knowledge base, policymakers may try to remedy the problem by turning to the academic community. Alternatively, and in response to an implicit demand, scholars may seek to fill the knowledge-gap on their own initiative, conveying the fruits of their efforts to decisionmakers as best they can. In either case, the path by which knowledge is led from scholar to statesman is likely to be singular and direct. By contrast, where potentially relevant knowledge precedes the appearance or recognition of a challenge, or its placement on the policy agenda, it is more likely to travel from its source to decisionmakers by multiple and circuitous paths. Consequently, although none of the four cells in figure 2 is necessarily empty, the bulk of social science's contribution to policy is found in the two off-diagonal cells—one describes what we call the *demand-driven* model of policy relevance, while the other describes the *supply-driven* model[1].

		Sequential Priority	
		Issue	***Knowledge***
Paths	***Singular***	Demand-driven model	
	Varied		Supply-driven model

FIGURE 2 Structure of Knowledge-Policy Relation

The Demand-Driven Model

This is the most common model of how policy-relevant knowledge makes its way to decisionmakers. Here, at the time the issue is placed on the general policy agenda, relevant knowledge falls short of what an effective policy requires. Either of several scenarios might then ensue. In one, policymakers explicitly commission studies intended to furnish the missing intellectual links: from individual scholars or, perhaps, from think tanks (e.g., RAND). In another scenario, government officials appoint to positions within the foreign-policymaking establishment academics whose expertise is thought likely to furnish the needed knowledge, once the scholar is placed in the appropriate policymaking setting. Relevant knowledge produced in response to a pre-existing policy challenge may also spring directly from the scholarly community, independently of any explicit governmental effort to acquire it, but in response to an *implied* demand. In fact, it is hard to think of many major U.S. foreign policy challenges during and since the cold war that have not evoked spontaneous scholarly efforts to improve the basis for policy-making.

Thus, policy-relevant knowledge may take the form of scholarly responses to a national need elicited without financial incentives in the form of

government grants, contracts, and so forth, or because of any explicit official attempt to acquire the needed knowledge from the academic community. Since here the quest for knowledge begins when an issue is placed on the policy agenda, the type of knowledge most often sought is instrumental, indicating how policy instruments are linked to desired policy outcomes, including the various influences (control variables) that qualify this link. Once the instrumental knowledge is acquired, it may additionally be thought useful to carry understanding further, by specifying the contextual conditions that stand behind the instrumental relation. For example, it may be pointless to explain how some policy instrument could produce a desired objective if the instrument itself were unavailable, or barely malleable from the policymakers' perspective.

With the demand-driven model, the line connecting knowledge to the decision process generally is straight and singular. Plainly, this is so where government takes the initiative by soliciting scholarly knowledge bearing on issues prominently on the agenda. But even where the knowledge is directed upward in response to academia's self-generated desire to inform policy, the road from scholarly contribution to policymaking structure may lead quite directly from the source of the knowledge, to those within government who monitor knowledge in that area, to those (perhaps the same people) who are responsible for decisions.

The Supply-Driven Model

With the supply-driven model, the sequence in which the relevant knowledge and the policy challenge appears is reversed: the presence of potentially relevant knowledge is logically or temporally antecedent to the placement of a given challenge on the policy agenda. This can occur in three ways. The first begins with a disinterested type of knowledge, while the second and third directly involve applied scholarship.

In the first of the three cases (pure science), potentially relevant knowledge appears before *any* significant challenge to which it is apposite is recognized, within or outside of government. Acting on incentives unrelated to policy concerns, scholars discover law-like propositions about international relations and foreign affairs that, at the time or in the context of their discovery, have no apparent policy applications. Eventually, however, problems or opportunities may develop that are in some way covered by the previously

acquired knowledge. Once the link between knowledge and challenge is recognized, the former may contribute to the latter's solution. For example, game-theoretic models of strategic interaction were developed considerably before they came to be applied to such problems as nuclear deterrence between the superpowers or to crisis management in the Middle East.

The sequential order may be chronological but it may also be of a *logical* nature. This typically occurs when a potentially policy-relevant argument is framed at a high level of abstraction, before specific cases to which it could be applied have been identified. Thus, for example, recent work on the conception of "fair" negotiated solutions to disputes has been tackled at a rather abstract level by Brams and Taylor.[2] Developing criteria of fairness focusing on either *proportionality* or on *envy-free* division (where each party believes it has received the most valuable portion of the goods in dispute), the authors propose what they call the Adjusted Winner (AW) solution as a generalizable resolution that ensures both proportionality and envy-freedom. This is an instance potentially very relevant to scholarship, with wide applications to dispute resolution. In a subsequent piece of research, the authors demonstrated what an AW solution applied to the Camp David Accord might have been—demonstrating how the general principle could be applied in a specific instance.[3]

In the second case, the challenge, while recognized as such within certain segments of society, had not actually been placed on the policy agenda in the sense that, at the time the quest for understanding was undertaken, government had not identified it as an issue engaging its responsibility. This could be because no organized interest had pressed for action; but it could also be because the likelihood of successful action seemed very low, given the inadequate knowledge-base.[4] If the latter, then the attainment of improved understanding, by adumbrating the outlines of a possible solution, could lead the government to assume responsibility for a solution. In this sense, knowledge precedes placement on the agenda, although the existence of an issue had already been recognized. The knowledge is not elicited in response to the policy challenge—it is already available once the challenge is defined as one engaging foreign policy. Recent scholarship on preventive diplomacy illustrates this case.[5]

The third, and final, item on our list of possibilities recognizes that the very realization that a challenge exists may stem from scholarly work. Here, the identification of a challenge results from the discovery of a problem or opportunity (e.g., the shrinking ozone layer, crisis instability in a nuclear

rivalry) that requires policy action once the causal forces behind it (and its likely consequences) are identified. Calls for a policy response could also follow the discovery of a direct causal sequence whereby a recognized condition (e.g., Third World poverty) might produce a politically undesirable outcome (e.g., political or religious radicalism leading, in turn, to intense anti-American sentiment). In a slightly different vein, identification of a previously unexpected problem could result from an empirically supported suggestion to the effect that contemplated policies, while likely to attain their proximate objective, may carry far heavier costs than initially expected, or produce unanticipated secondary consequences. In all of these instances, scholarship encourages the realization that a challenge exists, a realization that may cause its placement on the policy agenda.

Where antecedent knowledge is brought to bear on an emerging challenge, as in the first of our two cases, this is most likely to involve instrumental, and in some cases contextual, knowledge. However, where scholarship contributes to problem identification (the third case), it often does so in the form of contextual understanding (including predictive knowledge), or as knowledge bearing on the consequences of policy. For example, in the late 1970s, predictions that the Soviet Union would soon become a net importer of oil caused U.S. foreign policy to take added steps to discourage Soviet attempts to gain a foothold in the Persian Gulf.[6] If the problems concern the unexpected costs of actual or proposed policies, the relevant knowledge involved would obviously be that which focuses on the consequences of various courses of action. For example, at the time of the 1991 Gulf War, scholars pointed out to government officials that public support for the intervention could not be sustained in the face of any significant number of U.S. casualties and a realization that, in addition to other considerations, may have deterred the Administration from taking the war to Baghdad in an attempt to remove Saddam Hussein from power.[7]

By contrast with the demand-driven model, and with the partial exception of first of our three illustrations, the supply-driven perspective does not imply a straight and singular path from knowledge to policy. Since policymakers, unaware that there is an issue to be addressed, have taken no steps to elicit the relevant understanding, it comes to their attention indirectly, from a variety of sources and in various ways. It may indeed have entered the policy process because decisionmakers, once alerted to the issue, begin casting around for existing and helpful knowledge. But it may also have been brought to their attention through a variety of other channels, including the

media, journals of opinion, interest groups, congressional caucuses, foreign governments, and so forth. Even within this list of possible sources, the knowledge may have been transmitted from one to another as it made its way to decisionmakers' attention, and the path may have been far from straight.

Applicability and Desirability

The supply-and-demand–driven models represent stylized conceptions of a reality more complex than here portrayed. In many cases, the path by which SIR reaches decisionmakers reflects some elements of demand *and* some prior supply of ideas, arguments, or evidence. For example, a governmentally commissioned study may produce an impact upon policy, causing, in turn, a reconfiguration of domestic interests concerned with the policy, encouraging scholars to redefine certain research priorities, discovering in the process a new challenge, and so forth. It is also possible that scholars may be producing knowledge at their own initiative, while policymakers are seeking *additional* academic input within the same area of relevant knowledge. Coexistence and interaction notwithstanding, the two models do point to qualitatively different relationships between knowledge and policymaking, and we may inquire whether either is the dominant, or indeed preferable, relationship between the two.

The demand-driven model is sometimes dismissed as barely applicable to the world of actual democratic policymaking. It implies, in some eyes, a top-down rationalist society, in which decisions are made synoptically, by a unified decisionmaking machinery acting on the basis of a thoughtful consideration of alternatives in a situation of relative value consensus. Consequently, it is said to reveal an inaccurate conception of how knowledge is actually incorporated into policy.[8]

This criticism is overstated: while the demand-driven model does not dominate policymaking, it is a more meaningful part of the process than is often recognized. It may be especially pervasive in the foreign policy realm, where, in contrast to domestic policy, decisionmakers tend to agree on how problems should be defined and have some autonomy from legislative and interest-group pressures. In any event, there is no lack of examples of foreign policy challenges proceeding in search of applicable scholarship, either by consulting directly with knowledgeable scholars, by commissioning needed

studies, or by incorporating scholars with appropriate expertise into the policymaking process.

For example, during the cold war, academia was called upon to provide analyses of Soviet politics and policy, of its capabilities and intentions, to explain to a barely comprehending government the motivations of the Soviet leadership and the roots of the regime,[9] and to help it understand how to avoid the dual pitfalls of superpower conflict and appeasement. Scholarship on Vietnam, and on counterinsurgency warfare, ranging from the work of Paul Mus to that of Ithiel de Sola Pool, was scrutinized as the Kennedy and Johnson Administrations sought a solution to their entanglement in Southeast Asia. Middle-Eastern experts, such as William Quandt and John Waterbury, have been called upon to help formulate effective policies concerning the Arab-Israeli conflict. The work of economists and political economists is consulted for clues on such problems as IMF reform and currency speculation.

Perhaps the most sustained and visible example of governmental reliance on scholarship has involved matters of military doctrine and its relation to foreign policy objectives. Scholars have been asked to explain how armed force could be used for political ends, in a situation where the imperative of nuclear war-avoidance competed with the desire to promote U.S. geopolitical cold war aims. How nuclear weapons could actually be put to political use was an issue that bedeviled many military and civilian policymakers, and the advice of academics was sought—possibly because generals had no more experience than social scientists in this area, and also because military experts were less skilled at the largely theoretical reasoning on which, in the absence of practical experience, nuclear strategy had to rely. Thus, RAND was intially established as a research unit for the Air Force. Scholars such as Bernard Brodie, William Kaufmann, Albert Wohlstetter, Colin Gray, and others, in a consulting capacity to the Department of Defense, made a significant contribution to early doctrines on the uses to which the nuclear arsenal could be put. In fact, much of the nation's declared nuclear doctrine in the early phases of the superpower competition was based on reasoning developed by scholars.[10]

When faced with the dilemma of how conventional force could support policy ends in the context of the balance of nuclear terror, academic advice was again solicited. The work of such political scientists as Henry Kissinger and Robert Osgood came to inform much official thinking in this area. Academic advice has since been sought on many related issues, ranging from

Mutual Assured Destruction, counterforce doctrines, the pursuit of crisis stability, to the implications of ballistic-missile defense systems.

Moreover, and to a greater extent than in most other nations, scholars have been brought directly into government service to help deal with issues on the foreign policy agenda. The list has not been limited to the likes of McGeorge Bundy, Walt Rostow, Henry Kissinger, Zbigniew Brzezinski, or Jeane Kirkpatrick, and others intimately linked to the history of America's postwar diplomacy. The staff of the National Security Council generally counts among its members a significant number of professional scholars, as do the upper reaches of the State and Defense Departments. Thus, in a variety of ways, but within the general confines of the demand-driven model, an enduring link between social science and policymaking has been established.

Its significance notwithstanding, the dominant relation between knowledge and policy may not be reflected in the demand-driven model's assumptions. Most social science does not enter the policy process in response to an identified challenge, or by a singular and direct path, while policymaking can only exceptionally be conceived in terms of a defined decisional unit (perhaps an individual) that makes decisions according to its understanding of the optimal course of action.

Problems usually do not precede the scholarly work that may aid its solution. Because it tends to be rooted in professional incentives that do not include practical applications, scholarly knowledge generally does not take the form of a response to a practical problem. Social scientists usually select their research tasks on the basis of simple intellectual curiosity, a sense of what is most challenging, disciplinary agendas, career calculations, and a variety of idiosyncratic circumstances. Typically, these choices have little to do with the policy consequences their findings may produce. A substantial portion of the knowledge social scientists generate may eventually find policy applications, but most often that is not the initial purpose. Accordingly, much of what scholarship has offered policymakers by way of improved understanding of the challenges they face has not been in explicit response to an issue on the government's agenda regarding which the counsel of social scientists has been sought. For example, much academic thinking on the viability of the Soviet Union antedated the junctures at which these questions were seriously addressed in Washington DC. Similarly, work on the origin and behavior of "rogue states" has appeared before government placed this issue high on its foreign policy concerns.[11] The consequences of a discrepancy between rates of social mobilization in developing nations and the

ability of their political institutions to respond were recognized by academics before they were acknowledged by policymakers.[12] Even within the nuclear area, questions of crisis stability often were raised by scholars before they were addressed by national decisionmakers.[13]

The most obvious virtue of the demand-driven process is that it involves a direct response to established needs. Its limitation is that it provides no service beyond that which those in power currently seek. By contrast, the supply-driven model assumes a willingness and ability to anticipate and shape the agenda—to guide policy goals as well as means—by contributing to the democratic dialogue a fund of knowledge that otherwise would not be considered. By implication, the demand-driven model assumes a considerable degree of value congruence between scholars and statesmen, while the supply-driven model is constrained by no such assumptions.

In addition, the supply-driven model does not imply a straight path from the Ivory Tower to the corridors of power, since the information and analyses used in policymaking rarely flow in a linear fashion. In any political system, but most obviously in a democracy, policy reflects a complex process of bargaining among a wide variety of groups and institutions, one that involves intricate and overlapping channels of information and influence. Preferences and power flow from many directions, in a series of sometimes intersecting paths, while policy choices represent an amalgam of partial decisions and commitments made at various points.[14] Accordingly, a model reflecting this complexity implies a different role for social scientific knowledge than one focusing on vertical flows of information and influence along unique paths, under the assumption that decisions are taken at the system's pinnacle in response to an idealized, highly rationalistic consideration of options and their implications. In the more complex model, knowledge originates in various parts of the polity, it traces multiple, indirect, and sometimes discontinuous trajectories, and its impact on decisions may have little to do with the reasons for which it was produced. As one scholar has pointed out:

> If the decision-making process is perceived as a looser coupling among problems, solutions, choice opportunities and participants, we should not expect research results to be disseminated and used as the integrated totality they are in research reports. Instead, knowledge, including scientifically-produced knowledge, flows into the decision-making process through obscure channels from many different sources, and this results in a more general awareness of the way the world appears and is structured.[15]

Even within the context of the focused purpose and hierarchical structure of government bureaucracies, the most appropriate model of how the process works may be the "garbage can" model.[16] Here, the policy process within the organization presents itself as a series of "choice opportunities," into which participants may throw problems and proposed solutions by expending a certain amount of energy. Inputs into the final policy decision are many, their sequence may be impossible to trace, and the final decision may not exactly resemble any of the individual inputs that shaped it. Every individual input may stem from a fairly rational decision, but none may be identifiable in the final policy.

Consequently, the path by which some subset of that knowledge is led to decisionmakers is unlikely to be singular or linear. It may, if published in a sufficiently accessible form, affect the process by way of its impact on public opinion—especially elite opinion. Potentially relevant knowledge may reach specialized congressional staff (e.g., the staff of the House International Relations Committee or the Senate Foreign Affairs Committee); or that knowledge may be consulted within a variety of federal agencies, perhaps finding its way, along with other inputs, to the upper reaches of the administrative hierarchy. Academic knowledge may be also injected into the policy process via the influence of the media—which, having acquainted itself with potentially relevant scholarly findings, brings them to the attention of other actors in the political process. For example, Thomas Homer-Dixon's research on the impact of population growth and environmental degradation on international conflict was referred to in an *Atlantic Monthly* article by journalist Robert Kaplan. The article, in turn, was read by Vice President Gore, who invited Homer-Dixon to brief him on the problem; soon, President Clinton's Undersecretary of State for Global Affairs described this research as "immensely valuable and important," as "giving some intellectual content to a crucial debate."[17]

The various paths from scholarship to decisionmakers may be traveled simultaneously, and they may meet and even overlap in a complex pattern. A careful examination of the manner in which social science has affected U.S. foreign policy would certainly find that it has been far more subtle and complex than the demand-driven model alone could suggest. The flow of influence on matters of superpower relations involved various layers of both the executive and the legislative branch of government, but it also included public opinion, the media, and a number of very active interest groups. Scholarly thinking on matters regarding East-West relations, the uses of force, and the prospects for arms control often reached educated strata of

the public, as well as the media. And even interest groups such as the hawkish Committee on the Present Danger and the dovish Committee on East-West Accord often relied on scholarly analyses in support of their positions. Even on specific political-military questions, such as, for example, the desirability of a Ballistic Missile Defense (BMD) system, the national debate often engaged informed academics.[18] To the extent that this participation affected ultimate policy choices, the precise manner and path may be impossible to trace, since the impact was felt at too many separate junctures in an intricate, and sometimes opaque, structure of political influence. Nevertheless, the impact was certainly felt. As a leading student of the relationship between social science and policy explains it:

> the policymaker is often unaware of the source of his ideas. He "keeps up with the literature," or is briefed by aides, or reads state-of-the-art reviews of research in intellectual magazines or social science stories in the *New York Times*, *Washington Post*, or *Wall Street Journal*. Bits of information seep into his mind, uncatalogued, without citation. He finds it very difficult to retrieve the reference to any single bit of knowledge. If we ask him about the effect of social research on his decisions, he usually will not be able to given an accurate account—or even be aware that he derived his ideas from the social sciences.[19]

Thus, while the demand-driven model is appropriate in particular instances, the supply-driven model's applications are broader. Were this not the case, the relevance of scholarly knowledge would be limited to challenges already on the agenda. In fact, policy-relevant SIR has a broader role and more ambitious role, by shaping the definition of policy problems and priorities and by suggesting new ways of perceiving the world.

A caveat is useful here. The differences between the demand- and supply-driven models should not be equated with the distinction between applied and pure research that characterizes much of the hard sciences. In the social sciences, a smooth and frequent transition from pure to applied is not as often encountered, and we cannot assume that disinterested scholarship would often become policy relevant. In part, this is simply because the lines demarcating the two levels of knowledge are not etched in nearly as clear-cut a way. In the natural sciences, the movement from pure to applied knowledge generally implies one (or both) of two things. As a rule, it means that an empirical relationship discovered in one general context must be

examined in some narrower subset of the same context, or in a slightly different context. For example, it may be necessary to find out whether a cure that is found to work on laboratory mice does as satisfactory a job when applied to humans. Often this will involve bringing additional control variables (ceteris paribus conditions) into the causal relation linking treatment and cure. Sometimes too, the transition from pure to applied knowledge involves finding ways to manipulate the causal variable discovered in a relationship, so that it can be used to produce the desired effect in a context other than the research setting.

In the social sciences, however, the research setting is no different from the world encountered by policymakers. For that reason, the barrier between pure and policy-relevant knowledge is determined mainly by *purpose*.[20] (In other words, the social sciences encounter the problem of external validity in their research much less frequently than do the natural and other experimental sciences.[21]) Knowledge may become relevant when that is its *intent*, i.e., when the questions asked are informed by a desire to produce policy consequences, or, at least by a realization that important practical consequences could follow. Where this is not the case, knowledge that has no potential for policy relevance does not usually become relevant by a further specification of the context to which the discovered relationships apply. As Lindblom and Cohen observe with respect to the social sciences: "what is ordinarily called 'applied research' is an effort of distinctive character in its own right, developing its own generalizations, when needed, through its own efforts. In short, when social engineers need authoritative knowledge, they must develop it for themselves."[22]

The Four Settings of Policy-Relevant Knowledge[23]

Whether relevant knowledge enters the policy process via a demand- or supply-driven mode, it is produced within a certain professional setting, which in turn determines the character of the knowledge that is offered. Four such settings seem to encompass most scholarly work on foreign policy. One way of distinguishing them is in terms of their proximity to the policy process; another is by the ratio of generalizations to specific, factual statements (initial conditions) they are likely to make. Obviously, the two criteria overlap: the most general and abstract work is likely to be produced by scholars farthest from the policy process, and vice versa. Thus, although

direct links between scholars and policymakers may exist at the level of each setting, together the four tend to act as transmission mechanisms—leading from the general to the specific, from the groves of academia to government offices. As one moves through the four settings, generalizations get fleshed out with increasingly specific initial conditions, becoming most directly useful to policymakers. Although each setting produces its own literature and a defined group of scholars, they are more interconnected than might seem at first glance.

The underlying continuum on which these groups are arrayed can be visualized as a horizontal "ladder of abstraction" consisting of various categories of knowledge, arrayed in order of decreasing degrees of specific empirical content.[24] One might stop at a given rung of the ladder when satisfied with the kind of understanding available at that level of generality.[25] But one can also imagine moving back and forth across the levels, or borrowing from one to enhance insights available at another, depending on the analytic problem at hand. In practical terms, since there is less professional distance between any two adjacent types of activities than across the entire spectrum, a series of partial bridges is already in place across much of it.

These IR activities can be arrayed as indicated in Figure 3.[26]

Group I: General Theory

Scholars at this level seek to produce general propositions linking broad classes of empirical phenomena. As such, their work is not typically attached

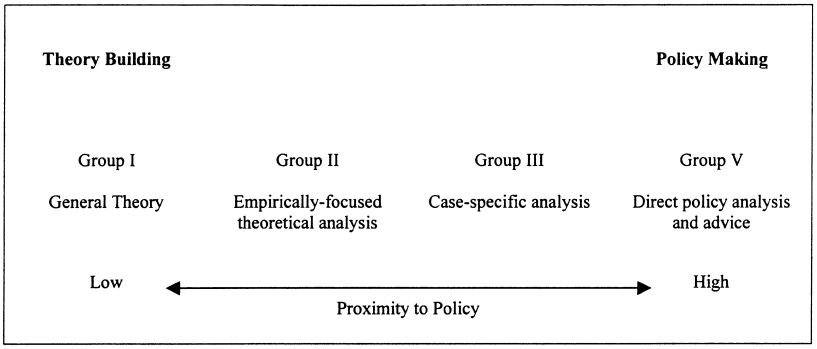

FIGURE 3 The Four Settings of Policy-Relevant Scholarship

to specific categories of issues, actors, time periods, or geographic regions. It focuses on truly general propositions rather than statements about initial conditions (in the terms used in chapter 2, all G's and no I's). Highly general work, these scholars contend, is preferable since it explains a greater range of specific cases than less general work.[27] Because general theories seek to transcend substantive contexts, they often (but not always) take a deductive form. The best developed Group I approach in International Relations is Rational Choice. It focuses on the processes and outcomes of strategic interaction, involving deductions about people's behavior from broad and simple assumptions about human incentives. In the United States, general theoretical work of this and other kinds is typically published in such journals as *International Organization*, *World Politics*, *International Studies Quarterly*, and *The American Political Science Review*.

Group I scholars ask such questions as: When do actors cooperate in world politics?[28] To what extent are actors' preferences a function of the strategic situations they are in, and to what extent are they exogenous to those situations?[29] How are domestic and international arenas connected?[30] More than other analysts, Group I scholars focus on the broader context in which foreign policy is made and carried out. One such issue of importance to IR analysts is the degree to which international anarchy necessarily creates a competitive context for action in world politics, a position long associated with the Realist tradition.[31] As these questions illustrate, while Group I scholars may suggest ways to produce particular policy outcomes, this is rarely their main concern. Their typical contributions to policy-relevant knowledge come in two other areas. Some of their work, such as that on the nature and limits of international anarchy and the conditions necessary for cooperation, focuses on the range of possibilities for effective international action. In addition, generic theories of strategic choice and interaction, by providing a way to understand other actors' reactions to certain choices, can help illuminate some indirect costs of policy options.

Group II: Empirically Focused Theoretical Analysis

Here, specific categories of empirical questions are analyzed—questions tied to particular categories of substantive issues, temporal, and spatial domains. Whereas General Theory deals with the most generic and perennial attributes of foreign-policy choices and outcomes, Empirically Focused

Analysis concerns itself with narrower sets of issues, and in addressing them pays closer attention to specific sets of empirical conditions. As such, the range within which explanatory variables vary is typically more restricted than in work done by Group I scholars, though this is often left implicit rather than explicit in Group analyses.

Group II work produces two kinds of SIR literatures. One consists of regional or area studies. This work assumes that certain mixes or ranges of variables distinguish regions from one another. Regional specialists often have some training or interest in general theory, but their expertise centers on an in-depth knowledge of the culture, politics, and historical context within which particular regional patterns are assumed to operate. A second kind of Group II literature explores theory-driven empirical puzzles. Puzzles are nonobvious phenomena for which there is no adequate (or at least widely accepted) explanation.[32] While this work implicitly shares the area-specialists' assumptions that certain mixes or ranges of variables distinguish one set of problems from others, the models in this type of literature tend to be grounded more explicitly in theories that purport to apply across actors and regions. Cognitive models, for example, allow scholars to specify how psychological variables can lead to biases in the choice process and, by extension, to suggest ways in which individuals or organizations can reduce such unwanted sources of error.[33] Similarly, some work on economic sanctions is grounded in more general notions of strategic coercion, vulnerability, and dependence. Group II scholars thus deal with initial conditions as well as generalizations (Is as well as Gs), though the emphasis is on generalizations.

Journals specializing in Group II work include, among others, *Latin American Research Review*, *Asian Survey*, *International Security*, *Security Studies*, *Global Governance*, and *Political Science Quarterly*. Group II publication outlets overlap with those of Group I: *World Politics* and *International Organization* examine some region-and issue-specific empirical puzzles, while *International Security* at times focuses on issues of more general scope. But what distinguishes Group II work is a focus on puzzles that originate in and apply to particular substantive referents, rather than arguments that seek to transcend such referents.

Group II work contributes to policy-relevant knowledge in each of the ways we have discussed so far. Its contribution to instrumental knowledge comes largely from work that explores how various policy tools can produce desired results. Alexander George's "abstract conceptual models of strategies"[34] fall in this category; there are now large literatures on the logic and

track records of deterrence, coercive diplomacy, and economic coercion. What George calls "generic knowledge of conditions favoring a strategy"[35] is one way of providing what we call contextual knowledge: under what environmental conditions is success likeliest, or least likely, for the use of such instruments? And by illuminating the effects of psychological biases on people's perceptions of the tradeoffs they face, Group II work on cognition provides insight on a key kind of indirect cost associated with choice—the evaluation of opportunities foregone by choices.

Group III: Case-Specific Analysis

Work in this group directly addresses certain categories of foreign policy issues. For this reason, its empirical referents are more narrowly specified than those of Group II work, and the questions posed involve more narrowly defined outcomes. They thus deal in more depth with I's than Group II analyses, though the purpose is to understand G's as well. Group III scholars recognize that the logic underlying policy may need to be fleshed out in generalizable terms, so that lessons beyond specific cases can be drawn and decisionmakers might be spared needless trial and error.[36] Still, within this group of analysts, general knowledge is desired mainly for the insights it offers on specific policy problems. For example, a U.S. official who has directed the Foreign Policy Studies Program at the Brookings Institution wrote a book on how military power can be effectively used in the post–cold war period. He borrowed ideas about force and diplomacy from such classic Group I and II scholars as Thomas Schelling and Alexander George,[37] but focused on issues interesting a policy audience. Group III publication outlets include journals such as *Survival*, *Orbis*, as well as many products of think tanks.

Case-Specific Analysis is produced largely in think tanks, at least in the United States. For reasons discussed in chapter 1, Group I and II work dominates the study of IR within most U.S. university faculties. But Group III work can also be found in universities with international-affairs or public-policy programs, as these focus on professional training rather than generic knowledge for its own sake. Think tanks operate at the boundary between government and the part of the academic community that has a sustained interest in public policy.[38] They draw into dialogue people who "cross the conventional boundaries between types of expertise and experiences. University professors sit [a]round the table with military officers and diplomats,

with journalists from the quality press, businessmen and bankers, politicians and their research assistants."[39] As a result, think tanks and policy programs are the major places where people move back and forth between more theoretical and more applied activities and roles, bringing the mental habits of one to bear on the concerns of the other.

A substantial amount of direct policy analysis is conducted in major think tanks, and they come in many varieties. Some cover much of domestic and foreign policy, while others specialize in military security issues, international trade policy, or region-specific issues. Research associates at these institutions typically examine the concepts that underlie policy, using approaches drawn from a variety of professional and academic fields. They remain involved with policymakers through seminars or through publications disseminated to working officials. At the same time, they try to remain detached from day-to-day operational issues. Their distinctive intellectual product is a longer-term perspective on foreign-policy issues than most day-to-day policy literature can afford.

Group III analysts might focus on either form of policy relevance we have identified, though their work on instrumental relations tends to pay closer attention to *ceteris paribus* conditions than work done at higher levels of generality. Because case-focused scholarship can be used to derive the kinds of singular statements (I's) that are needed to draw conclusions about specific actors and issues, it can often be directly helpful to policymakers in obvious ways. For example, practitioners and scholars agree that it can be useful to understand an actor's values and mind-set in dealing with him. Such "actor-specific behavioral models"[40] can help officials understand the key initial conditions relevant to the situation and actor they face, and perhaps some of the broader context as well.

Group IV: Direct Policy Analysis and Advice

Work at this level is different in purpose than in Groups I, II, or III. Rather than seeking to understand the world as it is, these analyses prescribe specific solutions to problems or particular approaches to international issues. In other words, the aim here is "engineering" rather than "basic science."[41] Work in this group is therefore concerned with issues even more specific than those addressed by Group III analysts, since Group IV studies are confined to a particular point in time and space. Consequently, the explicit focus is almost entirely on I's, while G's remain largely implicit.

This kind of work is written chiefly by current or former practitioners for other practitioners. It typically appears in *Foreign Affairs*, *Foreign Policy*, and the op-ed pieces of major newspapers. Those in the target audience typically see practical experience and the specific context in which a policy problem arises as the key factors that must be brought to bear in analyzing it. To the extent that they make explicit use of generalizations, it is the end product rather than the logical structure of the theoretical arguments that concerns them.[42] This segment of the IR profession is rarely found in universities, except in small numbers at international-affairs or public-policy schools. More commonly, those who do Group IV analysis hold positions in think tanks, international-affairs consulting firms, NGOs, and IGOs, as well as within government. Their main concern is with instrumental relationships and the direct costs of policy, and they focus more on identifying quite specific initial conditions of interest to top officials than on producing general propositions. What is found here is work closest to the ordinary knowledge of policymakers. The general propositions they do employ tend to be borrowed from Groups II and III, although the borrowed product is often poorly digested.

As this categorization suggests, policy-relevant work occurs at each tier of professional activity within the overall IR field. Contrary to the frequently expressed view, "policy relevance" does not require work at a low level of explanatory abstraction. To identify the possibilities for choice and the likely consequences of policy choices, knowledge of all four types is needed. To a greater or lesser degree, each relies on generalizations about how the world works and on statements about pertinent initial conditions. Even Direct Policy Analysis and Advice—a type of work that emphasizes how certain results might be achieved or avoided under very particular conditions—requires a general causal understanding of the linkages between independent and dependent variables.[43] This point suggests the fundamental practical value of sound and substantively meaningful research. Since policymakers will, in any case, use general propositions to do their jobs (even if these proposition remain implicit), they might as well be of high quality.

This conclusion would seem to invite SIR scholars to produce thoughtful, well-crafted work that speaks to the possibilities for action and its expected consequences. But for reasons discussed in chapter 1, IR theorists and policy specialists have tended to go their separate ways; conversations within these two broadly defined communities are much more numerous than conversations across them. How then can it make sense to argue that academic work in this field can be useful beyond the Ivory Tower only when they

borrow *more* from each other? Solving this problem requires reversing well-entrenched professional incentives among both scholars and policymakers, possibly a Sisyphian task. Nevertheless, if we examine the way in which at least some people in these four groups actually share ideas and empirical findings, we find more pragmatic interaction than might be expected. Understanding these relationships and the synergies they produce will show *how* good academic work can become accessible and thereby at least potentially useful to policymakers, and how IR theories themselves might be improved as a result.

From the Ivory Tower to the Corridors of Power and Back Again[44]

When seen as adjacent to one another, these four groups of activity constitute transmission links between IR theorists and practitioners. Among the many possibilities for collaboration, Group I theories can be used to inform policy analysis directly, or they can help reframe Group II questions in ways that clarify various IR puzzles, making them more useful to decisionmakers. Group III analysts can borrow general propositions from Groups I and II and use them to derive theoretically informed yet timely analyses of particular types of issues that can help policymakers. Group II puzzles can similarly speak directly to policymakers or, to make them more accessible to officials, they can be interpreted through Group III work.

Let us examine some of these possibilities in greater detail. Consider, for example, the practical value of one particular Group I theoretical perspective, rational choice. Over the last few decades, rational choice has had a major impact on political science and economics. It is designed to predict policy preferences, given actors' objectives and their perception of the strategic situation they face. It does not constitute a general theory of politics, since it does not explain why people value particular outcomes, norms, or other objectives as ends in themselves. For these reasons and because of questions about the veracity of its fundamental assumptions, it has become highly controversial within the SIR community and the broader field of political science.[45] It can nonetheless provide policymakers with two kinds of useful knowledge. First, it can tell them how best to achieve their objectives, if they know the preferences and power positions of the relevant actors on some issue. In game-theoretic terms, this amounts to specifying any equilibria that exist in a strategic situation. By this criterion, rational choice has

bridged at least part of the gap between IR theorists and some U.S. foreign-policy practitioners. In 1989, a CIA official said that spatial models, a type of rational-choice work, had generated correct predictions of outcomes in 90 percent of the instances with which he was familiar.[46] Depending on how and how often the consumers actually used these analyses, such a track record could amount to a direct, working connection between Groups I and IV.

A second way in which rational choice connects to policy practice in IR is less direct, yet no less important. By providing a general theory of strategic interaction, rational choice can situate within a common, intuitively plausible framework the Group II research that deal with particular types or conditions of strategic interaction. In this role, theory serves to organize existing knowledge of a particular type.[47] By understanding some key commonalities in strategic interaction across issues, actors, and time periods, Group III analysts might be better able to locate and frame for policymakers the specific empirical analyses officials need. For example, conflicting evidence about the usefulness of economic sanctions might be easier to sort out if actors' expectations of future conflict were built into the analysis. Surprisingly, the case-study literature seems to have ignored this possibility. A formal model shows that while initiators of sanctions are more eager to coerce adversaries than allies, since the policy rewards for success are greater, adversaries resist such pressure much harder, fearing a redistribution of material resources and reputation that could hurt them more than standing firm. As a result, while one gains more from coercing an adversary successfully than an ally, success is likelier with an ally.[48] The analytic payoff for policymakers here is greater clarity about the tradeoffs involved in using sanctions in these two types of situations.

It turns out that Case-Specific Analysts (Group III) play a key role in linking General Theory and Empirically Focused Theoretical Analysis to policymakers' concerns. Group III analyses benefit from Group II's efforts to put empirical meat on general theoretical propositions and, to a lesser extent, from Group I's interest in processes common to various substantive problems. In the same way, Group II analysts benefit from empirical studies, such as those done by Group III analysts, that explore substantively important real-world cases in detail. But Group I and II analysts can focus on producing and fleshing out general propositions without *directly* exploring their practical implications. A distinct role for Case-Specific Analysts is to connect the work of theorists and policy specialists, which they do by deriv-

ing and disseminating statements about important sets of initial conditions in international relations. Insofar as these singular statements exemplify substantively important general patterns, practitioners have a generic frame within which to interpret specific cases.

Group III analysts are well-positioned for this role. While many of them have social-science training, they use it mainly to structure and inform policy choices rather than to extend purely academic knowledge.[49] Policymakers may find themselves in situations in which this kind of analysis can benefit them. Since they are rarely equipped to probe the logical underpinnings or evidentiary basis of theorists' analyses, they sometimes feel compelled to accept analyses that appear to be plausible more or less on faith. Because Group III analysts typically have enough scholarly training to understand the work of theorists and, at the same time, are familiar with policymakers' problems, they function well as go-betweens.[50]

Group III analysts may play an even more pivotal role in years to come. Since the end of the cold war, interest in foreign policy in the United States has dropped substantially outside the Executive Branch and the broader professional foreign-policy community. Despite the proliferation of global problems, many of which significantly affect U.S. interests, many members of Congress are reluctant to fund foreign projects, and the major foundations are less interested than before in funding foreign-policy studies. The challenge for international-affairs think tanks in this environment, as the head of the Brookings Institution put it, is to "shape the public agenda and [be] useful to policy makers." Brookings fellows are thus being asked to write shorter research summaries, or "policy briefs," for politicians and foreign-policy officials rather than the longer, denser monographs of years past.[51] To the degree that they reach their intended audience, they will have bridged the relatively short gap between Groups III and IV. The task may not be that difficult if the goal is to reach career foreign-policy professionals. While interested mainly in work that deals directly with issues on their desks, career professionals are likelier to use ideas from Group II and III work than political-level officials. This reflects severe limits on top officials' time, but also different training and intellectual habits, with career officials likelier to have been exposed to theoretical work at some point.[52]

One assumption behind such efforts to "sell" practical ideas to foreign-policymakers is that much of the conceptual work has already been done in SIR, especially in areas of high U.S. policy interest such as arms control and Middle Eastern conflict processes. The priority now, from this standpoint,

is to get the ideas already available in front of officials, so that they might be used.[53] Such efforts deserve support in areas where the intellectual work is indeed ready to be applied. We have suggested a number of such examples thus far, and two more sets of examples are discussed at length in Chapters 5 and 6. Ironically, however, this view gives IR theorists more credit than they deserve. Most theory-driven work in IR falls into Group II, and much of that portion suffers from a fundamental problem. Many arguments found here are presented as if they are unconditional, when in fact they are highly conditional; the defining empirical conditions that affect relationships among the variables are often left unidentified. Moreover, the conditions that determine the status of these variables—i.e., the necessary ceteris paribus and contextual circumstances—often are left out.

In much of the contemporary Group II literature, disagreements often stem from very different empirical assumptions about the world. For example, Realists and Liberals implicitly agree that the compatibility of actors' preferences drives the strategic importance of power, and thus whether people care more about relative or absolute payoffs. What analysts in these two schools actually disagree about is how compatible preferences typically tend to be, with Realists assuming very little and Liberals typically assuming more so. Better specified arguments, incorporating the various sorts of relevant knowledge described in chapter 2, might attenuate these unproductive debates.

For example, a spiral model (one reflecting the lessons about inadvertent conflict generated by the 1914 crisis) claims that threats reinforce existing security dilemmas and are thus self-defeating. A Munich-syndrome model reflects the polar opposite kind of case and conclusion: threats establish or reinforce an initiator's credibility and induce adversaries to retreat. But neither indicates more generally when and why other cases fit these patterns.[54] If the issue of which argument is correct truly depends on the case(s) one is examining,[55] underspecification not only creates a false theoretical problem; it gives those that want to apply the model a misleading sense of which cases it really explains.

One way to improve the generalizations that dominate Group II arguments is by constructing and analyzing typologies. A "type" is a group of cases in which the values of the variables are strongly associated. A typology asserts the relevant variables tend to occur together in fairly few combinations.[56] For example, it is often claimed that war stems from misjudgments about another actor's capability or resolve. We may, however, be able to

match more precisely certain kinds of perceptual errors and causal effects. Misperception of another's resolve may be common to actors within authoritarian systems, where the analysis or flow of information is politically circumscribed. Misperceptions about another's capabilities may be common where relative power positions are shifting rapidly. As these examples suggest, typologies present a systematic way to be precise about the mixes and values of variables.

Admittedly, relying too heavily on typologies could impede the development of more powerful Group II arguments. One can almost always specify contingent conditions that will yield a valid generalization, provided that a causal pattern appears in *some* cases.[57] To avoid the proliferation of very narrow empirical generalizations, Empirically Focused Theoretical Analysis must ultimately move beyond unconnected typologies and seek to explain how different mixes of ceteris paribus and contextual variables reflect more fundamental dimensions of variation in international relations.

From a Group I standpoint, better specified arguments would also be beneficial, by helping scholars see how various theory-driven empirical analyses are linked. If it is true that many supposedly generic SIR propositions actually reflect distinctive cases, no matter how distinctive these empirical patterns actually turn out to be, they ultimately presuppose a set of logically interdependent principles that would explain them.[58] A long-range theoretical task, then, is to situate typologies as instances of more truly generic arguments. Some policymakers—and not just committed holists—no doubt would bypass any such work on the grounds that it is too abstract to be useful. Others, though, might come to see that it can be intellectually efficient to explain specific cases through highly generic lenses. Group III analysts can be pivotal in making this kind of connection for those who want to use it.

Conclusions

The manner in which social science can improve foreign policy transcends the demand-driven model's vision in which decisionmakers, stymied by a gap in their knowledge, turn to scholars for the missing bit of understanding. Although policymakers frequently seek advice from academia on crucial matters of foreign policy, scholarship produces its impact in ways both broader and less direct. These paths are captured by the supply-driven

model. One implication of this point is that social science can shape the policy agenda by providing an improved understanding of problems and of the context in which they are embedded. This can occur when ultimately-relevant knowledge is produced before any challenge to which it could be applied is identified. It can also happen when a recognized challenge not previously on the agenda is put there once plausible knowledge to deal with it has been generated. Social scientific scholarship also helps identify the challenges that must be addressed, alerting both society and policymakers to where their efforts should be directed.

Thus, the supply-driven model adds *agenda-shaping* to *problem-solving* on the list of scholarship's contributions to the conduct of U.S. foreign affairs. At the same time, the benefits suggested by the supply-driven model do not manifest themselves as a direct, unmediated, link between knowledge and policy, and the effect cannot always be identified.

Moreover, and whether the demand-or supply-drive model is applicable, the transmission links between the Ivory Tower and the corridors of power are best understood in terms of the roles of four major groups of international relations scholarship, and the links between them. They are primarily distinguished by the ratio of generalizations to initial conditions that is at the basis of their explanatory work, and of the scope of applicability of any recommendations they may formulate. Each plays a distinct role in the creation and transmission of relevant knowledge. Work at various levels would benefit from a specification of instrumental relations that was more attentive to ceteris paribus conditions and to the contextual circumstances that determine the status and values of the variables encompassed by the instrumental relationships.

In any case, the impact of rigorous scholarship is not limited to its ability to provide empirically correct understanding. Because of the reduction in subjectivity it assumes, it may also facilitate communication within the policymaking process. As Carol Weiss observes: "social science provides thinking people, in government and out, with a common grammar. . . . The common terms, data, models, and orientations bring coherence to the discussion of public policy making."[59] If assumptions are stated as clearly as academia's epistemological canons demand, if the inferential process underpinning scholarly thinking follows accepted rules of deduction and induction, if concepts are clearly defined and explicitly translated into empirical terms, then the likelihood that the actors in the process will talk past each other decreases.

For all the reasons discussed in this chapter, and within the limitations on the supply and authoritativeness of relevant scholarly work, there is room for relevant knowledge and for improved interaction between its producers and its consumers. However, all of this leaves one important question unanswered: if scholarship can benefit policy, should it seek to do so? The question is especially pertinent because of the frequent assumption that the quality of disinterested knowledge is bound to suffer from attempts at having it address policymakers' concerns. We take up this issue in the next chapter.