

professionalized group among those engaged in contractual research, to formulate and lay down standards that could guide them in their contractual work and in negotiations with their 'clients' (Rossi et al. 1999, pp. 425ff.). Exemplary are the *Guiding Principles of Evaluation* that were adopted by the American Evaluation Association in 1995. Among its five principles the maxims of integrity and honesty of research ('evaluators must ensure the honesty and integrity of their entire evaluation process') are writ large (full text in: Rossi et al. 1999, pp. 427ff.).

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H. Wollmann

Policy Knowledge: Epistemic Communities

Political science and policy studies have increasingly developed an interest in the role of ideas, values, and technical understanding in shaping political outcomes, particularly under conditions of perceived complexity. 'Epistemic communities' is a concept developed by 'soft' constructivist scholars of international relations concerned with agency to understand the actors associated with the formulation of ideas, and the circumstances, resources and mechanisms by which new ideas or policy doctrines get developed and are introduced to the political process.

1. Constructivism

Constructivism analyzes the social process by which actors construct meaning of the world through the application of broad ideas and reasoning patterns. Thus, constructivists specify how actors come to

recognize interests and make choices (Ruggie 1998, Haas 1992/1997). While there has been a long-standing appreciation of the importance of ideas—the fabric with which Weberian webs of significance are spun—on politics and on choice, the mechanism by which such constructions arise and persist has long remained elusive. Epistemic communities are important actors responsible for developing and circulating causal ideas and some associated normative beliefs, and thus helping to create state interests and preferences, as well as helping to identify legitimate participants in the policy process and influencing the form of negotiated outcomes by shaping how conflicts of interest will be resolved. Attention to epistemic communities provides a way to understand agency in politics and policy formation.

Assigning context and determining appropriate behavior—and thus policy—are fundamentally political processes, both in terms of actors' efforts to directly influence the process and in terms of their distributional consequences. Most IR theorists now agree that contemporary politics and international relations are characterized by conditions of complexity, as a consequence of growing interdependence and globalization. Complexity complicates decision-making. Substantive and procedural rationality are impossible under high degrees of systemic complexity (Simon 1983).

Constructivists rely on discussions of complexity to conclude that actors are unable to easily deduce preferences and understanding of options from contemporary circumstances. States and other actors are uncertain about their ultimate goals, and how to achieve them. Even whether actors choose to apply a logic of consequences or of appropriateness is itself conditioned by their prior understanding of the nature of the political circumstances in which they find themselves (March and Olson 1998). The very nature of political strategies actors deem appropriate is a consequence of the advice and framing that actors receive about the uncertain policy environment in which they find themselves, or what John Searle calls establishing that 'x counts as y under conditions c' (Searle 1995).

For international relations, more specifically, actors are uncertain about how to achieve particular interests in given circumstances (their preferences); with whom they have to interact to achieve their goals, and by what means to do so. For instance, when first confronted with new issues political actors are typically uncertain about whether to pursue their ends unilaterally or multilaterally, through which institutions, which nests to apply, which linkages are relevant, and what policies should be collectively embraced. For the policy studies literature (Ascher 1986, Thomas 1997, Social Learning Group 2001) the principal analytic focus that results from an appreciation of complexity and the role of ideas and epistemic communities is on the stages of policy making:

framing, agenda setting, social learning, participation, policy choice, and, to a lesser extent, compliance or enforcement.

National and international politics and policy choice then becomes a matter of applying embedded and institutionalized beliefs about the nature of problems and the appropriate means of collective response as argued by many current theorists of IR (Ruggie 1998, Adler 2001, Haas 1990, 1992/1997), rather than the process of resolving rationally formulated state preferences. In this conception politics becomes a process of learning about the world.

Thus, ideas may play important roles in framing the policy debate, and in predisposing outcomes highlighted by each perspective. Epistemic communities are the cognitive baggage handlers of constructivist analyses of politics and ideas. They are invoked by Constructivist scholars to focus analytic attention on the process by which states formulate interests and reconcile differences of interest. Epistemic communities are a principal channel through which consensual knowledge about causal connections is applied to policy formation and policy coordination. States may learn through processes of international cooperation mediated by epistemic communities. As a consequence collective patterns of behavior reflect the dominant ideas initially brought to bear to understand the area of activity which is being governed.

Ruggie borrowed *episteme* from Foucault, to describe the overarching perspective through which political relationships are visualized and understood during historical eras (Ruggie 1975). The winter 1992 issue of *International Organization* on Knowledge, Power and International Policy Coordination refined the concept by restoring agency to the study of politics and knowledge, by focusing on the actors responsible for articulating and aggregating knowledge based understanding in areas of security, environment and international political economy (Haas 1992/1997). Epistemic communities are networks—often transnational—of knowledge based experts with an authoritative claim to policy relevant knowledge within their domain of expertise. Their members share knowledge about the causation of social or physical phenomena in an area for which they have a reputation for competence, and a common set of normative beliefs about what actions will benefit human welfare in such a domain. In particular, they are a group of professionals, often from a number of different disciplines, who share all of the following characteristics:

(a) Shared consummatory values or principled beliefs. Such beliefs provide a value-based rationale for social action by the members of the community.

(b) Shared causal beliefs or professional judgment. Such beliefs provide analytic reasons and explanations of behavior, offering causal explanations for the multiple linkages between possible policy actions and desired outcomes. While they need not agree on every element—in fact they are likely to disagree vehemently

about some elements—they do agree about the core assumptions and causal forces from which their models of the world derive and agree on the means by which such differences can potentially be reconciled.

(c) Common notions of validity: intersubjective, internally defined criteria for validating knowledge.

(d) A common policy enterprise: a set of practices associated with a central set of problems which have to be tackled, presumably out of a conviction that human welfare will be enhanced as a consequence.

This combination of factors—especially the socialized truth tests and common causal beliefs—distinguish epistemic communities from other types of policy networks and groups active in politics and policy-making. Unlike other organized interest groups active in politics and policy making, epistemic communities are bound by the truth tests to which they were socialized, and thus are more likely to provide information that is politically untainted, and thus more likely to ‘work,’ in the political sense that it will be embraced and followed by political authorities concerned about the need for appearing impartial, and also technically.

2. *Cognate Literatures*

The policy sciences, since Lasswell, have stressed the difficulty of applying strong rationality assumptions when conducting policy analysis, as well as advocating a neo-pluralistic approach to understanding the politics of policy making (Ascher 1986, Braybrooke and Lindblom 1963, Healy and Ascher 1995). Discursive approaches to understanding the policy sciences reinforce constructivist studies of politics and policy (Linder and Peters 1995, Stone 1989).

Similar concepts to epistemic communities were developed in other social sciences in the 1980s and 1990s to better understand the role of expertise in constructing meaning for policy makers and for developing policy usable knowledge. Knorr-Cetina, in the sociology of knowledge, coined the term ‘epistemic communities’ (Knorr-Cetina 1981, 1999), although this neologism was not read by the international relations research program until after the 1992 publication of the epistemic communities volume.

In comparative politics and policy studies complementary notions have been put forward to study networks of experts involved in policy making. Richardson coined the term policy communities (Richardson 1995). Reinicke has extended policy communities to include global policy networks (Reinicke and Deng 2000). Sabatier developed the notion of policy advocacy coalitions, which were an extension of earlier US work on iron triangles (Sabatier and Jenkins-Smith 1993). The concept of policy communities stresses the causal beliefs shared by policy analysts involved in policy development, but do not

fully develop a causal model of their development and spread. Analysts of advocacy coalitions note the presence at different points in time of people from multiple interest groups and organizations, but do not address their beliefs systematically, nor do they look at the causal role of a kernel of individuals sharing beliefs and involved in the same policy enterprises over time. Analysts of epistemic communities, with their focus on agency and the shared beliefs of a community that shares a common policy activity over time, provide the leverage for generating social science knowledge about the development and diffusion of knowledge for policy and politics.

3. *A Constructivist Model of Institutionalized Ideas*

The development and application of an epistemic community’s consensual knowledge can be best understood within a stepwise framework. Such a framework provides independent mechanisms by which new ideas are generated, selected by authoritative actors, and persist over time. It is a path-dependent model of punctuated equilibrium because many choices or decisions are largely irreversible and the array of possible choices at time (t) is causally related to decisions taken at time ($t-1$) in ways that may not be perceptible to actors at time $t+1$ (Adler and Haas 1992/1997). Ideas may exercise a causal impact later in time regardless of the reasons for their initial selection, as they continue to shape actors’ understanding and guide decisions even in the absence of original conditions that contributed to their widespread acceptance.

While actors are always constructing the world, to some extent, the challenge to analysts is to identify what constructions are likely to prevail, and under what circumstances. Since current constructions are made in the shadow of past constructions, this framework provides the means to specify which ideas will be influential and the factors influencing the likelihood that they will exercise enduring influence. Unique collective outcomes involving learning are possible with the existence and involvement of an epistemic community to focus beliefs. Otherwise, political behavior remains a matter of applying prior frames to understanding political choices and options, with conflicts of interest resolved through the application of existing institutions and power resources.

4. *Constructivist Assumptions*

A number of key assumptions underlie this constructivist model. States are key juridical actors, and act willfully. States are functionally differentiated, and vary widely according to their state/society relations

and the technical capacity of the state to formulate and enforce public policies in technical domains (Risse-Kappen 1995, Katzenstein 1977, Gourevitch 1996, Evans et al. 1993). States operate in a complex policy environment, so that information about the environment is highly valued. Yet knowledge is asymmetrically distributed within and between countries. Finally, while perceptions are socially constructed, political actors and social scientists are not subject to the same set of influences. Thus social scientists may identify social forces influencing actors' choices without being equally prone to their influence.

A number of propositions about state behavior and its explanation immediately follow from these assumptions. States are uncertain about their policy environment and how their interests are to be recognized in particular instances, and thus they exercise bounded rationality. The recognition of threats and the identification of responses are subject to socialized patterns of reasoning, rather than through formal rationality in which actors have complete information and choose the most efficient alternatives. Decision-making operates according to a satisfying model in which actors express procedural rationality, at best, subject to the time constraints and structural blinders imposed by bounded rationality (Simon 1983, 1985, March 1994). Consequently, decisions and institutions are sticky, since decision-makers do not return to issues until there is a crisis.

States make choices subject to multiple sources of influence, whose organization varies by issue area (Keohane and Nye 2001). Thus, governance varies by issue area. Consequently, policy networks, organized around specific issues become the appropriate level and unit of analysis, because the array of actors, interests, institutions, and capabilities varies by issue. Even within a particular state, the design of policy-making institutions and procedures vary by issue area. Consequently, it is not surprising that international regimes in related areas can differ widely, because the articulation of interests for each regime takes a different form.

5. Generation of New Ideas

Epistemic communities are the agents by which policy relevant information is developed and transmitted. They are likely to be found in substantive issues where scientific disciplines have been applied to policy oriented work. Thus, epistemic communities arise in disciplines associated with natural science, engineering, ecology, and even economics. They will also be most likely to emerge in countries with well-established institutional capacities for public administration, and science and technology. They are also most likely to be present in rich (measured as a high ratio as share of GDP, and with a significant number of scientists and

engineers in the country) democracies. Democracies are most likely to encourage open-ended, spirited discussions because the knowledge enterprise is independent of the state, and yet the state has the resources to access and support science.

For governments to defer to new knowledge, the presumptive knowledge claim must be regarded as authoritative. Authoritative knowledge comes from groups that command legitimacy and authority in society. Epistemic communities' reputation for authority rests on their expertise as well as their reputation for impartiality. If not seen as being impartial their advice will be widely contested and lack any independent political influence.

Such pockets of independent research are most likely to emerge when the conduct of research is seen to be far from the direct interest and influence of the sponsoring sources of the research (Dasgupta and David 1994, David 1995). Its impartiality and accuracy depends heavily on the ability to publish in peer-reviewed journals, as well as the internal commitments to truth tests by epistemic community members. A distance from research sponsors improves the actual and perceived impartiality of epistemic community members as it is less likely to be shaped by needs of the state or sponsoring agency, and will be less politically tainted. Activities most likely to be regarded as impartial are those with relatively low costs that are not directly tied to the mission of the sponsoring agency. Epistemic communities are likely to offer policy advice that will be effective, unlike the more common process of policy advice which corresponds to specific interests, because the policy proposals are developed far from the political influence of sponsoring agencies and will be more acceptable to the public when the ideas do not appear politically compromised.

6. Selection

New ideas will be solicited and selected only after crises, for crises will alert politicians to the need for action and will seek to gather information about their interests and options. Crises will trigger agenda setting and the search for new information.

Ideas will be selected by states and international institutions. However, not all states or international institutions are equally likely to consult members of an epistemic community or defer to their advice. Institutions with strong science and technology capabilities, and those representing pluralistic societies will be most likely to be in the first wave of those embracing new ideas. It is there that the scientific culture of epistemic communities will have a close affinity, and new groups will be able to quickly articulate new policy initiatives. Selection will probably take longer in non-democratic societies with technically strong

states that have a strong domestic scientific capacity because it takes longer for ideas to percolate up from society to the government outside of routinized channels.

Different styles of policy selection occur in different political systems, due to organizational and cultural differences between types of democracies (Weaver and Rockman 1993, Katzenstein 1977). In presidential systems, with multiple checks and balances, the flow of new ideas to the state will emerge from think tanks, universities, and governmental labs; and will be solicited directly by Congressional Committee staff, the judiciary and executive branch bureaucrats. In Parliamentary systems the sources of new ideas are more limited, and much more likely to emerge from party think tanks and be deployed through political parties to ministers and suitably socialized civil servants. At times ideas may go from universities and independent think tanks to mid level civil servants, but there are fewer universities and independent think tanks in parliamentary systems because of the predominant influence of political parties.

International institutions will also vary in their propensity to take on board new ideas. In a study of international institutions that selected new programmatic ideas from epistemic communities leading to a redirection of the core mission of the institution, Haas and Haas (1995) found a number of common institutional properties among them. Their governing bodies were not split by major political disagreements, they were led by skilled institutional heads, they had skilled professional staffs recruited on merit, and the institution maintained a porous connection with external sources of information. Few institutions have these properties. Those that do were created by their initial funders and sponsoring states to have such resources. The postwar settlement institutions had to reflect the geopolitical goals of the superpowers, and be consistent with overarching values and widely shared norms about economic management because decisions were made at the top levels of government in the wake of such system wide crises, and these policy makers were alert to consistencies between perceived state imperatives and institutional design. Institutions that were established in the interstices of the Cold War, when state leaders were paying less attention to perceptions of systemic imperatives, have greater prospects for flexibility when they reflect domestic sentiment in the superpowers, and they were created during an absence of widespread geopolitical schisms.

There are several alternatives regarding the likelihood of which ideas will be selected at a moment of crisis. If there is only one new candidate, there is little problem, and the new aspirant will be selected. If there are many, choices may be conditioned by calculations of relative political gain from each idea. Studies of trade policy and the use of ideas in formulating international trade regimes have offered a number of

propositions about conditioning factors influencing the selection of competing policy ideas (Odell 1990, Goldstein 1993, Garrett and Weingast 1993). Ideas that provide a potential for building coalitions will be favored over those that do not. Simple ideas that have perceived practical utility will be chosen over more complex approaches. In either case, new ideas will only endure if they are loosely commensurate with deeper-seated beliefs and do not endanger strategic political alliances.

7. Diffusion

Over time ideas will be diffused. Whereas they were selected initially by deferring to epistemic communities and recruiting their members by states and international institutions that were seeking new information, the diffusion of ideas occurs by many channels that include direct persuasion, demonstration effects, and inducements and incentives.

Diffusion may occur by institutional learning, as groups apply evolving consensual knowledge to manage institutional practices. Learning occurs directly, through interpersonal persuasion, communication, exchange and reflection, that leads to the recognition or appreciation of new causal models and shared values. Leaders are socialized to accept new views and to empower their expositors.

One other diffusion mechanism is administrative recruitment, as epistemic community members or their confidantes replace officials informed with alternative perspectives. Diffusion may also occur by other mechanisms, as actors alter their behavior subject to the influence wielded by institutions that embody the ideas (those that selected an epistemic community and its ideas earlier).

International regimes informed by institutionalized ideas promulgated by strong states and by international institutions will have the effect of disseminating the ideas to other parties in which epistemic communities were not present, and through their socialization and exposure to new ideas presented during regime negotiations.

Diffusion may also occur directly as a consequence of incentives and inducements to adopt those ideas coming from states, international institutions, and international regimes. These incentives and inducements typically take the form of technology assistance and financial transfers. These will only promote diffusion to states with weak capacity, for whom the provision of such resources would be a powerful incentive to change policy. Demonstration effects by multilateral financial institutions will induce borrowing states to adopt the policy being demonstrated.

States may draw lessons from one another's experiences, and thus borrow policies and ideas from countries that they are trying to emulate (Rose 1993). This process of diffusion is not one of learning,

though, it is one of mimesis or borrowing because the lesson drawers are not adopting the policies based on the persuasive power of reason by an advocate of the policy. Rather they are imitating the actions of someone who commands respect and appears successful.

These diffusion mechanisms will operate along different time frames. While some effects may be felt immediately through new recruitment decisions, and persuasion, broader shifts in public opinion and societal effects may occur on the order of decades. As these processes overlap, the general diffusion of an epistemic community's ideas will accelerate.

8. Persistence

Once in place, ideas are likely to persist once they acquire a taken-for-granted element and as states and their diplomats become socialized to institutionalized regimes and practices generated by the application of new ideas. Eventually ideas get converted to domestic laws, and thus become enforced out of habit and become the basis for policy enforcement by the state. It also becomes politically costly to reverse such practices as new interest groups and policy communities mobilize around them after recognizing that material gains are possible from the application of the new ideas. Ultimately new markets may form through the application of these ideas, and thus generate economic incentives for their continued adoption once economic actors associate their profits with the application of such ideas.

9. Empirical Examples

9.1 International Political Economy (IPE)

Analysts of IPE have identified ideational dynamics in the popularization and dissemination of major economic doctrines. For instance, the repeal of the corn laws occurred after the conversion of Prime Minister Peel, in the face of likely political defeat. The adoption of liberal economic policy occurred following the creation of an influential epistemic community led by Richard Cobden able to persuade top levels of government that the national interest could be advanced by low tariffs, even in the face of economic losses to a powerful political constituency expressing particularistic protectionist interests. England's hegemonic power was then deployed to convert Europe to free trade through the 1860 Cobden Chevalier Treaty, and the US through bilateral treaties, and most European governments kept tariffs relatively low in accordance with the institutionalized ideas until

the 1890s, despite a lengthy and deep economic depression.

Keynesianism spread internationally through a similar process of epistemic persuasion in a core set of countries, followed by the creation of international institutions to legitimate and create international structures based on Keynesian dictates. Keynesianism first caught on in England, then traveled to the US through academic networks of economists. After its adoption at the highest levels in the two countries, it provided the intellectual foundations for the Bretton Woods System, through which it was institutionally embedded for decades.

Structuralism and Development Economics was developed in ECLA in the 1940s, and then embedded in ECLA and UNCTAD, from where it continued to serve as development orthodoxy to a number of developing countries throughout the 1970s, as well as providing the economic justification behind the New International Economic Order reforms of the 1970s. Odell tells how a group of 'floaters' in the US treasury department influenced ending the Bretton Woods fixed exchange rates by designing its replacement (Odell 1982). The Washington Consensus on macroeconomic management has guided international public debt rescheduling during the 1990s.

9.2 International Environmental Protection

Although multilateral economic activities have been governed, since World War II, by the application of consensual liberal ideas about free trade, efforts to control the impact of economic activity on transboundary and environmental pollution has been based on non market and regulatory principles. Since 1972 an ecological epistemic community, articulating a new ecological management doctrine, has institutionalized its ideas in state policies and practices, in the programmatic activities of international institutions, and in international regimes. As a consequence of the international institutionalization of its ideas, states were caused to undertake more comprehensive styles of environmental management for transboundary and global environmental threats, leading to selective improvements in environmental quality (Haas 2001).

A new environmental management doctrine based on ecological principles emerged in the 1960s. The ideas were developed outside the scope of most state interests and are generally regarded as being relatively uncompromised by political and institutional influence, as ecology was a relatively cheap research enterprise and its subject of study was far removed from most state interests. Members of the ecological epistemic community subscribed to holistic ecological beliefs about the need for policy coordination subject to ecosystemic laws (Haas 1990). Their ideas about

ecological management were based on a systems perspective of environmental and social systems. Ecological management proposals were based on setting comprehensive environmental standards based on conservative estimates of the ability of ecosystems to sustain stress, subject to their technical understanding of the behavior of particular ecosystems. They promoted international environmental regimes that are grounded on policies which offered coherent plans for the management of entire ecosystems, sensitive to interactions between environmental media (such as air and water), sources of pollution, and contending uses of the common property resource, rather than being limited to more traditional policies for managing discrete activities or physical resource spaces within fairly short term time horizons. They proposed treaties in which bans and emission limits were set for multiple contaminants, with environmental standards for each contaminant set according to scientific understanding about its environmental impact and its interactive effects with other contaminants.

There were few ideational competitors. Resource management bodies had traditionally been staffed by neoclassical economists and resource managers, who had been discredited by broadly publicized environmental disasters and the energy crisis of the 1970s as well as the limits to growth debate, which they had been unable to predict, and attendant popular fears of widespread resource depletion.

Following the politicization of international environmental issues in the late 1960s galvanized by widely publicized environmental disasters occurring in global commons, the United Nations convened the United Nations Conference on the Human Environment (UNCHE) in 1972. As a consequence of these new domestic demands, and in order to prepare national papers for UNCHE, governments created new environmental agencies. Most state officials were unfamiliar with environmental threats and were unable to rank order environmental threats, amounts of national emissions, what would constitute safe or dangerous concentrations of possible contaminants, and what were appropriate policies to reduce emissions. Many of these national agencies recruited epistemic community members to serve as officials or as consultants.

International organizations were created as well. The United Nations Environment Program (UNEP) was established in 1973 and was staffed principally by young epistemic community members eager to put their professional knowledge to work. The UN Economic Commission for Europe (UNECE) played a strong role in managing European air pollution. The UNECE's environmental unit was led by a former UNEP official who carried the ecological management ideas from UNEP to UNECE. After 1987 the World Bank also became active in international environmental matters. Part of the environmental reforms

introduced at the World Bank was the recruitment of ecological epistemic community members and their assignment to key posts to evaluate the environmental consequences of development projects.

Diffusion occurred principally through efforts of these major environmental IOs and through environmental regimes. The IOs encouraged other IOs to internalize environmental concerns into their missions through joint projects, and encouraged governments to pursue more comprehensive environmental policies through public education campaigns, publicizing environmental monitoring findings, resource transfers, and demonstration effects.

International regimes have been even more important for the diffusion of ecological management techniques. This spread is due to the growing influence of ecological epistemic communities and the growing confidence and influence of strong international institutions informed with their ecological beliefs.

Ecological epistemic communities, often working with UNEP, helped draft international environmental regimes governing marine pollution, acid rain, stratospheric ozone protection, wetlands protection, protecting migratory species, polar bears protection, and the preservation of Antarctica. An increasing proportion of them are now based on the comprehensive ecological approach promoted by the ecological epistemic community. In 1973, three of 11 international environmental regimes were based on ecological management styles. In 1985, seven of 22 were comprehensive. In 1995, 10 of 25 were comprehensive (Haas 2001). The application of ecological management ideas to environmental regimes spanning a number of geographic areas and functional activities means that most states have accepted ecological obligations for governing a wide variety of human activities.

Ecological practices based on ecological management ideas have become locked in through a variety of mechanisms. Following ratification of international regimes, governments enforce these obligations domestically. Ecological practices get institutionalized domestically through legal precedents, bureaucratic standard operating procedures, and policy enforcement. In many countries they have acquired domestic constituencies—composed of lawyers and civil engineers who subcontract services, firms selling pollution control technologies, and environmental NGOs—that contribute political pressure for continued state enforcement of policies grounded on these ideas.

Exogenous forces have also reinforced these state commitments. A Gallup poll conducted in 1992 demonstrated new worldwide concern about the need to respond to global and transboundary environmental threats (Dunlap et al. 1992). In democratic societies public demands for environmental protection reinforce the influence of the epistemic community's ideas. International markets for pollution control technology also came into existence in the 1990s.

10. Further Research

Epistemic communities is a core concept in a progressive constructivist research program. Its application in international relations has restored agency to the study of ideas, improved the understanding of the sources of state interests under conditions of uncertainty and complexity, and expanded an understanding of regime dynamics. In policy studies it fleshes out with accounts of agency the insight that policy debates are discursive rather than rational, and thus 'best' policy analytic suggestions do not always prevail. It provides the potential for understanding the mechanisms by which knowledge change contributes to policy change.

Further work needs to be done to integrate this work into institutional studies, to better understand the character of crises that are capable of generating political upheavals and discrediting institutionalized ideas as well as how ideas become institutionalized at the national and international levels. Research opportunities beckon on the creation, mobilization and maintenance of epistemic networks. Further prospects lie in studies of variation in generation and selection of epistemic communities, and how they communicate with the public. Applications of epistemic communities' research would contribute to the development and organization of usable technical knowledge for improved policy debates on contemporary issues.

See also: Constructivism/Constructionism: Methodology; Decision Making, Psychology of; Environmental Planning; Environmentalism: Preservation and Conservation; International Organization; Organizational Behavior, Psychology of; Organizational Climate; Organizational Decision Making

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Policy Knowledge: Foundations

Private foundations, typically found in countries with strong market economies and comparatively weak states, directly fund public policy analysis by the support they provide to research projects, policy institutes, and individual scholars who investigate policy questions. Foundations also advance public policy agendas by supporting advocacy groups and social movements that in turn have policy agendas. In most countries foundations are prohibited from direct lobbying of legislatures, but they are generally free to support public education campaigns that can contribute to an environment within which different public policies will be favored or disfavored.

1. Definition/History

The private foundation is an institution that privately manages private funds in pursuit of a public good. The source of these funds is normally a wealthy individual, almost always a person whose wealth was acquired in commercial activities. Foundation funds are privately managed by self-perpetuating trustees. The requirement that foundations advance a public good derives from the law under which they are chartered. That law stipulates that the funds made available for the endowment of a foundation, being ‘tax-free,’ must be used for charitable or philanthropic purposes. Foundations operate primarily by giving grants from earnings on their endowments, though in rare instances will also use their endowed wealth for grant making.

The wealthy donor inclined to the philanthropic act as a way to perpetuate his or her name and social influence is not a recent practice. Plato bequeathed property so that his Academy would continue after his death, and in fact the Academy lasted nearly a millennium, from 347 BC to 529 AD, until it was deemed unchristian and dissolved by the Emperor

Justinian. Popes and princes became patrons of the arts to enhance their esteem in the public eye. The royal gift, especially to provide a health or educational service, is known across history and across royal regimes from China to India to Egypt to England. More than a millennium of Islamic philanthropy built libraries, universities, and mosques. Commercial wealth has generated philanthropic endeavors across the centuries, and not just since industrial capitalism. The famous Hotel Dieu in Burgundy was established in 1443 when the benefactor donated a highly valued vineyard. The University of Uppsala was similarly endowed with a gift of productive land. Philanthropy as reflected in the royal gift, the papal patronage, and even the private endowment is the backdrop to what emerged in the advanced industrial democracies, particularly the United States, toward the end of the nineteenth century.

2. Foundations and Industrial Wealth

Late nineteenth century industrial wealth became the basis for a new type of philanthropy—the private foundation. Modern foundations were a self-conscious break from Victorian era charity focused on the immediate relief of suffering and poverty. The distinction between foundation grant-making and charitable giving is often captured in the ‘root cause’ metaphor. Rather than relieve suffering, foundations see their purpose as doing something about the deeper causes that lead to suffering in the first place. The classic example is public health such as a vaccine regimen that is designed to prevent the suffering that accompanies epidemics.

Foundations also differed from the one-time gift to endow a hospital or center of learning. The private foundation, a legally immortal institution, extends the bequest and its purposes into the distant future. That is, rather than endow an institution, the philanthropic act endowed the foundation itself. There are a number of reasons for this institutional innovation, one being the sheer magnitude of the private fortunes gained by controlling a key industry (oil, steel, banking, transport) during the unregulated and largely untaxed decades of the late nineteenth and early twentieth centuries. The private foundation, then, is a place to put wealth too substantial to give away in one’s lifetime.

The twentieth century saw a vast growth in the number of private foundations, and in their aggregate asset base. There are more than 40,000 in the United States alone, and many fewer though still substantial numbers in Western Europe, Japan, Brazil, India, Mexico, and other of the wealthier nations of the world. Many foundations are comparatively small, with annual grant budgets of \$1 million or less. At the other extreme are a few substantially endowed

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