

The Interface between Expert Knowledge and Politics in a Coproduction Model

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The study of GEG can contribute toward debunking a persistent—but rarely explicit—myth, sometimes called the “linear model” (Koetz, Farrell, and Bridgewater 2012) or the “rational instrumental approach” (Gulbrandsen 2010). According to this myth, expert knowledge—that encompasses but is not limited to scientific knowledge—should precede politics. As such, GEG has significant theoretical and policy contributions to offer to other subfields of IR, such as international political economy. Constructivist scholarship so rarely claims policy-relevance that it would be unfortunate not to pay attention.

The myth that expert knowledge should precede politics can be broken down into three related and equally flawed assumptions. The first is ontological and opposes knowledge and politics as two antithetical spheres. According to this dichotomy, expert knowledge is perceived as being ideally consensual, neutral, and universal, while politics is deemed essentially conflictual, partial, and contextual. The second assumption is normative and argues for a strict division of labor, according to which experts should supply and policymakers consume knowledge. The third assumption is analytic and results from the tension between the previous two. It explains governance failures by the tendency of policymakers to follow their political interests rather than knowledge-based solutions.

On the face of it, GEG provides an easy case for the linear model since relevant environmental knowledge is often scientific knowledge, which is supposed to be the quintessential of consensual, neutral, and universal knowledge. Yet, a close look at GEG reveals that scientific evidence is not a pre-condition for political action. The 1987 Montreal Protocol, for example, was negotiated when the magnitude of the ozone layer degradation was still in dispute (Litfin 1995). Conversely, international cooperation on deforestation remains particularly weak although its causes and remedies are well known (Dimitrov 2006).

In some cases, knowledge can even impede cooperation. The profusion of scientific indicators and measurement techniques has complicated rather than facilitated negotiations over Baltic Sea pollution (Auer 2010). Likewise, recent studies suggest that scientific literacy does not necessarily increase consensus on environmental policies but may rather feed polarization (Kahan, Peters, Witlin, Slovic, Ouellette, Braman, and Mandel 2012). Thus, cooperation is not always driven by science, and obstacles to cooperation are not always the results of dirty political games.

One of the first challenges to the linear model came from the epistemic community literature in the early 1990s (Haas 1992). By portraying experts as political actors, driven by principled beliefs and pursuing a common policy enterprise, the introduction of the concept of epistemic community disputed the clear demarcation between expertise and politics. To be sure, the influence of

expertise on politics is not limited to cold, value-neutral technicalities. Scientists and other experts are political when they frame ozone depletion above the Antarctic as a “hole,” present a 2-degree temperature rise as a “reasonable target,” or name a geological period “anthropocene.” They are also political when they define what should be considered as credible, authoritative, and legitimate knowledge, be it a United Nations report, an Inuit pharmacopeia, or the controversial book *The Skeptical Environmentalist*.

The epistemic community literature, however, has been criticized for neglecting the political dynamics underlying the scientific process (Litfin 1995). While it successfully highlighted the direct involvement of expertise in politics, it has failed to theorize the politicization of knowledge and the continually contested boundaries between the two fields. Not only does political action mobilize expert knowledge, but the production of such knowledge is itself, as a social practice, contingent on the political context, and it inescapably possesses a political dimension. Several studies have found a bias in environmental knowledge toward the interests of the most powerful actors. Climate change research has initially focused on mitigation rather than adaptation (Parikh 1992); water science remains fascinated by the water war hypothesis but under-documents low sanitation coverage (Gupta and van der Zaag 2009); and desertification research emphasizes local as opposed to transnational causes (Martello 2004). As a result, most contemporary GEG scholars recognize that scientific knowledge and political order shape one another through a coproduction process (Lemos and Morehouse 2005). Research and international negotiations interact continuously, one orienting the agenda of the other. Best documented cases of such an interactive process are transboundary air pollution (Lidskog and Sundqvist 2002; Tuinstra, Hordijk, and Kroeze 2006), the ozone layer (for example, Parson 2004), and climate change regimes (for example, Miller and Edwards 2001). All conclude that science/expertise does not precede politics, but co-evolves with it.

The coproduction theory does not imply that all scientific claims have the same value, that we should abandon the distinction between expert knowledge and politics or that policy should not be grounded on scientific and other knowledge. Far from being cynical or relativist, it is rather a useful reminder that science and expert knowledge alone cannot solve political problems.

Several GEG scholars have argued that the values that inescapably underlie expert knowledge should be fully articulated and adjudicated through political means. The scientific method and the peer-review process cannot arbitrate ethical issues, such as the level of risk tolerance, the primacy of long-term objectives, the balance between individual and collective interests, or the distribution of effort and costs. Only politics can directly address these issues and guide research accordingly. If done properly, politics can ultimately enhance science’s saliency and legitimacy, without necessarily undermining its credibility. At the same time, science and research need to communicate their own culture of doubt and uncertainty to decision makers (for example, Andresen, Skodvin, Underdahl, and Wettstad 2000; Guston 2001; Cash, Clark, Alcock, Dickson, Eckley, Guston, Jaeger, and Mitchell 2003).

Consistent with the GEG institutionalist inclination mentioned in the introduction of this forum, GEG scholars have found that certain “boundary organizations,” that is, institutions at the interface between science and politics, can favor greater cooperation between the two fields, while keeping them separate. There are various types of boundary organizations, and their design affects their capacity to favor a fruitful science-policy dialogue and interaction. The highly interactive Intergovernmental Platform on Biodiversity and Ecosystem Services may be a promising—though unproven—model (Koetz et al. 2012), while the expert advisory processes of the Convention to Combat Desertification

are based on the linear model's premises and do not appear to design the science-politics relationship as a socially meaningful two-way street (Martello 2004).

Some boundary work can also be done outside of formal boundary organizations. More specific instruments favoring a science-policy dialogue include the joint identification of international environmental indicators (for example, Auer 2010), multi-stakeholder certification schemes (for example, Gulbrandsen 2010), mutual capacity building among researchers from developed and developing countries (for example, Sagar and VanDeveer 2006), deliberative forms of environmental democracy (for example, Hobson 2009), open discussion of the assumptions underlying scenarios and computer models (for example, Pulver and VanDeveer 2009), and collaborative panels for scientific assessment reports (for example, Weichselgartner and Kaspersen 2010). Social interaction between political and scientific actors can lead to mutual learning, shared understanding, and collective action.

Admittedly, there is no simple solution, and the design of the interface between expert knowledge and politics cannot be expected to be a panacea. During the transition from the Soviet Union to the Russian Federation, for example, increased involvement of scientists has not led to more environmental protection (Ostergren and Jacques 2002). But recent work in GEG studies suggests that expert knowledge which is socially and politically embedded tends to support innovative policy, stringent regulation, and international cooperation.

This idea of a coproduction of expert knowledge and politics, prevalent in GEG studies, could be transplanted to other subfields of IR in which authoritative knowledge claims are made. Hard science and scientific uncertainty are not scope conditions, notably because the boundary of the former and the assessment of the latter are socially constructed. For example, economics and economic policymaking could be analyzed under the coproduction framework. The influence of economic paradigms on policymaking is already well documented, especially Keynesian liberalism in the postwar period and neo-liberalism in the 1980s. Too often, however, paradigm shifts are presented as the result of exogenous shocks, such as the Great Depression in the 1930s or stagflation in the 1970s (Morin and Carta 2013). The prevalence of certain methods, assumptions, and paradigms in economics is rarely understood as a political process. International political economy is still largely caught in the linear model in which knowledge precedes politics.

From a policy angle, several issue areas may benefit from a proper boundary institution to appropriately arrange the knowledge-politics interface as a two-way street by facilitating the integration of expertise into politics and *vice versa*. The World Intellectual Property Organization (WIPO), for example, currently faces a legitimacy crisis. Several NGOs and developing countries have come to see WIPO as being biased toward the interests of intellectual property (IP) holders (Morin 2013). In this context, open debates on assumptions underlying IP law and economics, the establishment of an intergovernmental panel on IP's social and economic impacts, and more transparent capacity-building programs could increase WIPO's salience, legitimacy, and credibility.

It is unlikely that strengthening the interface between expert knowledge and politics in global governance would reduce uncertainty. It would rather make uncertainty apparent and inescapable and help allocate political responsibility where it belongs, as politically uncomfortable as that may be. The experience of GEG suggests that acknowledging and embracing the complex relations between expert knowledge and politics is necessary to make their relation mutually supportive.