

CHAPTER 15

Knowledge, Epistemic Communities, and Agenda-Setting

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Knowledge is a key commodity in agenda-setting. Knowledge underpins the new understandings that can play a central role in the (re)framing issues – old and new – enabling actors to operate in Schattschneiderian (1960) ways expanding and contracting issues by using epistemic goods to define the alternatives that matter. To understand the power of knowledge as an institution, political scientists frequently take the producers – epistemic communities – as the key unit of analysis. After all, “ideas would be sterile without carriers” (Haas 1992a, p. 27). Epistemic communities is an analytical framework, first developed in the International Relations (IR) literature, which has flourished in the last two decades in governance and public policy literatures (Dunlop, 2013 for recent bibliographic review). These expert enclaves’ power in policymaking resides in their claims to authoritative knowledge. In the information-dense policy world, where bounded rationality (Simon, 1957) prevents policy actors from attending to inputs in proportionate ways (Jones and Baumgartner, 2005), epistemic communities can be thought of as “special framers”. They produce robust and consensual knowledge, often on an international scale, and so have the ability and credentials to guide powerful political actors through the epistemic forest. In short, they help policy actors learn. The frames they use to fuel learning, and foster particular interpretations of an issue, are epistemic communities’ key resource. The authority that underpins those frames sets them apart from other interest-based policy actors or structural forces.

The epistemic communities framework was originally developed to address international decision-making in issues of technical complexity and radical uncertainty. But, the literature that

has developed in the two decades since its inception, demonstrates the framing power of epistemic communities reaches beyond novelty and uncertainty and into everyday public policies. Moreover, experts' involvement in agenda-setting is found at all levels of government – international, national and local – where they interact not only with elites who make the decisions but a range of policy actors – notably, interest groups, citizens and courts. To capture this variation, we organize the literature using a model of policy learning that explores how the unique potential of epistemic communities as agenda-setters plays out in the variety of political environments in which they push their interpretations.

Section one sets our foundations; defining epistemic communities and outlining their special framing powers. Section two outlines the causal mechanisms that underscore how frames are shared with non-epistemic policy actors. Specifically, we use a recent model of policy learning that distinguishes epistemic communities' four main agenda-setting environments and their activities in each. Section three showcases key epistemic communities studies for each of the four learning scenarios. The chapter concludes by reflecting on the temporal dimensions of epistemic communities' influence, and the limitations of the literature and future avenues for research.

Epistemic communities' agenda-setting roles

Agenda-setting can be characterized as contested processes of issue definition (Daviter, 2007; Dery, 2000; Rochefort and Cobb, 1994). Fundamentally, policy actors aim to get their issue understood as a problem of *public* policy which should be considered by decision-makers formally. The next and more specific challenge is to have their particular *frame* accepted. Excluding outmoded convergence theses, which tied agenda-setting to economic development (for a summary see Howlett and Ramesh, 2003, p. 123-125), this centrality of issue framing is a golden

analytical thread that runs through the agenda-setting literature. Yet, despite this, it was only in the 1990s that scholars began to consider seriously the role of those who create and carry ideas in the policy process. The politics of ideas agenda, which epistemic communities framework embodies, has been followed enthusiastically and resulted in empirical analysis that sheds light on how public policy emerges from new ways of thinking, beliefs, rhetoric and discourse. Here, we explore the agenda-setting power of experts by organizing what we know about epistemic communities as issue framers.

During agenda-setting the number of policy actors is at its highest and links to seemingly unrelated issues and events always a possibility. Princen (2012) argues that this mixture of political activism and outside events leaves the door open to uncertainty. Recent informational models of agenda-setting underline the inherent uncertainty of agenda-setting by adding a further dimension. In addition to the internal politics of policy subsystems and tremors felt from external shocks, the limits of policymakers' own cognitive capacities result in the tendency to over- and under-attend to issues. Informational processing models of agenda-setting demonstrate that the ability to change the frame of an issue, in a manner that grabs decision-makers attention, requires knowledge that can create a new policy image (Jones and Baumgartner, 2005).

Epistemic communities flourish in these conditions of uncertainty. Epistemic communities' political power is held in their ability to frame technical and complex policy issues; their control over the production of highly specified policy-relevant knowledge enabling them to cut through informational overload and ambiguity to frame issues for collective debate. But before explaining why their power is concentrated in agenda-setting processes, we first offer some basic definitional information. Epistemic communities are groups of professionals, often from a mix of

disciplinary backgrounds, which produce policy-relevant knowledge about complex and often highly technical issues (Haas, 1992a, p. 16). These expert groups embody the belief system they create around an issue, this belief system has four components:

[1] a shared set of normative and principled beliefs, which provide a value-based rationale for the social action of community members; [2] shared causal beliefs, which are derived from their analysis of practices leading or contributing to a central set of problems in their domain and which then serve as the basis for elucidating the multiple linkages between possible policy actions and desired outcomes; [3] shared notions of validity – that is, intersubjective, internally defined criteria for weighing and validating knowledge in the domain of their expertise; and [4] a common policy enterprise – that is, a set of common practices associated with a set of problems to which their professional competence is directed, presumably out of the conviction that human welfare will be enhanced as a consequence (Haas, 1992a, p. 3).

This exclusive control over knowledge production ensures they possess scientific authority on an issue and its accompanying promise of order. This allows them to help policymakers learn by framing three key dimensions: cause-and-effect relationships and the likely results of various courses of action; the complex interlinkages between issues; and the self-interest of states (Haas, 1992a).

How do epistemic communities emerge? Empirical studies suggest two epistemic community types distinguished by whether or not they have evolved organically from the epistemic world or been created by other policy actors (Dunlop, 2010). The nature of epistemic communities' origins has a bearing on how politically proactive these groups are and so carries implications for the extent of their framing activities. Epistemic communities were originally

conceived as organic “evolutionary” entities (Dunlop, 2010). In this view, they exist as self-regulating groups “out there” in the academic and research world that enter the political arena either in response to the call for advice (usually from decision-makers) or through their own campaigning (Haas, 1990, 1992a). In such ideal typical scenarios, epistemic communities have freedom to construct frames about *both* substantive policy advice (means) and policy proposals (ends). A second type of epistemic community is also apparent in the literature – those described as “governmental². Here, members have been brought together, by decision-makers or other powerful policy actors, to produce knowledge on an issue (Dunlop, 2010). Where communities are assembled they are frequently politically reactive, their role is to reduce uncertainty around substantives of the issue (policy means) with policy goals and preferences (ends) being left to their convenors.

Why do policy actors listen to epistemic communities? This is not as trite a question as it may sound. We know that getting powerful policy actors’ attention with the hope of influencing the agenda is about crossing a tough “threshold of urgency” (Jones and Baumgartner, 2005). Having robust knowledge about the nature of a problem is often not enough. Even where they have been specially convened, many expert groups fail to make any impact on policy (Weiss, 1979); indeed, their assembly is often a way to kick issues into the “long grass” and away from troubling the agenda (see Marier, 2013 on independent commissions of inquiry). What helps epistemic communities break through this threshold? Epistemic communities are not simply carriers of information. Rather, they possess unique cognitive authority. Where they exist around an issue – whether they are assembled or pre-existing – they are the *main vehicles* of authoritative consensual knowledge. Their legitimacy as policy actors is rooted in this production

of robust knowledge. In their policy work, they do not simply supply decision-makers with “know how” on the substantives of the problem at hand, but are able to make authoritative statements about what is *different* (or otherwise) about that situation. This ability to supply authoritative new information, or offer a new interpretation of existing information, gives these expert enclaves the potential to disrupt and change the understandings that guide policy action. Epistemic communities’ authority is not only held in the knowledge they produce, and images that become attached to that. They attract attention because they are a distinct voice whose language is rooted in ideas rather than interests. Thus, even where they are assembled into advisory committees, epistemic communities are not the archetypal insiders in the policy process. These specialist groups are professionals in their field who have either entered, or been invited, into the political world to advise on a specific topic for a time limited period. In short, they have day jobs. That they are not part of the permanent, professionalized interest-based policy scene – the “usual suspects” – gives them the freedom to speak and potentially the power to unsettle existing policy subsystems and gain attention for their frame.

A final source of epistemic communities’ ability to grab attention and play pressure politics comes from the transcendent nature of their expertise. Technically complex issues are often transnational or cross-cutting (Haas, 1992a). This means that epistemic communities – which themselves may be transnational or inter-disciplinary – have multiple access points to the policy process. The learning they generate in one venue, say in the national level, may feed upwards internationally and downward locally. Similarly, an expert group that is ignored in one setting may be able to “venue shop” (Baumgartner and Jones, 1993) for an alternative and more receptive audience thus generating pressure for their frame in the original setting and others.

This power to generate new learning, and possibly disrupt what is known about an issue, is at its peak in the pre-decisional stages of decision-making where uncertainty and novelty about the technical dimensions of issues are most radical. Unlike interest actors, epistemic communities are rarely involved in informing which agenda items are processed and how they are translated into legislation (see Dunlop, 2013 for a review). Yet, while they are most associated with agenda-setting processes, the temporal dimension of epistemic communities' power to create new understandings need not be considered rooted to one agenda-setting moment in time. Where frames are adopted, or an epistemic community insinuated into a bureaucracy (most commonly as an advisory committee), "the effects of epistemic community involvement are not easily reversed" (Adler and Haas, 1992, p. 373). There is a second way in which epistemic communities' ideas can be sticky; an epistemic community can also have influence where its interpretations are not initially adopted. More than four decades of research on knowledge utilization in the policy process tells us that ideas often "seep" and "creep" into policy over long stretches of time (see Weiss, 1977 as useful starting point for this vast literature). Thus, while epistemic communities offers an "anthropomorphic" conceptualization of knowledge (Radaelli, 1997, p. 169) – where the experts who have produced the knowledge are key political players – their ideas can outlive them. Even when an epistemic community has long since departed the policy stage its frames may carry a legacy being debated and resurrected by other policy actors – this can be a successor epistemic community or interest-based actors (Dunlop, under review). So, framing power may not be instant: frames planted by an expert enclave can finally take hold when watered and tended years down the line by other actors.

Thus, epistemic communities are special framers. Their ability to bring genuinely new issues and information about existing issues to policymakers can lead to the disruption of old understandings and facilitate new policy paths – paths which would otherwise have remained hidden (Haas, 2011). Of course, conceptual lenses obscure as much as they illuminate and we must be realistic in our expectations about the extent of epistemic communities' framing power. From the concept's inception, the literature has been clear that framing the form of policy choices – where preferences bear the imprint of an epistemic community – is mediated by wider power distributions and policy actors (Haas, 1992a, p. 7). How epistemic communities create learning in agenda-setting by interacting with actors in the wider policy world is examined next.

Agenda-setting and epistemic communities: Framing through learning

We begin this section begins with two questions. What does it mean to treat agenda-setting as learning? Why examine epistemic communities' role in agenda-setting through a learning lens? Policy learning and epistemic community analysis share a common misconception – both are often mistaken and criticized as offering a technical-rational interpretation of policy-making (on policy learning see Meseguer 2005 and Toke 1999 on epistemic communities). Despite the many studies and typologies of both learning and epistemic communities that underline the power and politics held in knowledge and by knowers, ideational variables are still routinely contrasted with frameworks privileging structures, interests and culture. In this view, to learn in policymaking is characterized as the naïve assumption that decision-makers' beliefs are instrumentally updated by Bayesian logic – where they use new information to decode problems and update beliefs and action in an objective and proportionate way (Meseguer, 2005). In a similar vein, epistemic communities are key agents in these technical learning processes; they

exist to alert decision-makers to problems in knowledge-dense areas delineating the scale of the problem. These caricatures set an unrealistic test for the role of ideas in policymaking – if epistemic communities do not change preferences through direct and linear learning processes then their ideas risk being dismissed as epiphenomenal.

Here, we recapture the spirit of the “renaissance of knowledge” in policy analysis (Radaelli, 1995) emphasizing the symbiotic relationship between power and ideas (Jacobsen, 1995). As key actors in the supply of new information and elucidation of complexity, we must treat epistemic communities as *political actors* which inhabit a variety of roles in agenda-setting and whose power is held not simply in its belief system but is created and recreated in interaction with structures, interests and wider social culture. The nature of experts’ power and role depend on the wider learning context prevailing around the issue at hand at a particular point in time. And so, “puzzling” in the policy process – whether in agenda-setting or beyond – is not an alternative to “powering” (Hecl, 1974, p. 305-6). Knowledge instantiates power, *it is a form of powering*. Moreover, puzzling is collective. It is done by actors through dynamic interactions rather than done by one actor to another. The interactions are underpinned by learning processes which are temporally and politically contingent. As the policy context varies, so we find different types policy actors learning about different frames in different ways. We use a recent model of policy learning to capture the main varieties of learning that occur in the policy process before outlining epistemic communities agenda-setting role in each.

Drawing on the vast policy learning literature, Dunlop and Radaelli (2013) contend that the type of learning that characterizes an issue is a product of two conditions of decision-making. One is problem tractability (see Hisschemöller and Hoppe, 2001); some problems are ‘wicked’

(Rittel and Webber, 1973) while others have more stable characters. Where technical uncertainty is radical, decision-makers need authoritative advice – as in the ideal typical form of epistemic communities (Haas, 1992a). However, where uncertainty is low or has been reduced, issues are highly tractable and so the subject of special interests or set institutional rules and standards. The other variable concerns the social certification of actors (McAdam, Tarrow and Tilly, 2001, p. 121): in any given issue, is there a socially endorsed actor that stands above others as authoritative?

Figure 15.1 about here

Taken together, high or low values on these two dimensions generate four pre-eminent learning types in the policy literature (see figure 15.1). These four are differentiated by the role of epistemic communities in framing; the modes of interactions with policy actors; what is framed; the causal mechanisms they imply; and the nature of decision-maker attention that mediates experts' influence (see table 15.1).

Table 15.1 about here

Before we explore in more depth the agenda-setting activities envisaged for epistemic communities in each learning mode, it is worth pausing for a moment to consider the more fundamental merit of this approach. Epistemic communities are unusual policy actors. Their belief system is not simply the “glue” (to borrow from Sabatier, 1988) holding them together; epistemic communities *are* their beliefs. As was noted earlier, they are the human embodiment of the knowledge they produce (Radaelli, 1997). Their political motivation is rooted in that knowledge, the normative beliefs that propel them to pursue that research agenda in the first

place, and in the advancement of the policy conclusions they draw from their work. But, this does not mean they are apolitical entities.

Confusion around how politically motivated epistemic communities are may be an artefact of the original conceptualization. Distinguishing them from interest based actors, Haas quite reasonably points out that “[U]nlike an interest group, if confronted with anomalous data, they would retract their advice or suspend judgement” (Haas, 1990, p. 55). This should not be misunderstood as meaning that epistemic communities are some special breed of noble policy actors who would rather fall of their sword than continue if they lack 100% certainty on an issue (for a wider discussion on this see Dunlop, 2000). Rather, it is an entirely logical argument about existential resources. Just as interest groups need to withdraw from policy debate if their key resources run dry – most obviously, support from member; access to powerful networks; financial power – nor can an epistemic community continue if it has nothing to say it considers authoritative. But, such circumstances are the exception to the rule. Consider what we know about the sociology of knowledge production; in practice, a cataclysmic depletion of epistemic resources rarely happens. Knowledge production rarely produces moments where anomalies cannot be worked into pre-eminent paradigm. When they do come, scientific revolutions come with warning and scientific communities reconfigure rather than die (Kuhn, 1972). Allied to this, there is the aforementioned issue of motivation and origin. Not all scholars and scientific communities are members of epistemic communities in the policy world. Epistemic communities do not opt to stay in ivory towers sealed-off from the rough political world (assuming that such places exist). Rather, they choose to engage. If anything, the vagaries of knowledge production *work with* not against that motivation.

So, epistemic communities are political actors who promote learning in dynamic relationships with other policy actors. Treating them as politically motivated is essential if we are to understand their power. Epistemic communities' success in framing depends not simply on their epistemic resources (most fundamentally consensual knowledge) but on their origins (see discussion in section 1) and their political acumen. On this last factor, an epistemic community's willingness and ability to engage an array of policymakers in learning depends not simply on the external context within which they operate but on the internal make-up of the group and their relationships with powerful policy actors. On the former, leadership, disciplinary mix and professional training of the members are all micro-level factors being examined in recent agent-centered epistemic community studies (Cross, 2013). Relationships, in particular between experts and decision-makers, are now being analyzed qualitatively and quantitatively (see Dunlop, 2014 and Stoutenborough, Bromley-Trujillo and Vedlitz, 2015 respectively).

Here, however, we draw on the evidence base which so far mainly concerns the external rather than internal dynamics of epistemic communities' framing power. As arguably the most politicized and contested part of policy-making, agenda-setting is the realm of an almost unlimited array of actors. The varieties of learning model provides one way to illuminate the variety of contexts in which epistemic communities' emerge, and use their consensual knowledge and political acumen to contribute to the learning processes that underpin what gets decision-makers' attention and on the political agenda. In the next section, we outline these ideal types and illustrating them empirically to establish the variety of ways in which epistemic communities frame issues for the agenda.

Epistemic community framing in four learning modes

Epistemic learning: epistemic communities as teachers of frames

Where agenda-setting takes place in epistemic learning mode, problems are uncertain and often intractable and a socially certified set of experts exists or can be constructed to play the role of “teacher”. Engaged in exclusive and dyadic relationships with decision-makers, epistemic communities frame these powerful actors’ understandings and, in some cases, their very policy preferences. In its ideal typical form, epistemic community-decision-maker interactions are cooperative but necessarily asymmetrical, with decision-makers effectively being “taught” by the experts. Decision-makers’ attention is directed toward epistemic communities, though this will likely diffuse as their preferences become clearer to them.

The epistemic communities’ framework grew out of an ideal typical case. Haas’s study *Saving the Mediterranean* (1990) demonstrates the extreme level of framing experts can have. Here, an evolutionary community of scientists and environmentalists used their authoritative knowledge about pollution in the Mediterranean not only to get decision-makers’ attention by framing the problem as urgent, and but also impressing upon them that it was solvable. They established a position within the UN’s Environmental Programme (UNEP) and used that bureaucratic power to frame policy preferences about the course of action to be taken. Haas found a similarly high level of framing power in his study of the transnational epistemic community around chlorofluorocarbons (CFCs) and the resulting 1986 Montreal Protocol (1992b). Again, this is another issue where decision-makers had little experience and unknown preferences.

Such cases are the exception in the literature however. A more common role for epistemic communities as teachers is to provide advice and interpretations to decision-makers

who have already identified a problem. Here, framing does not take experts into the very governance of the issue as Haas found, but rather the frames they create around complex problems mediate decision-makers own nascent understandings. This process of teaching as ideational intermediation is seen in Ikenberry's study of Anglo-American postwar economic settlement (1992) where an epistemic community was constructed by decision-makers to provide technical and normative guidance to facilitate a move away from policies based on unregulated free trade. A similar instance of epistemic communities framing understandings and the form of policy choices is offered by Verdun in her study of the Delors' Committee that was appointed to provide the substantive epistemic narratives to supranational elites aiming to deliver the policy end of Economic and Monetary Union (EMU) in the EU (1999).

Before we move beyond the epistemic mode, it is worth lingering on one final point. For many epistemic communities themselves, this role of teacher working with a single and powerful learner will be their ideal typical scenario. While epistemic communities are political actors who are ready and willing to engage with other actors, the bias of knowledge creators is for policy making that is based on evidence that they create. Think, for example, about the frustration that government does not use evidence instrumentally which is the hallmark of the policy evaluation and appraisal literatures (see Dunlop, 2014 for a review). Thus, experts may aim to cultivate these types of close, and closed, interactions by re-framing social reality and the issue context itself both to others and themselves (see for example recent attempts to establish an epistemic community around a new frame of South Korean foreign policy, Yoon, 2015). In order to build these exclusive relationships, experts often use boundary work strategies (Gieryn, 1983) to demarcate the lines of science to restrict the number of actors who are certified as experts. They

may also frame an issue as more uncertain and intractable than other interest-focused actors would. Similarly, decision-makers themselves may use epistemic communities to shift the social reality of an issue; most obviously to depoliticize the divisive or emotive (Peterson, 2001).

Reflexive learning: Epistemic communities framing through deliberation

In this second scenario, agenda-setting is governed by deliberative, reflexive learning processes in contexts where issues that are highly uncertain and lack a single certified authoritative actor to guide decision-makers. To be effective in reflexive environments, where knowledge may be pre-paradigmatic, epistemic communities aim to facilitate social debate. This takes experts out of enclosed dyadic relationships with decision-makers, and places them in much broader social networks – where ordinary citizens and the media who carry their own frames must be engaged in learning relationships. The goal here is to construct a frame that offers a “consensual basis for action” (Rein and Schön, 1977, p. 240).

What role can epistemic communities play in resolving the intractable? The empirical literature of epistemic communities specifically provides very little by way of examples. But, the wider literature that deals with experts, knowledge and policymaking offers some insight. Two modes of framing are apparent in studies. First, is the public understanding of science (PUS) mode that dominated accounts of how experts should and did interact with the public for much of the post-war era. Here, citizens are understood as having knowledge deficits to be filled by science. As a corollary, intractable policy issues were only intractable because citizens possessed insufficient understandings (Wynne and Irwin, 1996).

PUS has been replaced in prescriptive analysis by approaches emphasizing the role of experts in public engagement (Thorpe and Gregory, 2010; Tili and Dawson, 2010). Rather, than

act as deficit fillers, the public engagement view of framing is one that emphasizes the importance of reaching an agreed normative as well as substantive set of frames. Here, we have the ideal type of reflexive learning which views citizens as co-producers of knowledge able to work alongside experts.

In its purest form, deliberation is force-free where a multiplicity of voices can be heard and preferences open to persuasion. The function of these encounters is not simply to give citizens a role in policy framing but to involve as many lay actors as possible in the framing of knowledge production itself. Such “upstream” encounters with epistemic communities allow for the development of intersubjective understandings and social consensus required for the creation of stable policy frames (Willis and Wilsdon, 2004).

In this engagement view, epistemic hierarchies are replaced by a range of knowledge types – substantive; value-based; experiential – associated with the complexity of the situation and range of actors (Sanderson, 2002). Yet, we should be clear about the status of these two contrasting modes. While PUS frames are certainly less studied and advocated now and innovations such as citizen science have pushed the case for engagement, the experts as deficit fillers model has not been supplanted by co-production as a reality. The assumption that experts’ role in society is to fill deficits undoubtedly lingers in advisory governance practices (Irwin, 2006; Pieczka and Escobar, 2013). Allied to that, there are questions about citizens’ willingness to become involved in such upstream framing. Recall what Anthony Downs’ (1972, p. 38) famous issue-attention cycle tells us about the ever present danger of issue fatigue and drop-off in public interest.

Of course, epistemic communities' involvement in such contested and pre-paradigmatic arenas is not always an attempt frame the problem to fill substantive deficits or contribute to the co-production of social consensus. Rather, experts may be framing *themselves* as legitimate and special participants whose voice should be heard about the cacophony. Such political aims are captured in the example of Dutch immigration debates over the last decade where the participation of some experts' promoting a socio-economic frame participation "is geared towards achieving or reproducing their status as migration integration experts" (Caponio, Hunter and Verbeek, 2015, p. 34).

Learning through bargaining: Epistemic communities as agents

While being identified as the prime teacher on an issue may be an epistemic community's aspiration, it cannot be an expectation. Experts may be involved in situations that are overtly political, where lessons and understandings are used to fix bargains and learning is a by-product of competitive governance debates. Such settings are dominated by major interest-based stakeholders who commission and select evidence from a plurality of experts most suited to develop and justify their policy preferences. In such polyarchic environments, politically feasible frames dominate and it sometimes makes sense to think in terms of policy-based evidence making as opposed to evidence-based policy making (Hughes, 2007). This is possibly the most challenging mode for epistemic communities as it requires they become policy advocates and bargain for their understanding of the issue. But, there is much to suggest that these expert groups are able to engage in these competitive arenas. Using insights from negotiation analysis, Sebenius argues that an epistemic community's influence may emanate from *bargaining* with other actors in an attempt to convert their "natural coalition" of believers into a "winning

coalition”, pushing forward a shared policy enterprise (characteristic [4] of an epistemic community) (Sebenius, 1992, p. 325). Therefore, epistemic communities have to be politically proactive players to convey their message, interacting with a multiplicity of other actors where it is to be expected that influence is variable and contingent as wider strategic games are played out.

In agenda-setting terms, this is the stuff of the classic pressure models where organized interests with inside access to decision-makers aim to expand an issue only to secure the support of actors with a specific skill or resource (Cobb, Ross and Ross, 1976). The literature reveals that epistemic communities’ contributions here range from being strategic allies to those inside the subsystem to more proactive actors working with outsider groups to disrupt policy monopolies. Evidence of epistemic communities as knowledge agents abounds, where the political potential of consensual knowledge is realized through the involvement of other, more politically astute, groups. This interaction is often captured by empirical studies using the advocacy coalition framework (for example, Dudley and Richardson, 1996; Elliott and Schlaepfer, 2001; Meijerink, 2005) where experts form the ‘epistemic wing’ of these larger value-drive groups. These strategic relationships are not necessarily temporary arrangements. What starts as limited issue expansion by interest actors can become institutionalized over time. For example, Tsingou’s (2015) study of the transnational policy community around international financial governance identifies long-term alliance of experts and stakeholder advocates from public and private sectors embodied in the influential Club of Thirty. In the Club, experts provide the robust information used in professional networks to establish the “principles for what constitutes appropriate

financial governance” arrangements (2015, p. 225). Morin (2014) offers a similar example of interest-based actors amplifying expert knowledge in the global intellectual property (IP) regime. What about more overtly political or conflictual behavior? Though they do offer a convenient way of accessing the academy, epistemic communities are not simply specialist suppliers providing knowledge that helps facilitate incremental deals. They are political actors that demand to be heard who aim to get attention for their problem frame by providing new information and images. Often they aim to access closed policy subsystems by using their knowledge to disrupt. Where there is no single episteme, contending world views can be carried by rival epistemic communities who bide their time before entering the political fray.

Macdonald’s (2015) analysis of the nuclear test-ban debate in the 1950s demonstrates the willingness of epistemic communities to behave in entrepreneurial ways – using political windows of opportunity to create new venues and attention for their frame and discrediting those of other experts. This last point is critical: when epistemic communities discredit they discredit *other experts*. There is little evidence that epistemic communities are willing to engage in framing wars with interest groups. Rather, conflict appears reserved for other expert groups.

This can also be scaled-up internationally. In sustainability (Ponte and Cheyns, 2013) and trade governance (Scott, 2015) for example, expert groups mobilized by non-governmental organizations (NGOs) play a central role in defending the interests of weak states with their ideas becoming key resources in international negotiation (Farrell and Héritier, 2005; Sebenius, 1992). This power to resist pre-eminent frames, and disrupt the global certification of one group of thinkers, is exemplified by a case from the global South. In his analysis of agenda-setting on HIV/AIDs in South Africa, Youde (2007) notes how the emergence of a state-supported counter

epistemic community forced the international scientific community into competitive mode on the epidemiology of the disease. Similarly, Dunlop (2007, 2009) traces the emergence in the 1990s of a rival epistemic community on genetic modification in the EU that acted as a counter to that of the US halting the transfer of the international frame of genetic modification as an extension of plant science.

Learning in the shadow of hierarchy: Epistemic communities as standard bearers

Learning in the shadow of hierarchy capture scenarios when knowledge is used to impose control from the top (Weiss, Murphy-Graham and Birkeland, 2005). Most commonly, such shadows are cast by institutions such as courts or standard-setting organisations. Epistemic communities frequently show up in these settings as expert witnesses or technical information gatherers – there to bear the standards that have already been set. The key for success for epistemic communities in these settings is to ensure an in-depth knowledge of the institutional rules and how they can confer an advantage to experts (Dunlop, 2014).

Legal settings are the most common hierarchical structures where we find epistemic communities that have the power to frame, and so shape, policy. Epistemic communities are often key actors in the judicialization of issues, with legal frameworks resulting out of crisis when experts facilitated epistemic learning (see Ikenberry, 1992 on the pivotal role of epistemic communities in the construction of the post-war economic framework). Legal experts' reach often goes further than just framing the standards enshrined in hierarchies. Members of judicial epistemic communities are often scholars *and* practicing lawyers (Katzenstein, 2014, p. 165) extending their reach into implementation where issue framings can be altered. The literature contains many examples of such entrepreneurial behavior where legal experts act as street-level

bureaucrats exploiting rules to lever-in new evidence (for example Gavrielides 2010 on the expert use of the 1988 UK Human Rights Act and Stutz 2008 on public inquiries) or use their cognitive authority to re-define the law by dint of how they enforce standards (Guidotti 2006 on evidence-based medical dispute resolution).

Yet, hierarchy can cast a darker shadow. Experts may face pressure from hierarchical institutions and actors to learn in ways which they have little hope of altering – bearing standards in quite a different way. Where an epistemic community’s worldview is at odds with hierarchy, these scenarios are characterized by expert defeatism where a group and its frame are perpetually ignored. Take for example, the case of US foreign policy in Iraq. Long et al (2015) survey an epistemic community of IR scholars in the US to assess the extent to which its opinions showed up in elite policy discourse and action. The results are sobering; despite an overwhelming consensus against the Bush administrations’ position, political elites’ dominance in framing the policy problem and solution left scholars sidelined from the outset and denied a public voice. In hierarchical settings the impacts of expert resistance are limited.

Conclusion

Epistemic communities are special framers whose power is rooted in the authoritative and robust knowledge they produce and realized through dynamic learning relationships with a range of policy actors. Though the role of knowledge and knowers in agenda-setting is at its most potent where issues are intractable and experts socially certified, epistemic communities framing power is wider than that. Our learning typology helps capture the variety of environments in which epistemic communities stimulate learning and the nature of their framing power in each. While we can see the dynamic nature of interactions within each learning mode, questions remain

about the temporal dimension of their framing power. Two issues are especially important. First, we know little about how epistemic communities are affected by changes in learning modes over time. As the two contextual conditions – actor certification and issue tractability – change so moves will be triggered in the learning environment. Such shifts are especially likely where an issue starts in epistemic mode – where experts clarify the preferences of decision-makers they may trigger ironic consequences where they themselves become irrelevant and bargaining mode takes over (see Dunlop, under review). The politicized nature of agenda-setting means that such moves may be initiated by social forces rather than decision-makers, of course. Communication advances have led to a democratization of information. While not as powerful as authoritative knowledge, information is an important tool in contesting knowledge hierarchies which may push an issue into a new learning mode – making it less tractable and undermining certified experts’ status. How easy is it for epistemic communities to go with the flow of agenda-setting and shift their mode as learning environments change? Exploring the potential for dynamic movement between learning modes requires research to attend to the temporal dimension of policymaking – we need case studies that take the long view. A focus on the “here and now” of policymaking means that analysis may miss the importance of starting points for the power of epistemic communities. Those that start in more open conflictual settings of bargaining and reflexivity may be more able and willing to move into more exclusive settings of epistemic and hierarchical learning.

Knowing more about internal motivations of these expert enclaves would also tell us much about their willingness to move modes and staying power. Though the science and technology studies (STS) literature tells us much about experts’ willingness and ability to

become engaged in political battles, most often the empirical cases concern disputes *within* science (Gieryn, 1983). Evidence from the political arena is rather more circumspect. For example, in cases where a once pre-eminent epistemic community has become sidelined, evidence suggests that they may not be motivated to change strategy and move into bargaining or reflexive mode (Dunlop and James, 2007 on hormone growth promoters). In this case, the epistemic community was reluctant to move out of epistemic mode as teacher and join the political fray. Certainly, decision-makers used institutional machinery to block these scientists from pushing their interpretation further. But, the scientists themselves did not contest being closed down. Though epistemic communities are political actors they are not professional political actors in the manner of interest groups for example. Members of epistemic communities' have day jobs; their policy advice work is moonlighting of a sort.

The second question about the temporal power of epistemic communities concerns the extent to which their frames leave footprints. Epistemic communities concentration on agenda-setting means their involvement in the policy process will usually be temporary. Unlike interest groups these groups are not likely to reappear in the implementation stages of a policy's life. How sticky are their frames? Recent evidence suggests that even where an epistemic community has long since left the policy stage, the authoritative knowledge it produced remains imprinted on future policy frames and debates. Take the case of bovine tuberculosis (BTB) management in the England (Dunlop, 2016). The epistemic community around this no longer exists, but its consensus about the causes of disease transmission lives on and casts a considerable shadow upon any policy framed in a contrary way. It is kept alive of course by other policy actors –

epistemic and otherwise – and used in England and beyond. Such longevity is part of what makes epistemic communities special framers.

That epistemic communities' power is so concentrated in issue framing is not unproblematic. They may not follow-up on the how their ideas feed into policy design. Take, for example, the case of economic ideas that underpin the austerity paradigm. An epistemic community was central to the idea that severe fiscal adjustments could be expansionary (Dellepiane-Avellaneda, 2015). With these ideas accepted, these same experts have little say in how states implement them since the Financial Crisis of 2008. Rather, they must follow-up on the impacts of their ideas and reframe them according to how they play out.

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