



Epistemic arbitrage: Transnational professional knowledge in action

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ABSTRACT

This article discusses transnational professional knowledge in action and puts forward a conception of how professionals play off different forms of knowledge to provide policy solutions and, in doing so, generate markets for their services. The key concept is ‘epistemic arbitrage’—when professionals exploit opportunities between bodies of professional knowledge. Professionals mediate between knowledge pools for strategic advantage and, if successful, they can become the ‘arbiters’ on what knowledge and practices are most influential in their area of transnational governance. Organizations also have a demand for epistemic arbitrage, as it permits managers to have more influence over what knowledge is dominant and allows greater control of staff. The concept of epistemic arbitrage is situated in the relevant literature from International Relations, Organization Studies, and Sociology, and this interdisciplinary article brings them together to advance the new transnational sociology of professions. I suggest that transnationality matters for how professionals behave and one can draw a distinction between ‘thin’ transnational environments that are especially permissive of epistemic arbitrage and professional mobilization, and ‘thick’ domestic environments where professional jurisdictions can dampen epistemic arbitrage. The article outlines how transnational professionals can be understood as unique groups that have careers and operate in networks where there is a supply of, and demand for, epistemic arbitrage. It also establishes why ‘knowing well’ is crucial to those who have power in shaping how transnational issues are governed.

KEYWORDS: professionals; transnational; epistemic arbitrage; ecologies; networks; financial reform.

INTRODUCTION

This article picks up recent calls for a ‘transnational sociology of the professions’ (Faulconbridge and Muzio 2012) and, in particular, the need to theorize how professionals operate transnationally in different types of organizations. The call for a new transnational sociology of the professions is premised on the notion that professional privileges and practices are being institutionalized by powerful actors via the development of ‘professional regulations, norms and

cultures outside the confines of Westphalian state regimes through forms of transnational professional projects tied to the imperatives of neoliberal capitalism’ (Faulconbridge and Muzio 2012: 137). This article supports the idea that transnational professionals are increasingly prominent, and that policy networks are ever more centered on those who can demonstrate that their professional skills and professionalization are transnational rather than remaining within a national system.

This transformation has not only occurred over a number of decades but also intensified in particular sectors, especially those that associate prestige with going through ‘revolving doors’ between the public and private sectors (Seabrooke and Tsingou 2009) or those who link the world’s ‘best practices’ to a greater professional capacity to handle complexity and organize across jurisdictions (Greenwood et al. 2010: 179). Discourses of globalization and the need for economic adjustment across a range of professions and sectors are also strongly linked to the prominence and mobility of transnational professionals who are frequently called upon to provide standards and benchmarks for appropriate behavior (Quack 2007; Baker 2013). Global professional service firms are also involved in transforming professionalism from a national occupational concern to a transnational organizational and managerial concern (Faulconbridge and Muzio 2012). The transnational realm is increasingly a place where professionals are being professionalized to organize across jurisdictions, and where professionals are mobilizing to generate demand for their skills and knowledge. Some of this transnational activity comes at the expense of national professional associations, who have traditionally been dominant in controlling their own jurisdictions and deciding who gets to do what work (Abbott 1988). There has been some growth of transnational professional associations, such as the Society of Trustee and Estate Practitioners (Harrington 2012), but in general transnational professionals do not require associations to have influence. Rather, they are held together by shared understandings of how issues should be governed, tasks allocated, and who knows well enough to do to the work. Actions from transnational professionals are also changing how organizations actually organize. We can rely less on the notion that international organizations are bureaucracies and that firms are for-profit organizations, with much more professional cross-fertilization occurring between formal organizational types.

This article outlines the concept of ‘epistemic arbitrage’, which provides an understanding of how particular professionals are able to exploit differences in professional knowledge pools for strategic advantage by positioning particular forms of knowledge as the most appropriate to deal with particular

problems. When successful, those engaging in epistemic arbitrage—the arbitrageurs—can become epistemic ‘arbiters’ who decide how to address transnational problems and who can address them. Arbitrage is a mobilization action while arbiters act to create professional jurisdictions to control and protect issue definition and task allocation.

Let us take a real example. A transnational professional may be formally trained as an economist and has a successful career in the International Monetary Fund (IMF). A typical understanding from the sociology of professions would locate this individual as an economist in the expert division of labor and associate jurisdictional claims over professional tasks, who does the work and how it is done, in relation to other professional groups. However, this person’s influence and tasks are not derived from his formal training, socialization while at the IMF, or membership of a professional association. The individual I have in mind also led the European arm of the global market strategies group for a globally significant financial institution, and is now the Dean of a prominent business school. He is influential in establishing benchmarks for good science on international finance, in setting market practices in a lucrative field, and in guiding what knowledge is important for the internationalization of MBAs and MPAs. He is widely perceived as someone who ‘knows well’ in the professional ecologies around international organizations, financial institutions, and universities, as well as someone that selectively introduces knowledge from one ecology into others. This person has moved around professional ecologies and identified differences in knowledge to create opportunities, or what I refer to as epistemic arbitrage. Such behavior is a form of professional mobilization and challenges established professional jurisdictions and conceptions of professionalism (see Parker 2014). His success in doing so makes him an epistemic arbiter who has some power in establishing how transnational issues are governed, such as what knowledge is relevant for international financial reform.

I suggest that epistemic arbitrage is particularly prominent in transnational environments, which are ‘thin’ compared to domestic ‘thick’ environments. Professional competition over issues of transnational governance reflects high levels of epistemic

arbitrage in part because activity commonly takes place above or around domestic professional jurisdictions. As such, transnational environments are prone to what Burt (1992) calls 'structural holes', missing relationships between nodes in a network, unmade possible ties, which inhibit flows of information. I suggest that transnational professional knowledge in action can be understood in ecological and network terms (Abbott 2005; White 2008; Burt 2010), and I draw on this thinking in considering transnational professional emergence.

This interdisciplinary article proceeds in five steps. First, I introduce the concept of epistemic arbitrage and situate it in the context of competition between professional ecologies. An important element of the argument is that arbitrage is based not on ideas or norms but knowledge. More specifically, arbitrage is based on relationships in which a professional is identified as 'knowing well' rather than simply having a stock of information (Lazega 1992). Second, I compare the notion of transnational professional knowledge in action to common frames in International Relations, Organization Studies, and Sociology, pointing out that 'thin' transnational environments offer opportunities that are less likely in domestic 'thick' environments where national professional jurisdictions may hold sway because they are more densely populated with long-established institutions and traditions. In short, transnationality matters for professional mobilization and market creation. Like all markets, in this case for professional knowledge, it has supply and demand sides. In the section 'Supply of Epistemic Arbitrage', I discuss how professionals can exploit structural holes and engage in epistemic arbitrage to shape markets in ways that directly benefit them. In the section 'Demand for Epistemic Arbitrage' I suggest that organizations that are transnationally active have important reasons to demand epistemic arbitrage from professionals. In the section 'Epistemic Arbiters', I discuss how supply and demand are both shaped by epistemic arbiters who have particular influence over how relationships are governed. I also reflect on how arbitrageurs successfully engaging in epistemic arbitrage become arbiters who use style as means of inducing deference and enforcing new status hierarchies. In the conclusion I reflect on how

epistemic arbitrage contributes to International Relations, Organization Studies and Sociology, and our understanding of transnational professional emergence.

EPISTEMIC ARBITRAGE

The concept of epistemic arbitrage is that professionals can mediate between different pools of knowledge for strategic advantage to position themselves and their preferred skill set and knowledge as the best way to address problems. I identify epistemic arbitrage as particularly a transnational phenomenon because of the opportunities afforded to those engaging in professional projects articulated in what is a 'thinly' socialized space. In essence, epistemic arbitrage operates in a market of knowledge, where arbitrageurs buy cheap and sell dear while also seeking to hedge their position. An important element of the concept of epistemic arbitrage is that the key resource involved is knowledge rather than material wealth or ideas. There are many common sense explanations of why those with material wealth are able to achieve more from greater access to networks via technological superiority, lobbying support, and the like. Those without material resources do poorly because they have no means to hold meetings with, or provide support to, other professionals they need to influence on how issues are treated.

I suggest that knowledge is more important to focus on than ideas. Ideas and discourses are important sources of institutional change (Schmidt 2008), and they can reduce uncertainty and provide focal points to coordinate expectations (Blyth 2002: 15). Ideas, however, suggest an independence and autonomy of content from the relations that undergird them, as well as implying that those carrying them can legitimate the implications of the ideas by proclamation (Seabrooke 2006: 40–2). Knowledge is a better way of conceiving how information flows around professional ecologies, but some qualification is required on what exactly is meant by knowledge. Knowledge can be viewed as a combination of authoritative knowledge (certified training), experiential knowledge (learning from practice), and portable (such as through patents or textbooks). The work on professions has long taken a more

praxeological view that knowledge ‘lives through its agents’, who employ it strategically according to the task involved (Freidson 1986: 217). From this perspective knowledge is not a stock of information, knowing or not knowing, but a relationship among professionals. The epistemic character of epistemic arbitrage is then based on relationships in which a professional is identified as knowing well (Lazega 1992: 30). This view relaxes the notion that knowledge is possessed by a community and places more attention on how drawing upon different pools of knowledge permits actors to have a strategic advantage in networks on how issues are addressed. This relational view of how professionals use knowledge ties perceptions of knowing well to shared understandings of expertise and prestige rather than viewing someone as an expert because of a particular professional qualification (Eyal 2013). In this sense the possession of a specialized body of knowledge, as commonly understood in traditional definitions of professions, does not necessarily strategically place one as a mediator of knowledge within professional networks. Rather, as professional action and interaction are tied to tasks and problem-setting (Schön 1983; Lazega 1992: 40), knowing well is much more important than formal training or even having a good idea. Good ideas are only powerful when those promoting them are well positioned within and across professional networks (Burt 2010: 256–7).

Variations in access to knowledge and knowing well provide opportunities for arbitrage. Burt (1992, 2010) has discussed how ‘structural holes’, missing relationships that would otherwise permit the flow of information between people, can define how actors operate in a network. Those who are able to cross structural holes are able to engage in ‘information arbitrage’ by having access to potentially valuable information that those who are not directly connected do not (Burt 2007: 122). From this perspective, a person who engages in ‘information arbitrage’ can become a focal point in a network (Rodan 2010: 170). While information arbitrage makes sense, I suggest that epistemic arbitrage places a stronger focus on knowledge because it does not treat the information as a neutral commodity, possessed by some and not by others, but places focus on how particular forms of knowledge are

regarded as more appropriate, more relevant, and more ‘professional’. The episteme can be shaped by actors to push forward particular conceptions of what is professional and scientific and what is not, choosing what is ‘good’ and ‘bad’ rather than what is accurate. This view of knowledge as tied to an episteme also signals that knowledge may come from different sources of training and learning, affirming particular points of view and ‘epistemic cultures’ in how topics, issues, problems, and subjects are treated (Knorr Cetina 1999). As such, epistemic arbitrage involves more than leveraging information that everyone would understand if they had access to it, but exploits differences in professional knowledge that provide opportunities to promote a particular understanding of how problems should be treated.

Now that we have established the role of knowledge and the episteme in epistemic arbitrage; it is also important to qualify ‘arbitrage’. Arbitrage is commonly understood as identifying the difference between the value of assets in different markets, and then exploiting this difference for profit. Such ‘spot’ arbitrage is risk free as long as those selling and buying do not find out during the period from when the price differential has been identified to when the sale is completed. This understanding of arbitrage works well enough, but treats the market as a whole as passive, when much arbitrage carries strong amounts of intentionality. In some financial market activity, the intent is to shape the market. For example, hedge funds commonly engage in ‘statistical arbitrage’ to estimate how different prices for assets may ‘co-integrate’ in the short term and in the longer term (Morgan 2013: 379–81). In doing so they identify potential profits from price differentials while making side bets in case they lose. When done at sufficient levels of turnover this kind of arbitrage actually shapes the market rather than acts within it. I suggest that epistemic arbitrage is similar, as those who succeed in exploiting different pools of knowledge are able to put themselves forward as arbiters of what knowledge is more appropriate in addressing the issue at hand. Epistemic arbitrage is a mechanism by which professionals generate institutional and social change by changing the knowledge base.

Some of this way of thinking is easily identifiable in the work on professions. Abbott’s (1988) work

on the system of professions includes strong elements of competition among professions, especially during periods in which their jurisdictions are being established. In this work, professions within a domestic realm compete over the expert division of labor to establish what kind of work is theirs. Abbott's (2005) own 'linked ecologies' critique makes a serious advance in suggesting that previous work treated organizations, institutions, and co-workers as mere 'audiences' in allocating legitimate control when, in fact, they are not external to the game being played. His suggested remedy is an ecological way of thinking about professional competition, which situates the professions as a set of actors and locations that have links between them. Abbott (2005: 248) refers to the relational process of linking actors and locations as 'ligation'. In this ecology of professions the components are the professions, the controlled tasks, and the links between these two. The linked ecologies approach encourages us not only to think about *professions* expressed through associations but also to consider *professionals* and how they may form their own ways of coordinating and organizing beyond formal professional associations.

Figure 1 presents an abstract illustration of professional ecologies surrounding a claim to solve a policy issue. The different shaded circles are clustered to reflect actors within self-identifying groups and locations. For my purposes, they may be professionals who tend to share a similar training background but do not necessarily associate formally (there is no requirement to belong, e.g., to the Association of Certified Anti-Money Laundering Specialists to be a professional working on money

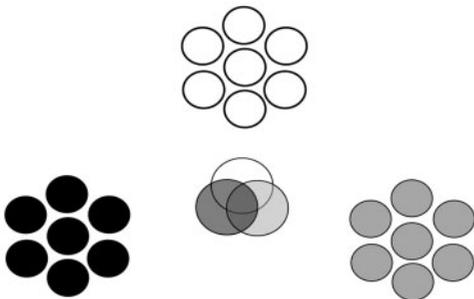


Figure 1. Professionals ecologies.

laundering). Rather than professions, these professional ecologies are self-identified by their work role, by what tasks they do and from what basis they make jurisdictional claims over how an issue should be treated based on their skill set and knowledge. Let us call the white circles 'academic economists', the grey circles 'policymakers', and the black circles 'asset traders and evaluators' (Seabrooke and Tsingou 2009; Baker 2013). Each ecology has a group of actors and a location and they all seek to influence what is going on in the middle in-between them, defining the issue and the distribution of tasks among them.

Figure 2 illustrates what happens next when professional ecologies fight over the issue, following the two forms of ligation outlined by Abbott (2005): 'hinges' and 'avatars'. A hinge can be established by alliance, as can be seen between actors in the black and grey ecologies, the asset traders and evaluators, and the policymakers. Those professionals agree on a common front when it comes to tackling the issue, including how tasks are claimed as their jurisdiction. One of the actors from the asset traders and evaluators has also created an avatar with the academic economists that benefits their claim to jurisdictional control. An avatar may introduce the view that risk assessments in financial markets should be marked to market rather than to historical prices, which may lend more influence to the academic economist during a boom period who then provides scientific justifications for imprudent behavior to asset traders and evaluators (Baker 2013). As forms of ligation, alliances and avatars build well in thick highly populated domestic contexts in which the professional ecologies are well established institutionally.

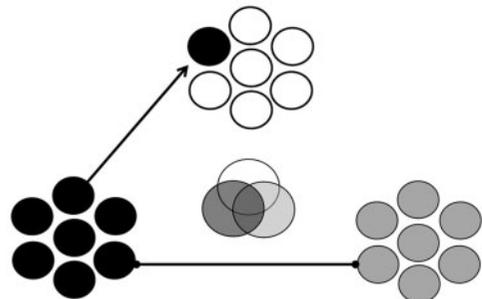


Figure 2. Professional ecologies in jurisdictional battles.

Epistemic arbitrage is a different phenomenon that still occurs within a linked ecologies framework. As can be seen in Fig. 3, there is flow of knowledge from the black circles, the asset traders and evaluators, which goes to the white professional ecology of academic economists, and also to the grey circles of policymakers. Imagine that the first mover here is the black circle to the west, from which knowledge is flowing to her counterparts in the other professional ecologies. The aim of the actor is to engage in epistemic arbitrage so as to have greater sway over tasks through jurisdictional claims, as well as to make sufficient claims that she can be influential in refereeing how tasks are allocated. I suggest here that the actor might be, but need not be, an individual. It could also be a group via 'enactors' (see List and Pettit 2011: 37) as the ecologies approach encourages us to relax 'professions' to 'professionals'.

In Fig. 3, one can see that in the white and grey professional ecologies some of the actors have been marked black to distinguish their professional affinity with claims to knowing well from the black professional ecology. These actors are not avatars in the sense that they represent 'institutionalized hinges' for their home ecology (Abbott 2005: 265). This implies a more passive role for these professionals than may be the case. Rather, the professionals marked black transmit knowledge back and forth to their connections in the other ecologies. They also encourage others within their 'home' ecology to recognize that they know well in how to approach a task by having access to particular types of knowledge that others do not. As arbitrage relies on having access to knowledge others do not, all the black circles that have flows of knowledge attached to

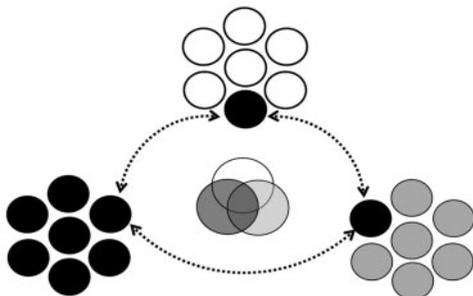


Figure 3. Epistemic arbitrage in jurisdictional battles.

them have an interest in keeping their mouths shut to protect their role within and across professional ecologies. Suddaby and Viale (2011) have recently argued that professional projects can use expertise to open new spaces to introduce new rules, and to create and then affirm new status hierarchies. Professionals can combine expertise and other elements, such as style to induce deference, in mobilizing new markets and making jurisdictional claims. Epistemic arbitrage is a crucial step in this process as those who seek to capture how an issue is treated among competing professional ecologies attempt to shape what knowledge is recognized as more appropriate and who knows well rather than simply knows.

TRANSNATIONALITY AND PROFESSIONALS

Epistemic arbitrage is more prominent in transnational environments because they provide more opportunities for shifting between different professional knowledge pools without penalty. The claim that transnationality matters requires some substantiation as there is no obvious reason why transnational interaction among professionals could not reflect the behavior of domestic national professional associations transposed to the international level. My claim here is that transnational interaction and environments differ from international ones in offering many structural holes within and between networks, as well as many opportunities to block knowledge flows and favor particular conceptions of knowing well. Transnationality matters for how professionals and organizations behave and provides incentives for them to act in particular ways.

What is transnational and international differs though the latter certainly feeds into the former. Internationalization can be understood in many ways, but is commonly seen as opening up markets and social domains to external influence from a firm, a government, or other type of nationally based organization, in foreign lands. In this sense, internationalization is both retaining some national autonomy under openness or the fostering of avatars and hinges through professional strategies to recreate or colonize. Certainly colony-like internationalization strategies can foster transnational fields

once the professionals have autonomy, as with American lawyers and economists abroad (Dezalay and Garth 2002; Fourcade 2006). Importantly, the move from what is international to what is transnational requires the actors operating in a different social space and reconfiguring how they work rather than replicating their national institutions or changing their own to reflect other national institutions. In professions such as law and economics, it is clear that there is dominance from those favoring Anglo-Saxon principles in how organizations are run, but what separates internationalization strategies from transnationality is a stress on the source of changing practices (Muzio, Brock, and Suddaby 2014: 707; Boussebaa, Morgan, and Sturdy 2012). One can also suggest that Anglophones are more inclined to be transnational professionals due to the possession of a mindset that is a vestige of formal imperialism.

Transnationality suggests a 'social space' in which professionals have multi-layered interactions between transnational, national, and local activity (Morgan 2001). For example, Johnson's (2006) study of central bankers puts forward the idea that there is a 'wormhole effect' that encourages professionals to avoid domestic actors and engage primarily through transnational interactions with their peers, which then reinforces what forms of knowledge are vital to solve the issue at hand. Such wormholes provide transnational social spaces that are thickly socialized internally but thinly networked across different issue-areas, creating many structural holes and opportunities for epistemic arbitrage for those professionals willing to dare leap back and forth between them. In general, transnational environments are often governed more horizontally with professionals demonstrating high levels of ambiguity and distributed agency to create their own markets (Knorr Cetina and Bruegger 2002; Quack 2007). Such ambiguity and distributed agency permits epistemic arbitrage and the establishment of epistemic arbiters in transnational governance.

Epistemic arbitrage is more likely transnationally precisely because the networks across issue-areas are thinly networked where the professionals involved often see themselves as decoupled from purely domestic concerns and practices. Domestic professional jurisdictional competition is a thick environment, in part because professional associations

frequently block competition and professional groups can also be intensely connected by markers of affiliation, geography, and class. Although one can point to Geneva, Paris, New York, and Washington as transnational social spaces, transnational professionals operate in a thin environment that is full of both wormholes and structural holes. As such, transnational professionals have a greater scope to move around in different professional ecologies as long as their claims to know well are viewed as legitimate and will not undermine the community as a whole (Seabrooke and Tsingou 2014).

The notions of epistemic arbitrage and professional competition in transnational environments differ from most work on epistemic communities and communities of practice in International Relations and Organization Studies. In this literature, the stress is on consensus and the sharing of knowledge among experts who have common normative and causal beliefs (Haas 1992; Adler and Pouliot 2011). The work on 'epistemic communities' has been criticized for not being concerned with the content of knowledge, just the fact that the experts share it (Sending 2014), as well as exaggerating the extent of consensus among those involved. More recent work on this theme of expert knowledge communities has moved the 'communities of practice' (Wenger 1998) concept up to the international level, arguing that shared notions of competent performance are fundamentally epistemic and recognized among peers (Adler and Pouliot 2011: 15–6). Differently, new research on 'transnational communities' places the spotlight on how professionals can create transnational identities (Djelic and Quack 2010). This work on epistemic communities, international practices, and transnational communities puts forward a view of social integration and cohesion. This literature could also be re-told as how professionals create closed shops, sticking within their own 'epistemic cultures' (Knorr Cetina 1999), and reducing their capacity to network on transnational issues (Seabrooke and Tsingou 2013). In short, this work highlights wormholes but fails to acknowledge the importance of structural holes. It also misses how knowledge can be used to create uncertainty for strategic advantage rather than uncertainty being a problem for experts to solve through consensus (Morin 2013).

Although cooperation is frequent among transnational professionals who have common training and work on the same tasks, the thinness of transnational social space provides opportunities for professional mobilization based not on professionalism as an occupational value but by organizing in particular ways (Faulconbridge and Muzio 2012: 146). By moving across and between different professional ecologies in a transnational thin environment, professionals have opportunities to mobilize and forge new markets. They can create professional services and tasks for new issues, shift what knowledge is appropriate for established issues, and generate novel organizational forms (Padgett and Powell 2012). This activity to foster emergence must be based on professional experience and skills but is not reducible to an epistemic community or practice but to a perception that there is demand for what can be offered (Brint 1994: 40; Wenger 1998: 109), and that those demanding will recognize the professional or professionals involved as knowing well. Through epistemic arbitrage transnational professionals can create supply that, when successful, creates its own demand.

SUPPLY OF EPISTEMIC ARBITRAGE

The supply of epistemic arbitrage is from professionals seeking to mediate between pools of knowledge located in different professional ecologies for strategic advantage. What these arbitrageurs gain is the normal gamut of incentives—better compensation, improved resources, increased prestige and esteem, peer recognition and validation, etc. The most common supply-side phenomenon that is an example of epistemic arbitrage leading to arbiters and real institutional change is known as ‘revolving doors’ in financial sectors, where professionals benefit not only from going back and forth between the public and private sectors, but are able to exploit differences in knowledge pools between the professional ecologies of asset trading and evaluation, public policymaking, and academic economics (Seabrooke and Tsingou 2009). This behavior is possible, in part, because these areas of professional activity are much more transnational, making knowledge searching and sharing rapid, as opposed to more ‘Balkanized’ local and domestic networks

that provide significant barriers to arbitrage (Burt 2010: 72–9). The supply of epistemic arbitrage in transnational environments is greater because the incentives and opportunities are often clear, with fewer chances of being immediately blocked, in part because those who act as ‘transnational veto players’ are too concerned with managing compromises among diffuse constituencies (Tsingou 2013). Opportunities to mobilize new markets are also greater. It is important to position how professionals engage in epistemic arbitrage to mobilize new markets and control transnational governance issues. Such activity has three elements: (1) partial decoupling from professional codes, (2) autonomy from professional and institutional socialization, and (3) social skills and a willingness to identify and exploit structural holes.

First, decoupling professionals from professional codes can be seen in the practical sense that many transnational professionals have no obvious need to become formal members of a national professional association. Although professional associations and their codes of ethics helped professions retain the notion that they should be above suspicion and delinked from market forces, transnational professionals do not need such national protection. Or they may selectively choose professional associational contexts that have transnational leverage, such as maintaining one’s name on with the New York Bar Association as a means of market signaling among peers. Such behavior can be seen as what Brint (1994) saw as the entrance of professionals who were defined by their capacity to offer services of economic value rather than their formal knowledge or adherence to a strict code of ethics.

Another form of decoupling for transnational professionals is to view formal qualifications as an impediment to acquiring the knowledge that is required to deal with the issue. For example, Sending (2014) details how transnational professionals working on humanitarian issues refer to some of their colleagues with doctorates as ‘PhD+’, akin to being HIV+, to signal incapacity from capture within an epistemic culture, especially in operations where they have to bear witness and communicate emotive experiences. On such transnational issues being ‘PhD+’ can lead to a loss of prestige among professionals working with and around international

organizations and non-governmental organizations, because the claim to knowing well cannot be legitimately backed by formal education supporting the professional task. Another, not uncommon, example is knowledge workers in the City of London who read classics or history or chemistry at Oxbridge but have no formal professional training in finance. For these professionals who are highly engaged in transnational flows of capital, and the vehicles for moving it, knowing well comes from a capacity for form and reason, integration into peer networks, and from an ability to engage in epistemic arbitrage to assist financial arbitrage. For these professionals what is not illegal is possible, suggesting a different understanding of ethics that is not derived from a national professional association, but a particular notion of distributed agency in transnational legal and financial innovations (Quack 2007).

Second, transnational professionals who are likely suppliers of epistemic arbitrage require a degree of autonomy from their professional and institutional socialization. This view immediately creates some conflict with the epistemic communities and transnational communities literature noted above, as well as work on international organizations that traces the flow of ideas and norms via professionals. Chwiero (2010), for example, traces how a Latin American technocrat who completes a doctorate in Economics at Chicago, spends an early career period at the IMF as a policy economist, and then carries 'neoliberal' ideas to their home Treasury. A part of the argument is professional training and professionalization, as well as institutional socialization, indicates likely attitudes on policy positions (Chwiero 2010: 87). Much work on international organizations makes similar assumptions about institutionalization; that sealed bureaucratic cultures create 'pathologies' among the experts who also afford the organization its legitimacy (Barnett and Finnemore 1999). In Organization Studies a comparable case can be found in the common tale of Arthur Andersen and the cultivation of interchangeable 'Androids', which permitted accountants who were trained in either Chicago or Copenhagen to behave in the same professional manner (Beaubien 2008: 50). In both cases, professionals may go through career socialization processes but continue to have incentives with an eye on external actors who are able to advance their careers.

The incentives to not follow clean career trajectories have become more obvious as mixed skills and experience, such as from those going through revolving doors, are valued. In this sense, the supply of epistemic arbitrage is partly based on bringing in lessons from different professional ecologies rather than remaining within bureaucratic or corporate silos. Such actors can exploit differences to mobilize and create services that blend professional knowledge and organization forms. For example, STATT is a Hong Kong-based for-profit business that offers a range of policy work to governments, such as providing information on potential migration flows. It was founded by transnational professionals who combine professional knowledge from policymaking in international organizations with management consultancy and international law to create a network form of organization that places STATT alongside formal organizations on particular transnational issues. This has permitted STATT to make the most of structural holes and to aggressively expand its operations (Seabrooke 2013).

Third, those wishing to engage in epistemic arbitrage require social skills to move between ecologies and their networks. Within different networks professionals can attempt to identify those who have superior claims to know well, those who are willing to share knowledge, those who can be persuaded to change, and what knowledge is most appropriate for the issue at hand. Professionals with social skills will be able to identify authority relationships within the network and whether ties between nodes are near or far, and if authority is exercised horizontally or vertically (Fligstein and McAdam 2011: 8). It is also fair to assume that those involved are not risk averse in temporarily leaving or breaking from their ecology to forge connections with others. Burt (2010) calls such actors 'intrepid brokers', who are more likely to identify with the role they play in networks rather than conforming to their peers in the network. Their relationship to peers in one or more ecologies is important in that brokering between them, and identifying structural holes, is only possible from a sound footing. Acts of arbitrage without social capital and trust and reputation among peers can lead to credibility problems in knowing well. As such, those who supply epistemic arbitrage cannot act as 'hypermuscular agents' (Suddaby 2010)

crashing through professional ecologies willy-nilly. Instead they must rely on having a grounding from which a narrative can be credibly produced, even if switching identities for different ecologies is a key means of acquiring knowledge (Seabrooke and Wigan 2013). Those supplying epistemic arbitrage do not want to get to know everyone in different ecologies as professional mobilization requires locating the key figures, not further indirect ties who may be redundant in providing new and unique knowledge (Burt 2010). Such careful picking of opportunities is further reinforced by selective demand for epistemic arbitrage.

DEMAND FOR EPISTEMIC ARBITRAGE

Organizations that are active transnationally have important reasons to demand epistemic arbitrage from professionals working for them on permanent or contractual basis. This demand comes from (1) managers' will to control knowledge within the organization, (2) search-based transnational organizations that place a premium on finding unique knowledge, and (3) the transnational treatment of professionalism as an organizational value rather than an occupational value, which leads to common forms of organizing that often prize 'vague experts'.

First, conflict between bureaucracies and professions is an old theme (Larson 1977/2013; Davies 1983; Leicht and Fennell 2001), with most of the attention on professional autonomy and trust. Those who engage in epistemic arbitrage must have autonomy, but I suggest that this does not put them at odds with managers within bureaucracies, but provides them with a pointed purpose. Managers desire ways to meet organizational objectives in a manner that provides them with greater autonomy, as well as enhances their capacity to ignore challenges from internal groups that may wish to interfere with how work is conducted. 'Culture eats strategy for breakfast' is a slogan that hangs in the War Room of the Ford Motor Company, and also above the doors of managers in different kinds of organizations, including international organizations. Managers can attempt to ensure that their strategies are not guzzled by the internal workplace culture by segmenting work according to tasks and the issue. For example, in the IMF the hiring of external

experts on teams working on the application of transnational benchmarks in financial surveillance and monitoring changed following the recent financial crisis. Pre-crisis the consultants hired to work on these teams had skill sets similar to the permanent staff in the IMF, with work roles closely aligned to financial regulatory oversight and macro-economic policy development. Post-crisis the hiring of external experts changed toward senior private sector managers with mixed career histories who pose no immediate threat to the permanent staff but know how to organize well and can draw in knowledge from different professional ecologies (Seabrooke and Nilsson 2014). Such managerial segmentation strategies can use those skilled in epistemic arbitrage, the senior private sector managers with former work roles in the marketplace as well as some regulatory experience, to reinforce particular understandings of the issue at hand and what tasks should be allocated to what professionals inside and outside the organization.

Second, organizations have a demand for epistemic arbitrage on the grounds that they seek to find unique knowledge to gain competitive advantage, and that those who can move between professional ecologies can acquire such knowledge. Some organizations, such as think tanks, deliberately seek to create 'interstitial fields' between other types of organizations to capture unique knowledge to put at their disposal (Medvetz 2012). In particular, transnational organizations employing more pragmatist techniques of iterated co-design and recursive learning have a strong demand for professionals who have a range of experience and knowledge, as an important part of searching for unique knowledge is knowing who can speak across codes and protocols (Sabel 2006: 134, 141). Managers in such organizations, from transnational firms to international organizations, seek to rely less on hierarchy and more on 'search networks' that place a high premium on locating those who can engage in epistemic arbitrage. For example, Saxenian's (2007) work on the 'new Argonauts' identifies US foreign-born professionals moving between Silicon Valley and China, India, and Taiwan who are transforming high-tech industries. An important element of this story of moving from 'brain drain' to 'brain circulation' is that the function of the professionals for firms is not

to transfer knowledge but to search for opportunities within regulatory networks and markets that can transform institutions. Furthermore, new research about innovative industrial policy from international organizations, notably the World Bank, has highlighted the importance of horizontal networks that can locate such professionals with a capacity to move between different ecologies, including the role of transnational diasporas in grounding such connections (Kuznetsov and Sabel 2008).

Third, a general shift from professionalism as an occupational value to an organizational value is particularly apparent with organizations that are transnationally active (Faulconbridge and Muzio 2008). A move toward having activities organized in the same manner in various locations around the world creates demand for what we could call 'vague experts'. This inverts the supposed conflict between professionals and bureaucracies as the professionals organize in a manner to meet key organizational objectives that, in turn, require them to actively be involved in the bureaucratization of their own knowledge production (Brivot 2011). These trends have been occurring for some time but are intensifying. Suddaby and Greenwood (2001) have identified how management consultants from large transnational accounting firms 'colonize' knowledge when expanding their claims to jurisdictional control over professional tasks, processing knowledge in order to commodify it. This colonization legitimates particular actors as those who know well and delegitimizes others. Brock and Powell (2005) have also noted radical change in the big transnational accounting firms, with a shift into what they refer to as Global Professional Networks, which are multinational professional service firms with high reliance on managerial and governance contacts within networks to provide 'multidisciplinary professional practice'. As these firms do much more than accounting, they need professionals who can move across ecologies and also organize in a particular way. With greater transnationality to how these firms provide services and less interference from governments and national professional associations, the capacity to organize professional work has increased, as can be seen through 'corporate professionalization', with more resources being used on transnational in-house training to provide continuity

(Muzio et al. 2011). One implication of this change toward organizational value is that the legitimacy of who knows well is not from formal educational qualifications but from interaction with clients, so that professionals are required to constantly demonstrate the application of their expertise (Furusten 2013). Management consultancies are an extreme form of this, producing 'vague experts' who can organize in the same way while providing advice to diverse clients in a range of locales. This has led to professionals who can move between different ecologies to make claims to know well based on the application of abstract and commodified knowledge (Suddaby and Greenwood 2001). There is a fine balance between being vague in applying common organizational characteristics while also being expert in drawing upon relevant professional knowledge. As such, claims to know well can be guided by epistemic arbiters.

EPISTEMIC ARBITERS

An epistemic arbiter is a professional who has been successful in playing off pools of knowledge from different ecologies, and who seeks to secure her position and claims to know well as the best way to understand the allocation of professional tasks and the issue at hand. Arbitrageurs can become arbiters when moving from spot to statistical arbitrage, to draw on the analogy above, to shaping systems of knowledge and how governance is conducted. I prefer the term arbiters to brokers because these actors not only play in, or have a feel for, the game, but also seek to govern and referee how it is played. Epistemic arbiters shape markets for transnational professional knowledge rather than simply being players in a passive market. They do so through a combination of positioning in professional networks, the use of style to induce deference in professionals, and also through the creation of status hierarchies that enforce particular ways of knowing well. Epistemic arbiters are heavily implicated in decentralized and diffuse forms of power, commonly known in International Relations as 'productive power', by reinforcing 'the systems of knowledge through which meaning is produced, fixed, lived, experienced, and transformed' (Barnett and Duvall 2005: 55). From how social relations are

constituted epistemic arbiters can exercise compulsory power, direct control over others.

Placing oneself among different professional ecologies as an arbiter first requires some risk taking. Initially epistemic arbitrage is risky as moving out of one's professional comfort zone entails financial, employment, and status uncertainty. However, if successful, then the risk of moving around professional ecologies reduces over time as other professionals recognize that knowing well from epistemic arbitrage is prestigious and useful. As such there is learning going on among transnational professionals that is intensifying with the view of market-based service provision as more important than professionalism as an occupational value, and with the increasing transnational organization of professional activity. Furthermore, it is also clear that many transnational professionals successfully span different policy networks, even if the advice they provide on matters, such as banking reform, changes radically for different audiences. Those who heavily engaged in arbitrage between policymaking, asset trading and evaluation, and academic economics during the 1980s and 1990s helped establish the rules that led to the last financial crisis; but then they also manned many of the financial reform expert groups that set the terms for what was on and off the table for discussion (Seabrooke and Tsingou 2014).

Those on expert groups have a particular way of dressing and addressing, which brings us to the more general point about style, that those who become epistemic arbiters are able to use style as a means of inducing deference in others. Like network position, this takes some time. As Dezalay and Garth (1996: 23) point out, professionals working on international arbitration needed careers with good cases and then, once 'gray in the hair', there was an increased chance the community would accept them as an arbitrator. Once the hair has grayed and the collection of suits improved, the use of style to reinforce position is an important if underappreciated element of professionals in action. When White (2008: 137) argues it is the 'syntax of deference rather than the content of its lexicon that singles out professionalism', he is referring to the capacity to selectively present knowledge and provide symbols and cues that augment a claim to know well. Style is obtained by watching how others

in the professional ecologies and overlapping networks on an issue behave, including the adoption of particular rhetoric, stories, and values (White 2008: 134; Suddaby and Viale 2011: 434).

Style can be seen in a variety of arenas. Transnational professionals with backgrounds in management consultancy will frequently interrupt meetings to disturb knowledge exchanges and draw focus to a singular abstract concept they control (cf. Suddaby and Greenwood 2001: 938). This is style in action to produce deference and stake a claim to know well. To take a more substantive example, Independent Diplomat is a 'service organization' that does political work for various governments and has a style modeled as a combination between a management consultancy and a foreign affairs ministry, with clean open office spaces, as opposed to NGO clutter, and with their senior staff in the dark suits and the occasional pink tie. Part of their transnational work, such as lobbying for nations looking for statehood, involves mediating between clients who occupy different social worlds. Work on self-independence for African peoples may be partially funded by a Scandinavian aid agency where the senior policymaker is a woman. This professional cannot work with some of the African political leaders involved, because of gender politics, leaving staff from Independent Diplomat to coordinate precisely because of the pink tie and grey hair (Seabrooke 2013).

Style and favoring particular forms of knowing well reinforces status hierarchies, which are important for the epistemic arbiter to cultivate if he or she is to maintain a position among the professional ecologies (Freidson 1986: 230; Suddaby and Viale 2011: 435). For arbiters to be successful in determining how transnational issues are governed and how professional tasks are to be allocated, particular forms of knowledge must be prized. This can be done in the ways one would expect, by rewarding those with similar skill sets and views on knowledge, and through the creation of what become the key benchmarks and indices for that issue in transnational governance (Henriksen 2013). To put this into network terms, structural holes in networks act as 'insulators' that prevent information from flowing and also provide opportunities to those who can span them (Burt 1992: 18), whereas those who act as arbiters are central nodes in the network, can

create 'black boxes' that reinforce what knowledge is most appropriate and should not be questioned (Latour 1987; Shwed and Bearman 2010).

As arbiters have been successful in arbitration, they know how to identify structural holes and they know where transnational wormholes are likely to exist. They are in a strong position to reinforce some claims to know well and dismiss others. Many arbiters can be found as senior advisors who provide advice in exchange for fees, including services formerly (and often still) provided by international organizations and non-governmental organizations. This further enforces the idea of professional market services and the new role of consultancies in transnational governance. The stratagems here seek to secure particular forms of knowledge as the means to address transnational issues and allocate professional tasks. However, as transnational environments are thin, network positions are not as robust as in thick domestic settings and can be challenged by professionals who seek to gain position by challenging the established order. This will depend on the issue-area, with high degrees of consensus among professionals on highly technical issues making challenges harder, whereas on intensely politicized issues, such as the creation of global regulations to address tax avoidance, professional challengers can quickly gain momentum and mobilize to create demand for their services (Seabrooke and Wigan 2013).

CONCLUSION

This interdisciplinary article responds to the call for a new transnational sociology of the professions by putting forward the concept of epistemic arbitrage as a way of thinking about how transnational professionals mobilize to create new markets for their services and to challenge established orders (Faulconbridge and Muzio 2012). I suggest that epistemic arbitrage, the act of mediating between pools of knowledge from different professional ecologies, is a common phenomenon that can be observed across a range of cases on transnational issues. The conception of epistemic arbitrage presented here builds on Abbott's (2005) framework for studying professional 'linked ecologies' (Seabrooke and Tsingou 2009; Baker 2013; Stone 2013; Karlsrud 2013), and augments the framework with an emphasis on actors

who are able to move around different professional ecologies to obtain knowledge that can support their claims to know well (Lazega 1992). I suggest that arbitrageurs who engage in epistemic arbitrage seek to span structural holes, missing flows of information in a network, for their own advantage and in an attempt to define how a transnational issue should be treated and how professional tasks should be allocated. This movement from transnational professionals differs from the alliance building and infiltration we see in Abbott's (2005) hinges and avatars, although those strategies are also present. Epistemic arbitrage is especially prevalent in transnational environments where relations are thinner than domestic environments, providing more structural holes within professional networks because there are fewer issues where there are thick professional jurisdictions that inhibit challenges. Furthermore, because these environments are thinner claims to know well often rely less on jurisdictional claims to control and more on how addressing and completing the task is organized (Eyal 2013: 872). Epistemic arbitrage is important to understand because it is not professionals simply exchanging information but professionals making claims to know well based on their background, using differences they have located in different pools of professional knowledge.

The concept of epistemic arbitrage makes a contribution to International Relations, Organization Studies, and Sociology. In International Relations, the concept of epistemic arbitrage contributes to the work on epistemic communities by adding a strategic and competitive element among those tasked with solving a transnational problem (Haas 1992). It contributes to the work on transnational communities by seeing how transnational identities are not only ways to ground actors but also to allow them to move between different professional and organizational domains (Djelic and Quack 2010). I also argue that the type of transnational organization, be it the firm, international organization, or non-governmental organization matters much less than commonly thought. Rather, transnational professionals are reshaping how organizations actually organize, with more stress on fee-generating professional activity occurring across organizational types (Brint 1994).

My ambitions also extend to contributing to Organization Studies and Sociology with a stronger

stress on the transnational and the political economy elements of professional competition. The concept of epistemic arbitrage contributes to the work on the sociology of professions by pointing to how professionals exploit gaps between established jurisdictions to create new markets. The argument further contributes to the sociology of professions in considering what happens when domestic jurisdictions are less important and when there is a greater capacity to affect the supply and demand for professionalism as an occupational value or an organizational value through transnational action (Evetts 2013). In this sense, the argument has a particular affinity to recent arguments that professionals are an endogenous source of institutional change (Suddaby and Viale 2011; Muzio, Brock, and Suddaby 2014).

There is a supply and demand for epistemic arbitrage that creates a market for professional competition over what knowledge is appropriate for the treatment of issues and how professional tasks should be allocated. The supply of epistemic arbitrage from professionals is possible because they are increasingly decoupled from professional codes based on national associations and favor more market-based logics. While training and socialization is important for professionals, they do not determine how actors behave when faced with other incentives. This is especially so if they have social skills and are happy to move into different professional ecologies. I also argue that organizations have a strong demand for epistemic arbitrage. Such demand comes from managers who wish to control and segment knowledge production, from organizations searching for unique knowledge via networks of transnational professionals, and from organizations that seek to transnationally organize in a uniform way and have a need for vague experts.

Epistemic arbitrage is also a concept that helps us understand professional emergence and how professionals hold power over transnational issues. Professionals who engage in epistemic arbitrage successfully can become epistemic arbiters; those who referee who knows well and what knowledge is relevant for how transnational issues are governed. When aggregated, tracing transitions from arbitrageurs to arbiters helps us to understand the emergence of transnational professional projects and the mechanisms behind novel organizational forms (Padgett and Powell 2012). Network position,

professional style, and status are all important in making claims to know well that are superior to those of others. Claims to know well are a form of power that is crucial in transnational governance, especially because transnational environments are often thin.

Epistemic arbitrage is transnational professional knowledge in action, it is the use of strategic placement in different professional ecologies to build claims to know well. In thin transnational social space claims to know well can transform how an issue is treated and how policies are developed and governed. As such, epistemic arbitrage and epistemic arbiters are sources of both productive and compulsory forms of power in transnational governance (Barnett and Duvall 2005). Epistemic arbitrage is an important phenomenon to understand because transnational professional interactions increasingly dominate the development of policies emerging from different organizations on how issues are governed.

BIOGRAPHICAL INFORMATION

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