Networks in transatlantic homeland security cooperation: from a metaphor to an analytical tool

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Introduction

In the aftermath of the terrorist attacks on 11 September 2001, the transatlantic partnership was confronted with a new set of challenges and uncertainties which posed additional constraints on a relatively new transatlantic structure created in the 1990s. A number of new informal mechanisms of cooperation emerged between European and American policymakers in order to address the need for better expertise, flexibility and specialisation. New dialogues – like the High Level Political Dialogue on Border and Transportation Security (PDBTS) – allowed for the exchange of information and learning. At the same time they have enhanced trust among participants which in turn has contributed to the proliferation of informal and personal relationships between policymakers and created the foundations for the emergence of more flexible and imaginative ‘soft’ policy instruments. Whereas the linkage between networks and policy outcomes has been addressed elsewhere, this paper proposes a set of methods and procedures that might be useful in the investigation of networks in international politics.

The empirical focus in this paper is on the shift from hierarchical to network structures in transatlantic homeland security cooperation. It demonstrates how, in light of numerous challenges of both a political and legal nature, networks have reduced the number of deadlocks and increased cooperation between actors. For the purpose of this paper networks are defined as ‘structures of interdependence involving multiple organisations or parts thereof, where one unit is not merely the formal subordinate of the others in some larger hierarchical arrangement’ (O’Toole, 1997:45). Such ‘transgovernmental’ networks assume a degree of autonomy among sub-governmental units and the coalitions emerging from their interactions are defined as ‘networks of government officials which include at least one actor pursuing his own agenda independent on national decisions’ (Nye and Keohane, 1972; Keohane and Nye, 1974). This is because ‘sub-units of national governments have to act on their own in the absence of national decisions, not just on behalf of their heads of state implementing agreed-upon policies’ (Risse-Kappen, 1995:9). This creates situations in which bureaucracies, as ‘complex organizations that exercise discretion, have distant policy preferences’ (Garand et al., 1991), may act strategically (Meier and O’Toole, 2006:95). Consequently, transatlantic homeland security network is a structure in which European and American units of security-oriented bureaucracies – ‘securocrats’ – acting through individuals, establish and maintain relationships with each other. These relationships may be of various natures: informational, decision-making, or advisory depending on the prevailing utility function of the networks (Agranoff, 2006). For instance, information networks are those entities where partners come together almost exclusively to exchange information about policy and programmes, technologies and potential solutions. Furthermore, homeland security networks operate within a broader structure which is referred to as a transatlantic network. In that sense, a transatlantic network is a macro-structure that brings together various actors, including networks, which deal with a broader area of transatlantic relations including trade, regulatory cooperation, etc. The paper starts by providing a general overview of the existing scholarship on networks as actors and structures. Then it discusses network characteristics that can stimulate either conflict or cooperation in the policymaking process. The paper then proceeds with the empirical analysis of how networks have developed at the transatlantic level and demonstrates how network politics influences the nature of the policymaking process and the outcomes. Finally, the paper offers some insights into network analysis methods and practical suggestions on possible procedures.
Why and how networks matter

Several authors have underlined the role of networks in providing space for a ‘positive conflict’, that is a ‘non-forcible clash of interests’ serving as an engine of increased trust and cooperation (Slaughter, 2004:208). This idea derives from Hirschman’s claim that ‘social conflicts themselves produce the valuable ties that hold modern democratic societies together and lend them the strength and cohesion they need’ (Hirschman, 1995:235). As such, networks, under certain conditions, may create opportunities for conflicts which bring all sides together rather than separately. Frequent interaction among actors allow to develop human-specific assets through learning-by-doing, which consequently embraces the identity of others and enhances the transfer of tacit knowledge among other members (Jones et al., 1997:922). Increased interpersonal interactions also help develop positive sentiments over time and thus will have positive effects across groups (Krackhardt and Stern, 1988; Nelson, 1989), with the supporters of the ‘contact hypothesis’ suggesting further that more interaction will diminish the perception of intergroup conflicts (Allport, 1954; Coleman, 1957).

Second, networks help to deal better with uncertainties. Environmental uncertainty can be described as an actor’s inability to predict future events (Milliken, 1987). Understanding the sources of uncertainty is important because of the influence it has on the final choice of mechanism of exchange and may require different specialized inputs (Jones et al., 1997). This element is particularly important in the field of security where the threat assessment by actors interested in establishing a relationship will play a major role and may contribute to the success or failure of the whole endeavour. Potential partners will not only try to assess the nature of the issue in question and each other’s approaches toward it, but they will also assess the capabilities to provide a desired specialized input. The task becomes even more challenging if task complexity is coupled with high time pressure (Jones et al., 1997:921). This implies that the adopted structure will not only need to be capable of generating a content-based response but such response will need to be delivered in a timely manner.

Third, networks allow for better access to resources, both tangible and intangible. Many studies focusing on information diffusion have underlined the impact that social connections and interpersonal communication have on the dissemination of ideas and innovation (Rogers, 1995). This is also one of the main arguments in social capital research where it is argued that ‘through membership in a network and the resulting repeated and enduring exchange relationships, the potential for knowledge acquisition by the network members is created’ (Inkpen and Tsang, 2005:146). Therefore, another factor to be taken into account is the asset specific exchanges. They may involve processes, knowledge development or simply equipment to complete exchanges and therefore they create dependencies between parties. If the relationship requires very specific knowledge that cannot be obtained from other sources than from a specific actor, then an organizational form that enhances cooperation, proximity and repeated exchanges between actors will be established (Jones et al., 1997). The context of international cooperation is specific. Very often the exchanges in the political context will be with a high level of human asset specificity which means that they will require ‘an organizational form that enhances cooperation, proximity and repeated exchanges to transfer effectively tacit knowledge’ (Jones et al, 1997).

Fourth, networks generate trust. Trust has been defined as an aspect of a relationship ‘that reflects the willingness to accept vulnerability based on positive expectations about another’s intentions or behaviour’ (McEvily et al., 2003:92). In other words, it is about the faith one has in his own predictions and instinct. In
order to protect against wrong judgments, actors have at their disposal a variety of formal contractual tools, including insurance mechanisms, laws and organizational hierarchy. The second dimension of trust is the belief in others’ goodwill (Ring and Van de Ven, 1992). Such a belief can develop through frequent interactions with others and through a consequent development of personal relationships. The good basis for developing such trust is of course in shared values and worldviews. One needs to be cautious, however, about the legal and political context in which trust is being developed. As argued by Ring and Van de Ven, ‘reliance on trust developed at the interpersonal level may be conditioned by legal systems or organizational role responsibilities, mitigating the ability of the parties to rely on trust as a matter of first instance’ (Ibid.). Although with time policy makers may develop very good personal relationships, initially they enter in contact with each other through their institutional roles (Ring and Van de Ven, 1994). For instance, transgovernmental networks are believed to ‘build trust and establish relationships among their participants that then create incentives to establish a good reputation and avoid a bad one. These are the conditions essential for long-term cooperation’ (Slaughter, 2004:3).

By generating trust, networks offer a broad array of tools at the disposal of their participants. In addition to formal policy instruments provided in hierarchies (i.e. contracts, formal oversight mechanisms, etc.) networks stimulate the development of informal instruments relying on less formality and more flexibility. This is particularly important in cases where designing an adequate response to a certain phenomenon requires knowledge, flexibility and innovation.

The impact of network politics

Network studies offer tools for a systematic analysis of network development and functioning. However, they treat the process as an apolitical one with the efficiency of the process and its effectiveness as a major preoccupation. There is an implicit assumption that those criteria guide the operations in networks. Whereas this may be true in the case of networks among private actors who are profit-oriented, it is hardly ever the case with networks between government organisations and bureaucracies where politics is the inherent ingredient of the process (Allison and Halperin, 1972; Halperin et al., 1974; Christiansen, 2001). The concept of network politics is an attempt to bring politics into the picture. In order to better understand the impact of politics in networks on the process of policy making, the framework for analysis of network politics focuses on three aspects of network analysis: membership, centrality and leadership/management. The last aspect is not discussed in this paper, although it is worth mentioning that the role of management is very diverse, from a communicative, facilitative to a purely political one (Meier and O’Toole, 2006). Although some aspects of networks (e.g. participants, authority, links) may be established on the basis of formal statutes or contracts, ‘typical situations present possibilities for managers to add, or remove, actors from the array’ or ‘shift greatly the regular connections among participating units, moving some into more central roles and others to the periphery’ (O’Toole, 2000:29). The following sections briefly discuss these three aspects.

Membership

Decisions about network membership (its size and composition) are among the first ones taken when a network is created. The criteria taken into account include,
among others, the level of trust between network members, the similarity of their views or a potential for innovation and information exchange (Louch, 2000; Agneessens et al., 2006).

Large networks with heterogeneous ties provide information from varied and broadly spread sources which then enhances the opportunity of decision makers to gain fundamentally new ideas and insights (Granovetter, 1973; Rogers, 1995). They are however difficult to coordinate and engender little trust which impacts negatively on the perceived quality of acquired information. By contrast, a smaller number of participants with similar backgrounds, frequent interactions, extended history and mutual confiding between network members creates stronger ties relationships (Krackhardt, 1992) and greater value homogeneity (Ibarra, 1992; McPherson et al., 2001). Although resource-intensive and less innovative, such networks are more likely to stimulate in-depth two-way communication and exchange of detailed information (Krackhardt, 1992; Uzzi, 1996), which makes for better threat assessment (Kraatz, 1998).

At the same time, by impeding opportunities for others to participate homogeneous networks enhance the possibility of conflicts with those who do not share a similar vision and are excluded from the network (Ibarra, 1992; McPherson et al., 2001). Consequently, major division lines and conflicts emerge not between governments but rather among institutions or parts of bureaucracies within a government. This is compatible with Stone’s observation that ‘every idea about policy draws boundaries. These boundaries are more than intellectual – they define people in and out of a conflict or place them on different sides. In politics, the representation of issues is strategically designed to attract support to one’s side, to forge some alliances and break others. Ideas and alliances are intimately connected’ (Stone, 2002:30). Since actors in networks are both organisation and individuals who represent them, politics in networks can be observed at the same two levels.

Another element of membership is distribution of resources (Marsh and Rhodes, 1992b; Rhodes, 1997). Because resources of policy making (e.g. materials, legal authority, organization, funding, expertise, information and experience) are distributed across many different organizations, the structure and network membership are based on resource dependencies (Franz, 1991). Resources that a member brings to a network are more important than the hierarchical position within the home institution. The identification of who has the desired, context-specific, resources is a crucial task. For instance, technical expertise ‘can become an exclusionary device, a device that is more effective at the supranational level because representative institutions, like parliaments, that can play a surveillance role by holding experts accountable, are weak’ (Coleman, 2001:97). The issue of resource distribution is particularly important within the EU, a ‘differentiated polity’ (Rhodes, 1997), characterised by complexities of competence allocation between member states and EU institutions.

Centrality and density

The actors operating within networks seize opportunities for both ‘negative’ and ‘positive’ coordination (Scharpf, 1999), in particular by manipulating their connections to maximise problem-solving capacity for the purposes at hand (Peterson and O’Toole, 2001; Christopoulos, 2006). Centrality is a measure that indicates a strategic position of that actor in the network by virtue of being involved in many significant ties (Wasserman and Faust, 1994). Centrality of an actor determines their access to resources and their advantage over other members of the network.
(Gulati et al., 2000) regarding information (Rogers, 1995) and new developments (Valente, 1995). High centrality also implies prestige of an actor (Brass and Burkhardt, 1992) and thus higher status and power (Wasserman and Faust, 1994). Centrality is an actor’s attribute (Gnyawali and Madhavan, 2001) which they acquire through actions that lead to shifts in the network structure and may enhance the possibility of deadlocks.

Density of a network, i.e. the level of interconnection among the actors of the network, makes the analysis even more complex. With the growing density of the network, i.e. the growing interconnectedness of actors, the actor’s centrality loses its importance, thereby decreasing competition among members (Smith and Grimm, 1991; Nayyar and Bantel, 1994). Therefore, density offers benefits to the network as a whole rather than to individual actors: information is more quickly diffused, trust and shared norms develop more easily, and sanctions become more effective since they diminish the reputation and status of an actor (Granovetter, 1985). Consequently, actors with central positions in networks will prevent the network from becoming denser in order to preserve their privileged position. This increases the possibility of deadlocks.

The following sections demonstrate how the above framework can be employed in the analysis of a concrete empirical case.

Development of transatlantic homeland security networks

The bilateral relationship between the United States and the European Union was formally institutionalised in the early 1990s. In recognition of deep changes inside the European Union, the United States decided to strengthen its bilateral and direct cooperation with the EU. The framework for this relationship was partially established in 1990 with the Transatlantic Declaration (TD), and later in 1995 when European and American leaders signed the New Transatlantic Agenda (NTA) accompanied by the Action Plan in several areas.

Figure 1. Transatlantic structure established by the Transatlantic Declaration

1 The major changes came with the Treaty of Maastricht, which equipped the European Union with tools in the areas of the Common Foreign and Security Policy and Justice and Home Affairs.
Each of those frameworks was a response to a different set of issues, which also determined the character of the structure put in place (Figure 1). The Transatlantic Declaration of 1990 had a primarily political character and was meant to build stronger ties between politicians on both sides. The New Transatlantic Agenda of 1995, on the other hand, broadened the scope of formal cooperation to include many new areas and provided access to policy making for new groups, including business and consumers' representatives (Figure 2). This was consequently reflected in the profiles of their participants who were primarily diplomats and trade experts. So established formal structure foresaw bilateral meetings at various levels, starting with mid-level officials in Task Forces, through senior representatives gathered in Senior Level Groups, and eventually heads of states and executives meeting at summits. Although the NTA structure exhibited some network characteristics, it also had several features typical for hierarchical structures: pyramid dependence between Task Forces, SLGs and summits; nature of relationships based on reporting and oversight; and a rather horizontal nature of connections mostly between officials of the same level.

When in 2003 the United States started to implement their strategy of fighting terrorism and protection of the homeland, the transatlantic policy agenda started shifting away from traditional trade and foreign policy issues towards new areas of concern like biometric identifiers, the transfer of personal data, container screening, and enhanced law enforcement cooperation. This was because the openness of American and European societies towards each other has also made
them more vulnerable to common threats. Since those issues had hardly ever been discussed directly in the transatlantic context, they posed increasing difficulties for the governance of the transatlantic relationship. Lack of expertise, overcrowded meetings and limited output increasingly left transatlantic policy makers with a feeling of frustration. It became clear that in order to make this cooperation sustainable and effective, the overstretched transatlantic governance was in need of a reform. The EU-US High-level Political Dialogue on Border and Transportation Security (PDBTS) assumed the primary role in the transatlantic architecture. The aim was to support the dialogue within the NTA\textsuperscript{2} and give a more strategic dimension to EU-US cooperation in the field of homeland security\textsuperscript{3}. From 2004 onwards, the alternative fora where security specialists at different levels could meet with their counterparts have developed (Figure 3) For instance, the agenda of the first PDBTS meeting included the introduction of biometrics into passports and visas, the creation of an international database for lost and stolen passports, issues associated with potential terrorist threats to aviation, the use of sky marshals, and rail security (The United States Mission to the European Union, 2004).

Figure 3. Transatlantic structure in 2004

\textsuperscript{2} Interview DoS2.
\textsuperscript{3} Interview EUD1.
When homeland security issues entered the agenda of the NTA framework, homeland security officials were confronted with a diversity of participants and cultural differences between too many groups.\(^4\) Since the pressure to deliver results was high, the meetings needed more focus. However, the prevalence of diplomats rendered the NTA meetings everything but conclusive.\(^5\) With the agreement ‘to create the best policy environment so that action could be taken as efficiently as possible’ (Council of the European Union, 2004), new transatlantic networks, like PDBTS, reflected those voices which argued that ‘dialogue and exchange of information were really essential’ but they needed to be more strategic and long-term oriented\(^6\), with forward-looking agendas.\(^7\) In the words of one of the interviewees, what was needed were ‘rather small groups, more informality’ because ‘with big teams one did not achieve change of culture nor could not build trust’.\(^8\)

This gradually created opportunities for development of more focused groups (Figure 3). According to a European Commission official, what was needed after PDBTS were small groups and more informality: ‘With big teams you do not achieve change of culture that you want and cannot build the trust. Also, it is important to provide each other some feedback and big groups make it really difficult. Big meetings are rather organised to confirm what has been already achieved. Setting up small groups seems therefore to be a way forward.’\(^9\) Consequently, issues migrated

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\(^4\) Interview CON4.
\(^5\) Interview CON4.
\(^6\) Interview CON1.
\(^7\) Interview DHS11.
\(^8\) Interview JLS6.
\(^9\) Interview JLS6.
from one agenda to another which resulted in the strengthening of previously existing groups and the creation of new ones. Some of the PDBTS responsibilities were delegated to other existing bodies within the transatlantic architecture including the High Level Justice and Home Affairs meetings (HL JHA), Joint Customs Cooperation Committee (JCCC), Transportation Security Cooperation Group (TSCG) or High Level Contact Group on Data Protection (HLCG). Although some of those fora existed before, they clearly gained importance only after 2006, which coincides with a decreasing role of the PDBTS (Figure 4). In the opinion of some officials, these more focused groups tended to bring more results and forged mutual understanding between participants. This was because they were more operational and functioned outside of an immediate political context. For instance, issues of data protection shifted from PDBTS to HLCG and customs security cooperation takes place almost exclusively in the framework of JCCC. The High Level Contact Group on data protection emerged from the need for a more frank discussion between high-level officials responsible for data protection issues. While this group goes further in its specialisation as compared to the PDBTS (it is no longer broadly-defined border security but specifically data exchange for law enforcement), it is slightly different in terms of composition. It does not rely on homogeneity defined as institutional affiliation but rather as expertise of participants in the field of data protection. It brings together a broad array of actors (i.e. diplomats, security specialists), all with data protection experience in their field, e.g. data protection officers from DHS, DoJ and DG JLS.

The shift in this dimension of transatlantic networks has been the most explicit. While the NTA structure gradually expanded to include more actors who blocked its operations, the PDBTS gave voice to representatives of security branch within respective administrations, while others were included to the extent where their presence would not undermine the functioning of the network. This reveals a general trend at the transatlantic level where homogeneity becomes the most important aspect to the success of the network, at least as perceived by its members. This consequently impacts their level of commitment to the achievement of network objectives. In light of controversies that many of the issues caused there was also an increasing trend towards taking the work of networks outside of the political context of negotiations. For instance, the HLCG was an attempt to discuss the issue of data protection in an objective way which was supposed to focus the debate on content rather than political cloud surrounding the issue. Also TSCG and JCCC operated outside political debates which enabled them to avoid wasting time on useless debates. As all the above trends suggest, the nature of the transatlantic network shifted towards a more closed structure. Such a development, although beneficial from the policy-makers’ perspective, raised several objections on the part of legislative branch and civil society representatives. Their major criticism targeted the limited legitimacy of the process and the lack of transparency.

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10 Interview TAXUD1.
11 Interview DHS11.
12 Interview DoJ2.
13 Interview DHS11.
Network politics in transatlantic policy-making

Bilateral EU-US relations have been traditionally coordinated by the European Commission DG RELEX, the Council and the US Department of State. As a response to the US homeland security policies, an increasing number of EU policies started to develop their own security dimension with regard to the fight against terrorism. Consequently, many new actors emerged at the transatlantic level, including DG Justice and Home Affairs, DG Transport and Energy and DG Customs Union and connected to the process mostly through the pre-existing diplomatic channels established in the NTA. The role of the European Parliament, business and civil society increased after the signing of the New Transatlantic Agenda but still was limited to the exchange of opinions or providing opinions and non-binding recommendations. Data protection authorities and legislative actors were disconnected from official transatlantic fora. This constitutes a status quo at the transatlantic level (Figure 5).

Membership in transatlantic networks needs to be differentiated between formal and informal mechanisms used by actors to delineate borders of an emerging network. Treaties, decisions of constitutive bodies (e.g. a negotiation mandate provided by the Council) or other institutional acts (e.g. the act establishing the Department of Homeland Security and prescribing its competencies) decide about the formal network membership. Additional boundaries for participation in the making of European security policies are prescribed by the system of rotating presidencies, formal negotiation mandates, as well as by particular inter-institutional arrangements. While formal prescriptions included in legislations imposed certain limitations or requirements, the nebulous nature of homeland security policies allowed for some flexibility in determining who eventually became part of the network. Even in cases in which the formal membership seemed to be clearly defined, the final network composition still depended on how legal acts were interpreted or how policies were framed. Of course, such membership varied depending on the specific issue under consideration.

As suggested earlier, three elements played an important role in determining the network membership: a desired size of a group, profile of members and resources in their possession. Homeland security involved many agencies and bodies on each side of the Atlantic. For instance, in the US policies usually originated in the Congress or the executive. The responsibility for the implementation of the policy that did not ‘fit naturally’ into one agency was distributed among several agencies: the Department of State had the formal responsibility on some aspects of homeland security and counterterrorism cooperation, e.g. passports, visa processing and sharing of terrorist databases; the Department of Treasury was responsible for fighting terrorism financing; the Department of Justice was in charge of cooperation between law enforcement agencies. The situation was more complex on the European side where the distribution of competencies between the European Union and member states or between institutions themselves was not easy to understand for the US officials.
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Figure 5. Actor-affiliation network (Status quo)

Figure 6. Actor-affiliation network in 2008

Prepared using NetDraw. Squares stand for actors and circles for fora at transatlantic level. Size corresponds to their centrality within the network. Different colours stand for: (i) diplomats – red; (ii) securocrats – yellow; (ii) both diplomats and securocrats (depending on agendas) – blue; legislative – green; civil society – white. Thickness of lines corresponds to the frequency of meetings: the thicker a line, the more frequent the participation in a network.
With the emergence of homeland security issues on the transatlantic agenda, several new actors stepped into the picture providing an impulse for more intense interactions. The priority given to homeland security pushed other areas down the agenda. In consequence, people who used to deal only with border protection became increasingly exposed to their international counterparts. The task of representation and dealing with third countries and international organisations, traditionally performed by the Department of State (DoS), became a domain of international relations departments across several US agencies. Similar changes occurred within the European Union institutional setting, including the broadening of external competences of the Directorate for Justice and Home Affairs (currently DG Home Affairs and DG Justice) and the appointment of border and transportation security officials in the Directorate for External Relations (now the EEAS). These internal changes stipulated adaptations to the transatlantic framework whereby officials from the EU and the US set up new informal networks that provided the opportunity for early warning, more informality and deliberation. Because those networks did not prescribe any basis for determining participation, decisions depended most of the time on individual choices made within networks on the basis of former contacts and existing personal relationships. As demonstrated in the short overview of the development and functioning of the NTA, network membership is an important feature that may be a decisive factor in the failure or success of a network as such. For instance, in 2008 some of the homeland security networks present in the status quo transatlantic network were not activated (Figure 6) which also means that a potential of some actors to participate in the process and build a relationship was limited (Figure 7).

The limited membership in homeland security networks prescribed by the securocrats provided an excuse for the activation of the European Parliament (EP), the European Court of Justice (ECJ), and civil liberty organisations as important counterweights. Although the existing EU legal framework was often to their disadvantage (e.g. the EP and ECJ had no powers in the former third pillar), they were still able to participate in the policy-making by developing informal membership. Consequently, while legal and institutional frameworks were used as political instruments and a boundary-setting tool, there were also ways through which formal exclusion may be transformed into an informal inclusion, and vice versa.

A dynamic nature of networks and a continued evolution of their boundaries strengthen the importance of informal links. The institutional set-up presented as a status quo changes depending on the issues on the agenda and powers of respective bodies. For instance, in the case of foreign and security policy, the involvement of the European Parliament was limited within the EU to resolutions and the right to be informed about developments but it has no real powers in the decision-making process. The negotiations of the PNR Agreement, on the other hand, touched upon issues which required a close cooperation and involvement of the European Parliament, making it one of the players. Figure 5 illustrates certain status quo with regard to centrality and strength of ties between actors and their affiliations. Figure 7 presents the connections between actors at the transatlantic level through formally established links in 2008. The Department of State, DG RELEX, Presidency and the Council are situated in the centre of the network and have the highest degree of centrality.
Figure 7. Actor-Actor 2008 formal network (degree centrality)

Figure 8. Actor-Actor 2008 formal network (betweenness centrality)

Prepared using NetDraw. Squares stand for actors and circles for a at transatlantic level. Size of circles and squares corresponds to their betweenness centrality within the network. Different colours stand for: (i) diplomats – red; (ii) securocrats – yellow; (iii) both diplomats and securocrats (depending on agendas) – blue; legislative – green; civil society – white. Thickness of lines corresponds to the frequency of meetings: the thicker a line, the more frequent contacts between actors.
On the other hand, if we take into consideration all informal links, including those with domestic actors and non-state actors, the picture looks different. Figure 9 demonstrates the situation in 2008 after including domestic and informal connections between all actors. Although the image seems to be complicated and may be interpreted as a case where everyone is connected to everyone else, its primary value lies not in showing that connections between actors exist. Rather, it aims to visualise that the inclusion of informal linkages changes the positions of actors within the network. Hence, the focus should not be on linkages (lines) but rather on actors (squares) and how their position changes (size). It is immediately clear that the density of this network is much higher and the role of the Department of State or DG RELEX is not that prestigious anymore. At the same time, informal connections make the European Parliament, private sector and non-governmental organisations into major players in the network (circled in the picture). One can also observe that the existence of some actors in this network and their active status is based purely on formal connections at the domestic level (red lines) and informal connections with other nodes (black lines).

The above analysis demonstrates that decisions about membership may have an impact on the position of actors within a network and consequently influence the policy outcomes. The specifics of how those decisions are taken, by whom and with what consequences have been discussed elsewhere (Pawlak, 2007; Pawlak, 2009; Pawlak, 2010a; Pawlak, 2010b).
Methods for network analysis

The boundaries of networks in this research were determined by consecutive application of the realist and nominalist approaches (Laumann et al., 1983; Straits, 2000). In accordance with the realist approach (i.e. when boundaries are defined by a researcher-observer) the boundaries were set on the basis of two attributes. First, the focus on bilateral cooperation between the European Union and the United States predetermined that only institutional actors at the European Union level were considered as members of a network. That means, for instance, that those identified for interviews or as survey participants were asked to ignore all other relations and linkages that they may have (e.g. with governments of individual EU Member States or international organisations). The same criterion was applied to documents analysis, where the mention of actors other than the EU was ignored. The second criterion was the involvement of an actor in homeland security policies broadly defined, i.e. transport security, maritime security or data protection. That meant that any relationships extending in their scope beyond issues of homeland security were ignored. This phase allowed for the setting up of a preliminary boundary of networks. It was followed by a nominalist and realist approaches to boundary setting.

The network delineation was conducted in three stages. First, the identification of networks was based on actors' participation in the same events, meetings or activities (Faust, 2005; Kossinets, 2006). This information was mostly obtained from interviews, reports of the meetings and other archival sources (Snyder and Kick, 1979; Burt, 1983). The list of events was prepared on the basis of interviews and information received from the European Commission and the Council. Consequently, participants in those events were identified as members of a formal transatlantic homeland security network. In the second step, the network boundaries were expanded to include formal domestic connections, that is links between actors participating formally in transatlantic networks and other domestic actors who even though not participating in events at the transatlantic level, exercised a certain influence on those who participated. This happened, for instance, through domestic decision-making processes where domestic actors were required to provide opinions, recommendations, etc. Finally, the network has been expanded to include those actors or groups of actors who may exercise a certain influence on the policy-making process through their informal linkages. This is, for instance, the case of connections between the private sector and EU institutions. The biggest advantage of this three-stage procedure is its capacity to identify both formal and informal networks and their comparison.

Making a network visible: Revealing nodes and connections

In order to perform the network analysis, it was necessary to collect two types of data: attribute data and relational data. Attribute data ‘relate to the attitudes, opinions and behaviour of agents, in so far as these are regarded as the properties, qualities and characteristics which belong to them as individuals or groups’ (Scott, 2000:2-3). For the purpose of this research two sorts of attribute data were included: the nature of an actor (i.e. diplomat, security, private sector, etc.) and the level of actors-members of a network (i.e. executives, directors, etc.). Relational data, on the other hand, ‘are the contacts, ties and connections, the group of attachments and meetings, which relate one agent to another and so cannot be reduced to the properties of individual agents themselves. Relations are not the properties of agents, but of systems of agents; these relations connect pairs of agents into larger relational systems’ (Scott, 2000:2-3). Relational data are used to assign certain
value to relations within networks. The relational data collected in this research was the frequency of events in which actors participated. Once the boundaries of the network were established and data collected, it was possible to reconstruct two sorts of networks: actor-affiliation network (A-AF) and actor-actor (A-A) network.

In the case of A-AF, the objective was to establish the link between events and actors. Participation of an actor in a particular event (value 1) or their absence (value 0) were registered in several matrices (Situation A in Table 1). In order to take into account variations in roles that a pair of actors may play in the same event, a ‘0.5’ value was introduced to describe an actor who participates in an event but plays a secondary role. For instance, in the case of the Senior Level Group meetings – which is an event dominated by diplomats – value 1 was assigned to DG RELEX and value 0.5 was assigned to DG JHA (Situation B in Table 1). Another matrix was designed to take into account the frequency of particular meetings in a given year. To that end, the values assigned as described above were multiplied by (i.e. weighted with) a number of meetings. For instance, according to formally established institutional rules COTRA meetings are held at least twice a month, which means 24 meetings during a given year. That means, for instance, that the value of DG RELEX in such matrix is 24 and the value of DG JHA is 12 (Situation C in Table 1).

Such numerical description represented a kind of ideal case whereby it is assumed that an actor participates in all meetings during a given year and all meetings foreseen by formal arrangements really take place. For instance, it needs to be acknowledged that DG JHA or DG TREN may not have participated in all meetings and therefore the value assigned to them is an approximation. The only way to assess a real value would be through investigating their participation in all COTRA meetings but, as has already been mentioned, there was no access to this kind of information. For more accuracy, an additional procedure was applied whereby instead of registering the exact participation of actors in events the focus was on the exact number of meetings that were held in a given year. Initially accumulated nominal values were then multiplied by (i.e. weighted with) a real number of specific meetings during a year. For instance, in the case of COTRA, instead of multiplying a value by an ideal number of 24 meetings it is multiplied by 8, which corresponds to the number of COTRA meetings devoted to homeland security issues that really took place (Situation D in Table 1). Such a reconstruction was made on the basis of official reports and may be imprecise if the data available online prove to be incomplete.

The comparison of networks on the basis of weighted and nominal value was a more accurate way of drawing conclusions about the importance of certain actors in networks. While nominal values were useful in recreating a certain status quo, weighted values helped in presenting a more realistic image. Again, it needs to be stressed that while such an image was ‘more realistic’ it may or may not correspond to ‘real’ network values that could be established if the access to data was better. Nominal values (1 for participation, 0 in case of non-participation) were later substituted with values mirroring the level of individuals representing their organisations: 4 for the highest political level (e.g. presidents), 3 for meetings at ministerial level (e.g. secretaries, commissioners), 2 for senior level officials (e.g. directors and directors general) and 1 for officials at lower levels (e.g. heads of units, desk officers). Such an approach made it possible to establish a relationship between the level of people participating in events, the frequency of those events, and their role in the process of transatlantic policy-making.
The construction of A-AF matrices was later used to construct actor-actor networks. Each joint participation in an event was used to indicate a direct connection between actors. For instance, the SLG meetings are attended by the Council Secretariat, Commission DG RELEX, Presidency, the Department of State and occasionally by other Commission services and agencies of the US government. This means that SLGs provide an opportunity for all those actors to establish a connection. In the matrix of actor-actor relationships such connection is valued as 1 and the lack of connection with 0. Taking into account all events at the transatlantic level and actors participating in them a matrix of 69 relationships between actors was constructed. Connections between two actors resulting from the participation in the same event were always counted only once, e.g. the connection of DG RELEX to the Presidency and of the Presidency to DG RELEX through the SLG was treated as one and not two connections (Situation E in Table 2). In the second step, a total number of a particular event in a given year was taken into account and multiplied by the nominal value assigned at the beginning (1 or 0). The assumption behind this step was that frequency of interactions had an impact on the strength of ties emerging between a pair of actors.
For instance, if in the course of one year there were 6 SLG meetings, the value assigned to the tie between the Presidency and DG RELEX was 6 and not 1. Similar adjustment was performed for each event, summing them up gave a total value of a tie between a pair of actors (Situation F in Table 2). For instance, if the Presidency and DG RELEX met 6 times in SLG and 12 times in COTRA meetings, the value of their tie was 18.

The introduction of this data in an actor-actor matrix (Situation H Table 3) was the final step towards the reconstruction of A-A networks and their analysis with the tools offered by Social Network Analysis. Whenever a pair of actors met on any of the occasions, the assigned value for this pair was 1. When a pair of actors never met, the value of their connection was 0. Here, the nominal values (Situation G in Table 3) are multiplied by the total number of contacts, which is also taken for the strength of ties.

In addition to matrices representing formal networks, a matrix including three kinds of relationships was used: formal at the transatlantic level, formal at the domestic level and informal (the differences between them were presented in the section on network delineation). A relationship on each of these levels was assigned a specific value of 5, 3 and 1 respectively. As in previous cases 0 meant no relationship at all (Situation I Table 4).
This step was taken in order to include the role of informal relationships and assess their role in transatlantic policy making. The comparison of formal and informal A-A networks offered additional insight into who plays what role in the network and through what channels. The UCINET software (Borgatti et al., 2006) was used to create datasets in a matrix form which was one of the available ways to use this data for the analysis and visualisation. The ties created between actors are presented with a bipartite graph (Wasserman and Faust, 1994) whereby one group of vertices represents actors and second group represents events (Wilson, 1982; Wasserman and Faust, 1994). The datasets were then applied in NetDraw which is a programme for drawing social networks but which also performs some basic calculations and analysis (Huisman and van Duijn, 2005).
Properties of actors: degree centrality and betweenness

One of the basic objectives in applying tools of Social Network Analysis was to investigate basic structural properties of networks. The particular focus was on two measures: degree centrality and betweenness. The measurement of centrality allows us to draw conclusions about the prominence of an actor within a network. According to Wasserman and Faust, ‘prominent actors are those that are extensively involved in relationships with other actors’ (Wasserman and Faust, 1994:173). Because ties considered in this study are nondirectional, central actors are those with the highest degree of centrality- meaning that they are connected with many other actors - hence those most active within the network. Activity of an actor is understood as its participation in many events or involvement in many ties. Another aspect of centrality is betweenness. This measure is important for considering the potential role of an actor within a network. Actors that are intermediaries and serve as connections between other pairs of actors may exercise a lot of influence on the distribution of information or communication. Betweenness centrality of an actor measures his position between many other actors. In other words, the more an actor lies on the way between other actors, the higher is its betweenness score. Both measures have been applied to A-AF and A-A networks. In the former, they indicate which of the events at the transatlantic level offers most possibilities for creating vast networks due to numerous actors being connected. It is also an indication of a more heterogenous network. The networks with a lower degree of centrality, on the other hand, indicate those events where membership is smaller. In case of A-A networks, both measures provide an indication of who the most prominent actors are in terms of their connections.

<table>
<thead>
<tr>
<th>Type of Network</th>
<th>Adjustment</th>
<th>Procedure</th>
<th>Structural Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Actor - Affiliation (in years (2004-2008))</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 a</td>
<td>Nominal</td>
<td>1 – participates always or sometimes; 0 – never participates</td>
<td></td>
</tr>
<tr>
<td>1 b</td>
<td>Unweighted per year (maximum values)</td>
<td>As in 1a but multiplied by the maximum number of meetings as agreed between participants</td>
<td>Degree centrality, Betweenness centrality</td>
</tr>
<tr>
<td>1 c</td>
<td>Weighted</td>
<td>1 – participates and plays a major role; 0.5 – participates but does not play a major role; 0 – does not participate</td>
<td></td>
</tr>
<tr>
<td>1 d</td>
<td>Weighted per year (ideal values)</td>
<td>As in 1c but multiplied by the maximum number of meetings as agreed between participants</td>
<td></td>
</tr>
<tr>
<td>1 e</td>
<td>Weighted per year (real values)</td>
<td>As in 1c but multiplied by real number of meeting in a given year</td>
<td></td>
</tr>
</tbody>
</table>
### Table 6. Summary of procedures applied in creation of network matrices

#### Data collection

One of the broadly applied methods to identify networks is the use of various network generators in surveys, including name generator (McCallister and Fischer, 1978; Burt, 1984; Marsden, 2003), position generator (Lin et al., 2001) and resource generator (van der Gaag and Snijders, 2004). In order to ensure a better coverage of a respondent’s networks, the survey used in this study introduced several names-generating questions aiming to identify communication, information and problem-solving networks. It also allowed for identification of a respondent’s core networks. The core network is understood as a set of actors to whom a respondent is ‘directly connected by ties of varying intensity (e.g. frequency of interactions, emotional depth)’ (Knoke, 1990) and who have the most significant influence on the respondent’s ‘attitudes, behaviour and well-being’ (McCallister and Fischer, 1978). Respondents were given the freedom to identify the significant individuals in their work. The approach taken in this study applied a slightly adapted version of generators whereby questions for individuals require a respondent to provide their institutional affiliation and position rather than a name. This move was dictated by the concern that in such a delicate field as homeland security and international cooperation public officials may not be willing to disclose names of their colleagues.

The initial criterion in defining recipients of a survey was an event-activity-focused approach to boundary delimitation according to which membership is
prescribed on the basis of participation in an event or involvement in a particular activity (Crane, 1972; Laumann et al., 1983). In the case of this research project it was based on the involvement of an organisation in homeland security cooperation at the transatlantic level. To that aim, institutions involved in policy making in this area were identified and then who represented them in various transatlantic meetings. Consequently, a person's participation in meetings at the transatlantic level, e.g. summits, senior level group meetings, task forces, etc. constituted an indicator of the involvement in network activities. This allowed for the identification of a ‘core group’ of actors/institutions at the transatlantic level. The answers submitted by core group respondents were systematically reviewed allowing for identification of additional institutional entities.

Conclusions

Reference to networks is nowadays very common and the term itself is treated like a metaphor rather than an analytical concept. While qualitative data (e.g. obtained through interviews) provide valuable details about interactions among organizational units and their members, they have rather limited capacity to present the evidence about the scope of those contacts, unless quantified. Although quantitative techniques are preferred in the study of organizations and management – due to their use of standardized measures of variables and the potential for making straightforward relations between variables (Pedhazur and Schmelkin, 1991) – they also have numerous limitations. The major problem with those studies is, among others, that they do not offer the researcher the opportunity to learn about the context in which an organization operates (i.e. its history, norms, etc.) and consequently undermines the emergence of an interpretative framework which could be used to unravel behaviour and actions of members of organization (Adler and Adler, 1994). Therefore, the main advantage of employing both qualitative and quantitative methods is addressing both objectives within a single research project.
### List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CION</td>
<td>Council</td>
</tr>
<tr>
<td>COM Pres</td>
<td>European Commission President</td>
</tr>
<tr>
<td>COTRA</td>
<td>Transatlantic Relations Working Party</td>
</tr>
<tr>
<td>DHS</td>
<td>Department of Homeland Security</td>
</tr>
<tr>
<td>DoJ</td>
<td>Department of Justice</td>
</tr>
<tr>
<td>DoS</td>
<td>Department of State</td>
</tr>
<tr>
<td>EP</td>
<td>European Parliament</td>
</tr>
<tr>
<td>HLCG</td>
<td>High Level Contact Group on Data Protection</td>
</tr>
<tr>
<td>HoR</td>
<td>House of Representatives</td>
</tr>
<tr>
<td>HR</td>
<td>High Representative</td>
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<tr>
<td>JCCC</td>
<td>Joint Customs Cooperation ; Council</td>
</tr>
<tr>
<td>JHA</td>
<td>DG Justice and Home Affairs</td>
</tr>
<tr>
<td>JHA HL</td>
<td>High Level Justice and Home Affairs meetings</td>
</tr>
<tr>
<td>JHA MINIST</td>
<td>JHA Ministerial</td>
</tr>
<tr>
<td>MINIST</td>
<td>EU-US Ministerial Meeting</td>
</tr>
<tr>
<td>MS</td>
<td>Member States</td>
</tr>
<tr>
<td>PDBTS</td>
<td>Political Dialogue on Border and Transportation Security</td>
</tr>
<tr>
<td>POL DIR</td>
<td>EU-US Political Directors' Meeting</td>
</tr>
<tr>
<td>PRES</td>
<td>Presidency</td>
</tr>
<tr>
<td>RELEX</td>
<td>DG External Relations</td>
</tr>
<tr>
<td>SLG</td>
<td>Senior Level Group</td>
</tr>
<tr>
<td>TABD</td>
<td>Transatlantic Business Dialogue</td>
</tr>
<tr>
<td>TACD</td>
<td>Transatlantic Consumers' Dialogue</td>
</tr>
<tr>
<td>TAXUD</td>
<td>DG Taxation and Customs Union</td>
</tr>
<tr>
<td>TF</td>
<td>Task Force</td>
</tr>
<tr>
<td>TLD</td>
<td>Transatlantic Legislators' Dialogue</td>
</tr>
<tr>
<td>TREN</td>
<td>DG Transportation</td>
</tr>
<tr>
<td>TSCG</td>
<td>Transportation Security Cooperation Group</td>
</tr>
<tr>
<td>US Pres</td>
<td>US President</td>
</tr>
</tbody>
</table>
References


Strait's, B. C. (2000) 'Ego's important discussants or significant people: An experiment in varying the wording of personal network name generators', *Social Networks* 22(2): 123-140.


