Journal of Public Policy (2014), 34:1, 93–121 © *Cambridge University Press, 2013*
doi:10.1017/S0143814X13000263

Ties that count: explaining interest group access to policymakers

JAN BEYERS
Department of Political Science, University of Antwerp, Belguim; University Agder, Norway
E-mail: jan.beyers@ua.ac.be

CAELESTA BRAUN
Department of Political Science and Public Administration, Vu University Amsterdam, The Netherlands; University of Antwerp, Belguim
E-mail: c.braun@vu.nl

Abstract: The degree to which interest groups gain access to policymakers has often been explained by focusing on the exchange of resources in a dyadic relation between interest groups and policymakers. This article argues that the position an interest group occupies within a coalition and the relations it has outside its coalition substantially affect the likelihood of gaining access to policymakers. Our empirical focus is on the Dutch interest group system for which we examine how coalitions among groups and the network position of interest groups within and between such coalitions shape access. The analysis, based on data collected among 107 Dutch interest groups and 28 policymakers, leads to the conclusion that network positions count differently for elected and non-elected officials, and that network ties that bridge different coalitions add significant explanatory leverage to resource-based explanations of access.

Key words: access, bureaucrats, interest group, social network analysis

Introduction

Getting a foot in the government's door is one of the core challenges for interest groups if they are to be successful in influencing public policy. While outside lobbying and media strategies are certainly important, direct access to policymakers seems to count most in influencing public policy (Kollman 1998; Bouwen 2002; Beyers 2004; Binderkrantz 2005, 2008; Kriesi et al. 2007; Baumgartner et al. 2009). Direct access is often assumed to be driven by a policymaker's demand for policy goods, such as expertise and political support. The main explanatory factor of interest group access is, accordingly, a group's capability to produce and supply these policy goods (Hansen 1991; Austen-Smith 1995; Bouwen 2002;

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

Eising 2007). A group's capability to do so is mostly conceptualised as a function of its resource endowment, measured by its budget, staff size or membership type. According to resource-based perspectives, the mechanism that explains access can be summarised as follows: a higher resource endowment helps to supply high-quality policy goods and enhances the likelihood of access.

This resource-based perspective focuses on individual traits of interest groups and tends to ignore the inter-organisational context in which interest groups usually operate. Many organised interests act through coalitions in order to seek influence (Sabatier 1988; Zafonte and Sabatier 1998; Hula 1999; Beyers and Kerremans 2004; Kriesi et al. 2006). Further, organisations often lobby in flocks or jump on bandwagons when selecting the issues on which to spend political resources (Gray and Lowery 1998; Baumgartner and Leech 2001) and whether or not organisations are intentionally engaged in coalition formation, the side they represent, that is, whether they are in favour or against the prevailing *status quo*, seems an important explanatory factor for gaining access (Baumgartner et al. 2009). The propensity of interest groups to join coalitions suggests that the inter-organisational context, the ties that bind interest groups to each other, might be of an important value and may help groups to gain access to public officials. Hall and Deardorff's (2006) legislative subsidy mechanism that explains interest group access to members of US Congress explicitly considers political intelligence in addition to technical expertise as a crucial policy good. Political intelligence summarises the idea that interest groups

> tend to be well positioned in issue networks or "lobbying enterprises" [and] thus individual lobbyists can provide information necessary to anticipate other players' reactions, generate head counts, offer procedural advice and otherwise enable legislators to more fully approximate informed strategic actors in seeking policy "progress". (Hall and Deardorff 2006, 74)

This suggests that how interest groups are connected to other interest organisations enhances both the value and type of the policy goods they can supply. There are a few, mostly US-based, studies that examine systematically how the connectedness or the network position of interest groups actually affects their ability to gain access to the policy process (Carpenter et al. 1998, 2003, 2004; Heaney 2004, 2006). The limited attention for the consequences of the positions interest groups occupy within their inter-organisational environment is surprising, given the fact that contemporary scholarship conceptualised governance as being featured by network constellations of interdependent actors with different capabilities and policy positions (Scharpf 1997). Indeed, one of the

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

important findings of the policy community literature was that policy networks involving both public officials and interest groups, to an important degree, shape policy outcomes (Atkinson and Coleman 1992; Rhodes and Marsh 1992; Maloney et al. 1994).

In this paper, we develop a perspective that explicitly incorporates how the connectedness of interest groups with their coalition environment affects the likelihood of direct access to policymakers. More concretely, we investigate how exchanges within and between political coalitions relate to the extent to which interest groups gain access. We argue that the position an interest group occupies in these networks adds significant leverage to resource-based explanations of interest group access. The first part of the paper develops this argument in more detail. We subsequently test our theoretical expectations with survey data of Dutch interest groups ($n = 107$) and policymakers ($n = 28$). The empirical analysis is based on a network analysis and examines how the position an interest group occupies within and between coalitions of Dutch interest groups shapes access to policymakers. Our analyses lead to the conclusion that the position interest groups occupy within and between coalitions offers an important explanation in addition to individual organisational characteristics. Importantly, we find that access to policymakers varies significantly between elected and non-elected officials. While interest organisations that occupy a central position within a coalition gain more access to politicians, interest groups that bridge different coalitions by developing information exchanges with distant acquaintances – so-called "weak ties" – seem to benefit in gaining access to bureaucrats.

An exchange perspective on interest group access

Interest group access to policymakers is often conceptualised as an exchange relation between public officials and organised interests in which the transmission of policy relevant information has a central place. Interest groups exchange technical expertise and political information about their constituencies' support in return for access to the policy process, be it control over policy outcomes or monitoring information on the political process (Pappi and Hennig 1998, 1999; Sloof 1998; Crombez 2002; Hall and Deardorff 2006; Henning 2009). Policy officials are open to the policy goods interest groups supply, because they face limited capabilities in terms of time, resources and agenda space (Jones and Baumgartner 2005; Hall and Deardorff 2006). Given these limited capabilities and the transaction costs associated with interactions with interest groups, policymakers cannot exchange resources for access with every individual interest group. A large number of organised interests will

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

rarely if ever gain direct access to policymakers. Many groups gain indirect access through intermediate actors, and only a limited number of organised interests will enjoy regular access.

The transaction costs involved in political exchanges as well as the importance of having regular exchanges with policymakers means that interest groups aim to optimise their chance of gaining access by establishing an organisational format that helps them supply resources, in particular, specialised information and expertise. The ability to produce and supply such access goods is often explained by an organisation's resource endowment. Not surprisingly, then, organisational features such as material resources, staff size or the type of interests represented are often used as variables predicting the extent to which interest groups gain access to policymakers. However, such an organisational-level approach does not fully correspond with the reality of lobbying, and individual resource endowment is not the only explanation for why some interest groups secure access and others do not. Many studies demonstrate that interest groups are often involved in larger inter-organisational networks or advocacy coalitions and, additionally, tend to engage in coalitions as a means to exercise influence (Laumann and Knoke 1987; Sabatier 1988; Heinz et al. 1993; Hojnacki 1997; Mahoney 1997; Gray and Lowery 1998; Zafonte and Sabatier 1998; Hula 1999; Beyers and Kerremans 2004; Heaney 2004, 2006; Kriesi et al. 2006; Leifeld and Schneider 2012). These studies on coalition formation not only identify different aspects of the policy environment or political opportunity structures as important indicators of the likelihood of coalition formation, but also suggest that establishing coalitions is fundamentally geared to achieve lobby success. Joining forces should, in the end, yield substantial benefits compared to individual lobbying and, mostly, these benefits refer to gaining direct access and the realisation of favourable policy outcomes. Yet, only a few studies explicitly examine the relation between coalition membership and access of individual interest groups to policymaking processes. Carpenter and colleagues offer the most detailed study on the effects of networks on actual policy access (Carpenter et al. 1998). They demonstrate that organisations that are approached by a large number of acquaintances are more likely to gain access compared to those who lack such "weak ties". Their main argument is that the information capacity of interest groups increases with the number of linkages to other organisations. It follows that the better an organisation is connected, the more it can gather relevant information and supply it to policymakers. The position an interest group occupies within and between coalitions thus adds an important explanatory factor to individual resource endowment to explain the quality of policy goods they can offer, and, hence, the likelihood of access.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

The added value of social networks in obtaining access

To explain the added value of the network position of interest groups in gaining access, we build upon Granovetter's weak-tie argument (1973) and the application of Granovetter's insights by Carpenter and colleagues to explain interest group access to public agencies in US health care policymaking (Carpenter et al. 1998, 2003, 2004). Granovetter mainly examined interpersonal networks and argued that the strength of interpersonal ties – a combination of the amount of invested time, emotional intensity, intimacy and reciprocal services – relates to the overall capacity of a network to diffuse knowledge, enhance social mobility or ensure social cohesion (1973, 1361). Strong ties refer to intensive connections between like-minded actors, while weak ties are more superficial ties with distant acquaintances. When we apply this concept to interest groups, close exchanges and collaboration between UEAPME (the European Association of Craft, Small and Medium-sized Enterprises) and Business Europe (the European association uniting the EU member states' peak business organisations), two EU-level encompassing business associations, is a strong tie, while occasional exchanges between Business Europe and Greenpeace Europe, one of the major EU-level environmental NGOs, would count as a weak tie.

Weak ties are important in diffusion processes (i.e. the spread and availability of knowledge within a network), as they potentially build bridges between distant actors that would otherwise remain unconnected. This observation follows from a key notion of network theory, namely, the idea of transitivity. Transitivity means that when there are two strong ties within a set of three actors, it is likely that, the triad will be closed either by a strong or a weak tie. Consider actor A in Figure 1. Actor A is connected via a strong tie to both *x* and *y*, and transitivity implies that *x* and *y* will also be connected as a result of the two strong ties. The idea of transitivity implies that a strong tie is never the only connection between two actors (Granovetter 1973, 1364). Consider Actor A in Figure 1 again. Information could flow to *y* in two ways, either directly or indirectly via *x*. Densely connected clusters, such as the three clusters in Figure 1, may contain redundant ties, as many, but not necessarily all, actors can be reached indirectly. It also follows that the sole connection between two actors is often a weak tie. Actor A is connected with B and C via such weak ties. Although these two weak ties do not belong to a fully connected triad, they are crucial, as they form a bridge between actors who each belong to densely connected and highly transitive clusters. In this sense, they form the only channel of exchange between these three coalitions, which makes them crucial for the exchange of information between the three coalitions.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

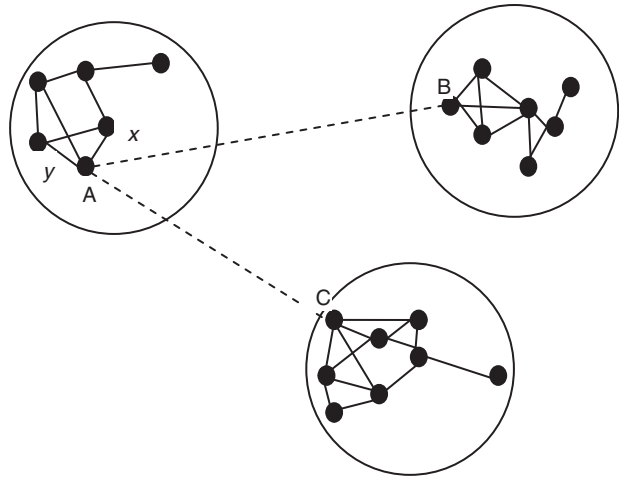


Figure 1 Centrality and weak ties as key network positions.

The "strength of weak ties" implies that ties with distant acquaintances are of a larger informational value than strong ties that remain concentrated within closely knit social circles (Burt 2004). That is, weak ties carry less redundant information and serve as bridges between distant cliques, groups or coalitions, as is shown in Figure 1, and help actors to gather information and connect expertise that is available in distant areas of a social system. For instance, the tie between UEAPME and Business Europe is unlikely to reveal new information, while occasional contact between Business Europe and Greenpeace Europe means that these organisations may come across unexpected information. Put another way, organisations building bridges with groups outside the coalition are more likely to hear new information. Meanwhile, those who depend predominantly on ties via their close friends or strong ties are more likely to hear the same story repeatedly.

If this argument holds, then interest groups that bridge distinct coalitions possess informational resources that render them attractive to policymakers and, therefore, being involved in these sort of networks will have a substantial positive impact on gaining access. Carpenter et al. (1998) provide a compelling test of this argument, showing that organisations with weak ties that connect distant players have an advantage in obtaining access to policymakers as opposed to those without such ties. Although we concur that bridging ties are important, we argue that two additional factors are important for understanding the added value of network positions regarding policy access of interest groups.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

First, the position of an organisation within a coalition, in particular, a position as coalition representative, is an important factor contributing to access. The more an interest group functions as a central node within a coalition (for instance A, B and C in Figure 1), the more it can provide policymakers with information on the coalition's political views. The limited amount of time available to policymakers means that organisations holding central positions within a coalition are more likely to gain access than those with less central positions. An organisation that occupies a central brokerage position within a coalition may have an advantage in gaining access because of its large number of ties with other coalition members. In that sense, such centrally positioned organisations are better at communicating, encompassing and representing policy views. Peripheral coalition members, on the other hand, may profit from their connections with interests located in other coalitions (bridging or weak ties) – that is, by providing new policy information.

Second, the positions individual interest groups occupy will not be of equal value for all public officials. Research shows that the different types of policy goods interest groups offer co-vary with the likelihood of access to different types of policy officials (Bouwen 2002; Eising 2004; Eising 2007). The general presumption of exchange-based models is that time and information constraints faced by public officials lead them to supply access to interest groups that are able to offer policy-relevant expertise and information. A targeted supply of access saves transaction costs for policymakers, and the varying position of organised interests in an inter-organisational network entails different types of information advantages. An interest group that occupies a central brokerage position within a coalition will be more useful for, and gain more access to, elected officials, as the latter are keen to gather information about political support and preference intensities. In particular, political support from clearly identifiable coalitions is important to elected officials. The more an organisation is able to represent the view of a coalition because of its central position therein, the more it is perceived as being able to supply valuable political information to politicians. In contrast, organisations with bridging ties will improve their access to bureaucrats or ministerial officials. These non-elected officials need a more diverse set of information that is useful for both technical problem solving and indicating broad societal support (Poppelaars and Scholten 2008; Poppelaars 2009a; Braun 2012). Such information is not necessarily confined to or available within one particular coalition. Moreover, non-elected officials are expected to be non-partisan and cannot afford to be too closely affiliated with one particular coalition. Therefore, organisations with substantial bridging ties are capable of providing more heterogeneous information and are likely to

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

get better access to non-elected officials. Overall, we argue that the access an interest group enjoys depends on its position within a coalition, more precisely its propensity to bridge distinct coalitions (through ties with organisations outside its coalition), as well as its ability to offer representative policy views (through a pivotal and central brokerage position within a coalition). Thus, occupying brokerage or bridging positions will have distinct implications for gaining access to individual policymakers. This results in the following hypotheses:

Hypothesis 1: An interest group with a strong brokerage position within a coalition gains more access to politicians compared to bureaucrats.

Hypothesis 2: An interest group with several ties that bridge distinct coalitions gains more access to bureaucrats compared to politicians.

Data and research design

Our research design consists of a network analysis of Dutch interest groups and public officials. The data for the network analysis were collected via an elite survey, which was conducted between May 2003 and February 2006 within the area of external trade policy of the EU. The survey focused, among others, on how national interest groups seek access to Dutch policymakers in order to shape Dutch government positions in specific policy areas (agriculture, steel/metal and services policies). One of the major problems associated with sampling interest groups is the identification of a sample population. In the Netherlands, there are no reliable and comprehensive sources with population data of interest groups, meaning that top-down sampling of interest groups is a common strategy. Biased samples – that is, samples with interest groups that are relatively active and more "visible" – present a challenge to interest group research in political systems with no reliable population data, such as the Netherlands (Poppelaars 2009b). To obtain data as equivalent as possible to population data, we proceeded as follows. First, we screened several formal sources, such as the websites of government agencies involved in trade policy, to identify a wide variety of interest groups, including NGOs, business associations and labour unions.[1] This procedure of

[1] Because the project deals with trade policymaking, we especially focused on sources, which list interest groups that are potentially active in this sector. The WTO-website (www.wto.org) contains a number of useful sources ranging from listings of interest groups and civil society organisations attending ministerial conferences, expert meetings, position papers delivered to the WTO and so on. From all these sources we selected Dutch actors. Second, DG Trade of the European Commission has established a Civil Society Dialogue, an open process

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

positional sampling resulted in an unbalanced sample of 225 Dutch organisations, as it contained many highly specialised groups that were not associated with trade policy and no labour unions. We retained the following organisations: sectoral associations with a direct (agriculture/food industry, metal/steel, services) or an indirect link (transport and retailing/distribution) to the policy sectors under investigation in the sample. Both NGOs and cross-sectoral interest groups, such as cross-sectoral employer unions, labour unions and associations representing small and medium enterprises, were also retained in the sample.

One important outcome of this mapping process was the complete absence of labour unions in any of the sources we screened. This is remarkable for two reasons. First, the institutionalised neo-corporatist system of interest intermediation means that labour unions are crucial interest groups in the Netherlands. Second, given the importance of trade for the overall Dutch economy, one could imagine that labour unions would be more active and visible in the various sources that were screened. Our aim was to have a sample not only of organisations that are very active in this policy area, but also a sample that would give us a representative picture of interest groups involved in Dutch policymaking more generally. To address this problem, we first snowball sampled the Dutch national members of European labour umbrella organisations and subsequently consulted a number of experts on the relevance of including certain national groups in the sample, particularly sectoral labour unions. As a final step, we examined the composition of key advisory bodies to ensure the inclusion of all relevant domestic labour unions. This procedure resulted in a representative sample of interest groups involved in Dutch policymaking rather than a sample of interest groups only active on trade policy.

Non-elected public officials were included in the sample on the basis of official sources that outline the government agencies and ministries involved in the formal coordination of the policy positions that the Dutch government defends at the European level. We identified 19 key officials in eight agencies and ministries who were in charge of the units responsible for the coordination with other ministries or agencies. Based on the composition of parliamentary commissions in the Dutch Parliament, we selected 23 MPs – or their aides – with a substantial interest in the trade policy domain. One could argue that the set of decision makers is

of consultation to which interest groups may subscribe (http://trade-info.cec.eu.int/civil_soc/intro1.php). In addition, from this source we retained Dutch actors. Third, we coded all interest groups mentioned in a policy event data set that was developed for the purpose of this project.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

Table 1. Overview of the Dutch sample and response

	Sample	Interviewed
NGOs	37	34 (92%)
Business organisations	65	57 (88%)
Labour unions	18	16 (89%)
Elected officials	23	13 (57%)
Non-elected officials	19	15 (79%)
Total	162	135 (83%)

relatively small and could hamper robust conclusion drawing; however, the way we sampled these actors ensures that we can draw a reliable conclusion and present an accurate picture. Importantly, as we demonstrate below, our results on the importance of weak ties correspond with the findings of Carpenter et al. (1998, 441), who worked with a similar-sized sample and similar number of policymakers ($n = 29$).

The net result of the sampling procedure was a sample of 162 Dutch interest organisations, government officials and representatives of MPs as well as party officials. Interviews were carried out with 135 officials, including 107 representatives of interest groups and 28 representatives of political parties and government agencies, resulting in an overall response rate of 83 per cent. Table 1 gives an overview of the sample and the response rates. Under the heading of NGOs, we include environmental NGOs, consumer NGOs, development NGOs and a small number of women's organisations. The second group, business organisations, contains cross-sectoral business associations and sectoral business associations (in the field of agriculture, services and metal/steel) as well as small "businesses" such as farmers, professions, and small and medium enterprises. Under the category of trade unions, we find both cross-sectoral and sectoral labour associations. Elected officials include representatives of political parties, and non-elected officials are all civil servants employed by various Dutch ministries associated with trade policy.

Identifying coalitions

The first step in our analysis is the identification of advocacy coalitions among Dutch interest groups in order to examine the effect of brokerage within and bridging ties between coalitions on gaining access. Thus, by using coalitions as a starting point, we can control for the impact of coalitions on gaining access as well as test the significance of different

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

network positions on gaining access – that is, occupying a central coalition position and having ties connecting distinct coalitions. We define coalitions as sets of organisations that share common goals and seek to attain these goals through collaboration. Our conceptualisation of coalitions is structural in nature, because it views coalitions as encompassing and entailing diffuse cooperation patterns and does not only assume *ad hoc* coalitions associated with specific policy issues.

We operationalise advocacy coalitions as sets of interest groups with similar policy views in our case regarding trade policy. For the identification of advocacy coalitions, we first examine the extent to which the sampled actors consider other organised interests to be their allies, their opponents or organisations they want to persuade of their point of view (persuadees). Our questionnaire consisted of three open-ended questions (see Appendix 1 for the wording of these questions), which required respondents to indicate organisations with which they share policy views, they mainly oppose or they aim to persuade. This information was used to construct three square adjacency matrices (*allies*, *persuadees* and *opponents*), in which a "1" corresponds with a row actor indicating a column actor as an opponent, an ally or a persuadee (a "0" means that such a relation was not indicated).[2]

We subsequently examined the coalition structure within the network of allies, opponents and persuadees by running the block model procedure CONCOR in UCINET simultaneously on the three adjacency matrices. This procedure clusters actors into structurally equivalent positions by grouping actors who have similar affiliations to other actors (Breiger et al. 1975; Burt 1978; Wasserman and Faust 1998; Borgatti et al. 1999). CONCOR splits the remaining actors in several blocks or sets of actors that have structurally equivalent connections with each other into an ally, opponent and persuadee. That is, the blocks represent sets of organisations identifying each other to a similar extent as allies, opponents and persuadees. We excluded the 25 per cent of organisations with the lowest number of allies, opponents and persuadees from this analysis, as we consider these as distinct organisational types.[3] Interviewees of these organisations indicated that their group did not adopt a clear position

[2] As a consequence of using open questions, respondents were somewhat less pressured to indicate actors, resulting in a relatively low density for the adjacency matrices. These networks are sparser and less well connected compared to the exchange networks we discuss below (densities are 0.0306 for opponents, 0.0164 for persuadees and 0.0661 for allies compared to 0.1439 for exchange).

[3] The restriction of block modelling to actors with a sufficient number of mentions is a common procedure in social network analysis as structural equivalence presumes the ability of respondents to make comparisons with other actors (see Leenders 2002).

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

towards other organisations, and respondents of other organisations generally confirmed the fact that these groups are not obvious members of advocacy coalitions.

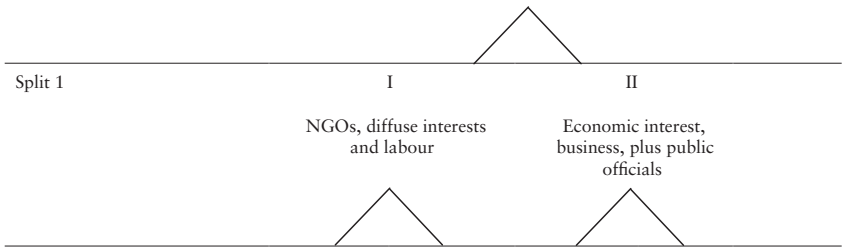
Table 2 reports the results of this analysis. The first split of the CONCOR procedure results in two primary blocks. Block I contains almost all NGOs (91 per cent) and a large number of labour unions (74 per cent) plus a handful of public officials. Almost 63 per cent of the business groups are in block II, while 32 per cent are weakly connected and only 5 per cent are in block I. The business coalition is joined by a large number of bureaucrats (73 per cent of the bureaucrats are in this category) and some politicians (38 per cent). A second split leads to a further split of block I, whereby the NGOs are almost equally divided over two groups and whereby 62 per cent of the labour unions join half of the NGOs. In addition, the employer/business organisations (block II) can be divided into two almost equally sized groups.

In addition to the organisations that are not part of this coalition structure, we identified four distinct advocacy coalitions based on the block modelling procedure: the *sustainability coalition*, the *development coalition*, the *pro-growth coalition* and the *agri-food coalition*. The *sustainability coalition* mainly consists of NGOs representing environmental or sustainability interests ($n = 8$) or such as animal right organisations ($n = 2$), politically more radical development organisations (*Both Ends* and *XminY*). This coalition is further joined by two consumer NGOs, one agricultural producer, *Kritisch Landbouwberaad*, which defends the rights of small farmers and organic farming, and two labour unions. The next coalition consists mainly of development NGOs ($n = 18$) and labour unions ($n = 11$). As development NGOs are on average much more prominent than labour unions, we labelled this coalition the *development coalition*.[4] The third coalition we identified is the *pro-growth coalition*, in which most organisations have a liberal, market-oriented view. This coalition is primarily composed of cross-sectoral business interests ($n = 16$) with peak business associations occupying prominent positions. A final coalition we identified is the *agri-food coalition*, which is dominated by business organisations ($n = 12$) active in the "food industry" and food producers or farming interests ($n = 5$). In addition, we find two business organisations in this coalition that represent firms producing industrial and agricultural and biotechnical and pharmaceutical products. Prominent within this coalition is the Dutch peak agriculture association, LTO-Nederland.

[4] The average indegree in the exchange network equals 47.7 for development NGOs compared to 26.1 for labour unions.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

Table 2. The Dutch coalition structure



	Sustainability	Development	Pro-growth	Agri-food	Weakly connected
NGOs	15 (44%)	16 (47%)	–	–	3 (9%)
Business associations	2 (3%)	1 (2%)	16 (28%)	20 (35%)	18 (32%)
Labour unions	2 (12%)	10 (62%)	–	–	4 (25%)
Elected officials	3 (23%)	2 (15%)	5 (38%)	–	3 (23%)
Non-elected officials	1 (7%)	3 (20%)	3 (20%)	8 (53%)	1 (7%)
Total	23 (17%)	32 (24%)	29 (21%)	22 (16%)	29 (21%)

Measuring and explaining interest group access

The advocacy coalitions identified in the previous section clusters organisations that identify each other to a similar extent as being allies, opponents and persuadees. We use this pattern of advocacy coalitions as a starting point for analysing the added value of coalition membership, a central position within a coalition – that is, many ties with organisations within a coalition – and a bridging position – that is, ties with actors from distinct coalitions. Data on information exchanges and collaboration patterns reported during our interviews are used in order to measure brokerage and bridging. Based on a pre-determined list of actors, we asked our respondents to identify organised interests with which they exchanged information and collaborated. The list included all actors that were identified and sampled during the pre-research and interviewed during the fieldwork. For the exact wording of the survey question, refer to Appendix 2.

Relying on some simple cohesion measures, Figure 2 illustrates how exchange relations within and between coalitions differ in nature. To begin with, actors within coalitions are much more densely tied to each other. The percentage of initiated exchanges compared to the total

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

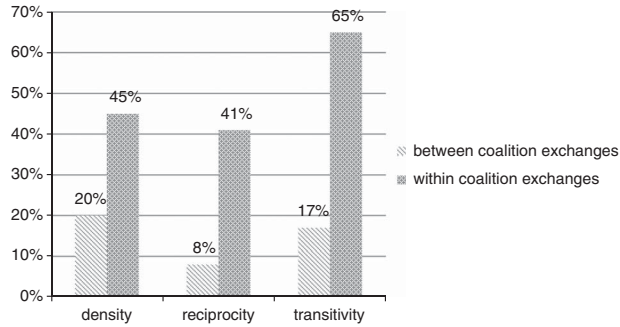


Figure 2 Comparing exchange relations within and between advocacy coalitions.

number of possible exchanges equals 45 per cent, while this is 20 per cent for the exchanges between coalitions. However, important in terms of the quality of exchanges is the fact that reciprocity, the chance that *i* referring to *j* implies *j* mentioning *i*, is much higher between coalition members than across coalitions. We also observe substantial differences regarding transitivity, namely the existence of fully connected triads when two actors are linked via a strong tie. While the transitivity, the percentage of ordered triples in which $i \geqslant j$ and $j \geqslant k$ that are transitive, is 65 per cent within coalitions, it is only 17 per cent between coalitions. In sum, within-coalition exchange relations are much more cohesive, stronger and consist of groups that are functionally and ideologically similar. Meanwhile, the lack of transitivity between coalitions signifies the weakness of ties and that existing ties connect distant acquaintances (Carpenter et al. 1998).

To measure the role of these within-coalition exchanges, that is, the centrality of an interest group within a coalition and the exchanges that bridge the coalitions, we constructed several measures based on actual exchanges and collaboration between interest organisations and policy-makers and among interest organisations. First, we constructed two indices that measure interest group access to elected and non-elected officials. These are our two dependent variables. These two indices are count data and sum up for each organised interest the number of bureaucrats or politicians who indicated that they exchanged crucial information and/or collaborated with the interest group in question (see Appendix 2 for the survey questions). Hence, we use the propensity of policymakers to approach an individual organised interest as a relevant exchange partner as a measure for the extent to which this organised interest gains access. Our aim is to explain variation in this measurement. Put differently, our dependent variable is not the propensity of organised interests to form ties with public officials, but rather the propensity that

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

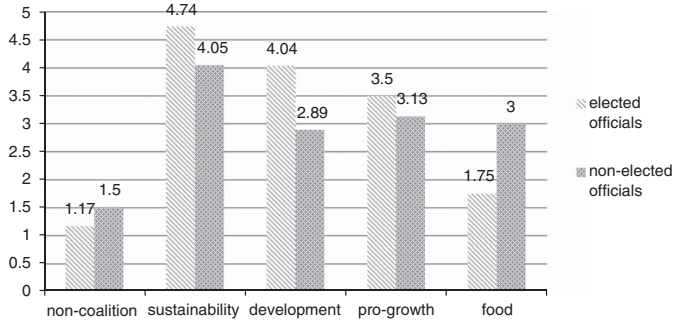


Figure 3 Average access advocacy coalitions and non-coalition members gain from elected and non-elected officials.

access is *supplied to* organised interests by public officials. Higher levels of access then indicate that interest groups are mentioned by many policymakers as key actors for information exchanges and/or collaboration. Low access means that none or only a few policymakers identify an organisation as an exchanger or collaborator. Figure 3 shows the variation in access among the different advocacy coalitions identified above. A first obvious conclusion we can draw from this variation is that, on average, being part of a coalition delivers higher levels of policy access. Organisations with a low prominence in the coalition structure, mostly specialised business associations, are mentioned the least by elected and non-elected officials as collaboration and exchange partners. Organisations within the sustainability coalition are identified by many policymakers as exchange or collaboration partners. Organisations in the agri-food coalition differ somewhat from the rest, as they are most often mentioned by non-elected officials – bureaucrats in the ministries – and least often by elected officials.

To measure the network position within a coalition and the number of bridging ties (our main independent variables), we focus on actual exchanges and collaboration between the interest organisations. Ties situated outside a coalition are qualified as bridging or weak ties, that is, an organisation's bridging ties are measured by the total number of times it was mentioned as a partner by other actors that do not belong to the organisation's coalition. For instance, when the VNO-NCW (Dutch business peak organisation and member of the pro-growth coalition) is listed by *Milieudefensie* (member of the sustainability coalition), this tie is coded as a bridging tie for VNO-NCW. Second, we measure the within-coalition position by counting the total number of times an organisation was mentioned as an exchange partner by other coalition members.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

For instance, each time *Milieudefensie* is named by other environmental NGOs, we add these ties to its within-coalition or brokerage position. Because these variables are characterised by a skewed non-normal distribution, our models are estimated by taking the log of these variables; in this way, we presume that the first additional ties generate more value in terms of gaining access. As more and more ties are added to an actor's network, the marginal effect of additional connections starts to decrease.

Next to the main independent variables on the positions of actors in inter-organisational networks, we control for (1) the material resources of an organisation measured as the logged number of its full-time staff members and (2) membership, that is, individual members versus organisational or firm membership, in the analyses. We further included the coalition to which an interest group belongs (development, sustainability, pro-growth or agriculture) to test the overall effect of coalition membership. Because the dependent variables, access to bureaucrats and politicians, are count data that are characterised by a large number of zeroes, a highly non-normal distribution and much over-dispersion (variance is substantially larger than the means), we use negative binominal regression in order to test the relative impact of each independent variable (Long 1997).

One of the key assumptions of standard regression models is the independence of observations. Clearly, in analysing network data with network variables as explanatory factors, this assumption does not hold. There are two ways to model interdependencies and control for possible endogeneity, or auto-correlation, in models aiming to explain the effect of network-related factors, such as the number of ties an organisation or individual has to others, on individual outcomes.[5] A first option is to

[5] One can roughly distinguish two main types of network analyses, namely individual-level and relational-level models (O'Malley and Marsden 2008). Relational-level models account for network structures, where the dependent variable measures an aspect of the (nature of) relationship between individuals in a network (a friend of my friend is my friend). Individual-level models focus on individual-level outcomes and incorporate explanatory variables that may involve characteristics derived from the network structure (such as the position within a network or number of specific ties). Our analysis is of the second kind: we treat the level of access as an individual-level outcome and explain this by the number of bridging and brokerage ties a specific interest group possess (and some other covariates). A model with an auto-regressive term is the appropriate choice in such cases, given the main inter-dependence effect we hypothesise. For relational-level analyses, exponential random graph models (ERGM) are appropriate as these aim to explain network formation and local structures, which is not the goal of this paper. ERGM is not suitable because it takes establishing binary edges as a starting point (e.g. co-sponsorship of a bill in a dyad of MPs). Yet, our dependent variable is non-binary, namely the number of hits each organised interest receives from a set of interviewed policymakers, which excludes the option to use ERGM.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

model the disturbances, or error terms, as being correlated. The second is to model the auto-regressive effects of the dependent variable. These are not two competing models but may reflect different assumptions about the underlying processes that result in the interdependence effects (Leenders 2002; Mizruchi and Leuman 2008; O'Malley and Marsden 2008). What kind of interdependence effect should enter the empirical analysis is, ultimately, a decision of the researcher, based on theoretical assumptions of potentially relevant network effects (Leenders 2002). In our analysis, we control for the extent to which other organisations with which a particular organisation is closely related also gain a lot of access. That is, when access is strongly predicted by the extent to which closely related actors also gain access, we can speak about a positive auto-regressive effect. A negative auto-regressive effect means that someone's access diminishes if the access of those with whom one is in close contact increases. The latter finding would suggest that competitive mechanisms are at work (Carpenter et al. 1998). As we have two types of interdependencies – brokerage and bridging, we add two separate auto-regressive terms in order to account for these effects (Dow et al. 1984; Leenders 2002):

$$\mathbf{Y}_a = \mathbf{X}\beta + \rho_{brok}\mathbf{W}_{brok}\mathbf{Y}_a + \rho_{brid}\mathbf{W}_{brid}\mathbf{Y}_a + \varepsilon_a$$

where $\mathbf{Y_a}$ is an $N \times 1$ vector of access granted by policymakers (bureaucrats and politicians) to 107 organised interests, and $\mathbf{X}$ is the matrix of independent variables: staff resources, membership types, brokerage and bridging network position as well as the coalition to which an organised interest belongs. $\mathbf{WY_a}$ is the network auto-regressive term and indicates the access enjoyed by other organised interests in the focal actor's network, weighted by the extent to which these organisations are involved in exchange relations with the focal actor. To put it differently, $\mathbf{WY_a}$ is the vector containing for each observation the weighted average value of access gained by the actors with whom one is connected. We use two weight matrices, one with only the ties within coalitions ($\mathbf{W_{brok}}$, brokerage) and another containing the ties between coalitions ($\mathbf{W_{brid}}$, bridging), and we row standardise these by dividing each cell in a row by the row sums.[6] Thus, $\rho_{\mathbf{brok}}$ and $\rho_{\mathbf{brid}}$ show the extent to which dependencies among observations impact on the access supplied by policymakers and can be considered as a robustness test for the overall models in the sense that they control for interdependence among the units of analysis.

[6] We also tested models with one auto-regressive term in which the weigh-matrix measures the overall exchange network, not distinguishing brokerage and bridging; these models basically lead to similar findings.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

Basically, $\rho_{\mathbf{brok}}$ and $\rho_{\mathbf{brid}}$ control for the extent to which access is affected (positively or negatively) by those to whom an organised interest is socially proximate.

Table 3 presents the results of our analyses. We first analysed the explanatory potential of the variables related to the resource–exchange perspective and subsequently added the coalition-related variables. In a second step, we add evidence on brokerage and bridging. Our final models include additional control variables, namely the auto-correlation term and the coalitions to which organised interests belong. The bottom row indicates the change in goodness-of-fit for each subset of explanatory variables added.

Model I tests the importance of staff size and whether the organisation has individual members or not. Both models yield significant results, as the goodness-of-fit is significantly better than the intercept model. These results clearly fit into a picture of expertise-based lobbying that prevails for gaining access to bureaucratic agencies. Namely, the amount of professionals within an interest organisation positively impacts on the number of bureaucrats that grant access to an interest organisation. In contrast, organisations with individual members, compared to organisations with an institutional membership, fare worse when it comes to gaining access to bureaucrats. The picture is slightly different for gaining access to politicians. In model I, a substantial professional staff has a significant positive effect for elected officials, while membership-based organisations have a slight, although statistically non-significant, advantage. Based on these models, one might conclude that access is primarily a matter of spending resources, especially for gaining access to bureaucrats.

Next, we add the two explanatory factors referring to the network position an organisation occupies within and between coalitions (model II). The first thing we notice is that the fit of these models is significantly better than the previous models. Importantly, the impact of organisational resources declines substantially. Generally, these results indicate that resources – in terms of professional staff members – are not the most important factors for gaining access. Still, individual membership is clearly not beneficial for gaining access to bureaucrats. Most of the initial explanatory power of resources (model I), however, is offset by adding information on network positions. The position an interest group occupies within and between a coalition significantly improves its access to public officials. While bridging and brokerage positions are both important for gaining access to elected and non-elected officials, overall, bridging positions seem to be more important. A strong bridging position is clearly more important for gaining access to bureaucrats than brokerage positions are.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

Table 3. Multivariate test of access (negative binominal regression)

	Null model (only intercept)		Model I (only organisational variables)		Model II (network positions)		Model III (controls for coalition membership, auto-regression)	
Gaining access to	Elected	Non-elected	Elected	Non-elected	Elected	Non-elected	Elected	Non-elected
Intercept	1.10***	1.04***	0.27	0.41	−1.65***	−1.28***	−1.35***	−1.57***
	(0.12)	(0.12)	(0.23)	(0.22)	(0.29)	(0.27)	(0.36)	(0.36)
Organizational variables								
Individual members			0.07	−0.69**	0.15	−0.47**	−0.13	−0.74***
			(0.23)	(0.23)	(0.16)	(0.16)	(0.17)	(0.19)
Number of staff members (FTE) logged			0.23***	0.26***	0.06	0.02	0.07	0.07
			(0.06)	(0.06)	(0.05)	(0.05)	(0.04)	(0.05)
Position in inter-organizational exchange networks								
Brokerage position within coalitions					0.46***	0.28***	0.55***	0.24
					(0.07)	(0.07)	(0.16)	(0.15)
Bridging position between coalitions					0.66***	0.78***	0.56***	0.71***
					(0.11)	(0.11)	(0.12)	(0.13)
Coalitions (ref = non-coalition members)								
Non-coalition members							–	–
Sustainability							−0.10	0.49
							(0.42)	(0.33)
Development							−0.41	0.17
							(0.51)	(0.50)
Pro-growth							−0.53	−0.16
							(0.45)	(0.44)
Agri-food							−1.06*	−0.09
							(0.47)	(0.43)

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

Table 3 *(Continued)*

	Null model (only intercept)		Model I (only organisational variables)		Model II (network positions)		Model III (controls for coalition membership, auto-regression)	
Gaining access to	Elected	Non-elected	Elected	Non-elected	Elected	Non-elected	Elected	Non-elected
Network auto-regression								
Bridging							0.03	0.06*
							(0.03)	(0.02)
Brokerage							0.01	−0.01
							(0.03)	(0.03)
Dispersion	1.19	1.16	0.91	0.79	0.22	0.15	0.08	0.06
	(0.23)	(0.24)	(0.20)	(0.19)	(0.10)	(0.09)	(0.07)	(0.07)
Model fit								
df	106	106	104	104	102	102	96	96
−LL	−239.99	−235.43	−231.45	−224.46	−201.69	−199.34	−192.81	−190.03
χ^2	97.82	95.93	105.75	91.96	106.65	126.73	113.46	122.41
Model improvement								
2(−LL−−LL)			17.08	21.94	29.76	25.12	8.88	9.31
Δdf			2	2	2	2	6	6
p			0.0002	<0.0001	<0.0001	<0.0001	0.1804	0.1569

Note. Standard errors between parentheses.
*p < 0.05; **p < 0.01, ***p < 0.001.

Model II adds information on coalitions and the auto-correlation terms as control variables. As expected, the coalition effect is most acute for the access gained to elected officials. When we look at the estimated probability changes (by comparing Expβ), we observe that the coalition effect is larger for elected officials than for non-elected officials. The type-III main effects for the coalition variables show that the likelihood ratio in the case of access to politicians is statistically significant ($df = 4$, $\chi^2 = 10.76$, $p = 0.0294$), but not for access to bureaucrats ($df = 4$, $\chi^2 = 7.85$, $p = 0.0973$). The agri-food coalition gains much less access to elected officials (Exp$\beta = 0.35$) compared with the other three coalitions for which Expβ varies between 0.59 and 0.90 (see also Figure 3). No such strong coalition effect is observed for access to bureaucrats. In sum, access granted by politicians is more sensitive to coalition membership than access granted by bureaucrats.

The auto-correlation terms have little impact. The only significant effect relates to the positive effect that network auto-correlation for the bridging ties has on access to bureaucrats. This means that the access enjoyed by "acquaintances" with whom one exchanges has a positive impact on an organised interest's access. This finding not only confirms the importance of bridging, but it also shows that, when it comes to bridging ties, competitive effects are not that strong. The access enjoyed by ego's distant acquaintances does not jeopardise ego's own access. The coalition effects and auto-correlation terms also show that brokerage and bridging ties are of a somewhat equal importance to elected officials, yet the effect of bridging ties is more pronounced for non-elected officials. When evaluating these final models, two aspects are important. First, adding control variables, including the robustness tests for endogeneity, has very little impact on our expected results for network positions. Second, although some of these control variables generate some impact, they do not significantly improve the overall model fit (compared to the more parsimonious model II).

As hypothesised, not all ties are equal and, clearly, as the parameters in models II and III demonstrate, bridging ties carry more weight. In Figure 4, we compare the predicted effect of ties that bridge distinct actors with within-coalition positions on gaining access to non-elected and elected officials (logged ties on the x-axis; access granted by public officials on the y-axis). The results demonstrate the more pronounced effect of the bridging ties, especially compared to the effect of brokerage ties on gaining access to non-elected officials. When we compare the average effect of the smallest 10th percentile with the largest 10th percentile of bridging and brokerage ties, the effect of brokerage ties for gaining access to non-elected officials increases with a factor of 2.2 and for elected officials with a factor of 5.9. For bridging ties, access increases with a factor of 5.6 for

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

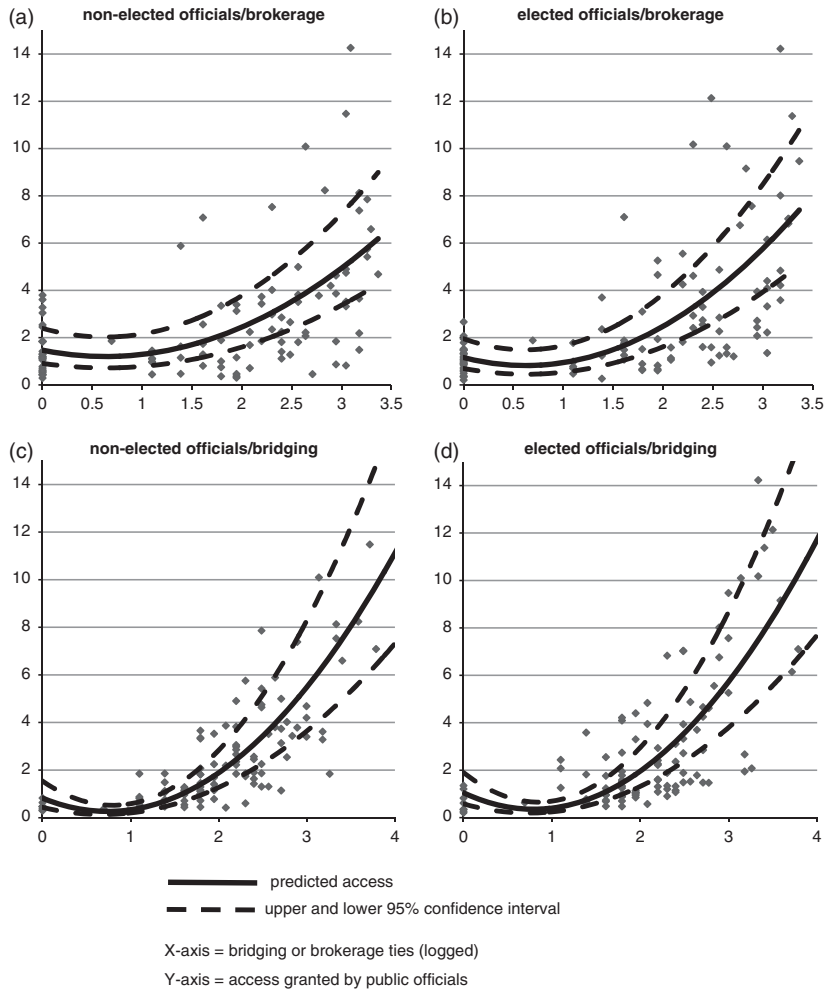


Figure 4 Predicted access for changes in bridging and brokerage ties (model III; other variables held constant).

the highest 10th percentile to elected officials and with a factor of 8.3 for access to non-elected officials. The average access groups within the highest 10th percentile of bridging ties gain from non-elected officials is a factor 1.7 higher than from elected officials. Average access of interest groups within the highest percentile of bridging ties to non-elected officials is a factor 5.7 higher than for groups within the highest percentile of brokerage ties. These results imply that the pivotal position of an organisation within its coalition is not that important for gaining access to bureaucrats, while such central

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

positions are somewhat more relevant for gaining access to elected officials. Overall, ties that connect distant actors are more important than holding a central position within a coalition for gaining policy access, both for elected and non-elected officials.

Conclusion

Our objective was to demonstrate the importance of network positions for gaining access to policymakers. Overall, it is clear that the position an interest group occupies within a larger inter-organisational network generates substantial explanatory leverage. Importantly, our empirical analyses demonstrate the structural differences between access supplied by elected and non-elected policymakers. The gaining of access to elected officials – politicians and parties – is much more affected by a central brokerage position within a coalition, while such a position is less crucial for gaining access to bureaucrats. Access to bureaucrats is more related to ties that bridge actors who belong to different, sometimes opposing, coalitions. Taking into account inter-organisational networks and coalition patterns clearly adds to our understanding of interest group access. Our findings show that they are at least as important as the traditional resource-based explanations. Importantly, however, our results do not necessarily imply that organisational resources are completely irrelevant for interest group politics. Resource endowment remains important, although to a smaller degree and in a different way, as a minimal level of resources is needed in order to get an interest organisation established and to maintain it. Rather, our results demonstrate that the resources an individual interest organisation spends on lobbying are probably less crucial during policymaking processes and that policymakers tend to conceive factors such as network positions and coalition membership as important sources of information.

Two aspects of our research design deserve special attention. First, Dutch neo-corporatism, with its institutionalised system of hierarchical interest representation and tradition of coalition governments, may render a central network position of interest groups as representatives of a large coalition more important compared to pluralist systems. Interestingly, our results seem to travel well to other systems, as similar findings on the importance of weak and bridging ties for gaining access in a more pluralist system suggest (Phillips 1991; Carpenter et al. 1998). These equivalent research outcomes are important, as they suggest that similar observations in highly different polities imply that factors related to the social context of interest groups are potentially more important explanatory factors than political-administrative and institutional factors

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

or organisational resources. Overall, our key finding on the importance of network positions and its differential effect in gaining access to either politicians or bureaucrats is robust (Poppelaars 2009b; Braun 2012).

Second, a statistical analyses in itself cannot identify causal claims, and one might easily reverse the causal nature of some multivariate results. For instance, prominence in an exchange network among organised interests might be the result of an organisation's degree of access rather than a cause of it. One could argue that transaction costs lead policymakers to prioritise their supply of access to a limited number of interest groups, and it is because of this varying supply that these interest groups become relevant interlocutors for other groups. The causal order we put forward – network position of interest groups influences access – is consistent with much of the empirical literature on access networks (Carpenter et al. 1998, 2003, 2004; Heaney 2004, 2006). Our understanding of network positions relies on some assumptions about the information actors with different network positions are able to supply. Basically, some network positions allow actors to obtain specific sorts of policy-relevant information, and it is these features of network positions that shape access. One important implication is that changes in network positions are consequential for the information actors are able to exchange and the propensity of public officials to grant them access.

Importantly, however, is that this causal order does not exclude other causal orders. Therefore, one needs to be careful with the interpretation of the findings, especially regarding the precise direction of the relationship. Nonetheless, reversing the causal order does not necessarily invalidate our most important findings. Our results demonstrate important implications regarding which ties in a policy network are most consequential. Much research concentrates on brokerage positions, and few studies have systematically distinguished different types of policymakers. The distinction we draw between bridging and brokerage highlights an interesting variation in motives of bureaucrats and politicians in their exchanges with interest groups. Bureaucrats seem less interested in partisan information that relates to a particular coalition, while politicians are keen to receive information about the political support of mobilised coalitions. The data we analysed do not show how *exactly* individual policymakers assume or perceive that an interest organisation occupies a bridging or brokerage position and which sort of informational qualities policymakers attribute to such positions. Additional analyses are needed to get a more in-depth grasp of how policymakers value the network positions of interest groups. Still, our findings correspond with other recent research on the different motives of non-elected versus elected policymakers to provide interest group access (Poppelaars 2009b; Braun 2012) and earlier research on how different types of expertise

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

are needed in order to obtain access to different EU officials (Beyers 2002; Bouwen 2002; Eising 2004, 2007; Beyers and Kerremans 2012).

Our analyses demonstrate that the capability to connect actors in distinct coalitions is more relevant for gaining access than the coalition to which an organised interests belongs. This is important for several reasons. Apparently, ideological motives are less crucial in the relations public policymakers establish with organised interests than technocratic and strategic motives (see also Laumann and Knoke 1987; Heinz et al. 1993). In addition, while most interests tend to coalesce primarily with like-minded groups, those with additional and complementary networks attract more attention from policymakers.

This latter result, however, does not mean that coalitions are irrelevant. Coalitions remain important, as they structure the overall interest intermediation system in sets of similar organisations that get represented through brokers and bridge builders. But if bridging ties are so important, one may wonder why organised interests do not invest more resources in developing such ties instead of concentrating most of their exchanges with closely aligned organisations. One possible reason is that organised interests are also risk averse and tend to reduce uncertainty by close collaboration with like-minded organisations (Carpenter et al. 2003). Moreover, the information interest group officials obtain from their distant acquaintances, who might happen to be their opponents, might be seen as less reliable and trustworthy. In addition, interest groups do not only seek optimal information transfers, but political attention as well. Compared to organisations that are not part of a coalition, coalescing with other like-minded actors clearly enhances the chances of access. This access is not necessarily equally distributed among coalition members, but when coalition leaders enjoy substantial access, aligning to a coalition may help to gain indirect access. This implies a trade-off between investing in and aligning oneself to a stable and cohesive set of like-minded actors with clearly identifiable leaders and developing additional bridges with other organised interests. Our results suggest that the trade-off between coalition membership or occupying a peripheral position with many bridging ties should be sensitive to the type of policymakers – elected or non-elected officials – the organisation assumes to be its prime target for exerting influence.

Acknowledgements

This paper was presented at several international conferences and workshops, including the Netherlands Institute of Government (NIG) Annual Conference (Maastricht, 2010), the CERGU research seminar (Gothenburg, 2011) and the Political Studies Association's Annual Conference (London, 2011). We would like to express our gratitude to all those who

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

provided us with helpful comments, in particular William A. Maloney, Bart Kerremans and Daniel Naurin. This research has been made possible by a grant from the Research Foundation-Flanders (Grant G.0187.02 and the Odysseus Program). The project has been developed in co-operation with researchers from the University of Leuven, Leiden University, Wissenschaftzentrum Berlin and CEVIPOF Paris.

References

Atkinson M. M. and Coleman W. D. (1992) Policy Networks, Policy Communities and the Problems of Governance. *Governance* 5(2): 154–180.

Austen-Smith D. (1995) Campaign Contributions and Access. *American Political Science Review* 89(3): 566–581.

Baumgartner F. R. and Leech B. L. (2001) Interest Niches and Policy Bandwagons: Patterns of Interest Group Involvement in National Politics. *Journal of Politics* 63(4): 1191–1213.

Baumgartner F. R., Berry J. M., Hojnacki M., Kimball D. C. and Leech B. L. (2009) *Lobbying and Policy Change: Who Wins, Who Loses, and Why*. Chicago, IL: University of Chicago Press.

Beyers J. (2002) Gaining and Seeking Access. The European Adaptation of Domestic Interest Associations. *European Journal of Political Research* 41(5): 585–612.

—— (2004) Voice and Access. The Political Practices of European Interest Associations. *European Union Politics* 5(2): 211–240.

Beyers J. and Kerremans B. (2004) Bureaucrats, Politicians, and Societal Interests. How is European Policy-Making Politicized? *Comparative Political Studies* 37(10): 1–31.

—— (2012) Domestic Embeddedness and the Dynamics of Multi-Level Venue-Shopping in Four EU Member-States. *Governance* 25(2): 262–290.

Binderkrantz A. (2005) Interest Group Strategies: Navigating Between Privileged Access and Strategies of Pressure. *Political Studies* 53(4): 694–715.

—— (2008) Different Groups, Different Strategies: How Interest Groups Pursue Their Political Ambitions. *Scandinavian Political Studies* 31(2): 173–200.

Borgatti S. P., Everett M. G. and Freeman L. C. (1999) *UCINET 5.0 for Windows: Software for Social Network Analysis*. Natick: Analytic Technologies.

Bouwen P. (2002) Corporate Lobbying in the European Union: The Logic of Access. *Journal of European Public Policy* 9(3): 365–390.

Braun C. (2012) The Captive or the Broker? Explaining Public Agency-Interest Group Interactions. *Governance* 25(2): 291–314.

Breiger R. L., Boorman S. A. and Arabie Ph. (1975) An Algorithm for Clustering Relational Data, with Application to Social Network Analysis and Comparison with Multidimensional Scaling. *Journal of Mathematical Psychology* 12: 328–383.

Burt R. (1978) Cohesion Versus Structural Equivalence as a Basis for Network Subgroups. *Sociological Methods and Research* 7: 189–212.

Burt R. S. (2004) Structural Holes and Good Ideas. *American Journal of Sociology* 110(2): 349–399.

Carpenter D. P., Esterling K. M. and Lazer D. M. J. (1998) The Strength of Weak Ties in Lobbying Networks. Evidence from Health-Care Politics in the United States. *Journal of Theoretical Politics* 10(4): 417–444.

Carpenter D. P. and Esterling K. M. et al. (2003) The Strength of Strong Ties. A Model of Contact-Making in Policy Networks with Evidence from US Health Politics. *Rationality and Society* 15(4): 411–440.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

—— (2004) Friends, Brokers, and Transitivity: Who Informs Whom in Washington Politics? *The Journal of Politics* 66(1): 224–246.
Crombez C. (2002) Information, Lobbying and the Legislative Process in the European Union. *European Union Politics* 3(1): 7–32.
Dow M. M., Burton M. L., White D. R. and Reitz K. P. (1984) Galton's Problem as Network Autocorrelation. *American Ethnologist* 11(4): 754–770.
Eising R. (2004) Multilevel Governance and Business Interests in the European Union. *Governance* 17(2): 211–245.
—— (2007) The Access of Business Interests to EU Political Institutions: Towards Elite Pluralism? *Journal of European Public Policy* 14(2): 348–403.
Granovetter M. S. (1973) The Strength of Weak Ties. *American Journal of Sociology* 78(6): 1360–1380.
Gray V. and Lowery D. (1998) To Lobby Alone or in a Flock. Foraging Behavior Among Organized Interests. *American Politics Quarterly* 26(1): 5–34.
Hall R. L. and Deardorff A. V. (2006) Lobbying as a Legislative Subsidy. *American Political Science Review* 100(1): 69–84.
Hansen J. M. (1991) *Gaining Access. Congress and the Farm Lobby, 1919–1981*. London: The University of Chicago Press.
Heaney M. T. (2004) Issue Networks, Information, and Interest Group Alliances: The Case of Wisconsin Welfare Politics, 1993–1999. *State Politics and Policy Quarterly* 4(3): 237–270.
—— (2006) Brokering Health Policy: Coalitions, Parties, and Interest Group Influence. *Journal of Health Politics, Policy and Law* 31(5): 887–994.
Heinz J. P., Laumann E. O., Nelson R. L. and Salisbury R. H. (1993) *The Hollow Core. Private Interests in National Policy Making*. Cambridge: Harvard University Press.
Henning C. H. C. A. (2009) Networks of Power in the CAP System of the EU-15 and EU-27. *Journal of Public Policy* 29(2): 153–177.
Hojnacki M. (1997) Interest Groups' Decisions to Join Alliances or Work Alone. *American Journal of Political Science* 41(1): 61–87.
Hula K. W. (1999) *Lobbying Together. Interest Group Coalitions in Legislative Politics*. Washington, DC: Georgetown University Press.
Jones B. D. and Baumgartner F. R. (2005) *The Politics of Attention. How Government Prioritizes Problems*. Chicago, IL: Chicago University Press.
Kollman K. (1998) *Outside Lobbying. Public Opinion and Interest Group Strategies*. Princeton, NJ: Princeton University Press.
Kriesi H., Tresch A. and Jochum M. (2007) Going Public in the European Union. Action Repertoires of Western European Collective Political Actors. *Comparative Political Studies* 40(1): 48–73.
Kriesi H., Adam S. and Jochum M. (2006) Comparative Analysis of Policy Networks in Europe. *Journal of European Public Policy* 13(3): 341–361.
Laumann E. O. and Knoke D. (1987) *The Organizational State. Social Choice in National Policy Domains*. Wisconsin: The University of Wisconsin Press.
Leenders R. T. A. J. (2002) Modeling Social Influence Through Network Autocorrelation: Constructing the Weight Matrix. *Social Networks* 24(1): 21–46.
Leifeld P. and Schneider V. (2012) Information Exchange in Policy Networks. *American Journal of Political Science* 56(3): 731–744.
Long S. J. (1997) *Regression Models for Categorical and Limited Dependent Variables*. London: Sage.
Mahoney C. (2007) Networking vs. Allying: The Decision of Interest Groups to Join Coalitions in the US and the EU. *Journal of European Public Policy* 14(2): 366–383.
Maloney W. A., Jordan G. and McLaughlin A. M. (1994) Interest Groups and Public Policy: The Insider/Outsider Model Revisited. *Journal of Public Policy* 14(1): 17–38.

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

Mizruchi M. S. and Neuman E. J. (2008) The Effect of Density on the Level of Bias in the Network Autocorrelation Model. *Social Networks* 30: 190–200.
O'Malley A. J. and Marsden P. V. (2008) The Analysis of Social Networks. *Health Services and Outcomes Research Methdology* 8(4): 222–269.
Pappi F. U. and Henning C. H. C. A. (1998) Policy Networks: More Than a Metaphor. *Journal of Theoretical Politics* 10(4): 553–575.
—— (1999) The Organization of Influence on the EC's Common Agricultural Policy: A Network Approach. *European Journal of Political Research* 36(2): 257–281.
Phillips S. D. (1991) Meaning and Structure in Social Movements: Mapping the Network of National Canadian Women's Organizations. *Canadian Journal of Political Science* 24(4): 755–782.
Poppelaars C. (2009a) Resource Exchange in Urban Governance: On the Means that Matter. *Urban Affairs Review* 43(1): 3–27.
—— (2009b) *Steering a Course Between Friends and Foes. Why Bureaucrats Interact with Interest Groups*. Delft: Eburon.
Poppelaars C. and Scholten P. (2008) Two Worlds Apart: The Divergence of National and Local Immigrant Integration Policies in the Netherlands. *Administration and Society* 40(4): 335–357.
Rhodes R. A. W. and Marsh D. (1992) New Directions in the Study of Policy Networks. *European Journal of Political Research* 21(1–2): 161–205.
Sabatier P. A. (1988) An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein. *Policy Sciences* 2–3(21): 129–168.
Scharpf F. W. (1997) *Games Real Actors Play. Actor-Centered Institutionalism in Policy Research*. Oxford: Westview Press.
Sloof R. (1998) *Game-Theoretic Models of the Political Influence of Interest Groups*. Dordrecht: Kluwer Academic Publishers.
Wasserman S. and Faust K. (1998) *Social Network Analysis. Methods and Applications*. Cambridge: Cambridge University Press.
Zafonte M. and Sabatier P. (1998) Shared Beliefs and Imposed Interdependencies as Determinants of Ally Networks in Overlapping Subsystems. *Journal of Theoretical Politics* 10(4): 473–505.

Appendix 1: Measuring the persuasion network

Question	Position in persuasion network
Which are the organisations with whom you do have manifest, systematic and explicit differences of opinion on most trade related policy issues	Opponent
Which of the actors, with whom you have such differences of opinion, do you actively try to persuade against their usual opinion? These are the organisations whose minds you try to change	Persuadees
Which organisations mostly share the same views as your organisation and therefore do need to be convinced? We refer to those with whom you mostly agree on most policy issues so that it is relatively easy to develop joint positions	Allies

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press

Appendix 2: Measuring the exchange network

Based on pre-determined list of actors, we asked our respondents to identify actors with which they exchanged information and collaborated with. The list included all actors that were identified and sampled during the pre-research and whom were interviewed during the fieldwork (see Table 1).

Position with the exchange network	
We will ask you some questions regarding the exchange of information through networks. In order to prepare policy positions and to effect policy outcomes actors may seek access to each other. In such contacts, exchange of information is vital. We define "information" fairly broadly. It may include advice on the best political strategy to be used, knowledge about others' strategy, as well as a range of sometimes confidential technical and scientific expertise.	
1 Please go through this list and strike out each organisation with whom you, during the last three years, have *never*, *seldom* or *only very rarely* exchanged information regarding policy issues that are related to the WTO in particular or trade policies in general. Be sure – by putting a cross in the first column – that the remaining organisations are those with whom you have had a regular contact and exchange of information.	Exchange
2 Networks between you and these organisations may include exchanging material resources, for instance, paying money for a common campaign, conducting research collectively or developing joint publications. Can you indicate in the second column – by putting a cross – with whom you developed such collaborative networks?	Collaboration

https://doi.org/10.1017/S0143814X13000263 Published online by Cambridge University Press