Challenging the insider outsider approach to advocacy: how collaboration networks and belief similarities shape strategy choices

Advocacy strategies are a key success factor for public, private and third sector actors who participate in and seek to influence policy choices. Despite this, research on policy networks has paid little attention to the forms of advocacy studied by interest groups scholars. The interest groups' literature differentiates insider from outsider strategies and assumes that interest groups with strong access to policymakers opt for insider strategies, while those with weak access are constrained to the use of outsider strategies. This literature has not considered how the full set of actors that constitute a policy network use advocacy strategies. Furthermore, the insider/outsider dichotomy oversimplifies and neglects the possibility that actors' choices are interdependent. Using climate change policy network data from four countries that vary by interest group system, we investigate if policy actors' choices of advocacy strategies are similar to those in their collaboration network and to those with similar policy beliefs as their own. Results show that, irrespective of the context, actors are likely to use the same advocacy strategies as their collaboration partners and those whose policy beliefs are like their own. This research demonstrates the value of using a policy network approach to move beyond the insider/outsider dichotomy on interest groups' use of advocacy strategies. It makes a clear contribution to this scholarship by advancing the debate on strategies that policy actors employ to influence policymaking through evidencing interdependencies between the strategies used by policy actors due to belief similarity and a 'networking effect'.

Introduction

National policymaking processes involve the participation of public authorities, scientific organisations, NGOs, civil society organisations and actors representing economic interests. These policy actors have different views, interests, objectives, and resources, and they collaborate, compete, and negotiate with one another during policymaking processes with a view to influencing the outcomes of policy debates. To be successful, actors need to have access to or have some sort of control over decision-making processes, or have a say over how policies are designed. Influence over policy outputs can be obtained using advocacy strategies (Dür and Mateo 2013) – organised activities to influence a policy process. Importantly, actors advocating alone are less likely to be successful than groups of actors that work together. By pooling their resources, actors can increase the likelihood that their views on policy issues are heard and considered by decision-makers, and that their preferences are translated into policies (Sabatier & Jenkins-Smith 1999). Even though advocating together is thought to increase the likelihood that policy actors get the sort of policies they wish for, little is known about the extent to which actors' choices of advocacy strategies are interdependent.

For the purposes of this research, we define an advocacy strategy as an activity used by a policy actor to influence a policy design or choice. Interest groups scholarship has restricted its focus to the study of how interest groups (such as NGOs and businesses) use two distinct types of advocacy strategies: an insider strategy and an outsider strategy (Gais and Walker, 1991; Grant, 1978; Dür and Mateo 2013; Hanegraaff, Beyers, and De Bruycker 2016; Hojnacki, 2012; Thierse and Schiffers; 2021; Weiler and Brändli 2015) - also referred to as direct and indirect strategies (Binderkrantz 2005; 2008) or as access and voice (Beyers 2004). An insider strategy involves attempting to influence policy through formal contacts with government officials, such as giving testimony at hearings or by providing technical analysis. An outsider strategy involves attempting to influence decision-makers by developing or building on public support for some political course of action. Outsider strategies include seeking media attention for an issue, holding public demonstrations, and organising petitions. The principal difference between the two is that insider strategies

usually hide conflict from the public (intentionally or not), whereas outsider strategies bring the debate out into the open with the intention of using the public as a medium of influence. Establishing the relative ability of actors to have an influence over policy using the two strategies and understanding how different actor types use advocacy strategies are core questions in the literature (Hojnacki et al., 2012). Importantly, previous research has shown that linking the choice of strategies with actor types isn't always accurate (Bidenkranz, 2005; Chalmers, 2013). For instance, countervailing green industries might tend to use the same strategies as environmental NGOs rather than industry incumbents.

Policy network scholars study how a much wider range of actors (public, private & third sector actors as well as scientific organisations) engage in a policymaking process. The policy networks' literature has routinely studied how policy actors collaborate with one another, focusing on the exchange of information, support, and resources as well as co-participation in policy forums (Berardo and Scholz, 2010; Hamilton et al., 2018; Heaney, and Leifeld, 2018; Leifeld and Schneider, 2012; Wagner et al., 2021). A large body of the literature, often informed by the advocacy coalition framework, has found that policy actors with similar beliefs tend to coordinate their activities to increase the chances that their preferences or views inform or shape policy decisions (Henry, 2011; Ingold & Fischer, 2015; Matti & Sandström, 2011; Weible & Sabatier, 2005).

The literature that combines the study of interest group activities with network analysis has mostly focused on examining the relationship between an actor's centrality in a network and their level of power or influence, both perceived or actual (Wagner et al., 2021; Box-Steffensmeier et al. 2013; Fischer and Sciarini, 2015; Heaney, 2014; Ingold and Leifeld, 2016). Related work has investigated how joining multiple coalitions can enable interest groups to achieve their objectives (Varone et al., 2016), finding that this is more likely when an interest group is centrally located in a network (Beyers and Braun 2013; Heaney and Lorenz, 2013). The present network study is the first to move the focus away from centrality measures, while simultaneously going beyond the insider-outsider dichotomy, doing so by investigating if actors' choices of advocacy strategies are interdependent.

The interest groups literature has not considered how all the actors in a policy network use advocacy strategies, while the literature on policy networks has paid scant attention to the actual forms that advocacy takes (Pierce, 2016). We argue that the two sets of literature provide complementary explanations for how all the actors involved in a policy process engage in advocacy. First, actors' choices of advocacy strategies depend on the choices of their collaboration partners, and second, their advocacy choices depend on the choices of those with similar beliefs to their own. We test our hypotheses by applying bipartite exponential random graph models to climate change policy network data from four EU countries that vary by interest group system: Czechia, Finland, Ireland, and Sweden. Results provide evidence for both hypotheses, which suggests that thinking of the choice of strategies as interdependent is a promising direction of investigation for both scholars of policy networks and interest groups.

In the next section, we first elaborate the theoretical arguments from which we develop our hypotheses. We then introduce our empirical cases, our data, and methods. Following this, we present and discuss our findings and their implications for theory and future research.

Theoretical Framework and Hypotheses

The actors involved in a policy process have a range of different roles, responsibilities, interests, beliefs, and resources. By engaging in a policy process, they have direct and indirect relationships with one another, and these relationships constitute policy networks. Policy networks are social structures that link organisations that share a common interest in a specific policy issue. Policy network analysis is the study of the relationships and the interdependencies between those that participate in a policy process (Laumann and Knoke, 1987). The approach has been used to identify relevant actors, to map the relationships among them and to investigate if interdependencies between actors can explain collaboration patterns, power dynamics and the exchange of information (Henry, 2011; Ingold, 2011; Leifeld and Schneider 2012; Laumann and Knoke, 1987; Wagner A et al., 2021, Gronow et al., 2020).

Taking a policy network approach, this paper draws on ideas from the field of policy studies and from the interest group literature to investigate if policy actors' choices of advocacy strategies are interdependent. In the policy studies' literature, the Advocacy Coalition Framework has been applied to demonstrate how actors join forces with those holding similar policy beliefs to advocate for policies in line with those beliefs, but it has paid little attention to the actual forms that advocacy takes (for an exception see Elgin & Weible 2013). The interest group literature has discussed how interest groups try to influence policies, for example, by mobilizing demonstrations, raising awareness through education campaigns, or activating citizens to write or call public officials (Andrews & Edwards 2004). Organizations engaged in advocacy may also lobby more directly instead of engaging in public agenda setting by, for example, testifying at hearings or directly taking part in the drafting of legislation. The interest groups literature has not, however, considered how the full set of actors that constitute a policy network use advocacy strategies.

Understanding actors' use of advocacy strategies is crucial, given the assumption that those that with insider access are more likely to be influential. In the absence of information about the motivations of policy actors or their possession of financial and human resources, the type of organization they are (e.g., NGO, business interests) has often been used to predict which strategies they are more likely to use (Binderkrantz et al. 2015; Maloney, 2014; Dür and Mateo, 2013). However, categorizing actors as insiders or outsiders according to organization type is problematic. Actors can and do use different strategies and combinations of strategies at different times and under different circumstances (Baumgartner and Leech, 1998; Hanegraaff, 2016; Kriesi et al., 2007), and their advocacy approach may change if their organisational structure changes. In recent times, the differences in how NGOs and companies engage in advocacy have vanished as NGOs behave more and more like companies, while companies exhibit more similarities with NGOs. Joachim and Schneiker (2021) have labelled this trend as the "commercialization of NGOs" and the "NGOization of companies". Moreover, some political systems are more open to diverse interests in the policymaking process than others, and the level of openness

can dictate which strategies are available when and to whom (Petrova and Tarrow, 2007). In addition, an actor's status as an insider or an outsider is better ascribed by decision makers rather than being determined by their organisation type (Binderkrantz, 2008).

The explanation of inter-organizational collaboration is an important part of the policy studies research (Karimo, A., et al. 2022.). However, the word collaboration has been used to refer to a variety of different concepts in the policy studies literature, including, for example, co-participation in policy forums, the exchange of information or other resources, and as a synonym for coordination (Calanni et al., 2015; König and Bräuninger,1998; Lubell et al., 2014). Policy actors collaborate with others to increase their access to resources and their influence over a policy process (Fischer and Sciarini 2015; Heaney 2014; Weible and Sabatier, 2005) in which a variety of different actors with different beliefs and conflicting interests compete to determine how the costs and benefits of policy decisions are distributed (Gronow and Ylä-Anttila, 2019; Wagner et al., 2021). Collaboration not only allows policy actors to achieve more than they would if they were acting alone; it also gives them more credibility in the eyes of their allies, their opponents, the public, and decision-makers.

Resource dependency theory (Pfeffer and Salancik, 2003) has been drawn upon in the policy studies literature to argue that policy actors form ties with others based on power relations and to gain access to useful resources, such as information, technology, or political influence (Calanni et al., 2014). From this perspective, resources are accessed and maintained through collaboration ties, which actors can then draw upon to make up for their own weaknesses and deficiencies (Weible 2005). Actors might then coordinate their advocacy strategies with the resource rich actors with which they collaborate, or instead, perhaps those in a weaker position, copy the advocacy strategies choices of the resource rich collaboration partner.

Actors build social capital when they engage in collaborative behaviour, in the form of shared norms and relationships based on trust (Henry et al., 2011), which can lead actors to use similar advocacy strategies. The formation and maintenance of such ties takes time and involves costs, such as the time it takes to identify and find suitable partners and the

cost and the effort that it takes to build shared norms and trust. Trust has been argued to precede collaboration (Scott and Thomas, 2019) as well as to follow tie formation (Metz et. Al, 2019). Either way, the presence of trust increases the likelihood that an actor shares important information (such as their choice of advocacy strategies) with their collaboration partners. When actors have built a stock of social capital, the costs of advocacy efforts can be reduced by pooling resources, coordinating activities, and sharing information. In this way they can avoid the unnecessary use of scarce resources and increase their capacity to influence policy decisions (see Hileman and Bodin, 2019).

Groups of actors with close collaborative relationships based on mutual support (bonding) are more likely to develop and agree on coherent policy proposals that are then adopted by government (Leifeld and Haunss, 2012). Bonding ties between a group of actors can lead to the formation of a coalition, wherein the members agree to coordinate their use of advocacy strategies. Actors can gain access to novel information by collaborating with those outside their dense networks (bridging), which could be about their choices of advocacy strategies. Through the creation of bridging ties, actors can learn what those outside their close dense networks are doing and then emulate what they perceive to be effective. The critical point then, is that bonding ties facilitate the generation of trust and information, which can then inform how an actor engages in advocacy, while bridging ties enable actors to harness the benefits of the information circulating in other distinct knowledge creating groups. Regardless of whether it is coordination or emulation that explains why actors choose a particular advocacy strategy or set of strategies, the presence of a collaboration tie is key.

A potential counterargument to this line of thinking is that collaborating organizations could also devise a division of labour. They could collaborate, but still coordinate their choices of strategies so that the organizations that have inside access (e.g., environmental research institutes or green political parties in the case of a pro climate coalition) use insider strategies like participating in public hearings, while those lacking access (i.e., environmental social movement organizations) could use outsider strategies like street protests. To investigate whether collaborating organizations tend to choose

strategies similar to those used by their collaboration partners or whether a division of labour (or some other mechanism pushing the opposite way) is stronger, we test the following hypothesis:

H1: Actors use similar advocacy strategies as those used by their collaboration partners

Previous research has shown that beliefs and policy preferences are often the primary and most significant factor underpinning coordinated action among actors engaged in a policy process (König & Bräuninger, 1998; Sabatier 1988). The relevance of beliefs in policy processes has been extensively studied, especially in the context of the advocacy coalition framework (Ingold and Fischer 2014; Leifeld and Schneider 2012; Weible, Heikkila, and Pierce 2018). Beliefs have been found to be the most important factor that brings policy actors together (Sabatier and Jenkins-Smith, 1988, 1999; Henry et al., 2011), to be more relevant than actors type for coalition formation (Elgin and Weible, 2013), to be responsible for driving division and making compromise difficult (Henry, 2017), and for the formation of echo chambers (Jasny et al, 2015; Jasny et al, 2018).

In policy processes, actors choose from the strategies available to them those that they believe will help them to achieve their objectives. We argue that when the policy beliefs of a subset of actors in a policy domain align, they can validate each other's choices and support each other's actions by using the same or similar strategies. We hypothesize that belief similarity may lead to the use of similar strategies through processes of learning (as change of beliefs) and emulation. More learning is likely to take place between actors with similar beliefs because of the tendency for actors to consider those holding similar beliefs as their reference group (McPherson, Smith-Lovin & Cook 2001; Pattison, 2018). When looking for information on which strategies are effective, actors are more likely to turn to a like-minded group of actors for information than to others (Fischer, Ingold & Ivanova 2017). However, choosing to act in a similar way is not always about making instrumentally rational decisions based on the best available information on what works.

Policy actors are boundedly rational, and as such, they may not always emulate the most optimal strategies but rather use cognitive shortcuts to navigate the maze of different options (cf. McLaughlin, Mewhirter & Lubell 2021). In addition to information exchange, then, actors turn to those they think of as their reference group – i.e., those with similar beliefs – to gauge what ways of acting are viewed as appropriate in their immediate cultural environment and emulate those. Emulation, then, is another mechanism through which belief similarity can lead to the use of similar strategies.

Furthermore, learning and emulation are more likely to take place between those with similar beliefs because, as much research has shown, belief similarity is associated with collaboration. Learning and emulation are also more likely between those actors who engage in other types of collaboration, such as the exchange of information, and the more ties an actor has to others who suggest revising their existing beliefs, the more likely belief change – that is, learning – is to take place (Gronow et al., 2021). Consequently, because of the processes of learning and emulation actors' choice of strategies can be quite different to what would be expected based on the simple insider-outsider dichotomy. We test the following hypothesis:

H2: Actors use the same advocacy strategies as those with policy beliefs similar to their own

Cases, Data and Methods

Case Countries

Climate policy cuts across many sectors of society and involves many kinds of organized interests and value choices. This makes the climate policy domain an ideal case for studying advocacy strategies and the related collaboration structures and policy beliefs (Gronow and Ylä-Anttila, 2019). The advocacy strategies that an actor uses can potentially be limited or dictated by the political opportunity structures open to them in the interest group system in which they operate (see Mahoney, 2007). As such, we test our hypotheses with climate change policy network data collected in four EU countries: Czechia, Finland,

Ireland, and Sweden. The case countries were selected according to a diverse case strategy that maximizes variance across dimension(s) of theoretical interest (Seawright & Gerring, 2008). To increase generalizability of findings, the cases were selected based on their scores along the majoritarian-consensus dimension of interest group systems (Lijphart, 2012). More specifically, the selected countries differ by the extent to which interests are represented by a plurality of separate groups or by a limited number of major peak bodies (see Taagepera and Nemčok 2019). Where countries lie on the dimension affects what opportunities actors have to participate in a policy process (see Fischer 2014; Metz and Brandenberger, 2022). Majoritarian regimes are characterised by competitive interest group pluralism, wherein actors compete for access to decision-makers. Consensual regimes are defined by the presence of interest group corporatism, wherein actors are incentivized to engage in consensual negotiations with one another to work towards agreed decisions and outcomes (Kanol, 2015). As such, we would expect to find evidence for the interdependence of advocacy strategies (see Weible et al., 2019) in majoritarian pluralist contexts (Czechia), where actors more often need to share resources to access and influence a policy process (see Knoke and Zhu, 2012) than they would in consensual ones (Sweden and Finland). In consensual contexts, we might expect to find the absence of interdependence, because actors with different beliefs, such as businesses interests and trade unions, tend to use similar strategies via tripartite negotiations and other fora. Following the reasoning of a diverse case selection, we include also the mixed Irish case, where because of the history of the social partnership model of policymaking (more below), we may also find evidence for interdependencies.

Czechia is a post-communist country with mixed features of consensual and majoritarian democracy. The prevailing political style and culture, however, approximate the majoritarian model. Likewise, while the organized interests' representation formally approaches neo-corporatism, the associated policy venues have mostly consultative competencies and are used for pluralist interest representation rather than compromise-seeking (see Ost, 2000). Czechia is a coal-dependent economy dominated by industry incumbents with a poor performance in climate change mitigation (Ocelík et al., 2019).

Business groups, and especially industry incumbents tend to use insider strategies (Osička & Černoch, 2017), although they occasionally engage in media campaigns when their vested interests are imminently threatened (Černý and Ocelík, 2020). The relatively low political participation made the traditional "outsiders", ENGOs, to avoid mobilization and rely instead on media campaigns and insider strategies (Petrova & Tarrow, 2007).

Finland and Sweden are similar Nordic states with consensual corporatist political systems. In Lijphart's (2012) ranking of countries, Sweden ranks as the most corporatist country and Finland is placed fifth (Lijphart 2012). In both countries, corporatism traditionally means tripartite agreements between strong peak organisations of labour, business, and the state, and multi-party coalition governments (Lane and Ersson 2002). This means that traditional "insiders" - business peak organizations and trade unions - have traditionally had close collaborative relationships with state actors. NGOs also have close relationships with the state, evidenced by the fact that many of them get direct government funding. Previous research has found that both Finnish and Swedish NGOs are integrated into their respective national climate policy networks, but the policy domain in Sweden is more consensual than in Finland, and Swedish NGOs are more influential than their Finnish counterparts (Gronow and Ylä-Anttila. 2019).

Ireland is a centralized Westminster-style parliamentary democracy, wherein executive power has traditionally been concentrated in the hands of a single-party-majority cabinet. In recent years, however, institutional changes have moved Ireland more towards a consensus style of democracy, leaving it more mixed in character (Taagepera & Nemčok, 2021). Decisions on climate policy are usually made by the government following public consultations and the holding of parliamentary committees where members consider submissions and additional evidence presented to the committee during deliberations. The participation of interest groups in Irish politics was for a long time associated with social partnership, Ireland's version of neo-corporatism where business groups, trade unions, community and voluntary groups and actors from the agricultural sector played a central role in national policymaking (Murphy, 2009). These were joined

by an organisation representing environmental NGOs (the Environmental Pillar) in 2009, just before social partnership collapsed following the introduction of austerity measures.

Data

The actors that engage in a national climate policy process form a country's national climate policy network. These networks can include political parties, government departments, state organisations, scientific organisations, and any other relevant economic, social, and non-state actors (Laumann et al., 1983). We identified the actors in each of our four case countries by reviewing submissions to public consultations related to climate change, by analysing national newspaper coverage of climate change, and by consulting with national experts in each country (see Ylä-Anttila et al., 2018 for further details). This process led us to identify 132 actors in Czechia, 96 in Finland, 57 in Ireland, and 99 in Sweden.

We collected data between 2014 and 2016 using a survey instrument that asked respondents to indicate (i) which of seven advocacy strategies (listed below as presented in the questionnaire) that they use never, sometimes or *often* to influence national climate politics, (ii) their positions on 14 policy ideas using a five-point Likert scale (see supplementary materials, Figures 2- 5), and (iii with which of the other network actors do they collaborate with regularly? We use a binary measure for collaboration (yes/no) because the roster of actors was relatively long and asking for the strength or frequency of collaboration would have be too onerous for respondents. Respondents are individuals who are responsible for climate/environmental policy in their organisations or a senior staff member with a knowledge of their organisation's views and activities related to climate change. These individuals were instructed to answer on behalf of their organisation. Response rates are 69% in Czechia, 85% in Finland, 91% in Ireland, and 70% in Sweden. Table 1 presents descriptive information about the four networks. We exclude non-respondents from our analysis.

Table 1 about here

Insider Strategies

- *Lobbying* - Informal contacts with political parties, government officials to advocate for your position.
- *Policymaking* - formal testimony at public hearings, participation on government advisory committee, draft legislation proposals or text.
- *Technical analysis* - distribution of data analysis, policy analysis, research documents.
- *Discussion forums* - Exchange ideas and preferences with other interested groups.

Outsider Strategies
- *Media and publicity* - Press releases, press conferences, advertising to publicize your position.
- *Activation* - Collect signatures on petitions, call or send letters or emails to politicians or officials.
- *Mobilization* - Street demonstrations, mass meetings, non-violent direct action to bring attention to the issue.

Methods

To test our hypotheses, we take a network approach. Statistical network methods are used to identify, map, and analyse the relationships among the actors and the strategies in the four countries. We conceptualise the relationship between the actors and the strategies as a two-mode network. A two-mode network consists of two sets of units (e.g., actors and strategies) that are divided into two sets X and Y (referred to as modes), and where only ties between nodes in different sets are possible. In our analysis, the actors are the first mode, and the advocacy strategies are the second. As the objective of this paper is to investigate if actors' choices of strategies are interdependent, we take a modelling approach that accounts for relational dependencies. Thus, we apply bipartite (two-mode) exponential random graph models (ERGMs). These models use a maximum likelihood simulation approach to estimate the probability of a network tie as a function both of actor covariates and the presence or absence of other network ties (Cranmer & Desmarais, 2011). We run

our models using the ergm package from the *statnet* suite of packages available for the statistical programming language R (Hunter et al. 2008).

Dependent variable

The dependent variables of interest in our models are rectangular matrices that capture the relationships in a bipartite network between actors and the strategies that they reported using often. We use the data that we collected by asking each respondent to indicate which of the seven different strategies that they used often to construct the actor by strategy networks. We transform this data into an *n x m* adjacency matrix for each country, coding a value of 1 when an actor indicates that they use a strategy and a value of 0 when they indicated that they do not.

Model Terms

We draw on the work of Metz et al. (2019) to operationalise and construct the model terms for our two hypotheses. They conceptualise bipartite homophily as follows:

$$h_{homophily} = \sum_i \sum_j \sum_{k \neq i} (N_{ij} N_{kj} f(i, k, X))$$

where f(i,k,X) is a function of a specified actor attribute, stored in an $m \times m$ matrix X with actor indices i and k. This is a homophily term because it can be used to investigate if the probability that a pair of actors i and k use the same advocacy strategy j increases if they share a collaboration tie or a specified attribute. The term can capture the tendency for actors to use the same strategy when they share the characteristics described below.

H1: Collaboration

To investigate if actors use the same strategies as their collaboration partners we convert the collaboration network data for each country into an *n x n* adjacency matrix *C*, where the rows and columns are the actors in the network and where each cell *i,j* contains the value 1 if actor *i* reported collaborating with actor *j* and a 0 if they did not. By inserting

these matrices C into the bipartite homophily term, we can measure the tendency for actors to use the same strategies as those which they collaborate with regularly.

$$f_{collaboration}(i,k,C) = C_{ik}$$

Hypothesis 2: Policy Beliefs Homophily

Using the actors' Likert responses to the 14 policy beliefs questions (Strongly Disagree = 1, Neutral = 3, Strongly agree = 5) in (figures 2 through 5 in supplementary materials) we create actor by response matrices, with actors in the rows and the responses in the columns. We then calculate the inverse Euclidean distance between the responses of each pair of actors *ij* for policy beliefs *l*. We finalise the policy beliefs homophily variable by inserting the dependent variable, the actor by response matrix, and the *n x n* distance matrix into the $h_{homophily}$ formula above. This then captures the tendency of two actors *i* and *k* with similar beliefs to use the same strategies.

$$f_{beliefs}(i,k,X) = \frac{1}{\sqrt{\sum_l (X_{il} - X_{kl})^2}}$$

Controls

We select a theoretically informed combination of endogenous bipartite network terms available in the *ergm* package for R that maximizes model fit for each country. The *edge* term captures the baseline propensity for ties to be formed in a network. The *b1deg0* term controls for the presence of actors that did not report using any advocacy strategies. The *gwb1nsp* term controls for clustering in the network, where a positive coefficient indicates that pairs of actors jointly use the same set of strategies. The *gwb1degree* term controls for actor activity – the underlying tendency for actors to use multiple strategies. We also include two exogenous controls. First, we include the degree centrality score for each actor in the collaboration network to account for the differing levels of activity in the collaboration network. Second, we include the reputational influence score for each actor, which we calculate by summing up the number of times that each actor was named as being influential by other network actors. This variable accounts for the argument drawn from resource dependency theory that actors seek to coordinate activities with those with

desirable resources, such as influence over a policy process, that can help them achieve their objectives (Calanni et al., 2014; Fischer & Sciarini, 2016; Heaney, 2014).

Figure 1 about here

Results

We first present data on the number of each actor type (scientific organisations, NGOs, business actors, civil society actors and GOV actors (political parties, government departments, agencies, and bodies) that reported using each of the seven different advocacy strategies in the four countries. The data shows that insider strategies are much more popular than two of the three outsider strategies in all four countries, the media and publicity strategy being the only exception. Our data supports our choice not to label actors as insiders or outsiders based on their actor type. It shows that in all cases both types of advocacy strategies are used by a variety of different kinds of actors, regardless of how they tended to be labelled in some of the interest groups literature (Figure 2).

In Czechia, all insider strategies were used by at least one actor of each actor type, except for *scientific analysis*, which was not used by business actors (BUS). The Energy Agency of the Zlín Region (GOV) uses activation and CzechGlobe (SCI) uses both activation and mobilisation. Strana zelených (Czech Green Party) uses both strategies. In Finland, Ireland, and Sweden all four insider strategies were used by at least one actor from each actor type group, except for lobbying which was not used by SCI actors in Ireland and Sweden. BUS actors in Czechia and Civil society organisations (CIV) in Sweden are the only organisations that did not report using the *media and publicity* strategy in any of the four countries. In Czechia, Finland and Ireland, NGOs use the *Activation* strategy more frequently than any other actor type. In Sweden, it is used by only one NGO. In Finland and Ireland, NGOs used *Mobilization* more frequently than any other group. In Czechia, the strategy is only used by one NGO. In Sweden, no groups reported using the strategy. The Swedish People's Party of Finland in Finland and The Left Party in Sweden (GOV actors) reporting using activation and mobilisation.

Figure 2 about here

The results from the ERGMs (Figures 3 -5) provide evidence that actors in all countries are likely to use similar strategies to those with which they have a collaboration tie (H1) as well as those with similar policy beliefs to their own (H2)[1]. The edge term provides a reference measure of the likelihood that a given actor uses a strategy and can be thought of as being analogous to the intercept term in a regression model. We find evidence for clustering in Czechia, Finland, and Sweden, indicating the tendency for pairs of actors in these countries to jointly use the same set of strategies. The *gwb1degree* term is significant and negative, indicating that actors tend not to use multiple different strategies. We find that central actors in the Irish and Swedish collaboration networks are less likely than expected by chance to use the same strategies. In Ireland, those with a higher reputational influence score are likely to use the same strategies, whereas in Sweden the opposite is the case. Both collaboration degree and reputational influence are insignificant in Czechia and Finland.

Figure 3 about here

Figure 4 about here

Figure 5 about here

Discussion and Conclusion

Of the problems that reach the top of the policy agenda, only a few of the potential solutions are ever considered, and even fewer are attempted to be implemented. Policy responses are often not chosen because they are the most effective, but instead because they either enjoy the support of the public or because those with an interest in how a problem is addressed have persuaded decision-makers to choose them. Decision-makers and those that formulate and implement policy often welcome the participation of others in a policy process because it provides a means of obtaining additional evidence and of

---

[1] The diagnostic plots in the supplementary materials show that all four models are a good fit to the data (Leifeld et al. 2018).

increasing the chances that their decisions are considered legitimate (Maloney et al., 1994; Dür and Mateo 2013). To participate and to influence policy choices, actors can use a range of different strategies.

Although early literature on interest groups often contended that actors tend to use one strategy over the other (Grant, 1978; Maloney et al., 1994), our results, in line with more recent work, indicate that political advocacy involves the use several kinds of strategies. In other words, neither traditional outsiders nor traditional insiders tend to use only one type of strategy. In addition, the types of advocacy used do not exhibit systematic differences based on the differences of the interest group systems of the countries. The two consensual cases, Finland and Sweden, differ in that the former both reputational influence and centrality in the collaboration network are insignificant whereas in the latter they are significant. The results for consensual Finland are the same as they are for Czechia, the majoritarian case. The mixed case of Ireland differs to all three other countries in that the clustering term is not significant and that the reputational influence term is negative and significant. While previous literature has argued that the typology of outsiders vs. insiders is inadequate in explaining the choice of strategies, it has not considered the possibility that advocacy can be a relational phenomenon. We relied on insights from the policy network approach and the advocacy coalition framework to argue there is an interdependency between advocacy strategies and both collaboration ties and beliefs.

We find that an actor's type does not dictate their choice of strategies, but instead, that choices of strategies depend on what their collaboration partners do and on what those with similar beliefs do. Direct collaboration links between actors are thus associated with similar strategies and we think it is likely that actors being in contact with each other leads them to resort to similar strategies. In addition, observing the strategies that actors with similar beliefs employ may be explained by policy learning based on emulation, a likely result of a general tendency for homophily. Policy actors are boundedly rational and do not necessarily resort to the most optimal strategies; it is difficult to know in advance what optimal strategies would be. Emulating the strategies of those that one is connected to and of those that share beliefs makes sense from this perspective.

Our findings provide insights into the nexus between strategies, beliefs, and collaboration. Even though we are not studying advocacy coalitions as such, the association between collaboration relationships, policy beliefs and strategies, draw on the distinction between weak and strong coordination defined by Weible et al. (2020) and suggest to analogically distinguish weak and strong forms of advocacy. A strong advocacy is indicated by a pattern where actors with similar beliefs use the same strategies and engage in mutual collaboration. This is more likely to occur in mature policy subsystems, where actors have identified their allies, formed long-term collaboration ties, and decided to coordinate their use of strategies. If actors with similar beliefs use the same strategies but are not collaborating with one another it can be considered a weak form of advocacy, as the coalition element is lacking from advocacy. This might be due to increased costs of coordinating policy positions with other actors with similar beliefs or a result of competition among like-minded actors to gain a more prominent position within a given advocacy community (Mahoney, 2007). In situations where actors collaborate with those that use the same strategies as themselves but beliefs play no role in their strategy choices, it could be because the policy system is nascent, because coalitions are absent, or because the actors' beliefs are not very heterogenous.

Importantly, the presence of collaboration among actors does not necessarily mean that they are working together towards resolving some problem (Koebele, 2019), although the absence of collaboration between actors with conflicting beliefs is indicative of an adversarial policy subsystem (Weible 2008). Considering the above, the tendency for the actors in the networks analysed here to use the same strategies as their collaboration partners *and* as those with similar beliefs suggests the presence of strong forms of coordination. This suggests that conflict may be driving coordination (Koebele, 2019), which is supported by previous research that has found the presence of opposing coalitions in Finland (Gronow and Ylä-Anttila, 2019) and Czechia (Ocelík et al., 2019), and the presence of an environmental coalition in Ireland that sought to change government climate policy (Wagner and Ylä-Anttila, 2018). For the purposes of future research, it

seems reasonable to hypothesize that beliefs and collaboration ties are associated with actors' choices of strategies regardless of the context.

There are several limitations to our research. First, because our data is cross-sectional it is unknown how long each actor has participated in national climate politics, and we therefore cannot control for the likelihood that more experienced actors are more likely to use insider strategies. Second, this study focuses on the most important actors involved in national climate politics in each of the four case countries and that when taken together constitute each country's climate policy network. This means that we do not consider how smaller, less influential actors with fewer resources engage in advocacy behaviour or what independencies may exist between them. Third, the cross-sectional nature of our data means that we cannot determine that similarity of policy beliefs or the existence of collaboration between organisations would cause them to choose similar strategies. It is theoretically possible that similar strategies would draw actors together, thus leading them to collaborate. In all likelihood, causality runs both ways: actors that collaborate use similar strategies and employing similar strategies may lead to further collaboration. Similar strategies may also make policy beliefs more similar in time, although perhaps not directly but by making actors collaborate with each other. However, as most literature argues that similar policy beliefs cause actors to collaborate rather than the other way around, we think collaboration is more likely to drive strategy choices. Nevertheless, it remains for future research to disentangle the exact causal relations between the choice of strategies, similar policy beliefs and collaboration. Fourth, we targeted the individuals in each organisation who are most likely to know the policy beliefs and strategies of their organisation. However, despite this, it is nevertheless possible that they do not know everything about either or both, and this possibility is greater in larger and more complex organisations. Fifth, it is possible that that there is no interdependency, but instead, that actors with similar beliefs and that share a collaboration tie independently came to the same conclusion about which strategies to use. Future work would seek to account for each actors' level of access to decision-makers, on how they draw attention to their activities, on the extent to which member organisations want to maintain the interest and

participation of their supporters and would investigate if an actor's (un/successful) strategy choices in the past influences their present choices.

      This article has contributed to the literature that examines the strategy choices of interest groups by going beyond the standard insider-outsider dichotomy and by showing that the strategy choices of the full range of actors involved in policymaking are interdependent, that is, they are associated with the choices of the actor's collaboration partners and of those with similar beliefs. We hope to have demonstrated that our approach of investigating strategy choice as a relational phenomenon and using techniques of network analysis to explore the interdependency of strategies is a useful addition to the study of advocacy.

Bibliography

Andrews, K. T., & Edwards, B. (2004). Advocacy organizations in the US political process. *Annual Review of Sociology*, 30, pp.479-506.

Baumgartner, F.R. and Leech, B.L., 1998. *Basic interests: The importance of groups in politics and in political science*. Princeton University Press.

Berardo, R. and Scholz, J.T., 2010. Self-organizing policy networks: Risk, partner selection, and cooperation in estuaries. *American Journal of Political Science*, 54(3), pp.632-649.

Beyers, J., 2004. Voice and access: Political practices of European interest associations. *European Union Politics*, 5(2), pp.211-240.

Beyers, J. and Braun, C., 2014. Ties that count: explaining interest group access to policymakers. *Journal of Public Policy*, 34(1), pp.93-121.

Binderkrantz, A., 2005. Interest group strategies: Navigating between privileged access and strategies of pressure. *Political studies*, *53*(4), pp.694-715.

Binderkrantz, A., 2008. Different groups, different strategies: How interest groups pursue their political ambitions. *Scandinavian Political Studies*, *31*(2), pp.173-200.

Binderkrantz, A.S., Christiansen, P.M. and Pedersen, H.H., 2015. Interest group access to the bureaucracy, parliament, and the media. *Governance*, 28(1), pp.95-112.

Box-Steffensmeier, J.M., Christenson, D.P. and Hitt, M.P., 2013. Quality over quantity: Amici influence and judicial decision making. *American Political Science Review*, 107(3), pp.446-460.

Calanni, John, Saba N. Siddiki, Christopher M. Weible, and William D. Leach. 2015. "Explaining Coordination in Collaborative Partnerships and Clarifying the Scope of the Belief Homophily Hypothesis." *Journal of Public Administration Research and Theory* 25 (3): 901–27.

Černý, O. and Ocelík, P., 2020. Incumbents' strategies in media coverage: A case of the Czech coal policy. Politics and Governance, 8(2), pp.272-285.

Chalmers, A.W., 2013. Trading information for access: informational lobbying strategies and interest group access to the European Union. *Journal of European Public Policy*, *20*(1), pp.39-58.

Cranmer, S.J. and Desmarais, B.A., 2011. Inferential network analysis with exponential random graph models. *Political analysis*, 19(1), pp.66-86.

Dür, A. and Mateo, G., 2013. Gaining access or going public? Interest group strategies in five European countries. *European Journal of Political Research*, *52*(5), pp.660-686.

Elgin, D. J., & Weible, C. M. 2013. A Stakeholder Analysis of Colorado Climate and Energy Issues Using Policy Analytical Capacity and the Advocacy Coalition Framework. *Review of Policy Research*, 30(1), 114-133.

Fischer, M., Ingold, K., & Ivanova, S. 2017. Information exchange under uncertainty: The case of unconventional gas development in the United Kingdom. Land Use Policy, 67, 200-211.

Fischer, Manuel and Pascal Sciarini. 2015. "Unpacking Reputational Power: Intended and Unintended Determinants of the Assessment of Actors' Power." *Social Networks* 42:60–71.

Gais, T. L. and Walker, J. L. Jr. (1991) 'Pathways to Influence in American Politics', in J. L. Jr. Walker (ed.), *Mobilizing Interest Groups in America: Patrons, Professions and Social Movements*. Ann Arbor MI: The University of Michigan Press, pp. 103–21.

Grant, Wyn. 1978. 'Insider groups, outsider groups and interest group strategies in Britain', University of Warwick Department of Politics Working Party no. 19.

Gronow, A., Wagner, P. and Ylä-Anttila, T., 2020. Explaining collaboration in consensual and conflictual governance networks. Public Administration, 98(3), pp.730-745.

Gronow, A. and Ylä-Anttila, T., 2019. Cooptation of ENGOs or treadmill of production?

Advocacy coalitions and climate change policy in Finland. Policy Studies Journal, 47(4), pp.860-881.

Gronow, A., Brockhaus, M., Di Gregorio, M., Karimo, A. and Ylä-Anttila, T., 2021. Policy learning as complex contagion: how social networks shape organizational beliefs in forest-based climate change mitigation. Policy Sciences, 54(3), pp.529-556.

Hamilton, M., Lubell, M. and Namaganda, E., 2018. Cross-level linkages in an ecology of climate change adaptation policy games. *Ecology and Society*, 23(2).

Hanegraaff, M., Beyers, J.A. and De Bruycker, I., 2016. Balancing inside and outside lobbying: The political strategies of lobbyists at global diplomatic conferences. European *Journal of Political Research*, 55(3), pp.568-588.

Heaney, Michael T. 2014. "Multiplex Networks and Interest Group Influence Reputation: An Exponential Random Graph Model." *Social Networks* 36(1):66–81.

Heaney, M.T. and Leifeld, P., 2018. Contributions by interest groups to lobbying coalitions. *The Journal of Politics*, 80(2), pp.494-509.

Heaney, M.T. and Lorenz, G.M., 2013. Coalition portfolios and interest group influence over the policy process. Interest Groups & Advocacy, 2(3), pp.251-277.

Henry, Adam Douglas. 2011a. "Power, Ideology, and Policy Network Cohesion in Regional Planning." *Policy Studies Journal* 39 (3): 361–83.

Henry, Adam Douglas. 2011. "Belief-Oriented Segregation in Policy Networks." In *Procedia - Social and Behavioral Sciences*, , 14–25.

Henry, A.D., Lubell, M. and McCoy, M., 2011. Belief systems and social capital as drivers of policy network structure: The case of California regional planning. *Journal of Public Administration Research and Theory*, 21(3), pp.419-444.

Henry, A.D., 2017. Network Segregation and Policy Learning. In *The Oxford Handbook of Political Networks*.

Hileman, J. and Bodin, Ö., 2019. Balancing costs and benefits of collaboration in an ecology of games. *Policy Studies Journal*, 47(1), pp.138-158.

Hojnacki, M., Kimball, D.C., Baumgartner, F.R., Berry, J.M. and Leech, B.L., 2012. Studying organizational advocacy and influence: Re-examining interest group research. *Annual Review of Political Science*, 15, pp.379-399.

Hunter, D.R., Handcock, M.S., Butts, C.T., Goodreau, S.M. and Morris, M., 2008. ergm: A package to fit, simulate and diagnose exponential-family models for networks. *Journal of statistical software*, 24(3), p.nihpa54860.

Ingold, Karin. 2011. "Network Structures within Policy Processes: Coalitions, Power, and Brokerage in Swiss Climate Policy." *Policy Studies Journal* 39(3):435–59.

Ingold, Karin, and Manuel Fischer. 2014. "Drivers of Collaboration to Mitigate Climate Change: An Illustration of Swiss Climate Policy over 15 Years." *Global Environmental Change* 24(1): 88–98.

Ingold, K. and Leifeld, P., 2016. Structural and institutional determinants of influence reputation: A comparison of collaborative and adversarial policy networks in decision making and implementation. *Journal of public administration research and theory*, 26(1), pp.1-18.

Jasny Lorien, Joseph Waggle and Fisher Dana R (2015) An Empirical Examination of Echo Chambers in US Climate Policy Networks. *Nature Climate Change* 5(8): 782–786.

Jasny, L., Dewey, A.M., Robertson, A.G., Yagatich, W., Dubin, A.H., Waggle, J.M. and Fisher, D.R., 2018. Shifting echo chambers in US climate policy networks. *PloS one*, 13(9).

Joachim, J., Schneiker, A. NGOs – die besseren Unternehmen oder business as usual?. Z Politikwiss 31, 171–191 (2021).

Kammerer, M., Wagner, P.M., Gronow, A., Ylä-Anttila, T., Fisher, D.R. and Sun-Jin, Y., 2021. What Explains Collaboration in High and Low Conflict Contexts? Comparing Climate Change Policy Networks in Four Countries. Policy studies journal.

Karimo, A., Wagner, P., Delicado, A., Goodman, J., Gronow, A., Lahsen, M., Lin, T.L., Schneider, V., Satoh, K., Schmidt, L. and Yun, S.J., (2022). Shared positions on divisive beliefs explain interorganizational collaboration: Evidence from climate change policy subsystems in eleven countries. *Journal of Public Administration Research and Theory*.

Knoke, D. and Zhu, X., 2012. Interest Groups and Pluralism. *The Wiley-Blackwell Companion to Political Sociology*, pp.158-167.

Koebele, E.A., 2019. Integrating collaborative governance theory with the Advocacy Coalition Framework. *Journal of Public Policy*, 39(1), pp.35-64.

König, T. and Bräuninger, T., (1998). The formation of policy networks: Preferences, institutions and actors' choice of information and exchange relations. *Journal of Theoretical Politics*, 10(4), pp.445-471.

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.

Lane, J.E. and Ersson, S.O., 2002. *Government and the economy: a global perspective*. A&C Black.

Laumann, E.O., Marsden, P.V. and Prensky, D., 1989. The boundary specification problem in network analysis. *Research methods in social network analysis*, 61(8).

Laumann, E. O., & Knoke, D. (1987). *The organizational state: Social choice in national policy domains*. Madison, WI: University of Wisconsin Press.

Leifeld, Philip and Schneider, V. 2012. "Information Exchange in Policy Networks." *American Journal of Political Science* 56(3):731–44.

Leifeld, P. and Haunss, S., 2012. Political discourse networks and the conflict over software patents in Europe. *European Journal of Political Research*, *51*(3), pp.382-409.

Lijphart, A. (2012). Patterns of democracy: government forms and performance in thirty-six countries.

Lubell, M., Robins, G. and Wang, P., 2014. Network structure and institutional complexity in an ecology of water management games. *Ecology and Society*, 19(4).

Mahoney, C. (2008). *Brussels versus the Beltway: Advocacy in the United States and the European Union*. Washington, DC: Georgetown University Press.

Malkamäki, A., Wagner, P.M., Brockhaus, M., Toppinen, A. and Ylä-Anttila, T., 2019. On the Acoustics of Policy Learning: Can Co-Participation in Policy Forums Break Up Echo Chambers?. Policy Studies Journal.

Maloney, W.A., Jordan, G. & McLaughlin, A.M. (1994). Interest Groups and Public Policy: The Insider/Outsider Model Revisited. *Journal of Public Policy* 14(1): 17–38.

Matti, Simon, and Annica Sandström. 2011. "The Rationale Determining Advocacy Coalitions: Examining Coordination Networks and Corresponding Beliefs." *Policy Studies Journal* 39 (3): 385–410.

McLaughlin, D.M., Mewhirter, J.M. and Lubell, M., 2022. Conflict Contagion: How Interdependence Shapes Patterns of Conflict and Cooperation in Polycentric Systems. *Journal of Public Administration Research and Theory*, 32(3), pp.543-560.

McPherson, M., Smith-Lovin, L. and Cook, J.M., 2001. Birds of a feather: Homophily in social networks. *Annual review of sociology*, pp.415-444.

Metz, F. and Brandenberger, L., 2022. Policy Networks Across Political Systems. American Journal of Political Science.

Metz, F., Leifeld, P. and Ingold, K., 2019. Interdependent policy instrument preferences: a two-mode network approach. *Journal of Public Policy,* 39(4), pp.609-636.

Murphy, G., 2009. Interest groups in the policy-making process. In *Politics in the Republic of Ireland* (pp. 349-380). Routledge.

Ocelík, P., Svobodová, K., Hendrychová, M., Lehotský, L., Everingham, J.-A., Ali, S. H., Badera, J., & Lechner, A. (2019). A contested transition toward a coal-free future: Advocacy coalitions and coal policy in the Czech Republic. Energy Research & Social Science, 58, 1–13.
Osička, J., & Černoch, F. (2017). Anatomy of a black sheep: The roots of the Czech Republic's pro-nuclear energy policy. *Energy Research & Social Science*, 27, 9–13.

Ost, D., 2000. Illusory corporatism in Eastern Europe: Neoliberal tripartism and post-communist class identities. *Politics & Society*, 28(4), pp.503-530.

Pattison, A., 2018. Factors shaping policy learning: A study of policy actors in subnational climate and energy issues. *Review of Policy Research*, 35(4), pp.535-563.

Petrova, T. and Tarrow, S., 2007. Transactional and participatory activism in the emerging European polity: The puzzle of East-Central Europe. *Comparative political studies*, 40(1), pp.74-94.

Pfeffer, J. and Salancik, G.R., 2003. The external control of organizations: A resource dependence perspective. Stanford University Press.

Pierce, J.J., 2016. Advocacy coalition resources and strategies in Colorado hydraulic fracturing politics. Society & Natural Resources, 29(10), pp.1154-1168.

Sabatier, P., and Jenkins-Smith, H. 1988. "An Advocacy Coalition Model of Policy Change and the Role of Policy Orientated Learning Therein. *Policy Sciences* 21: 129–68

Sabatier, P., and Jenkins-Smith, H. 1999. "The Advocacy Coalition Framework: An Assessment." In *Theories of the Policy Process*, ed. P. Sabatier, pp. 117–166. Boulder, CO: Westview Press.

Seawright, J., & Gerring, J. (2008). Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options. In Source: Political Research Quarterly (Vol. 61, Issue 2).

Scott T, Thomas C. Do collaborative groups enhance interorganizational networks?. Public Performance & Management Review. 2015 Oct 2;38(4):654-83.

Taagepera, R. and Nemčok, M., 2021. Majoritarian and consensual democracies: The seat product connection. *Party Politics*, 27(3), pp.393-406.

Thierse, S. and Schiffers, M., 2021. „NGOisierung "der Interessenvermittlung und Pluralisierung der Politikgestaltung. *Zeitschrift für Politikwissenschaft*, 31(2), pp.151-169.

Varone, F., Ingold, K. and Jourdain, C., 2017. Defending the status quo across venues and coalitions: evidence from California interest groups. *Journal of public policy*, 37(1), pp.1-26.

Wagner, P. and Ylä-Anttila, T., 2018. Who got their way? Advocacy coalitions and the Irish climate change law. Environmental Politics, 27(5), pp.872-891.

Wagner, P.M., Ylä-Anttila, T., Gronow, A., Ocelík, P., Schmidt, L. and Delicado, A., 2021. Information exchange networks at the climate science-policy interface: Evidence from the Czech Republic, Finland, Ireland, and Portugal. Governance, 34(1), pp.211-228.

Wagner, P.M., Ocelík, P., Gronow, A., Ylä-Anttila, T., Schmidt, L. and Delicado, A., 2021a. Network ties, institutional roles and advocacy tactics: Exploring explanations for perceptions of influence in climate change policy networks. Social Networks.

Walker, J.L., 1991. *Mobilizing interest groups in America: Patrons, professions, and social movements*. University of Michigan Press.

Weible, C.M. and Sabatier, P.A., 2005. Comparing policy networks: Marine protected areas in California. *Policy Studies Journal*, 33(2), pp.181-201.

Weible, C.M. and Sabatier, P.A., 2009. Coalitions, science, and belief change: Comparing adversarial and collaborative policy subsystems. *Policy Studies Journal,* 37(2), pp.195-212.

Weible, Christopher M., Tanya Heikkila, and Jonathan Pierce. 2018. "Understanding Rationales for Collaboration in High-Intensity Policy Conflicts." *Journal of Public Policy*.

Weible, C.M., Ingold, K., Nohrstedt, D., Henry, A.D. and Jenkins-Smith, H.C., 2020. Sharpening advocacy coalitions. *Policy studies journal*, *48*(4), pp.1054-1081.

Weiler, F. and Brändli, M., 2015. Inside versus outside lobbying: How the institutional framework shapes the lobbying behaviour of interest groups. *European Journal of Political Research*, 54(4), pp.745-766.

Ylä-Anttila, T., Gronow, A., Stoddart, M.C., Broadbent, J., Schneider, V. and Tindall, D.B., 2018. Climate change policy networks: Why and how to compare them across countries. Energy Research & Social Science, 45, pp.258-265.

Declaration of Interest

The authors report there are no competing interests to declare

Table 1: Descriptive Information

Country	Czechia	Finland	Ireland	Sweden
Institutional Context	Majoritarian	Consensual	Mixed	Consensual
Year of Data Collection	2016	2014	2013/14	2015
No. of Responses	91/132	82/96	52/57	69/99
Response Rate	69%	85%	91%	70%
Businesses	9/23 (39%)	32/38 (84%)	16/18 (89%)	22/30 (73%)
NGOs	13/14 (93%)	10/14 (71%)	10/10 (100%)	6/9 (66%)
Civil Society	18/29 (62%)	6/6 (100%)	3/3 (100%)	11/14 (79%)
GOV (*Public Authorities*)	22/31 (71%)	7/7 (100%)	6/8 (75%)	15/19 (79%)
GOV (*Government Departments*)	4/6 (67%)	6/6 (100%)	7/7 (100%)	3/6 (50%)
GOV (*Political Parties*)	6/7 (86%)	7/8 (88%)	5/5 (100%)	3/8 (38%)
Scientific Organisations	19/22 (86%)	14/17 (82%)	5/5 (100%)	9/13 (69%)
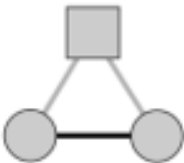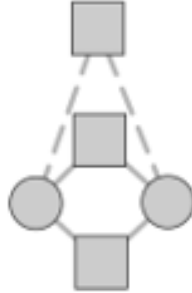
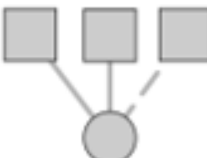|	
H1: Collaboration	
H2: Beliefs	
Edges	
Clustering (gwb1nsp)	
Centralization (gwb1degree)	

Figure 1: Structural Motifs: Circles represent actors (first mode), squares represent advocacy strategies (second mode). The motif for H1 illustrates the presence of a collaboration tie between two actors that use the same advocacy strategy. The motif for H2 illustrates two actors with similar beliefs that use the same advocacy strategy. The *gwb1nsp* motif illustrates a pair of actors that jointly use the same set of strategies. The *gwb1degree* motif shows an actor that uses multiple strategies.
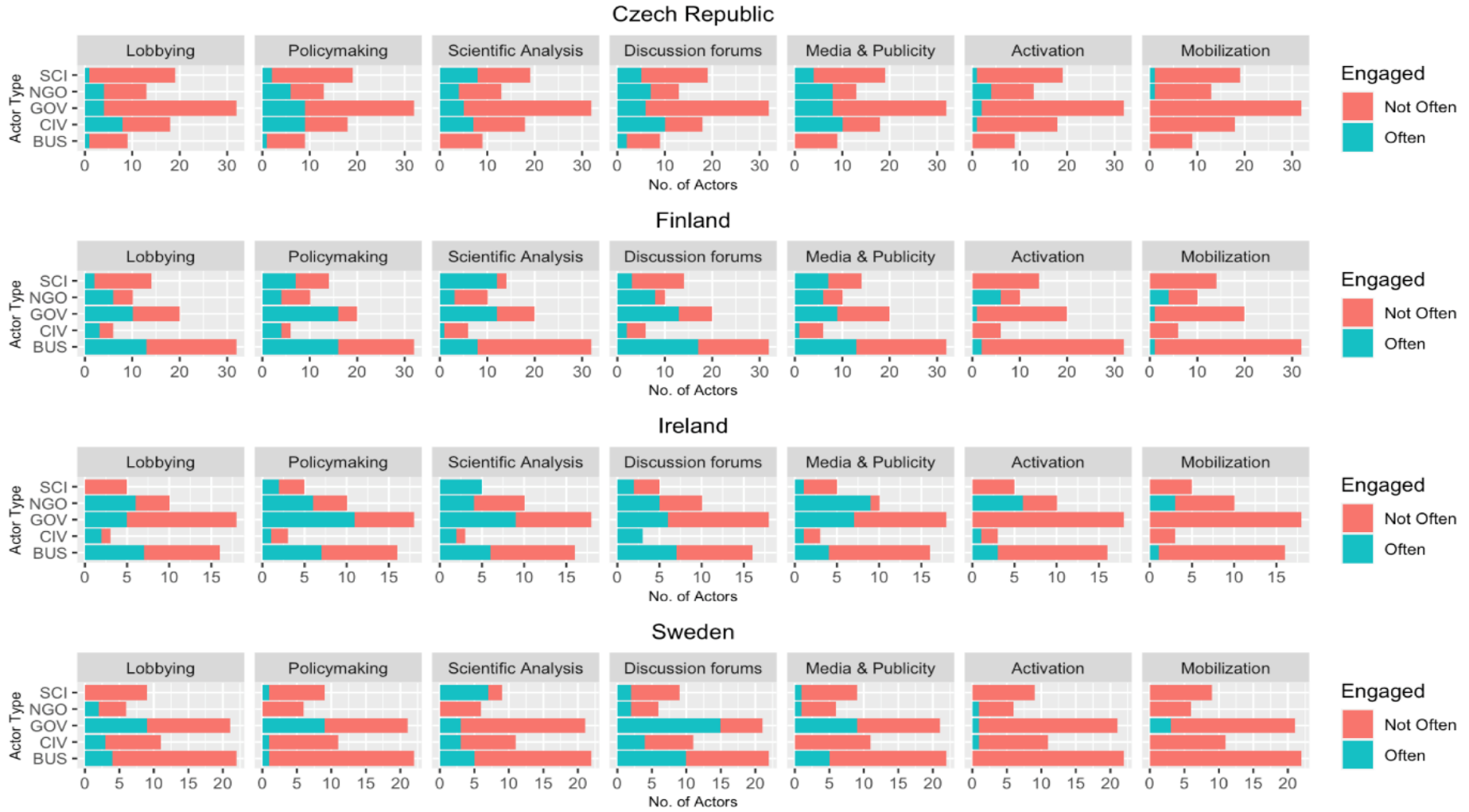
Figure 2 Number of each actor type that reported using each of the seven different advocacy strategies in the four countries (SCI: scientific organisations. NGO: Non-Governmental Organisations. GOV: political parties, government departments, agencies, and bodies; CIV: labour unions, professional associations, religious organisations. BUS: Businesses, including energy companies).
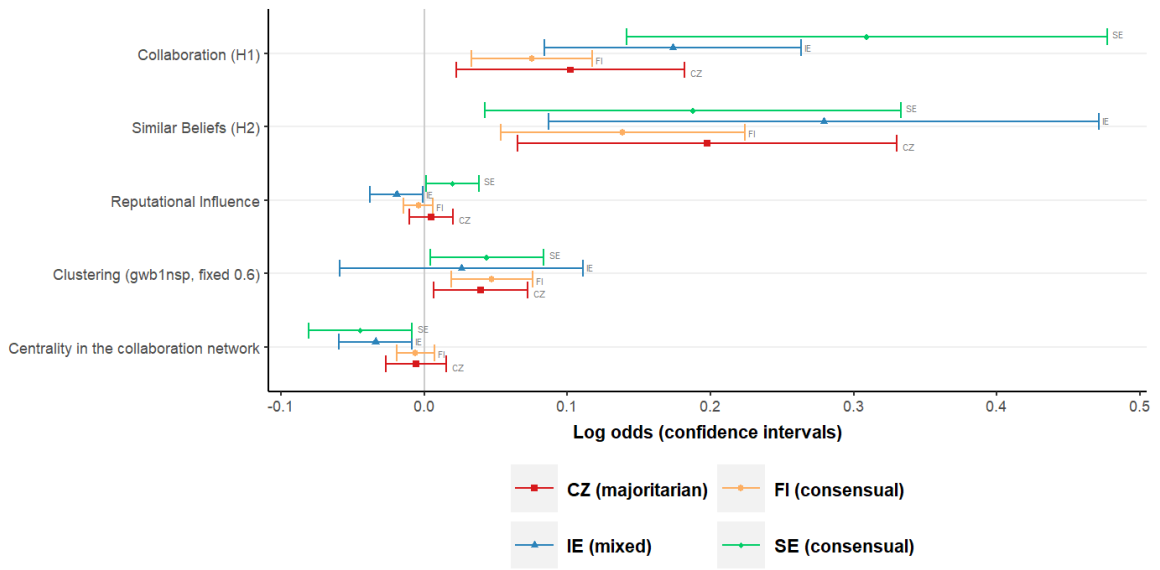
Figure 3 Coefficient Plot for ERG Models. Edge terms and Centralization terms are both excluded from the figure to enhance visibility (Estimates for the full models for all four countries can be found in the supplementary materials).
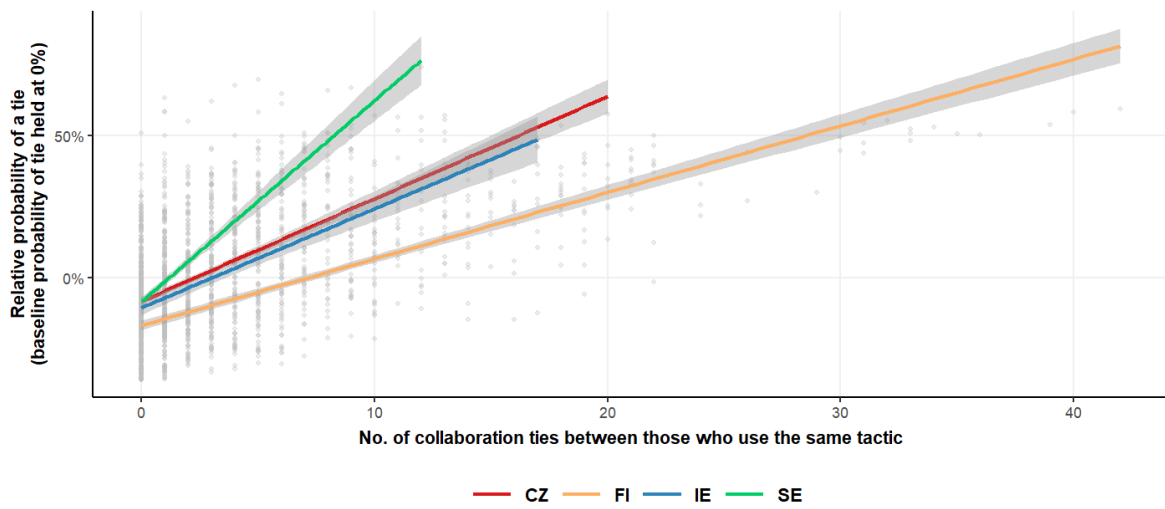

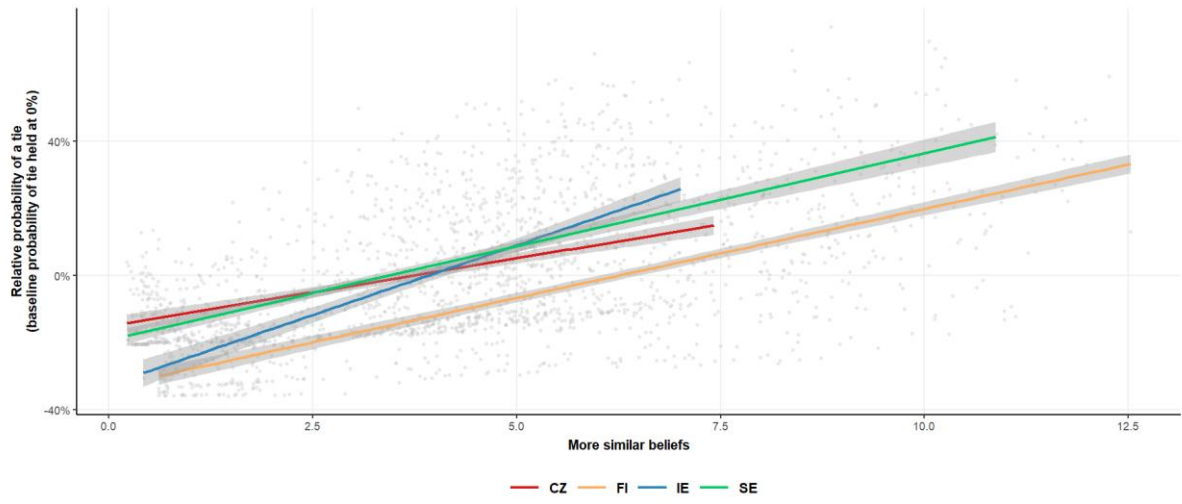*Figure 4 Marginal plot for effect of collaboration on tie probability*

Figure 5 Marginal plot for effect of beliefs similarity on tie probability