

The Power of Peers: How Transnational Advocacy Networks Shape NGO Strategies on Climate Change

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What explains variation in the tactical choices of non-governmental organizations (NGOs)? This article uses network autocorrelation models to establish how the tactical choices of climate change NGOs are shaped by their embeddedness in transnational advocacy networks. Specifically, it finds that NGOs are more likely to adopt protest tactics when adjacent organizations – those with whom they have direct ties – have already done so. The choices of equivalent organizations – those that occupy similar relational roles in the network – do not appear to be influential. Qualitative evidence also shows that NGOs are affected by relational pressure from their peers, which alters their perception of costs and benefits. These findings enhance understanding of how networks influence actors' behavior and offer insights into the relational processes that generate protest in global politics.

Keywords: climate change; NGOs; networks; social movements; environmental politics

Non-governmental organizations (NGOs) employ a variety of different tactics to promote their climate change policies. For example, Greenpeace International engages in confrontational protests outside major energy companies, while the Union of Concerned Scientists produces carefully researched reports. Likewise, 350.org mobilizes massive street demonstrations, while the World Wildlife Fund raises money to protect forests. These tactical decisions are often consequential for policy outcomes; they also affect an individual organization's influence, reputation and vitality. How do we explain variation in the tactical choices of NGOs?

Social network theory draws our attention to how interactions among actors shape their behavior. We draw on this literature to identify two potential sources of peer influence on the tactical choices of NGOs embedded in transnational advocacy networks.¹ First, NGOs may be influenced by the choices of actors to whom they are *adjacent* in the social network – organizations with which they have direct ties. Secondly, NGOs may be influenced by the choices of actors that have *equivalent* positions in the network – organizations that occupy similar relational roles. We examine these contrasting sources of influence in a transnational network of NGOs working in the field of climate change politics over a two-year period. We assess how peer choices influence the decision to adopt protest tactics, contrasting our approach with previous work that has focused theoretical attention on contextual-level and organizational-level factors.²

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¹ Hafner-Burton, Kahler, and Montgomery 2009; Ward, Stovel, and Sacks 2011.

² For example, McAdam, Tarrow, and Tilly 2001; Prakash and Gugerty 2010; Stroup 2012; Tallberg et al. 2015.

This analysis draws on original longitudinal data regarding the attributes of NGOs working transnationally on climate change, their tactical choices, their relationships with one another and the characteristics of the context in which they work. Our research design offers five particular advantages. First, we identify a population of organizations and track their decisions over time, avoiding problems of selection on the dependent variable that plague many studies of social protest.³ Secondly, we employ a network autocorrelation model to appropriately test relational hypotheses and account for actor interdependence.⁴ Thirdly, we draw on rich original data that enables us to control for alternative actor- and context-level hypotheses that may affect the outcome of interest, addressing concerns about potential homophily bias, shared environment and the reverse Galton's problem.⁵ Fourthly, we introduce a time lag between peer behavior and ego behavior in our quantitative models in order to minimize concerns about reverse causality. And fifthly, we complement our quantitative analysis with illustrative cases and qualitative interviews with practitioners to document relational processes that operate at the actor level.

Our results provide evidence that NGOs are influenced by the tactical choices of their peers. We find that NGOs have a strong tendency to match the tactical choices of the organizations adjacent to them in the advocacy network, reflecting a process of *social cohesion* among partners. We show that this effect operates above and beyond contextual- and actor-level explanations, and persists even when other sources of autocorrelation are accounted for. Our qualitative evidence suggests that actors engage in persuasive communication in networks, altering the perception of costs and benefits for certain types of action. Overall, we find that examining peer influence significantly expands our ability to explain NGO tactical choices, and that traditional explanations are weaker by comparison.

The theoretical and empirical contributions of this article are important for three particular audiences. First, our approach speaks directly to scholars of transnational advocacy networks by expanding our understanding of the international organization of NGO activity. While network themes are implicit in many important studies in this field,⁶ we systematize a relational approach and use it to explore an important empirical puzzle. We find that NGOs are interdependent actors, and that their network embeddedness significantly shapes their tactical decisions. Our results echo the classic work of Keck and Sikkink⁷ by documenting how network ties can serve as channels through which communication and shared principles flow among actors. The findings of this article complement the extensive focus on advocacy campaigns with a detailed look at strategic variation among organizations working within the same sector.⁸

Secondly, our quantitative analysis provides a surprising account of the social processes that generate protest around international institutions. Explanations proffered by existing scholarship and favored in policy communities – such as arguments that protest is the recourse of resource-poor actors or a response to limited opportunities for institutional engagement⁹ – garner only limited support in our quantitative models. Many actor decisions in this sphere cannot be adequately explained without considering the internal politics of advocacy networks. Our results suggest that policy actors concerned about the emergence of 'waves of protest'¹⁰

³ For a recent review, see McAdam and Schaffer-Boudet (2012).

⁴ Anselin 2013; Burt 1987; Elhorst 2010; Galaskiewicz and Burt 1991; Leenders 2002.

⁵ Dow 2007.

⁶ Barnett 2011; Carpenter 2014; Keck and Sikkink 1998; Murdie 2013; Stroup 2012; Wong 2012.

⁷ Keck and Sikkink 1998; Risse, Ropp, and Sikkink 1999.

⁸ See Price 2003.

⁹ See Bernauer and Gampfer 2013; UNFCCC 2010a, 2010b.

¹⁰ Tarrow 2011.

may exert more leverage by engaging directly with influential NGOs than by pursuing traditional institutional and resource interventions.

Finally, our case illustrates how decision making in networks is an underexplored layer of social organization in world politics.¹¹ While scholars often study cases in which behavior spreads among actors via processes of diffusion, socialization and isomorphism,¹² more attention should be paid to developing and testing precise relational hypotheses in other areas of world politics.¹³ The theoretical approach we outline here demonstrates why accounting for two potential sources of peer influence – adjacent and equivalent actors – is critical. In our case we also find that the effect of context and attribute variables is weakened in the presence of network variables, suggesting that the weight of these causal factors may be overstated in existing research that does not account for relational influence. Overall, considering the importance of network embeddedness holds great promise to expand our understanding of the behavioral choices of a wide range of actors.

EXPLAINING ADVOCACY CHOICES

NGOs often make tough calls about how to acquire resources, how to structure their organizations, which issues to support, which allies to work with, how to frame particular issues and which tactics to adopt when engaging in collective action. These choices are consequential for outcomes in international politics as well as for NGOs themselves. To take just a few examples, NGOs decide which countries to criticize for human rights violations,¹⁴ and this ‘naming and shaming’ influences human rights practices and the likelihood of humanitarian intervention.¹⁵ NGOs decide which issues to adopt in security politics, and their advocacy increases the likelihood of global agenda setting and rule making on these topics.¹⁶ NGOs are directly responsible for private aid delivery, and their choices about where and how to conduct these projects influence development outcomes.¹⁷ NGOs advance moral claims vis-à-vis their own governments, and their advocacy choices guide foreign policy outcomes in some critical cases.¹⁸

In this article we examine tactical choices of NGOs working transnationally on climate change. We note that even among organizations that share broadly similar values and discourse, there is a great deal of tactical diversity. In our data we observe vigils, hunger strikes, protest puppetry, banner dropping, public letters, score cards, teaching tours, mass phone calls and many other specific forms of collective action. Tactical decisions are often considered ‘high stakes’ because they affect the likelihood of advocacy success as well as the organization’s reputation, ability to recruit and prospects for funding.¹⁹ How do NGOs decide which tactics to employ?

We conceive of tactical decisions as a choice between protest and more conventional forms of action. This echoes the well-established distinction between what Price²⁰ and

¹¹ In doing so, we complement the literature on policy networks in American and comparative politics. For recent examples, see Beyers and Braun 2014; Box-Steffensmeyer, Christenson, and Hitt 2013; Heaney and Lorenz 2013; Henning 2009; Ingold and Leifeld 2016; Pappi and Henning 1998.

¹² For example, Checkel 2005; DiMaggio and Powell 1983; Finnemore 1993; Rogers 1995.

¹³ See Kahler 2009; Maoz et al. 2006; Oatley et al. 2013.

¹⁴ Ron, Ramos, and Rodgers 2005.

¹⁵ Hafner-Burton 2008; Murdie and Peksen 2014.

¹⁶ Carpenter 2014; Price 1998.

¹⁷ Buthe, Major, and Souza 2012.

¹⁸ Busby 2010.

¹⁹ Barakso 2010; Bob 2010; Dalton 1994; Prakash and Gugerty 2010.

²⁰ Price 2003, 586.

Tallberg et al.²¹ refer to as the ‘pragmatic insider strategy versus the principled outsider strategy’.²² This tactical decision is consequential, costly and poorly understood. Prakash and Gugerty²³ lament that the existing NGO literature cannot ‘explain how and when NGOs decide to use “insider” versus “outsider” strategies [...] or the decisions of some NGOs [...] to reorient their strategies’. Similarly, Goodwin and Jasper²⁴ review the literature on social movements and observe that ‘the actual choice of actions from within the repertoire – not to mention issues of timing and style in their application – has been almost completely ignored’.

In explaining the choice to adopt protest tactics, we follow Keck and Sikkink²⁵ in treating NGOs as principled, strategic actors working within a set of opportunities and constraints. These opportunities and constraints are traditionally thought to originate from two sources. First, the characteristics of the context – the contracting environment, the opportunities available to organizations to work with particular institutions, the media environment and the likelihood of repression – may influence an organization’s strategic choices.²⁶ For example, Walker, Martin and McCarthy²⁷ argue that institutions that are more open and less likely to repress protesters will be targeted more often. Cooley and Ron²⁸ argue that the nature of the contracting environment should drive organizations to adopt strategies in line with funders’ priorities. Stroup²⁹ suggests that organizations learn advocacy strategies suited to their national context, making it likely that they will apply the same methods when they engage in transnational advocacy.

Secondly, the attributes of the organization itself – the amount and type of resources it has at its disposal, its organizational ideology or culture, and its internal structure – may be important factors in its decision-making process.³⁰ For example, much work in the field of social movement studies suggests that organizations that are older and have larger budgets should be less inclined toward protest action.³¹ Organizations that focus more on direct service provision may also be less likely to engage in protest actions, because their organizational structure is geared toward the delivery of contracted programs rather than advocacy.³² Organizations with individual members may be more likely to sponsor protest actions because they have ready access to the needed resources. Organizations may also seek to be consistent in their tactical decision making, building a ‘brand’ reputation for protest tactics that helps them gain recognition and support.³³

But even when contextual and organizational factors are considered together, there remains a puzzling amount of unexplained variance in tactical choices.³⁴ Not all actors respond to their

²¹ Tallberg et al. 2015.

²² McAdam, Tarrow, and Tilly (2001, 5) note that contentious protest actions differ from conventional actions because they commonly involve an element of disruption.

²³ Prakash and Gugerty 2010, 18.

²⁴ Goodwin and Jasper 2004, 16.

²⁵ Keck and Sikkink 1998, 2, see also Risse 2010.

²⁶ See Cooley and Ron 2001; Joachim 2003; Stroup 2012; Tarrow 2011.

²⁷ Walker, Martin, and McCarthy 2008.

²⁸ Cooley and Ron 2001.

²⁹ Stroup 2012.

³⁰ See Clemens and Minkoff 2004; Dalton 1994; Wong 2012.

³¹ McCarthy and Zald 1977.

³² Dalton 1994.

³³ Barakso 2010.

³⁴ In a similar vein, Baumgartner and Leech (1998, 165) summarize their extensive review of the lobbying literature by concluding ‘our review [...] convinces us of two things: groups engage in a wide variety of lobbying tactics, and scholars have yet to explain how they choose among those tactics’.

environment in the same way, which poses a challenge to theories at the context level. And many organizations change tactics without altering their other attributes. For example, in our data we observe that 20 per cent of NGOs sponsored at least one protest action in 2008, while 61 per cent did so in 2009.³⁵ So while many actors are altering their tactics, challenging organizational-level theory, there is no strategic convergence among groups, which challenges context-level theory. We argue that the origins of this widespread, but not all-encompassing, protest wave in climate politics are not well accounted for in current theory.

We expand on existing work by proposing a third source of opportunities and constraints – the structure of relations within the advocacy network itself.³⁶ Because NGOs are embedded in a network of relationships with other groups, their decisions may be affected by relational pressure from their peers. Our approach is novel but anticipated in the theoretical origins of the advocacy network literature. In this foundational work, transnational advocacy networks are traditionally viewed as ‘communicative structures’ through which social influence can flow.³⁷ However, with some notable recent exceptions,³⁸ existing scholarship has tended to treat advocacy networks as internally undifferentiated in order to better examine the effects of advocacy on external outcomes. Our study advances work in this area by adopting social network analysis to guide the formulation and testing of relational hypotheses.³⁹

THE IMPORTANCE OF NETWORK EMBEDDEDNESS

As Hafner-Burton, Kahler and Montgomery⁴⁰ explain, ‘network analysis permits the investigation and measurement of network structures – emergent properties of persistent patterns of relations among agents that can define, enable, and constrain those agents’. To say that actors are embedded in relational networks highlights the patterns of ties that allocate resources, roles, information and meaning differentially.⁴¹ NGOs have relationships with other organizations working in the same sphere. Regularity in these relationships defines the structure of the advocacy network and, in turn, the relevant peer groups to which an organization will be exposed. As Marsden and Friedkin⁴² put it, the challenge of social network research is to determine ‘the social relations that provide a basis for the alteration of an attitude or behavior by one network actor in response to another’. Meeting this challenge requires answering two prior questions. First, which sets of actors constitute the ‘peers’ from whom influence flows in the network? And secondly, how will actors respond to peer behavior?

Social Influence and Reference Groups

We draw on a rich tradition in social network analysis that suggests that actors often obtain guidance for their own decisions by considering the actions of a reference group of similar others.⁴³ A reference group contains other actors (alters) that are visible to the actor of interest (ego). We note that the only necessary precondition for social influence is that an actor have

³⁵ See Mitchell and Schmitz (2014, 10) for a similar account based on qualitative interviews.

³⁶ Carpenter et al. 2014; Diani 2003; Hafner-Burton, Kahler, and Montgomery 2009, 560; Lecy, Mitchell, and Schmitz 2010; Rohrschneider and Dalton 2002; Sikkink 2009; Wang and Soule 2012.

³⁷ Keck and Sikkink 1998; Risse, Ropp, and Sikkink 1999.

³⁸ See Carpenter 2014; Murdie 2013; Prakash and Gugerty 2010, 300; Price 2003; Sikkink 2009.

³⁹ Hafner-Burton, Kahler, and Montgomery 2009; Ward, Stovel, and Sacks 2011.

⁴⁰ Hafner-Burton, Kahler, and Montgomery 2009, 559.

⁴¹ Granovetter 1985; Emirbayer 1997; Jackson and Nexon 1999; Mische 2003.

⁴² Marsden and Friedkin 1993, 127.

⁴³ Rogers 1995; Soule 2004.

information regarding the behavior or attitudes of other actors in the system.⁴⁴ As a result, social influence in networks can be intended or unintended, and is not restricted to situations in which actors are engaged in direct persuasive communication. Reference groups define the scope for social influence and can be conceptualized in two main ways.

First, many studies suggest that actors obtain guidance from the behavior of alters with whom they have direct ties – actors that are *adjacent* to them in their social networks. These ties can be based on a variety of relationships between ego and alter. In our data, we measure adjacency on the basis of two organizations co-sponsoring an event. Other relationships that could produce adjacency between NGOs could include exchanging emails, transfer of resources, turnover of staff or joint participation in a formalized advocacy coalition.

Adjacency can result in social influence through *communication*, where connected actors share ideas, information and resources with one another. For example, a well-known study by Galaskiewicz and Wasserman⁴⁵ argues that a corporation is more likely to make a charitable contribution if it has shared personnel with another corporation that already engages in such practices. The process of social influence through communication with adjacent peers overlaps with the way scholars typically study policy diffusion and constructivist notions of socialization.⁴⁶ In our population, it is reasonable to assume that NGOs commonly communicate with their partners in the process of organizing joint events.⁴⁷ We argue that this communication between ego and alter may become the basis for information sharing, learning and social pressure regarding tactical choices.

A second approach argues that ego should be influenced by a reference group of actors that are *equivalent* to ego in the social network. Strict structural equivalence describes a situation in which ego and alter have identical patterns of ties to the same other actors. But strict structural equivalence is relatively rare, and in practice most researchers relax the assumptions for strict equivalence to consider the degree to which ego and alter may occupy the same relational role in a social system.⁴⁸ In our data, we consider two organizations to be equivalent to the extent that they have similar patterns of ties to other groups in the network.

For example, our NGO network contains clusters that resemble a ‘hub-and-spoke’ configuration.⁴⁹ In such a network, the ‘hub’ organizations sponsor joint events with many other organizations, while the ‘spoke’ organizations are typically connected to the network only by joint events with a hub group. Substantively, one reason a hub-and-spoke network structure may arise is because many NGOs specialize in different sub-issues within the realm of climate change. These groups may particularly benefit from collaboration with multi-issue ‘hub’ organizations. In this framework we would expect the ‘spoke’ groups to have a high degree of structural equivalence with one another by virtue of similar patterns of ties to the ‘hubs’.⁵⁰

A process of *comparison* of ego’s behavior to the reference group of equivalent actors can also result in social influence. In this process, ego may ask whether or not the behavior in question is appropriate, desirable, or necessary ‘for actors like me’ or ‘for actors in

⁴⁴ Friedkin 1998.

⁴⁵ Galaskiewicz and Wasserman 1989; see also Davis 1991.

⁴⁶ For example, Bush 2011; Checkel 2005; Finnemore 1993.

⁴⁷ Wang and Soule 2012.

⁴⁸ See Wasserman and Faust (1994); Doreian, Batagelj, and Ferligoj (2005) for greater detail regarding the concept and measurement of equivalence.

⁴⁹ Wasserman and Faust 1994.

⁵⁰ We note that this example is not the only situation that produces equivalence in our network, but we provide this anecdote for illustrative purposes.

my position'.⁵¹ For example, Mizruchi⁵² finds that structural equivalence among firms that share a common market position drives similar types of corporate political behavior, including campaign contributions and congressional testimony. Social influence via comparison with equivalent peers is often described in sociological institutionalist and world society approaches that focus on mimesis and isomorphism.⁵³

In our case, it is reasonable to assume that NGOs are aware of the tactical choices of peers who occupy a similar position in the network. Such behavior is consistent with the strategic process that many groups use to evaluate the policy environment in order to plan advocacy campaigns; it is also frequently revealed in qualitative interviews with practitioners in our (and other) NGO populations.⁵⁴ For example, in our data the international offices of Friends of the Earth and World Wildlife Fund (two 'hubs' in the network) have a high degree of structural equivalence. While these groups do not frequently engage in joint events (giving them low measures of adjacency), it is reasonable to assume that these offices keep themselves generally aware of each other's tactical choices and may be influenced by one another's decisions via comparison.

Previous studies in international relations have drawn on both adjacency and equivalence measures to track the influence of networks on actors in different substantive issue areas, including finance, environment and security.⁵⁵ Our study builds on this existing work by considering how social influence via adjacency and equivalence can operate simultaneously. Methodologically, considering the possibility of influence via equivalence requires moving beyond treating network characteristics as actor attributes to be incorporated into standard regression models.⁵⁶ Tackling equivalence requires data and methods to account for the whole social system, which makes autocorrelation models especially relevant.

Behavior of Ego

Previous work establishes that influence can flow from equivalent and adjacent peers at the same time.⁵⁷ But how does information about the reference group affect ego's behavior? We suggest that there are two possibilities: ego may match the behavior of the reference group, or ego may choose to contrast its behavior with the reference group.

Most network studies have examined the tendency for ego to *match* the behavior of alter. This assumption has a strong basis in social psychology, as there is a documented tendency for individuals to resolve social conflict in groups.⁵⁸ But in applying the insights of network analysis to NGO behavior, we also consider the possibility that ego may have reasons to *contrast* its behavior with alter. Recent NGO scholarship advancing a market-oriented approach suggests that NGOs often seek to distinguish themselves from one another in order to compete for rival goods such as attention, supporters and funding.⁵⁹ For example, Barakso documents how organizations working within the US environmental movement stake out a specific position vis-à-vis their peers by adopting distinct tactical profiles that allow them to appeal to supporters

⁵¹ Burt 1987, 1291.

⁵² Mizruchi 1989.

⁵³ DiMaggio and Powell 1983, 1952; Meyer et al. 1997.

⁵⁴ See also Buthe, Major, and Souza (2012); Carpenter et al. (2014); Mitchell and Schmitz (2014) for additional qualitative evidence of the importance of relational processes in NGO populations.

⁵⁵ Hafner-Burton and Montgomery 2006; Maoz et al. 2006; Oatley et al. 2013; Patterson et al. 2013.

⁵⁶ Ward, Stovel, and Sacks 2011.

⁵⁷ Burt and Doreian 1982; Galeskiewicz and Wasserman 1989; Strang and Tuma 1993.

⁵⁸ Friedkin 1998.

⁵⁹ Barakso 2010; Bob 2005; Johnson and Prakash 2007; King and Soule 2008; Sell and Prakash 2004.

with narrow preferences.⁶⁰ The sociological concept of the ‘radical flank’ similarly suggests that some organizations may choose to radicalize their tactics in order to compete with moderates for attention and support.⁶¹

Complementing this theoretical current in NGO research, our interviews with practitioners suggest that these complex relational dynamics are potentially relevant for our population. Climate change NGOs are acutely aware that other organizations are simultaneously their most important potential partners and their biggest competitors. As one respondent succinctly explained the dilemma:

If you’re working on an issue, there’s only so many foundations or sources of funding to support that work [...]. There is this sort of [...] trying to make a space for yourself within a certain issue, which frustrates me because I think that we’re all working towards this very big goal and we should be all working together [...]. The need for funding and having the recognition for the issues that we work on is a large part of that.⁶²

NGOs often need to work together to achieve their desired policy outcomes, but they must also sometimes ‘make a space for themselves’ in order to preserve organizational vitality. As tactics are one of the most visible ‘markers’ of organizational space in the environmental movement,⁶³ our research considers the possibility that a change in tactics in the reference group may either produce matching or contrasting choices on the part of ego.

Processes of Peer Influence

In our analysis we test two hypotheses regarding the influence of adjacent and equivalent peers on the tactical choices of ego. We test these two hypotheses simultaneously: both peer groups could influence ego at the same time. But given the possibility that ego may either match or contrast with the behavior of these two peer groups, we could find evidence consistent with two different relational processes for each set of peers. We map our expectations for the four resulting relational processes in Table 1 and describe each process in detail below.

We first seek to examine the influence of adjacent peers on the behavior of a particular NGO. We argue that the tactical choices of an organization’s adjacent peers should have a discernable effect on its own strategies.

HYPOTHESIS 1: An organization with more adjacent alters employing protest tactics in 2008 will utilize more (fewer) protest tactics in 2009.

Statistical significance allows us to determine whether adjacent peers have an effect on ego’s behavior. The direction of the results suggests whether ego has a tendency to match or contrast with its adjacent peers: positive significance would be evidence consistent with the process of *social cohesion*, while negative significance would be consistent with the process of *social divergence*.

The *social cohesion* process suggests that organizations that are adjacent to one another should tend to have similar behavior via a process of communication. Many contagion and diffusion of innovation studies fall into this category. For example, Barnett’s⁶⁴ study of global

⁶⁰ Barakso 2010.

⁶¹ Haines 1984.

⁶² Interview, Friends of the Earth USA 2014.

⁶³ Barakso 2010; Dalton 1994.

⁶⁴ Barnett 2011; see also Hadden 2015.

TABLE 1 Reference Group Definition and Relational Processes

		Relational processes	
		Match	Contrast
Reference group definition	H1: Adjacency	Social cohesion (+)	Social divergence (-)
	H2: Equivalence	Mimetic isomorphism (+)	Niche differentiation (-)

humanitarianism demonstrates how ideas like ‘participation’ and ‘empowerment’ spread among actors in the NGO community, leading organizations to increasingly adopt ‘best practices’ based on widespread social norms. If we are observing a process of *social divergence*, organizations may adopt strategies that contrast with the efforts of their adjacent peers. For example, Chandler⁶⁵ discusses how humanitarian and human rights groups may co-operate on many issues but choose very different advocacy strategies when working in difficult political environments, as human rights groups sometimes develop a more contentious posture when they feel that their humanitarian group partners have become complicit in supporting government abuses.

Our analysis also examines the influence of equivalent peers. We argue that the tactical choices of an organization’s equivalent peers should have a discernable effect on its own strategies.

HYPOTHESIS 2: An organization with more equivalent alters employing protest tactics in 2008 will utilize more (fewer) protest tactics in 2009.

Again, statistical significance allows us to determine whether equivalent peers have an effect on ego’s behavior. The direction of the results suggests whether ego has a tendency to match or contrast with its adjacent peers: positive significance would be consistent with the *mimetic isomorphism* process, while negative significance would suggest the *niche differentiation* process.

The *mimetic isomorphism* process suggests that organizations in equivalent positions will tend to have similar behavior via a process of comparison. For example, Wong⁶⁶ demonstrates that the political salience of Amnesty International is explained by the organization’s decisions regarding the centralization of its decision making. Her concluding chapter suggests that other big NGOs seeking to be dominant in their fields – like Greenpeace International and Oxfam International – made similar choices, partially due to the perceived success of the Amnesty model.⁶⁷ The *niche differentiation* process suggests that organizations contrast their behavior with that of their equivalent peers due to competition for resources and attention.⁶⁸ For example, Carpenter⁶⁹ shows how NGOs seek to distinguish themselves from similar others working in

⁶⁵ Chandler 2001.

⁶⁶ Wong 2012.

⁶⁷ See also Hunter (1979, 247) for a practitioner’s account.

⁶⁸ Burt and Talmud (1993) discuss the extensive overlap between network concepts of structural equivalence and what population ecologists call the ‘niche’. While population ecologists generally assume that differentiation happens at the time of the organization’s birth, here we extend the concept to allow that organizations may alter their tactics at critical junctures in order to respond to a changing organizational environment.

⁶⁹ Carpenter 2014.

the same field by adopting unique issues, which causes important topics to be left off the agenda when their adoption does not create a unique brand identity for a specific organization.

A QUANTITATIVE ANALYSIS

We test these hypotheses by examining an original dataset of transnational climate change NGOs working in the European Union (EU), including information regarding their attributes, the institutions they target and their relationships with one another from 2008 to 2009. This time period is important for two reasons. First, very few climate change NGOs (20 per cent) were employing protest tactics when engaging in transnational action at the outset of the study. As others have documented, climate change advocacy has traditionally revolved around providing scientific information via conventional lobbying strategies.⁷⁰ Thus the adoption of protest tactics for engaging in transnational climate change advocacy was a strategic innovation in this time period about which there was likely to be uncertainty, making the ‘success’ of the tactic unknown at the outset and the choices of the reference group especially salient.⁷¹

Secondly, a great deal of international climate policy making took place in the EU during this time period. This produced variation in the targets of advocacy, allowing us leverage on contextual hypotheses. The majority of our recorded events targeted either the EU (17 per cent) or the United Nations (UN) (42 per cent). In particular, NGOs were engaged in transnational advocacy targeting EU institutions over the course of developing the EU Climate and Energy Package, as well as during two important UN meetings in Poznan, Poland (2008) and Copenhagen, Denmark (2009). Other events targeted international institutions, transnational corporations or multiple national governments simultaneously.

Data Collection

We began collecting data on the population of actors in January 2008 and tracked their activities through December 2009. This data collection proceeded in three phases. First, we catalogued all transnational collective action that occurred on climate change in the EU from 2008 to 2009. To do so, we conducted an analysis of major news sources, following the tradition of ‘protest event analysis’ popular in the study of social movements.⁷² We searched a variety of news sources in Factiva and LexisNexis to identify relevant collective actions, using broad search terms included in the Appendix. These search terms returned 11,588 articles for the years 2008 and 2009. These reports were then hand coded, and 371 (3.2 per cent) involved a relevant collective action, and referenced 262 unique events. We discuss our strategy for tackling description and selection bias, as well as the concrete criteria for event selection, in the Appendix.

Secondly, we created a database of reported events from the returned news items in 2008 and 2009. We then conducted additional document research on each event, seeking out copies of joint press releases, lists of organizational event sponsors and other primary source materials that were referenced in the news reports. This stage of data collection was essential to gathering accurate network data, as we found that newspaper articles were often inaccurate or incomplete in their reporting of organizations. We used this information to create a database of organizations and the events they sponsor, which we employ for two purposes. First, we

⁷⁰ See also Betsill (2008), Hadden (2015) and Hoffman (2008) on the advocacy strategies of climate change NGOs.

⁷¹ Rogers 1995.

⁷² See Andrews and Edwards (2004); Earl et al. (2004); and Koopmans and Rucht (2002) for a general discussion of protest event analysis and the Appendix for more description of our research procedures. Also see Imig and Tarrow (2001); Joachim and Locher (2008); and Uba and Ugglá (2011) on EU activism.

construct a one-mode matrix of network ties among 119 organizations in which ties are based on event co-sponsorship in 2008. While there is some data reduction associated with this technique, it is the appropriate strategy for our case because we aim to theoretically examine how organizations (1st mode) interact given their co-sponsorship of events together (2nd mode).⁷³ Secondly, we construct a measure of an organization's tactical profile in 2009, calculating the percentage of its events that were protest events in that year.

Finally, we collected information regarding the attributes of each organization that sponsored a collective action in 2008 by systematically coding the websites of organizations that appeared in the sample. We collected data on the number of staff and age of an organization, as well as whether its mission statement or annual report indicated it engages in service provision activities, and whether it has a structure that permitted individuals to join as members. In most instances, this information was available publicly or through the internet archive.⁷⁴

Measurement

We employ two network matrices to test our relational hypotheses. First, we use an adjacency matrix (*Adjacent Peers*) to measure how frequently each pair of organizations co-sponsored an event. Following previous network studies, we consider co-sponsorship of an event as a measure of partnership and communication between two organizations.⁷⁵ Secondly, we use an equivalence matrix (*Equivalent Peers*) to measure how structurally equivalent two organizations are (described below). Following previous network studies, we consider structural equivalence to capture the extent to which organizations occupy similar roles in the network.⁷⁶ We introduce a time lag in our autocorrelation between reference group behavior in 2008 and ego's behavior in 2009 in order to minimize concerns about reverse causation in our model.⁷⁷

The dependent variable in this study is the percentage of protest events that an organization sponsored in 2009. For example, if an organization sponsored four total actions, two of which were protest events, it would have an overall repertoire of action that was 50 per cent protest events. We also introduce a number of variables to account for alternative explanations of protest tactics, which helps to minimize concerns about homophily bias in our analysis. Specifically, we measure the *Age* and number of *Staff* of an organization, the latter of which is commonly used as a proxy for the size of its budget.⁷⁸ We also employ dummy variables to measure whether an organization engages in direct *Service Provision* activities, such as running international development programs or engaging in land conservation, and whether it has a structure that permits *Individual Members* to join the organization. In our final model we also include a measure of an organization's *Previous Protest*, calculated as the percentage of protest events the organization sponsored in 2008, to capture its predisposition toward protest.

We address contextual hypotheses by including a measure of how often the organization targeted particular institutional actors. As we expect the EU to be exceptionally open to conventional advocacy and to provide funding for this purpose, we expect those organizations sponsoring a large number of actions that have an *EU Target* more often will be less likely to

⁷³ Borgatti and Everett 1997.

⁷⁴ Available online at <https://archive.org/index.php> (last accessed 9 July 2015).

⁷⁵ Wang and Soule 2012; see also Patterson et al. 2013.

⁷⁶ See Mizruchi 1989; Wasserman and Faust 1994.

⁷⁷ Fowler et al. 2011; Galeskiewicz and Wasserman 1989; Marsden and Poldony 1990.

⁷⁸ We note that some organizations in our sample have no paid staff and are entirely run by volunteers. We consider it an advantage of our data collection approach that we were able to identify these smaller and informal groups, which may be missed by data collection efforts relying on institutional records or published rosters or directories.

TABLE 2 *Descriptive Statistics for Organizational Attributes*

Variables	Mean	Standard deviation	Min	Max	N
<i>Individual Members</i>	0.74	0.44	0	1	117
<i>Staff</i>	35.24	64.57	0	427	109
<i>Service Provision</i>	0.25	0.44	0	1	118
<i>Age</i>	22.58	14.21	1	51	117
<i>Previous Protest</i>	0.13	0.31	0	1	118
<i>EU Target</i>	0.17	0.27	0	1	119
<i>UN Target</i>	0.42	0.37	0	1	119

employ protest tactics. In other analyses (included in the Appendix) we include a measure of *UN Target*, calculated as the percentage of an organization's events in 2009 that targeted the UN, in order to capture the idea that the Copenhagen summit was a particularly favorable opportunity for protest. Table 2 contains descriptive statistics for each of these variables.

In some versions of the analysis we also include an additional matrix to measure the national embeddedness of the NGOs in our dataset. Stroup argues that national origin is an important determinant of both networks and tactics;⁷⁹ indeed, distinguishing the effect of peer networks from the effect of homophily due to shared environment is an important test of our theory. For this matrix we consider organizations to be adjacent if they have their headquarters in the same country. We note that this matrix is highly distinct from the two relational matrices (see Appendix), suggesting that the network is genuinely transnational and that ties are not overly patterned by national origin.

Finally, we formulate a relational matrix in which organizations have ties if they are members of the same umbrella organization, in this case indicating whether the organization was a national office of Greenpeace, Friends of the Earth or the World Wildlife Federation. About half of our organizations are members of a broader umbrella organization. That this matrix is moderately correlated with both the adjacency and equivalence matrices indicates that this connection is an important component of transnational co-operation in the network more generally, but is far from the only source.

As noted above, some of the weight matrices we employ in our models are significantly correlated, but none of the correlations is high enough to warrant multicollinearity concerns (see the Appendix for the raw correlations and significances calculated via permutation tests).⁸⁰ Simulations have shown that very dense weight matrices are problematic for network autocorrelation models because they underestimate the significance of the effect of the given matrices.⁸¹ These simulation results would indicate that due to the correlation of the matrices, our results might be even more significant than observed.

Methods

Our analysis has two aims. First, we aim to establish whether organizations are influenced by the decision of their peers. We do this by employing network autocorrelation models.⁸² These models allow us to examine the extent of autocorrelation between actors' behavior and the

⁷⁹ Stroup 2012.

⁸⁰ Gujarati 2009.

⁸¹ Mizruchi and Neuman 2008; Neuman and Mizruchi 2010; Smith 2008.

⁸² Anselin 2013; Burt 1987; Elhorst 2010; Galaskiewicz and Burt 1991; Leenders 2002.

network distance between them by adding a new covariate to a linear model that represents, for each individual, a linear combination of their alters' value of the dependent variable and the weighting assigned from the different supplied weight matrices. This attempts to account for autocorrelation in the dependent variable, and is an appropriate strategy even in relatively small samples.⁸³

To address the problems of using a proportional dependent variable in a regression, we transformed the proportion of sponsored events per organization that were coded as protest events using a Bayesian transformation. We calculated an estimation of the underlying rate of protest behavior as the posterior mean of a Jeffrey's prior and the binomial distribution for the number of protests and number of total events sponsored. While many prior distributions are available, the Jeffrey's prior is theoretically appropriate,⁸⁴ and the selection of the Jeffrey's prior from a set of similar priors makes little real difference.⁸⁵ A more detailed discussion of the technical aspects of this transformation is provided in the Appendix. We then convert this to the logit scale so that we are able to estimate the log-odds of a sponsored activity being a protest event. The end result of this transformation is an approximately normally distributed variable suitable for estimation via the network autocorrelation model (see Appendix). All models were fit using maximum-likelihood estimation via the *lnam* routine in the SNA package for R.⁸⁶

Our analysis uses four different matrices in the network autocorrelation model, each of which was normalized to sum to 1 so that the magnitudes of each are comparable. We follow Leenders⁸⁷ in specifying the adjacency matrix using the raw weighted matrix, allowing actors to become more influential if they sponsor events more often with ego. The equivalence matrix was derived first by calculating the hamming distance between each pair of nodes (how many ties would organization A have to change to perfectly mirror organization B), and then converting it to a similarity score indicating the extent to which organization A has similar ties to organization B.⁸⁸ The matrices for country and umbrella organization are identity matrices coded as 1 if two organizations are from the same country or umbrella organization, respectively. These were also normalized by the total sum.

RESULTS

The results of these models are presented in Table 3. Model 1 is a simple linear regression in which we consider only the variables that measure attributes of the organization and its tendency to target particular institutions. In Model 2 we introduce network autocorrelation between ego's *Adjacent Peers* and ego's own behavior. Including the adjacency matrix substantially improves the fit of the model, with a difference in BIC of 43.5. This provides strong support for the claim that considering network embeddedness expands our ability to explain tactical choices. In Model 3 we add the network autocorrelation between ego's *Equivalent Peers* and ego's own tactics. Structural equivalence is negative and non-significant, and the BIC of Model 3 compared to Model 2 worsens by 4.7. This provides support for Hypothesis 1 but not for Hypothesis 2.

⁸³ Wang, Neuman, and Newman 2014.

⁸⁴ Rubin and Schenker 1987.

⁸⁵ Lunn et al. 2012.

⁸⁶ Butts 2008. Our R code for this analysis will be available at the time of publication.

⁸⁷ Leenders 2002; Paez, Scott, and Volz 2008.

⁸⁸ See Burt and Dorein (1982, 117, 125); Leenders (2002, 35) for information on the transformation.

TABLE 3 *Network Autocorrelation Models*

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Individual Members</i>	0.227 (0.239)	0.060 (0.187)	0.070 (0.187)	0.036 (0.185)	0.160 (0.180)	0.152 (0.180)
<i>Staff</i>	0.001 (0.002)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
<i>Service Provision</i>	-1.018*** (0.262)	-0.526* (0.208)	-0.528* (0.209)	-0.565** (0.208)	-0.372 (0.199)	-0.353 (0.203)
<i>Age</i>	-0.007 (0.008)	-0.002 (0.006)	-0.002 (0.006)	-0.002 (0.006)	-0.002 (0.006)	-0.002 (0.006)
<i>EU Target</i>	-1.656*** (0.399)	-0.937** (0.317)	-0.935** (0.317)	-0.928** (0.313)	-1.240*** (0.320)	-1.223*** (0.231)
<i>Adjacent Peers</i>		52.620*** (4.475)	53.230*** (6.247)	49.972*** (4.877)	41.798*** (7.012)	41.612*** (7.058)
<i>Equivalent Peers</i>			-7.785 (58.250)			
<i>Country</i>				18.053 (11.282)		
<i>Umbrella Membership</i>					27.743*** (6.904)	27.816*** (6.924)
<i>Previous Protest</i>						0.120 (0.242)
Intercept	0.440*** (0.274)	0.028 (0.214)	0.281 (0.215)	0.294 (0.212)	0.031 (0.203)	0.286 (0.208)
Adj. R Squared	0.262	0.493	0.494	0.449	0.344	0.343
BIC	377.1	333.6	338.3	336.1	327.2	331.8

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In Model 4 we introduce an additional matrix to capture spatial autocorrelation among actors. Here, organizations are considered to have a tie if they are based in the same country. Including a spatial autocorrelation matrix does not substantively alter our results and is not itself statistically significant. In Model 5 we introduce an additional matrix to capture autocorrelation among organizations that are part of the same umbrella organization. *Umbrella Membership* is positive and significant, although its magnitude is only two-thirds of the *Adjacent Peers* term. The overall BIC of Model 5 is improved by 6.4 over Model 2. As a final test, Model 6 examines whether an organization's previous sponsorship of protest events (*Previous Protest*) predicts its likelihood of doing so in the future. *Previous Protest* is not itself significant, and its addition does not change the significance or magnitude of the other terms in the model.

Our results suggest that relational explanations complement explanations that operate at the contextual and organizational levels. We note that several attribute variables, including *Staff*, *Age* and *Individual Members*, are not significant in any of these models, including Model 1. This surprising finding echoes recent survey research on this topic,⁸⁹ and may reflect the fact that organizations operating transnationally are relatively similar in their attribute profiles. Consistent with theoretical expectations, we do find that a tendency to target the EU is significantly associated with a decreased likelihood of employing protest tactics. Whether this is due to the relatively open decision-making structure of the EU or the

⁸⁹ Tallberg et al. 2015.

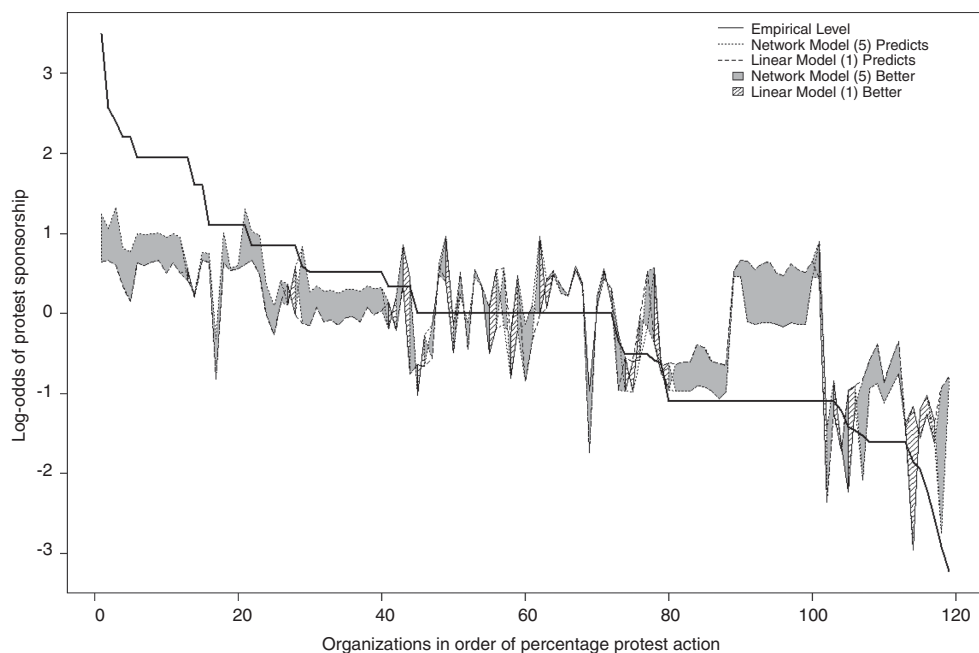


Fig. 1. A comparison of Models 5 and 1

availability of funding for conventional advocacy in this context cannot be discerned from these data.

To further demonstrate how the network approach improves our ability to explain tactical choices, we compare the best-fitting network model (Model 5) with the linear model (Model 1) by visualizing the empirical and predicted results for the full range of organizations in Figure 1. This visualization demonstrates that Model 5 outperforms Model 1 for both organizations that often participated in protest events and those that rarely did so.

To understand the relative magnitude of the coefficient for *Adjacent Peers*, we use Model 5 to calculate the difference in predicted probabilities for a sample organization, *Ecologistas en Accion* (see qualitative evidence below), under two conditions: (1) in the organization's actual network position in 2008 and (2) in a new network position, where we added one tie between *Ecologistas en Accion* and an organization with an action profile in 2008 of purely protest events. The end result, after converting from log-odds back to probabilities, was a 3 per cent increase in the likelihood of sponsoring a protest event in 2009. Given that organizations may add multiple ties each year, these results suggest that peer choices can exert a substantively meaningful effect on an organization's tactical decisions.

In all of our models we find evidence of a similar relational process at play. We find a positive and significant relationship between the tactical choices of ego's adjacent peers in 2008 and ego's own tactical choices in 2009, providing evidence of *social cohesion*. However, we find no evidence of a relationship between ego's equivalent peers' behavior in 2008 and ego's behavior in 2009. While we observe that the coefficient on the term for equivalent peers is negative, consistent with the process of *niche differentiation*, the relationship is not statistically significant. While we believe relational processes are likely to operate in many populations of actors, we identify two scope conditions that may be relevant for explaining the outcomes we observe in this particular case. First, tactical choices are decisions regarding collective action,

and therefore benefit from peer matching. Relational dynamics may play less of a role for other kinds of strategic decisions that have primarily intra-organizational consequences. Secondly, the time period we analyze was a moment of great strategic uncertainty for the groups in the analysis. Relational dynamics may be more important under conditions of uncertainty, where the 'success' of a particular strategy cannot be easily observed.⁹⁰

QUALITATIVE EVIDENCE

Our quantitative analysis provides complementary evidence that NGOs are influenced by the tactical decisions of their peers. In this section we select two cases to illustrate the logic of our argument. We also present excerpts from qualitative interviews with practitioners in order to document that relational processes operate at the actor level within this population.

We note that our ability to predict tactical choices is expanded by considering network embeddedness, as visualized in Figure 1. From the total population of organizations we selected two NGOs – Ecologistas en Accion and Greenpeace Germany – to illustrate this argument further. Both organizations are nationally rooted NGOs (in Spain and Germany, respectively) that regularly participate in transnational advocacy. Both organizations also changed their tactics between 2008 and 2009. In 2008, Ecologistas en Accion employed entirely conventional tactics when engaging in transnational climate advocacy. But in 2009 its actions comprised 60 per cent protest events. Greenpeace Germany, however, participated in 67 per cent protest events in 2008. In 2009, the organization decreased to 50 per cent participation in protest events. Neither substantially altered their attributes or the institutions they targeted. Thus from the perspective of existing theory, these are puzzling cases of tactical transformation.

From the relational perspective, these choices are much more explicable.⁹¹ We illustrate our argument by visualizing the egonetworks of these two organizations in Figure 2. This figure displays the ties between organizations (circles) and events (triangles), where ties are based on joint event participation. Events are shaded according to whether they are protest events (black) or conventional events (white), and organizations are shaded by the percentage of protest action they employ in that year. As we can see, while Ecologistas en Accion participated in no transnational protest events in 2008, six out of their thirty adjacent peers frequently used protest tactics. We argue that participation in these events with groups using protest tactics provided a channel for communication between them (as described below), inducing Ecologistas en Accion to sponsor more protest events in 2009. Conversely, while two-thirds of the transnational events sponsored by Greenpeace Germany in 2008 were protest events, only two of their nineteen alters also participated in any protest events. We argue that joint event participation with more moderate peers served as a channel for communication here as well, ultimately producing a tactical moderation on the part of Greenpeace Germany in 2009.

Interview data provides evidence of how relational mechanisms operate in these two cases.⁹² In both interviews, respondents described how their relations with other groups provided opportunities and constraints in their decision making, altering their perception of costs and benefits. In the first case, a staff member from Ecologistas en Accion described a clear process in which the influence of peers created internal pressure for the increased use of protest tactics:

⁹⁰ Rogers 1995.

⁹¹ Our network model (Model 5) outperforms the attribute-only model (Model 1) in both cases, predicting 65 per cent protest event participation for Ecologistas en Accion and 48.5 per cent for Greenpeace Germany in 2009.

⁹² Interviews were conducted with a representative of each organization in December 2009.

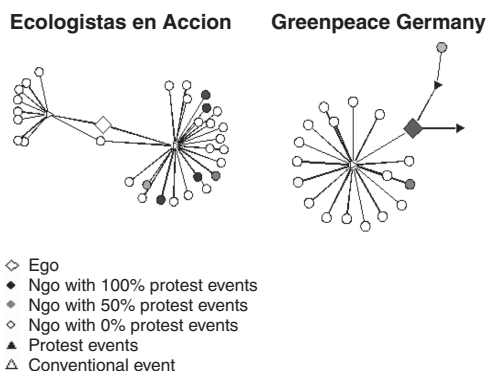


Fig. 2. *Ecologistas en Accion* and *Greenpeace Germany* egonetworks in 2008, shaded by percentage protest events

We came together in a new coalition in the past few years and this made us reconsider our approach [...] [This is important because] we don't want to be out on the streets alone [laughs] – we want to be out there with our allies, so they can't ignore us! Having our allies involved is very important from this perspective (interview, *Ecologistas en Accion* 2009).

In this case, the organization's ties with other organizations that had adopted protest tactics provided an opportunity to communicate about planned actions and an eventual social cohesion with the tactical choices of peers. Interestingly, this respondent also described how the *absence* of peers employing protest tactics could serve as a constraint on the use of this tactic. As the respondent described it, the organization would be unwilling to commit its reputation and resources to protest tactics until it knew that a sufficient number of other organizations would do the same. From this perspective, if peers are *not* adopting protest tactics, then the cost of doing so rises for the individual organization. At the same time, the likely payoff of such an action declines, as these actions are easily ignored when they occur in isolation. As the respondent explained, peers' decisions are crucial to weighing the costs and benefits associated with an organization's tactical options.

In the second case, a campaigner from *Greenpeace Germany* described how social cohesion with peers influenced the organization's decision to moderate its tactics in its transnational work. The respondent described a process whereby communication with peers results in carefully negotiated joint actions that often differ from the actions originally preferred by their organization:

When we work with others it changes the way we do things. It has to be that way because otherwise we would never reach an agreement on what we wanted to do. It seems like [when working in a transnational coalition] a lot of large groups set the tune, and we all tend to follow that (interview, *Greenpeace Germany* 2010).

This quote reveals how the practical need to collaborate with other organizations on advocacy events can constrain an organization's tactical choices. While *Greenpeace* is traditionally associated with protest tactics, the respondent describes a situation in which more moderate partners are able to 'set the tune' and exert pressure to obtain their preferred advocacy strategy. In this case, the respondent describes how the organization weighs its tactical options when working in a coalition, describing a clear trade-off between the benefits of collaboration and the costs of not using their preferred tactics. In this case, direct communication among frequent

collaborators caused Greenpeace Germany to shift its tactics away from protest actions, reflecting a clear process of social cohesion.

Examination of these two illustrative cases provides evidence that embeddedness in transnational advocacy networks influences NGO decisions via relational mechanisms, which complements our quantitative analysis. We find that network structure can serve as both an opportunity and a constraint in the realm of tactical choice. Future qualitative research could explore these relational mechanisms in much greater detail.

CONCLUSION

This article provides insight into three interrelated puzzles. The first concerns the widely acknowledged limitations of existing theory in explaining variation in NGOs' tactical choices. This article examines how such tactical choices are shaped by NGOs' embeddedness in transnational advocacy networks. Our careful research design allows us to tackle concerns regarding potential homophily bias, shared environment and reverse causality, providing support for the idea that NGOs tend to be socially cohesive and responsive to the decisions of their adjacent peers. These findings are in line with the expectations of classic work in this field that such networks will serve as channels for communication.⁹³ We suggest that future empirical research could examine the impact of network embeddedness on the behavior of actors in different geographical areas, in more or less uncertain time periods, and for other types of strategic choices. More theoretical attention should be paid to examining how organizational characteristics may condition the impact of ties on behavior, how social ties may offset the influence of institutional incentives, and how relationships of adjacency and equivalence may arise under different conditions.

Secondly, we extend previous work on transnational advocacy networks by offering an explanation of the observed tactical diversity among climate change NGOs. As anticipated in the foundational work on this topic, there is a great deal of social cohesion among organizations with direct ties. But organizations generally have a limited number of partner organizations; this creates a situation in which groups may be differentially embedded within the same network.⁹⁴ Because NGOs have different partners in this network, they may be exposed to different kinds of communication from their peers. This communication, in turn, produces disparity in tactical adoption, as our two examples illustrate. We argue that more attention needs to be paid to the structure of transnational advocacy networks in order to understand these kinds of complex social processes.⁹⁵

Thirdly, our study illuminates the surprising social processes by which macro-level collective action outcomes – here, social protest – emerge in world politics. These findings have important consequences for policy making concerning civil society participation in international institutions. Our results suggest that common practices in international institutions – including extending additional participatory opportunities to a greater number of NGOs or providing additional resources to encourage attendance – may not be sufficient to directly affect tactical choices. These results suggest that protest is not primarily a weapon of the weak or solely a response to limited opportunities. On the contrary, protest is seen here as the product of internal social processes that operate within advocacy networks. In this sense, transnational advocacy networks constitute their own spheres of governance in which particular peer

⁹³ Keck and Sikkink 1998; Risse, Ropp, and Sikkink 1999.

⁹⁴ See Murdie and Davis 2011, Figure 2.

⁹⁵ Our findings regarding the complexity of the climate change network echo those of scholars working in other issue areas, including trade issues, security and development. See also Carpenter et al. 2014; Clark, Friedman, and Hochstetler 1998; Hertel 2006; Murdie 2013; Smith and Wiest 2012; Stroup 2012; Tarrow 2005.

organizations may have the power to shape the strategies and behavior of others, with important normative and policy consequences.

Network embeddedness can create pressure toward certain kinds of choices; this by no means fully determines behavioral outcomes or undermines the importance of environmental pressures or actor agency. We stress the importance of relational processes because we believe they have been underemphasized in previous scholarship. Our case demonstrates how accounting for actor interdependence can improve our understanding of important political phenomena, and how the tools of social network analysis can be used to operationalize hypotheses regarding the scope and pathways of peer influence in world politics. Examining the role of relationships in guiding behavior reveals a complex and consequential layer of social organization that we are just beginning to explore.

REFERENCES

- Andrews, Kenneth, and Bob Edwards. 2004. Advocacy Organizations in the US Political Process. *Annual Review of Sociology* 30:479–506.
- Anselin, Luc. 2013. *Spatial Econometrics: Methods and Models*. New York: Springer Science & Business Media.
- Barakso, Maryann. 2010. Brand Identity and the Tactical Repertoires of Advocacy Organizations. In *Advocacy Organizations and Collective Action*, edited by Aseem Prakash and Mary Kay Gugerty, 155–76. New York: Cambridge University Press.
- Barnett, Michael. 2011. *Empire of Humanity: A History of Humanitarianism*. Ithaca, NY: Cornell University Press.
- Baumgartner, Frank, and Beth Leech. 1998. *Basic Interests*, Princeton, NJ: Princeton University Press.
- Bernauer, Thomas, and Robert Gampfer. 2013. Effects of Civil Society Involvement on Popular Legitimacy of Global Environmental Governance. *Global Environmental Change* 23 (2):439–49.
- Betsill, Michele M. 2008. Environmental NGOs in the Kyoto Protocol Negotiations: 1995–1997. In *NGO Diplomacy*, edited by Michele M. Betsill and Elisabeth Corell, 43–66. Cambridge, MA: MIT Press.
- Beyers, Jan, and Caelesta Braun. 2014. Ties that Count: Explaining Interest Group Access to Policy-Makers. *Journal of Public Policy* 34 (1):93–121.
- Bob, Clifford. 2005. *The Marketing of Rebellion: Insurgents, Media, and International Activism*. New York: Cambridge University Press.
- . 2010. The Market for Human Rights. In *Advocacy Organizations and Collective Action*, edited by Aseem Prakash and Mary Kay Gugerty, 133–54. New York: Cambridge University Press.
- Borgatti, Steven, and Martin Everett. 1997. Network Analysis of 2-Mode Data. *Social Networks* 19 (2): 243–69.
- Box-Steffensmeier, Janet, Dino Christenson, and Matthew Hitt. 2013. Quality Over Quantity: Amic Influence and Judicial Decision Making. *American Political Science Review* 107 (3):446–60.
- Burt, Ronald. 1987. Social Contagion and Innovation: Cohesion Versus Structural Equivalence. *American Journal of Sociology* 92 (3):1287–335.
- Burt, Ronald, and Ilan Talmud. 1993. Market Niche. *Social Networks* 15 (1):133–49.
- Burt, Ronald, and Patrick Doreian. 1982. Testing a Structural Model of Perception: Conformity and Deviance with Respect to Journal Norms in Elite Sociological Methodology. *Quality and Quantity* 16 (2):109–50.
- Busby, Joshua W. 2010. *Moral Movements and Foreign Policy*. Cambridge: Cambridge University Press.
- Bush, Sarah. 2011. International Politics and the Spread of Quotas for Women in Legislatures. *International Organization* 65 (1):103–37.
- Buthe, Tim, Solomon Major, and André de Mello e Souza. 2012. The Politics of Private Foreign Aid: Humanitarian Principles, Economic Development Objectives, and Organizational Interests in NGO Private Aid Allocation. *International Organization* 56 (4):571–607.

- Butts, Carter T. 2008. Social Network Analysis with SNA. *Journal of Statistical Software* 24 (6):1–51.
- Carpenter, Charli. 2014. *Lost Causes: Agenda Vetting in Global Issue Networks and the Shaping of Human Security*. Ithaca, NY: Cornell University Press.
- Carpenter, Charli, Sirin Duygulu, Alexander H. Montgomery, and Anna Rapp. 2014. Explaining the Advocacy Agenda: Insights from the Human Security Network. *International Organization* 68 (2): 449–70.
- Chandler, David. 2001. The Road to Military Humanitarianism: How the Human Rights NGOs Shaped a New Humanitarian Agenda. *Human Rights Quarterly* 23 (3):678–700.
- Checkel, Jeffrey. 2005. International Institutions and Socialization in Europe. *International Organization* 59 (4):801–26.
- Clark, Ann Marie, Elisabeth J. Friedman, and Kathryn Hochstetler. 1998. The Sovereign Limits of Global Civil Society: A Comparison of NGO Participation in UN World Conferences on the Environment, Human Rights, and Women. *World Politics* 51 (1):1–35.
- Clemens, Elisabeth, and Deborah Minkoff. 2004. Beyond the Iron Law: Rethinking the Place of Organizations in Social Movement Research. In *The Blackwell Companion to Social Movements*, edited by David A. Snow, Sarah Soule and Hanspeter Kriesi, 155–70. Malden, MA: Blackwell Publishing.
- Cooley, Alexander, and James Ron. 2001. The NGO Scramble. *International Security* 27 (1):5–39.
- Dalton, Russel J. 1994. *The Green Rainbow: Environmental Groups in Western Europe*. New Haven, CT: Yale University Press.
- Davis, Gerald F. 1991. Agents Without Principles? The Spread of the Poison Pill Through the Inter-corporate Network. *Administrative Science Quarterly* 36 (4):586–613.
- Diani, Mario. 2003. Networks and Social Movements: A Research Program. In *Social Movements and Networks: Relational Approaches to Collective Action*, edited by Mario Diani and Doug McAdam, 299–319. Oxford: Oxford University Press.
- DiMaggio, Paul, and Walter W. Powell. 1983. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review* 48 (20): 147–60.
- Doreian, Patrick, Vladimir Batagelj, and Anuska Ferligoj. 2005. *Generalized Blockmodeling*. Cambridge: Cambridge University Press.
- Dow, Malcolm M. 2007. Galton's Problem as Multiple Network Autocorrelation Effects: Cultural Trait Transmission and Ecological Constraint. *Cross-Cultural Research* 41 (4):336–63.
- Earl, Jennifer, Andrew Martin, John McCarthy, and Sarah Soule. 2004. The Use of Newspaper Data in the Study of Collective Action. *Annual Review of Sociology* 30:65–80.
- Elhorst, J. Paul. 2010. Applied Spatial Econometrics: Raising the Bar. *Spatial Economic Analysis* 5 (1):9–28.
- Emirbayer, Mustafa. 1997. Manifesto for a Relational Society. *American Journal of Sociology* 103 (2): 281–317.
- Finnemore, Martha. 1993. International Organizations as Teachers of Norms: The United Nations Educational, Scientific, and Cultural Organization and Science Policy. *International Organization* 47 (4):565–97.
- Fowler, James, Michael Heaney, David Nickerson, John Padgett, and Betsy Sinclair. 2011. Causality in Social Networks. *American Politics Research* 39 (2):437–80.
- Friedkin, Noah. 1998. *A Structural Theory of Social Influence*. New York: Cambridge University Press.
- Galaskiewicz, Joseph, and Ronald Burt. 1991. Interorganization Contagion in Corporate Philanthropy. *Administrative Science Quarterly* 36 (1):88–105.
- Galaskiewicz, Joseph, and Stanley Wasserman. 1989. Mimetic Processes Within an Interorganizational Field: An Empirical Test. *Administrative Science Quarterly* 34 (3):454–79.
- Goodwin, Jeffrey, and James M. Jasper. 2004. *Rethinking Social Movements: Structure, Meaning, and Emotion*. Lanham, MD: Rowman & Littlefield Publishers.
- Granovetter, Mark. 1985. Economic Action and Social Structures: The Problem of Embeddedness. *American Journal of Sociology* 91 (3):481–510.
- Gujarati, Damoder N. 2009. *Basic Econometrics*. New York: McGraw-Hill Education.

- Hadden, Jennifer. 2015. *Networks in Contention: The Divisive Politics of Climate Change*. New York: Cambridge University Press.
- Hafner-Burton, Emilie. 2008. Sticks and Stones: Naming and Shaming the Human Rights Enforcement Problem. *International Organization* 62 (4):689–716.
- Hafner-Burton, Emilie, and Alexander H. Montgomery. 2006. Power Positions. *Journal of Conflict Resolution* 50 (1):3–27.
- Hafner-Burton, Emilie, Miles Kahler, and Alexander H. Montgomery. 2009. Network Analysis for International Relations. *International Organization* 63 (3):559–92.
- Haines, Herbert. 1984. Black Radicalization and the Funding of Civil Rights: 1957-1970. *Social Problems* 32 (1):31–43.
- Heaney, Michel, and Geoffrey Lorenz. 2013. Coalition Portfolios and Interest Group Influence Over the Policy Process. *Interest Groups and Advocacy* 2 (2):251–77.
- Henning, Christian. 2009. Networks of Power in the CAP System of the EU-15 and EU-27. *Journal of Public Policy* 29 (2):153–77.
- Hertel, Shareen. 2006. *Unexpected Power: Conflict and Change Among Transnational Activists*. Ithaca, NY: Cornell University Press.
- Hoffman, Matthew. 2008. Where the States Are: Environmental NGOs and the UN Climate Negotiations. In *Transnational Activism in the UN and EU: A Comparative Study*, edited by Jutta Joachim and Birgit Locher, 29–42. New York: Taylor and Francis.
- Hunter, Robert. 1979. *Warriors of the Rainbow: A Chronicle of the Greenpeace Movement*. New York: Holt, Rhinehart, and Winston.
- Imig, Doug, and Sidney Tarrow. 2001. *Contentious Europeans: Protest and Politics in an Emerging Polity*. Lanham, MD: Rowman & Littlefield.
- Ingold, Karin, and Philip Leifeld. 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): 1–18.
- Jackson, Patrick Thaddeus, and Daniel Nexon. 1999. Relations Before States: Substance, Process and the Study of World Politics. *European Journal of International Relations* 5 (3):291–332.
- Joachim, Jutta. 2003. Framing Issues and Seizing Opportunities: The UN, NGOs, and Women’s Rights. *International Studies Quarterly* 47 (2):247–74.
- Joachim, Jutta, and Birgit Locher. 2008. *Transnational Activism in the UN and EU: A Comparative Study*. New York: Taylor and Francis.
- Johnson, Erica, and Aseem Prakash. 2007. NGO Research Program: A Collective Action Perspective. *Policy Science* 40 (2):221–40.
- Kahler, Miles. 2009. Networked Politics: Agency, Power, and Politics. In *Networked Politics: Agency, Power, and Governance*, edited by Miles Kahler, 1–22. Ithaca, NY: Cornell University Press.
- Keck, Margaret E., and Kathryn Sikkink. 1998. *Activists Beyond Borders: Advocacy Networks in International Politics*. Ithaca, NY: Cornell University Press.
- King, Brayden, and Sarah Soule. 2008. Competition and Resource Partitioning in Three Social Movement Industries. *American Journal of Sociology* 113 (6):1568–610.
- Koopmans, Ruud, and Dieter Rucht. 2002. Protest Event Analysis. In *Methods of Social Movement Research*, edited by Bert Klandermans and Susan Staggenborg, 231–59. Minneapolis: University of Minnesota Press.
- Lecy, Jesse D., George E. Mitchell, and Hans Peter Schmitz. 2010. Advocacy Organizations, Networks, and the Firm Analogy. In *Advocacy Organizations and Collective Action*, edited by Aseem Prakash and Mary Kay Gugerty, 229–51. New York: Cambridge University Press.
- Leenders, Roger. 2002. Modeling Social Influence Through Network Autocorrelation: Constructing the Weight Matrix. *Social Networks* 24 (1):21–47.
- Lunn, David, Chris Jackson, Nicky Best, Andrew Thomas, and David Spiegelhalter. 2012. *The BUGS Book: A Practical Introduction to Bayesian Analysis*. Boca Raton, FL: CRC Press.

- Maoz, Zeev, Ranan D. Kuperman, Lesley Terris, and Ilan Talmud. 2006. Structural Equivalence and International Conflict: A Social Network Analysis. *Journal of Conflict Resolution* 50 (5):1–26.
- Marsden, Peter, and Joel Podolny. 1990. Dynamic Analysis of Network Diffusion Processes. In *Social Networks Through Time*, edited by Jeroen Weesie and Henk Flap, 197–214. Utrecht: ISOR/Rijksuniversiteit Utrecht.
- Marsden, Peter, and Noah Friedkin. 1993. Network Studies of Social Influence. *Sociological Methods and Research* 22 (1):127–51.
- McAdam, Doug, and Hillary Schaffer-Boudet. 2012. *Putting Social Movements in Their Place*. New York: Cambridge University Press.
- McAdam, Doug, Sidney Tarrow, and Charles Tilly. 2001. *Dynamics of Contention*. Cambridge: Cambridge University Press.
- McCarthy, John D., and Mayer Zald. 1977. Resource Mobilization and Social Movements: A Partial Theory. *American Journal of Sociology* 82 (6):1212–41.
- Meyer, John, David John Frank, Ann Hironaka, Evan Schofer, and Nancy Brandon Tuma. 1997. The Structuring of a World Environmental Regime, 1870–1990. *International Organization* 51 (4): 623–51.
- Mische, Ann. 2003. Cross-Talk in Movements: Rethinking the Culture-Network Link. In *Social Movements and Networks: Relational Approaches to Collective Action*, edited by Mario Diani and Doug McAdam, 258–80. Oxford: Oxford University Press.
- Mitchell, George, and Hans Peter Schmitz. 2014. Principled Instrumentalism: A Theory of Transnational NGO Behavior. *Review of International Studies* 40 (3):487–504.
- Mizruchi, Mark. 1989. Similarity of Political Behavior Among Large American Corporations. *American Journal of Sociology* 95 (2):401–24.
- Mizruchi, Mark, and Eric J. Neuman. 2008. The Effect of Density on the Level of Bias in the Network Autocorrelation Model. *Social Networks* 30:190–200.
- Murdie, Amanda. 2013. The Ties that Bind: A Network Analysis of Human Rights International Non-governmental Organizations. *British Journal of Political Science* 44 (1):1–27.
- Murdie, Amanda, and David R. Davis. 2011. Shaming and Blaming: Using Events Data to Assess the Impact of Human Rights INGOs. *International Studies Quarterly* 56 (1):1–16.
- Murdie, Amanda, and Dursun Peksen. 2014. The Impact of Human Rights INGO Shaming on Humanitarian Intervention. *Journal of Politics* 76 (1):215–28.
- Neuman, Eric J., and Mark S. Mizruchi. 2010. Structure and Bias in the Network Autocorrelation Model. *Social Networks* 32:290–300.
- Oatley, Thomas, Kindred Winecoff, Andrew Pennock, and Sarah Bauerle Danzman. 2013. The Political Economy of Global Finance: A Network Model. *Perspectives on Politics* 11 (1):133–53.
- Paez, Antonio, Darren M. Scott, and Erik Volz. 2008. Weight Matrices for Social Influence Analysis: An Investigation of Measurement Errors and Their Effect on Model Identification and Estimation Quality. *Social Networks* 30:309–17.
- Pappi, Franz Urban, and Christian H. C. A. Henning. 1998. Policy Networks: More Than a Metaphor? *Journal of Theoretical Politics* 10 (4):553–75.
- Patterson, Matthew, Matthew Hoffman, Michele Betsill, and Steven Bernstein. 2013. The Micro-Foundations of Policy Diffusion Towards Complex Climate Governance: An Analysis of the Transnational Carbon Emissions Trading Network. *Comparative Political Studies* 47 (3): 420–449.
- Prakash, Aseem, and Mary Kay Gugerty. 2010. *Advocacy Organizations and Collective Action*. New York: Cambridge University Press.
- Price, Richard. 1998. Reversing the Gunshots: Transnational Civil Society Targets Landmines. *International Organization* 52 (3):613–44.
- . 2003. Transnational Civil Society and Advocacy in World Politics. *World Politics* 55 (4):579–606.
- Risse, Thomas. 2010. Rethinking Advocacy Organizations? A Critical Comment. In *Advocacy Organizations and Collective Action*, edited by Aseem Prakash and Mary Kay Gugerty, 283–94. New York: Cambridge University Press.

- Risse, Thomas, Stephen C. Ropp, and Kathryn Sikkink. 1999. *The Power of Human Rights: International Norms and Domestic Change*. New York: Cambridge University Press.
- Rogers, Everett. 1995. *The Diffusion of Innovations*. New York: Free Press.
- Rohrschneider, Robert, and Russel J. Dalton. 2002. A Global Network? Transnational Cooperation Among Environmental Groups. *The Journal of Politics* 64 (2):510–33.
- Ron, James, Howard Ramos, and Kathleen Rodgers. 2005. Transnational Information Politics: NGO Human Rights Reporting, 1986–2000. *International Studies Quarterly* 49 (3):557–87.
- Rubin, Donald B., and Nathaniel Schenker. 1987. Logit-Based Estimation for Binomial Data Using the Jeffreys Prior. *Sociological Methodology* 17 (1):131–44.
- Sell, Susan, and Aseem Prakash. 2004. Using Ideas Strategically: The Contest Between Business and NGO Networks in Intellectual Property Rights. *International Studies Quarterly* 48 (1): 143–75.
- Sikkink, Kathryn. 2009. The Power of Networks in International Politics. In *Networked Politics: Agency, Power, and Governance*, edited by Miles Kahler, 228–47. Ithaca, NY: Cornell University Press.
- Smith, Jackie, and Dawn Wiest. 2012. *Social Movements in the World-System: The Politics of Crisis and Transformation*. New York: Russell Sage Foundation.
- Smith, Tony E. 2008. Estimation Bias in Spatial Models with Strongly Connected Weight Matrices. *Geographical Analysis* 41:307–32.
- Soule, Sarah. 2004. Diffusion Processes Within and Across Movements. In *The Blackwell Companion to Social Movements*, edited by David A. Snow, Sarah Soule and Hanspeter Kriesi, 294–310. Oxford: Blackwell Publishing.
- Strang, David, and Nancy Brandon Tuma. 1993. Spatial and Temporal Heterogeneity in Diffusion. *American Journal of Sociology* 99 (3):614–39.
- Stroup, Sarah. 2012. *Borders Among Activists: International NGOs in the United States, Britain, and France*. Ithaca, NY: Cornell University Press.
- Tallberg, Jonas, Lisa M. Dellmuth, Hans Agné, and Andreas Duit. 2015. NGO Influence in International Organizations: Information, Access, and Exchange. *British Journal of Political Science* (forthcoming).
- Tarrow, Sidney. 2005. *The New Transnational Activism*. New York: Cambridge University Press.
- . 2011. *Power in Movement*. New York: Cambridge University Press.
- Uba, Katrin, and Fredrik Ugglå. 2011. Protest Actions Against the European Union, 1992–2007. *West European Politics* 34 (2):384–93.
- UNFCCC. 2010a. Promoting the Principles of the Aarhus Convention in the Lead up to During and After the United Nations Climate Change Conference 2009, Copenhagen. Available from <http://unfccc.int/resource/docs/2010/smsn/igo/088.pdf>, accessed 25 March 2013.
- . 2010b. Report of the Subsidiary Body for Implementation on its Thirty-Third Session, held in Cancun from 30 November to 4 December 2010. New York, NY. Available from <http://unfccc.int/resource/docs/2010/sbi/eng/27.pdf>, accessed 25 March 2013.
- Walker, Edward, Andrew Martin, and John McCarthy. 2008. Confronting the State, the Corporation, and the Academy: The Influence of Institutional Targets on Social Movement Repertoires. *American Journal of Sociology* 114 (1):35–76.
- Wang, Dan, and Sarah Soule. 2012. Social Movement Organizational Collaboration: Networks of Learning and the Diffusion of Protest Tactics, 1960–1995. *The American Journal of Sociology* 117 (6):1674–722.
- Wang, Wei, Eric J. Neuman, and Daniel A. Newman. 2014. Statistical Power of the Social Network Autocorrelation Model. *Social Networks* 38 (1):88–99.
- Ward, Michael D., Katherine Stovel, and Audrey Sacks. 2011. Network Analysis in Political Science. *Annual Review of Political Science* 14:245–64.
- Wasserman, Stanley, and Katherine Faust. 1994. *Social Network Analysis: Methods and Applications*. New York: Cambridge University Press.
- Wong, Wendy. 2012. *Internal Affairs: How the Structure of NGOs Transforms Human Rights*. Ithaca, NY: Cornell University Press.