Communities and Brokers: How the Transnational Advocacy Network Simultaneously Provides Social Power and Exacerbates Global Inequalities

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Transnational advocacy networks (TANs) are the most common example of networks in international relations. Despite their familiarity, we know little about how advocacy networks of nongovernmental organizations (NGOs) are structured. Drawing on the cross-disciplinary concepts of emergent communities and distinct brokerage roles, we argue that the network may reinforce power disparities and inequalities at the very same time that it provides social power. TANs are similar to emergent communities of practice, with some organizations acting as various types of brokers within and between communities. Preexisting resources are more likely to lead global North organizations to occupy brokerage roles that provide additional agenda-setting and resource-allocating power. We build a dataset of the 3,903 NGOs connected through 1.3 million ties occurring through meetings and conferences for NGOs put on or coordinated by the United Nations. Using community detection methods, we identify four distinct communities in the overall NGO network, with differences in distributions of brokerage roles across communities. Examining the communities, brokerage role distributions, and preexisting power disparities can help us better understand the divergent findings in previous literature and conceptualize TANs.

Las redes transnacionales de defensa (Transnational Advocacy Networks, TAN) son el ejemplo más común de redes en las relaciones internacionales. A pesar de su familiaridad, sabemos poco sobre cómo se estructuran las redes de defensa de las organizaciones no gubernamentales (ONG). Basándonos en los conceptos interdisciplinarios de comunidades emergentes y roles de intermediación distintas, sostenemos que la red puede reforzar las disparidades y desigualdades de poder, al mismo tiempo que proporciona poder social. Las TAN son similares a las comunidades de práctica emergentes, con algunas organizaciones que actúan como diversos tipos de intermediarios dentro de las comunidades y entre ellas. Es más probable que los recursos preexistentes lleven a las organizaciones del Norte mundial a ocupar roles de intermediación que brindan un poder adicional de establecimiento de agendas y de asignación de recursos. Construimos un conjunto de datos de las 3903 ONG conectadas a través de 1,3 millones de vínculos que se producen a partir de reuniones y conferencias para ONG organizadas o coordinadas por las Naciones Unidas (ONU). A partir de métodos de detección de comunidades, identificamos cuatro comunidades distintas en la red general de ONG, con diferencias en la distribución de los roles de intermediación entre las comunidades. El examen de las comunidades, de la distribución de los roles de intermediación y de las disparidades de poder preexistentes puede ayudarnos a comprender mejor las conclusiones divergentes de la literatura anterior y a conceptualizar las TAN.

Les réseaux transnationaux de plaidoyer constituent l'un des exemples les plus courants de réseaux en relations internationales. Bien qu'ils nous soient familiers, nous ne savons que peu de choses sur la manière dont les réseaux de plaidoyer des Organisations non gouvernementales (ONG) sont structurés. Nous nous appuyons sur les concepts interdisciplinaires de communautés émergentes et de rôles de médiation distincts, et nous soutenons que le réseau de plaidoyer peut renforcer les disparités de pouvoir et les inégalités tout en offrant du pouvoir social exactement dans le même temps. Les réseaux transnationaux de plaidoyer sont similaires aux communautés de pratique émergentes, certaines organisations agissant en tant que divers types de médiateurs au sein des communautés et entre les communautés. Les ressources préexistantes sont davantage susceptibles d'amener les organisations des pays du Nord à endosser des rôles de médiation offrant un plus grand pouvoir de définition des agendas et d'allocation des ressources. Nous nous basons sur un jeu de données portant sur 3 903 ONG liées par 1,3 million de liens qui se sont établis dans le cadre de réunions et de conférences d'ONG organisées ou coordonnées par l'Organisation des nations unies (ONU). Nous avons employé des méthodes de détection de communautés et identifié quatre communautés distinctes dans le réseau global des ONG. Nous avons également décelé des différences dans les répartitions des rôles de médiation dans ces communautés. Examiner les communautés, les répartitions des rôles de médiation dans ces communautés. Examiner les communautés distinctes de la littérature précédente et à conceptualiser les réseaux transnationaux de plaidoyer.

Author's note. We appreciate Maryam Deloffre, Sigrid Quack, our reviewers, and the participants of the 2020 Beyond Cooperation and Competition: NGO-NGO Interactions in Global Politics Workshop of Käte Hamburger Kolleg/Centre for Global Cooperation Research for their insightful comments and suggestions. Huimin Cheng, Ping Ma, and Ye Wang acknowledge support from the US National Science Foundation grants DMS-1903226 and DMS-1925066. The data underlying this article are available on the ISQ dataverse, at https://dataverse.harvard.edu/dataverse/isq.

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Transnational advocacy networks (TANs) are the "most familiar example" of networks in international relations (IR) (Hafner-Burton, Kahler, and Montgomery 2009, 560). Made up primarily of nongovernmental organizations (NGOs) from around the world, the information, resources, and power of transnational advocacy actors have been argued to increase as a result of their networking behavior

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(Keck and Sikkink 1998, 2–9). By joining forces around a common cause, NGOs succeed in their collective struggle against repressive states or polluting governments, among the myriad of other advocacy causes.

Despite their familiarity as an example of networks in IR, there are still crucial unanswered questions about TANs and NGOs. How do NGOs network? What structures emerge as a result of their networking, and how do these structures and the nature of network ties contribute to power, community, and exclusion within the NGO world? While much research has argued that NGO networking improves advocacy outcomes and provides power to the powerless, other research has highlighted how the structure of advocacy networks may reinforce global power discrepancies (Bob 2005; Shumate and Dewitt 2008; Carpenter 2014). Instead of the network as an alternative to hierarchical modes of organization, the network structure could be reproducing a state-like hierarchy among NGOs.²

Research on TANs and NGOs has frequently used networking terminology, but actual network analysis has been limited. Empirical work on NGO-to-NGO networking has almost exclusively focused on organizations within a specific issue area or small set of issue areas, despite growing concerns about many issue-specific categorization systems (Plummer, Hughes, and Smith 2020).³ Existing work has predominately captured just a single snapshot in time, leaving us unable to examine how network structures emerge.⁴ We need more "systematic empirical research and theoretical explanations of the evolution of NGO interaction" (Schneiker 2017, 332). Further, a focus on "the emergent properties of international networks" is critical for a "meaningful substantive leap of knowledge about international relations" (Maoz 2017, 21).

We make four core contributions to push forward our understanding of NGOs and TANs while also responding to broader calls for more attention to emergent network properties in IR. First, we argue that the TAN should not be exogenously categorized by issue area or thought of as a collective whole. Instead, we need to think of the advocacy network as comprising *endogenously* emerging communities with boundaries that need to be detected instead of artificially enforced. A focus on emergent communities allows us to draw on the rich literature on transnational communities of practice (Adler 2005; Wenger 2006; Djelic and Quack 2010a). By using network methods to detect these emergent communities, our approach provides a useful first step to identify boundaries between communities of practice, something that existing literature has seen as a critical concern (Adler 2005, 5).

Second, we argue that NGOs take on various network brokerage roles within and across communities. In general, a network broker connects actors that would not otherwise be connected. The idea of network brokers is not new to either IR or NGO studies, but brokers have been previously theorized as a homogeneous group. Drawing on cross-disciplinary insights, we argue that there are distinct types of brokerage roles, with vastly different implications for the accumulation of power (Gould and Fernandez 1989; Stovel and Shaw 2012; Sullivan and Stewart 2017). The differentiation of brokerage role types is critically underexplored in IR. Disaggregating network brokerage into separate brokerage role types helps us to disentangle why the NGO networking could be simultaneously creating social power and worsening power inequalities.

Third, we argue that emergent NGO communities will develop distinct brokerage role patterns over time. Some communities will be composed mainly of brokers that operate within their communities, while other communities will have brokers that take on more of a gatekeeper or liaison role between communities. The different patterns of brokerage roles could imply a privileging of specific causes, approaches, and practices in some communities and a siloing off of other communities and causes. If NGO network connections help with information flow, innovation, and power to the extent previously suggested in much NGO and TAN scholarship, communities dominated by different types of brokers could develop differences in governance behaviors and advocacy success over time.

Fourth, we argue that NGOs from the global South may be pigeonholed into specific brokerage roles within and between communities. Existing work has found that advocacy network participation may be more difficult for underfunded organizations from the global South (Shumate and Dewitt 2008; Murdie 2014; Hadden and Bush 2020). In response, many NGOs and intergovernmental organizations have taken steps to reduce barriers of access for global South NGOs (Moloo 2011; Saner and Yiu 2018; Okumu 2019). However, even among the subset of global South organizations that are able to be included in the advocacy network, we argue that their inclusion may take remarkably different forms than their global North peers, further exacerbating power disparities. Brokerage and community dynamics may keep global South NGOs relegated to less powerful periphery positions, even when they have access and are included

We examine the empirical implications of our argument using a novel source of data that addresses many of the shortcomings of earlier empirical work in this area. Specifically, we built a dataset of the 3,903 NGOs connected through 1.3 million NGO-to-NGO ties occurring through United Nations (UN) meetings from 1992 to 2017. By looking at the totality of NGOs involved in UN meetings, we avoid the classification problems of previous issue-specific inquiries while also extending our examination of NGOs from the handful of progressive issues that dominate much of the NGO literature (Plumner, Hughes, and Smith 2020). By examining the network over an extended period, our dataset is also an improvement over existing datasets that focus only on a snapshot of time. We think this dataset will be incredibly useful for future researchers.

Our paper is organized as follows. First, we outline the existing literature on TANs and NGOs, paying particular attention to divisions within this literature. Next, we review the cross-disciplinary concepts of community and brokerage and apply these concepts to the study of NGOs and TANs. We present our argument and some implications that flow from our logic. We then describe our novel data and results. Our study concludes with some practical steps that the UN and other concerned actors can take to increase representation and limit unnecessary divisions within the NGO network.

¹We define NGOs as nonprofit organizations that are legal, voluntary, and not controlled by a state. Our project focuses on NGOs with an international focus or interest, as given by their involvement with the United Nations. Although other actors may also be part of TANs, as Keck and Sikkink (1998, 9) remark, "international and domestic NGOs play a central role in all advocacy networks".

²Networks are first presented in Keck and Sikkink (1998, 8) as "horizontal" and distinct from more hierarchical forms of traditional economic and political organizations.

³ For recent cross-disciplinary NGO network research, see Shumate and Dewitt (2008); Murdie (2014); Margolin et al. (2015); O'Brien et al. (2019); and Yang and Liu (2020).

 $^{^{\}overline{4}}$ Notable exceptions include Margolin et al. (2015) and O'Brien et al. (2019). Hughes et al. (2018) examine network ties between organizations and countries over time.

The Promise and Problems of TANs

NGOs are relatively powerless actors in international politics. They do not have standing militaries or deep coffers; many have no paid staff at all. NGOs regularly gather information, frame issues, educate populations, and mobilize to pressure more powerful actors to change behaviors and adopt specific policies. As the number of NGOs began to grow exponentially at the end of the Cold War, scholars recognized that organizations do not work in isolation (Brysk 1993). Successful advocacy often depends on organizations working together with others. In addition to working with other NGOs, organizations may work with local movement leaders, churches, labor unions, parts of various intergovernmental organizations, and sympathetic government officials. Connecting to other like-minded actors allows NGOs to improve their resources, amplify their message, and increase their reach.

Keck and Sikkink (1998, 7) call this "dense web of connections" between organizations the TAN. In certain situations, the TAN increases the advocate's power, leading targeted actors to make concessions in line with the advocate's desires, even if those targeted had previously resisted change. The TAN often works through a "boomerang pattern," where domestic advocates call out to their transnational network partners to increase both international pressure and resources. As DeMars (2005) points out, the overall advocacy network provides additional resources to involved organizations, giving them new tools through which to advocate for change. Networking increases the advocacy output and perceived success of involved organizations (Murdie 2014; Tallberg et al. 2018).

The characterization of the TAN by Keck and Sikkink (1998) marked a turning point in the study of international politics. Unlike traditional realists, Keck and Sikkink (1998) and later work by Risse, Ropp, and Sikkink (1999), among others, laid out how NGOs can become influential players on the world stage without substantial military or material resources. Through their scholarship, even the term "networks" became associated with a structure through which "otherwise weak actors" could "voice their interests and influence governance outcomes" in IR (Avant and Westerwinter 2016, 17). The first wave of scholarship that followed the seminal work of Keck and Sikkink (1998) often took a "network-as-actor" approach, where "the network is no longer just a way of describing relationships among actors, but an actor unto itself" (Elkins 2009, 46).

TAN scholarship then moved from a "network-as-actor" approach to a "network-as-structure" approach, examining relationships among the network actors. Newer scholarship critiqued the somewhat rosy view of NGOs and TANs that had dominated the turn of the millennium. Some of these critiques focused on the assumption that NGOs were more principled or altruistic than other actors in world politics (Bob 2005).⁵ Other "network-as-structure" critiques centered on how advocacy networks mirror global power inequalities, with influential organizations from the global North controlling the network for their personalistic goals. NGOs in the global South are often missing from the overall network and may become dependent on better-resourced global North NGOs (Murdie 2014; Okumu 2019; Hadden and Bush 2020). Although concerned NGOs and intergovernmental organizations have taken steps to increase global

South involvement, inequalities in access and resources still persist. Influential organizations often act as "gatekeepers," keeping new ideas and issues from permeating through the network (Carpenter 2014). The structure of the network also affects the strategies adopted by NGOs, sometimes limiting innovation (Wong 2012; Bush 2015; Hadden and Jasny 2019). There have been few attempts to reconcile the optimistic view of many of the early "network-as-actor" studies on NGOs and TANs with the more pessimistic "network-as-structure" research that followed.

We argue that the network science concepts of *community* and brokerage provide us with a rich theoretical lens through which to understand the complex nature of TANs and potentially reconcile the split in the extant literature. Community and brokerage are relatively new concepts to the growing network literature in IR, especially the literature on NGOs and TANs. We first outline how community detection helps us understand emergent divisions within the advocacy network. Next, we provide an overview of existing ideas of community within IR, focusing predominantly on insights from scholarship on transnational communities of practice. We then turn our focus to brokerage and brokerage roles. These concepts can significantly help us understand how the advocacy network can extend power to a social cause while reinforcing power inequalities among NGOs at the same time.

Communities in Network Science

Although sometimes implicit, TAN scholarship has not envisioned one advocacy network but many separate network structures. Networking is costly; it involves sharing information or resources for the common good. As such, an organization should only connect to others when it can benefit from the network partners' ideational and material resources. Over time, networking costs and benefits should lead to not one "dense web of connection" for NGOs but multiple distinct subnetworks unified over shared values, ideas, or targets (Keck and Sikkink 1998, 7).

This basic understanding of the creation and evolution of TANs fits well with network science scholarship on community detection (Newman 2006; Cheng et al. 2018). Networks have emergent properties: as connections occur, new subgroups can emerge within the structure (Maoz 2017). These endogenous groups or communities are determined both by the actors themselves and the evolving structure of the network. As Maoz (2017, 14) remarks, emergent communities form "naturally" over time as a result of the ties that actors develop.

A community is defined as a "group of nodes that are more tightly connected to each other than they are to the rest of the network" (Mucha et al. 2010, 876). For our purposes, the nodes are NGOs, and the network is the web of connections between organizations. Connections are based on shared relationships, projects, or discussions, among other possible network ties (Keck and Sikkink 1998). Within the overall network, we can identify certain communities that comprise NGOs more intricately connected to each other than to organizations outside the community.

⁵ Critiques now focus on how NGOs work with multiple audiences, both local and global. Differences in audience preferences limit NGO authority and constrain NGO choices (Stroup and Wong 2017; Balboa 2018).

⁶Gatekeeping may also be based on past experiences and trust, restricting access to sensitive information (Schneiker 2020).

⁷For notable exceptions in IR on brokerage, see Nexon and Wright (2007); Westerwinter (2014); Avant (2016); Avant and Westerwinter (2016); and Goddard (2018); these pieces do not fully disaggregate the concept of brokerage into distinct roles. For community, see Lupu and Traag (2013) and Maoz (2017). None of these works connect community detection and brokerage.

Community detection algorithms from network science help us to determine the best composition of communities in our advocacy network (Zhang and Cao 2017). Increasingly common in network science, community detection is succinctly summarized by Newman (2006, 8577):

"Community structure methods normally assume that the network of interest divides naturally into subgroups and the experimenter's job is to find those groups. The number and size of the groups are thus determined by the network itself and not by the experimenter."

Community detection insights do not provide us with testable hypotheses per se, other than the one crucial implication that there will be distinct communities identified in the overall network (Implication #1). For us, community detection is similar to data coding. We use community detection methods to identify endogenous communities in the network. Descriptive and qualitative research then help us interpret the validity of the assignment of NGOs into the communities identified.

Unlike most existing work on NGO networks, we do not assume that communities are driven only by broad issuefocus. Community detection methods allow us to remain open to endogenous complexity in community formation. Communities may be driven in part by shared characteristics or issue focus, but they also may form for a myriad of reasons particular to the evolving network structures. Organizations observe the network structure and the makeup of emerging communities and self-select into ties that reflect this structure and their interests. For example, NGOs may examine the network structure and make connections based on where they think they could be the most useful or where they think they could benefit the most from the existing pattern of ties. NGOs may want to join communities that help them address the problems and challenges they are concerned about, even if these problems straddle issue divides. In this way, we think the community detection approach captures the theoretical insights of the classic "network-as-actor" TAN scholarship and fits with existing conceptualizations of communities in IR, especially work on transnational communities of practice.

Communities in International Relations

Communities have been studied in many distinct ways within IR (Adler 2005; Djelic and Quack 2010a; Tsingou 2015; Deloffre 2016; Hutchison 2016; Schneiker and Joachim 2018). Perhaps one of the most well-known examinations of communities in IR is the study of epistemic communities. Epistemic communities comprise knowledge-based experts that come together for problem-solving and advocacy. Epistemic communities, security communities, and TANs are "different interpretations" of a broader term used in many social sciences, that of "communities of practice" (Adler 2005, 4).

Communities of practice are "groups of people who share a concern or passion and learn how to do it better as they interact regularly" (Wenger 2006, 1). The term originated in studies of apprenticeship and learning (Lave 1991). Communities of practice discover and share resources within a group that is focused on solving common problems (Koliba and Gajda 2009). Adler (2005, 17) asserts that TANs "are really communities of practice because a knowledge domain—for example, human rights—constitutes their likemindedness and practices." The conceptualization of a TAN by Keck and Sikkink (1998) also fits within the literature on transnational communities, a communitarian concept that includes communities of practice (Djelic and Quack 2010a, 16-17; Djelic and Quack 2011, 86). These concepts have already enriched studies of TANs and NGOs. For example, communities of practice insights have helped to explain social learning among NGOs in South East Asia (Gilson 2009) and the deepening of global accountability communities of NGOs over time (Deloffre 2016).

A greater focus on transnational communities of practice could further our understanding of NGOs and TANs in many ways. First, communities of practice scholarship allow us to connect to the "practice turn" within IR, focusing on the process of collective knowledge in action (Bueger and Gadinger 2015, 449). More attention to knowledge creation and dissemination practices may provide insights into how certain NGO practices, like shaming, became popular among some NGO communities and stayed popular even in locations where there was evidence of shaming backlash (Snyder 2020). In line with the communities of practice literature, shaming is a practice that may continue even when it starts to become unhelpful; it could take time to displace "oldtimers" within a community of practice to allow for innovation (Lave 1991, 74).

Second, communities of practice do not necessarily have fixed memberships. When transnational in nature, their members can be "highly dispersed ... across a multiplicity of countries that are rarely in direct contact" (Djelic and Quack 2010a, 19; see also Adler 2005, 4). The "fluid" nature of transnational communities can be a source of strength and innovation (Djelic and Quack 2010b, 381). Fluidity implies that actors can be involved with others in multiple communities (Adler 2005, 23). In existing studies of TANs and NGOs, we typically do not allow for fluid movement. Instead, potential involvement in the network is assumed based on the issue area. Further, studies on transnational communities of practice have focused on how "node-tonode connections get progressively embedded and set" over time (Djelic and Quack 2010b, 384). TAN scholarship has not historically focused on change over time, eliminating our ability to theorize and study how connections and network structures evolve.

Finally, transnational communities of practice need to be examined like a "pointillist painting," requiring us to look closely at the "dots" and "complexity" while also exploring the community as a whole (Djelic and Quack 2010b, 385). A "pointillist painting" approach could bridge the "network-as-actor" and "network-as-structure" literatures on TANs. Although each viewpoint may provide insights, both are required to get a full picture.

Connecting the communities of practice literature to community detection from network science may allow for innovation beyond our specific focus on TANs and NGOs. For example, in the literature on communities of practice, one potential concern is around community boundaries (Adler 2005, 5). Unlike membership in an intergovernmental organization, for example, there is no agreed-to list of parties

⁸ Our study sits at the intersection of the communities of practice and transnational community literatures (Adler 2005; Djelic and Quack 2010a, 2011). Our study does not fit as well with a communitarian "club" approach in that clubs require "elite peer recognition" where "members place a limit to the range of actors involved" (Tsingou 2015, 226–31). The NGO-to-NGO ties we examine are not limited and do not require elite peer recognition, although some club governance does exist in other NGO networking arenas (Schnieker and Joachim 2017). Similarly, our study does not fit with the definition of "affective communities" from Hutchison (2016) in that our communities are not responding to a traumatic event. Nonetheless, these are important alternative communitarian concepts for other NGO networking scholarship to consider.

to a particular community of practice. Membership is fluid (Djelic and Quack 2010b). Nonetheless, without boundaries, the concept of communities of practice and other communitarian approaches may be too vague to be particularly useful (Adler 2005, 5).

We contend that community detection from network science is a powerful and transparent way to begin identifying the boundaries of communities of practice. Community detection algorithms assume that communities are endogenous and evolving. Community detection methods help us find the boundaries between distinct communities, even given this fluidity. Further, by joining ideas of community with views of brokerage and brokerage roles, we are better able to understand the potential overlap between communities. Even beyond the study of NGOs and TANs, community detection and brokerage insights have much potential to help enrich studies of other IR topics, including communities of practice.

Brokerage in Networks

If TANs comprise endogenously emerging communities of practice, how can we understand the power disparities identified in the existing TAN "network-as-structure" literature? How can the network be a powerful actor for international political change, as identified in the TAN "network-as-actor" literature, and reinforce or exacerbate existing power inequities, as outlined in the later "network-as-structure" approach? We argue that network science and sociological discussions of distinct brokerage roles are vital to understanding this puzzle.

Brokerage is defined as a relationship "involving three actors, two of whom are the actual parties to the transaction and one of whom is the intermediary or broker" (Gould and Fernandez 1989, 910). In both network and social science more generally, a broker is an actor that connects two actors that are not directly connected themselves. We have brokers in many different aspects of our daily lives, from the real estate agent that brokers a deal between buyer and seller to the academic department head that serves as an intermediary between historically fussy colleagues. When focusing on advocacy networks, the broker is the NGO that connects two NGOs that otherwise would not have been connected. This could be the regional NGO that takes the interest of a local NGO and frames it for presentation to an international donor organization. It could be the sustainable development NGO that participates in discussions with both health and environmental organizations. An NGO could be a broker when it reaches out individually to transitional justice advocates and women's rights advocates after it meets with a victim. Brokerage is implicitly at the heart of our understanding of TANs: brokers are the organizations that help in connecting those with advocacy needs to those with resources.

In IR, brokerage is often thought to help with innovation (Avant 2016; Goddard 2018). However, sociologists have highlighted a "dual aspect of brokerage" (Stovel and Shaw 2012, 139). While brokerage does help transmit information and could help in the pursuit of a specific social, economic, or political goal, brokerage "often breeds exploitation, the pursuit of personal profit, corruption, and the accumulation of power," exacerbating "existing inequalities" (Stovel and Shaw 2012, 139). Brokers can accumulate power as they control information and access between actors. Brokers could selectively relay information for their own goals, ultimately earning more power while potentially stifling innovation. Brokers can gain "money, information, access to opportu-

nities, enhanced status, or ill-defined claims on side parties' loyalty" (Stovel and Shaw 2012, 153). This discussion of brokers' accumulation of power is very similar to "network-as-structure" critiques about TANs: specific organizations enhance their power from the network, using network information and resources for their own gain.

Further, research from organizational studies has shown that not all brokers accumulate equal benefits from their brokerage roles; certain brokers may lose status in the eyes of their peers. Because brokers are conduits, they may receive little attention and lack a clear identity themselves, ultimately hurting their status (Sullivan and Stewart 2017). Crucially, the possible negative effect of the brokerage may depend on the "actor's prior established status" (Sullivan and Stewart 2017, 26). Actors without a prior high status may not derive the same benefits from brokerage as their historically high-status peers.

In sociology and network science, the influential work of Gould and Fernandez (1989) connects ideas of community and brokerage. Network brokers take on distinct roles depending on whether they are acting as a broker between two organizations within a specific community or between communities. A particular organization can take on multiple brokerage roles in its networking ties to different organizations. There are four potential brokerage roles: coordinator, gatekeeper/representative, liaison, and itinerant. Figure 1 provides a graphical representation of these four brokerage roles of node 1. In figure 1, the color of the node represents its community, e.g., if nodes 1, 2, and 3 are all in the same color, they are in the same community.

First, a coordinator is a broker within one specific community (Gould and Fernandez 1989, 93). Within its community, a coordinator may have more resources or incentives to network than its peers. For NGOs, a coordinator broker could be a friendly organization that seems to know everyone. The NGO could transmit ideas or strategies between groups that might have trouble connecting directly. The status benefits that this coordinator receives for its brokerage role may only be known within its community.

Second, a gatekeeper/representative broker connects its community to an outside community. Because a gatekeeper/representative broker controls information and resource flow for members within its community, it can accumulate power. A gatekeeper/representative broker may be able to manipulate resource flows in personally beneficial ways; this broker may develop special skills that help it retain its role. Although not always using these terms, the gatekeeper/representative brokerage role has been talked about extensively in the "network-as-structure" literature on TANs. This is the NGO that can either facilitate or stop a new issue from making it to the broad advocacy stage (Bob 2005; Carpenter 2014).

Third, a liaison broker connects two actors from separate communities, itself not being a member of either community. Mediators between unions and management are a classic example of a liaison broker. The liaison broker may have interests that bridge communities, or it may have resources that allow it to connect when others do not. Liaison brokers may be capable of talking to diverse audiences, like the discussion by Stroup and Wong (2017) of "leading" international NGOs. Leading organizations "receive deference from difference audiences in global politics" (Stroup and Wong 2017, 2). These audiences "can be quite diverse in

⁹In directional data, gatekeeper and representative are separate categories, dependent on information flow. We follow other work in combining these categories when discussing nondirectional data (Athey and Bouchard 2013).

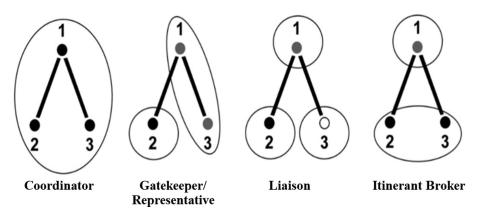


Figure 1. Brokerage roles (adapted from Gould and Fernandez 1989; Fernandez and Gould 1994).

their preferences," requiring the leading NGO to develop a moderated approach to advocacy (Stroup and Wong 2017, 2–3). Because the liaison broker is building connections across communities, it may be knowledgeable of the practices and customs of various communities.

Finally, an itinerant broker is a broker that is outside a specific community but connects members within that community. An itinerant broker may have special qualities or resources that enable it to connect to two actors within the same community even when those actors cannot connect themselves. For example, an itinerant broker could be the international NGO that serves to connect two domestic organizations at different sides of a country. Or, an itinerant broker could be an NGO that works to represent itself to others outside its area of expertise.

Unpacking brokerage into distinct brokerage roles is incredibly useful for theory building. To our knowledge, the conceptualization of these roles by Gould and Fernandez (1989) has received limited attention within IR. Further, even outside of IR, work on brokerage roles is not often connected to community detection methods; the focus is often on brokerage roles within and between exogenously determined groups of actors. For example, the original study of Gould and Fernandez (1989, 116) looked at brokerage roles for three subgroups within a network, "for-profit, public, and nonprofit organizations." Using community detection to identify our subgroups better captures the emergent nature of communities and the specific types of brokers that connect actors both within and between these emergent groups.

Community and Brokerage: Implications for NGO and TAN Research

By combining network science and social science understandings of emergent communities, transnational communities of practice, and brokerage roles, we are able to build a richer picture of TANs and NGO-to-NGO networking with many novel empirical implications.

Our theoretical logic is straightforward. First, we assume that networking is costly. NGOs with more resources should be more likely to be part of the advocacy network in the first place. As previous work has shown, organizations with fewer resources, like often those from the global South, may be left out of the advocacy network (Shumate and Dewitt 2008; Murdie 2014; Hadden and Bush 2020). Although many initiatives have tried to make it easier for global South NGOs to network, power disparities persist over time (Okumu 2019).

Further, even when a global South NGO joins the advocacy network, a lack of resources may still mean that it has fewer network connections than organizations with historically more resources.

Second, we assume that network ties can be beneficial for an NGO and the causes it represents. This assumption is consistent with the "network-as-actor" TAN literature. Networking provides tools for NGOs to use in their work and helps their efforts for social and political change (Brysk 1993; Keck and Sikkink 1998; DeMars 2005). This assumption is also consistent with recent empirical literature that has found that networking leads NGOs to produce more output and successfully advocate with intergovernmental organizations (Murdie 2014; Tallberg et al. 2018).

Because networking is costly but potentially beneficial, we contend that NGOs should network strategically, only expending resources for networking when they expect the benefits to outweigh the costs. Over time, strategic networking behavior will lead to the development of not one overall advocacy network but distinct communities. As NGOs work collectively to solve problems that they are passionate about, these communities will develop their own shared practices and knowledge (Adler 2005; Wenger 2006). Communities of NGOs will emerge endogenously, creating separation within the advocacy space. Community detection methods from network science will help us examine this simple but powerful implication: There will be distinct communities that emerge in the overall NGO network (Implication #1).

To note, community detection is not a method directly for hypothesis testing (Clauset, Newman, and Moore 2004). However, building both on the literature on community detection and communities of practice, our theoretical logic implies that we should see clear subgroups in the overall network. If TANs did not behave as communities of practice and networking was equally beneficial for NGOs regardless of the evolving structure of the network, we would not expect distinct communities to emerge; there would be just one community of all NGOs in the network. Instead, we contend that the nature of NGO networking and the need for specialized knowledge and practices will lead to multiple emergent communities. In line with this implication, the first goal of our empirical analysis is to identify emergent communities in the overall NGO network. Through investigating the detected communities qualitatively and descriptively, we can better understand the endogenous process underlying divisions in the NGO world.

As communities evolve, we should see distinct practices develop (Adler 2005; Wenger 2006). Communities will

adopt strategies that work best for their specific problems and dynamics (Bueger and Gadinger 2015). At the same time, NGOs with specific skills and habits will be drawn to certain communities. This implies that networking itself is a practice of the endogenously evolving community. Each community will develop distinct practices concerning how NGOs in their community connect with other NGOs inside and outside their community.

The typology of brokerage roles of Gould and Fernandez (1989) allows us to further examine how community structure can influence the nature of network ties. Some communities may have problems and practices that lead to more NGOs in coordinator brokerage roles, rarely venturing out of the specific community. Other communities may have practices and goals that facilitate connections across communities in distinct ways, leading to more itinerants, gatekeepers/representatives, or liaison brokers. Over time, NGOs in specific communities will develop similar practices, leading different communities to value certain brokerage roles more and attract organizations with the social power to retain these specific brokerage roles. Community-level differences in brokerage role patterns will both reflect and contribute to growing power disparities within the overall network. This logic implies that there will be an association between communities and brokerage role distributions: The emergent communities will have different and distinct distributions of brokerage roles (Implication #2).

As mentioned, brokerage roles can both provide power and favor the powerful (Stovel and Shaw 2012). Although existing work has found that the TAN may provide resources for all NGOs involved, these resources are not necessarily distributed evenly. Some organizations may potentially gain more power as a result of their particular brokerage roles. Similarly, it may take certain resources to gain specific brokerage roles, especially those roles that connect actors across different communities.

We argue that preexisting power disparities between NGOs in the global North and the global South provide an opportunity for some organizations to take on certain brokerage roles more easily. In particular, we contend that becoming an itinerant, a gatekeeper/representative, or a liaison broker requires both human and material resources that can be extended beyond one community. These intercommunity brokerage roles may also require an organization to speak to divergent audiences, something Stroup and Wong (2017) point out is often required of high-status NGOs. Moreover, organizations in intercommunity brokerage roles may then try to limit the ability of other organizations to take their social power, something found in previous work on gatekeeping in the NGO network (Carpenter 2014).

Conversely, remember that a coordinator broker connects actors within one community. Although this brokerage role would still favor the more powerful, becoming a coordinator broker may take comparatively less resources than other brokerage roles. As such, organizations without preexisting power may be more likely to take on this intracommunity brokerage role than the various intercommunity brokerage roles identified in Gould and Fernandez (1989).

This logic suggests that global North organizations may not only dominate the NGO network, as previously found, but that they may also dominate certain brokerage roles within and between emerging network communities. This implies: There is an association between being based in the global North and the specific brokerage roles adopted by NGOs in emergent communities (Implication #3).

Although straightforward, these implications help explain how networking by NGOs could improve advocacy through the creation of distinct communities while simultaneously exacerbating power inequalities through the distribution of brokerage roles and the power that can be obtained in some of these roles. Distinct communities may help NGOs develop repertoires of knowledge and tactics that help achieve shared goals. NGOs that connect these communities through specific brokerage roles can utilize their brokerage roles and their preexisting power to further inequality within the NGO network. As such, even when efforts are made to lower the barriers of access for organizations from the global South, the nature of the NGO network and its structure can still create a hierarchy. These ideas are thus opposed to traditional notions of the network as an alternative to hierarchical modes of organization.

Our Data

Although theoretically important, NGO networking data have been particularly difficult to gather. Scholars have used many innovative sources and approaches, including hyperlinks (Shumate and Dewitt 2008; Bush 2015), newspaper and event reports (Hadden and Jasny 2019), and data from the *Yearbook of International Organizations* (O'Brien et al. 2019).¹⁰

We take a somewhat different approach that allows us to examine the NGO network over time. Specifically, we crawled information on the UN's "integrated Civil Society Organizations (iCSO) System" during the summer of 2018 for NGO profiles.¹¹ This is a database of over 24,000 NGOs from all UN member states. Organizations opt into the database when they establish a relationship with the UN's Department of Economic and Social Affairs (DESA) or when they apply for consultative status with the Economic and Social Council. Participation in UN meetings as an NGO can also lead to an organization having a listing in the database. The UN's DESA NGO Branch is the "focal point within the UN Secretariat for non-governmental organizations." One of the NGO Branch's main goals is to "facilitate participation of NGOs to most of the intergovernmental processes taking place at United Nations headquarters and beyond" through its database and website (DESA 2019, "About Us"). In addition to listing an overall organizational objective, NGO profiles include "a general part (name, address, organization type), contacts and meeting participation, activities, and information related to the substantive areas of DESA" (DESA 2019, "Add Organizational Profile"). Figure 2 provides a screenshot of a sample organization's profile. 12

To obtain NGO-to-NGO network data, we first focused on the meetings that NGOs have attended over time. Figure 3 provides a screenshot of meeting participation for a sample organization.¹³

We were able to identify meetings NGOs attended from 1992 through 2017. We then turned this two-mode (organizations and meetings) network dataset into a one-mode network of NGO-to-NGO connections from joint meeting attendance (Wasserman and Faust 1994). The constructed

¹⁰ In the Online Appendix, we discuss the advantages of our dataset and how it reinforces previous findings on the predominance of global North organizations.

¹¹ https://esango.un.org/civilsociety/login.do.

¹² Retrieved summer of 2018.

¹³ Retrieved summer of 2018.



Figure 2. Screenshot of iCSO organizational profile.



Figure 3. Screenshot of iCSO meeting participation.

NGO-to-NGO network is an undirected weighted network, where a node represents an NGO. If two NGOs both attend the same meeting X times, we draw an edge between corresponding nodes, and assign this edge a weight X. In total, there were 3,903 organizations and 1,300,519 ties or edges. For our analysis, we deleted edges with a weight of one¹⁴ and remove isolated nodes, giving us a working dataset of 1,200 organizations, with edge total varying by year. There were 437,152 edges identified in the final year of the sample. After removing isolated nodes and edges with a weight of one, the remaining NGO organizations rarely registered on the UN's "integrated Civil Society Organizations (iCSO) System" before 2002. As a result, the final analysis focuses on the data from 2002 to 2017.

Figure 4 shows how the number of connections increases over time. As shown, there has been a leveling off of network growth since 2011. This is consistent with the practitioner and scholarly work that sees this decade as the "end of the golden age of NGOs" (Roche and Hewett 2013, 1; see also Bush and Hadden 2019).

We think this dataset will be incredibly useful for future researchers. We also believe it closely matches our concepts of interest. Joint meeting attendance provides an opportunity for NGOs to strategize, share information, change tactics, address targets, and form partnerships, all practices commonly thought of as NGO networking. Because the meetings' goals are typically problem-solving and education, network connections via these events are consistent with the literature on communities of practice (Wenger 2006). Additionally, we think this dataset provides an especially stringent examination of our empirical implications in that it examines a form of NGO networking that is relatively low cost. As Moloo (2011) points out, the UN has taken steps to increase and ease access for NGOs in the UN system, especially relevant for organizations from the global South. The UN's legitimacy in global governance rests on NGO involvement (Moloo 2011, 17). As such, the costs of networking may be lower than other comparable networking forums, increasing global South involvement and biasing us against finding evidence consistent with our implications, especially Implication #3.

Analysis

Community Detection

Our first task was to detect emerging communities within the NGO network. We used a time-varying stochastic block model to identify the optimal common composition of communities that maximizes modularity across years. For the static network at time t, the concept of modularity was

 $^{^{14}}$ This adjustment makes the dataset manageable and reflects the more stringent idea of networking as more than just a one-off event.

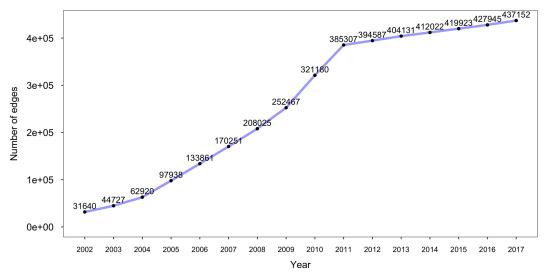


Figure 4. The NGO network over time.

introduced for networking clustering in 2004 (Newman and Girvan 2004):

$$\begin{array}{ll} \text{modularity } (t) \ = \frac{1}{2m_t} \sum_{\substack{i,\,j \text{ in same} \\ \text{community}}} \left(A_{ij} \left(t \right) - \frac{k_i(t) \, k_j(t)}{2m_t} \, \right) \\ \end{array}$$

where $A_{ij}(t)$ is the number of edges between vertices i and j (the quantities $A_{ij}(t)$ are the elements of the so-called adjacency matrix), $k_i(t)$ and $k_j(t)$ are the degrees of the vertices i and j, m_t is the total number of edges in the network $m_t = \frac{1}{2} \sum_i k_i(t)$, and the leading factor $\frac{1}{2m_t}$ is merely conventional for normalization. Zhang and Cao (2017) define the mean modularity of different time as the final modularity of the time-varying network. Modularity varies from 0 to 1. A higher modularity value indicates denser connections between nodes within communities (groups) and sparser connections between communities (groups) (Newman 2006; Zhang and Cao 2017; Cheng et al. 2018).

We adopted the modularity maximization method, a greedy community detection method (Zhang and Cao 2017). The algorithm iteratively builds new communities until the modularity reaches its maximum. Thus, the algorithm automatically provides us a rationale for the number of communities identified. If there were no subgroups within the network, the method would show us that only one community (the whole network) existed.

In line with our first empirical implication (Implication #1), we found four distinct communities within the overall network. Each community contains around 180 and 350 NGOs. We then examined the organizations in each emergent community closely to better understand the characteristics of each grouping. The names of the NGOs identified in each community are provided in our Online Appendix.

We first examined word clouds of the NGO names in each community, as shown in figure 5. Word clouds provide a useful starting point for a discussion of the patterns identified in our qualitative examination. However, there is nothing definitive that can be concluded only by viewing the word clouds. Many words are identified quite frequently in multiple communities' world clouds; a word's size in a specific word cloud is not directly comparable to the size of a word in another community's word cloud. The overlap of

words between communities helps illustrate the usefulness of the community detection approach. Previous approaches to NGO networking have often used issue-specific categorization systems. Through community detection, we are able to see divisions in groupings of organizations that would have historically all been placed in the same issue-specific category.

Community 1, which we have labeled the *Place-Based and* Faith-Based NGO Community, is composed of many smaller organizations that have names that reflect geographic locations, indigenous groups, or show a religious focus. This community had a larger proportion of the word "indigenous" in NGO names than the other identified communities, as determined by one-sided two-proportion z-tests (pvalue < .01 for comparisons to Communities 2, 3, 4). There also appears to be a focus on rights for specific groups (children's rights, disability rights, and elder rights, among others). Well-known organizations in this community include the Baha'i International Community, the Salvation Army, Caritas Internationalis (International Confederation of Catholic Charities), and the Arab Red Crescent and Red Cross Organization. Worth noting, even though this community includes more organizations with an indigenous or country-specific focus, it is still made up of a majority of organizations from the global North. The breakdown of global North and global South organizations in this community is not distinguishable from the breakdown in our other communities.

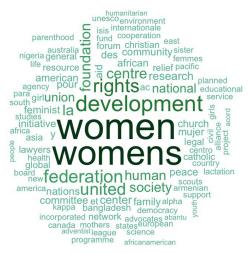
On average, organizations in *Community 1: Place-Based and Faith-Based NGO Community* have the lowest degree centrality score of any of our communities, as shown in table 1. Degree centrality is a measure of the total number of ties connecting an actor to others in the total network (Wasserman and Faust 1994). Because many of the organizations in *Community 1: Place-Based and Faith-Based NGO Community* are faith based, perhaps their specific membership structure and fundraising strategies limit the usefulness of copious networking with other NGOs. Similarly, because this community has many organizations that focus on specific types of group rights, there may not be as many choices for network partners that reflect a similar problem or policy goal.

Table 1 also shows that Community 1: Place-Based and Faith-Based NGO Community has one of the higher mean

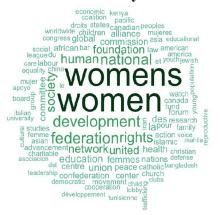
Community 1: Place-Based and Faith-Based NGO Community

university aboriginal far conference south rehabilitation information south rehabilitation information south rehabilitation information south rehabilitation information possible a solubilitation information students indigenous america disability students indigenous america disability global of del society cultural africa children indian rederation womens east los pour of foundation movement children indian rederation womens east los pour of foundation movement community peoples rights human por development asociacion medical american catholic research blind quebbo consultative consu

Community 3: Research and Policy NGO Community



Community 2: Textbook NGO Community



Community 4: Environmental Action NGO Community



Figure 5. Word clouds of NGO names in detected communities.

Table 1. Mean centrality of communities detected in the NGO network

	Community 1: Place-based and faith-based NGO community	Community 2: Textbook NGO community	Community 3: Research and policy NGO community	Community 4: Environmental action NGO community
Number of nodes	350	310	186	354
Mean degree centrality	143.87	317.32	329.71	167.27
Mean betweenness centrality	550.48	535.89	430.04	628.63

betweenness centrality scores. Betweenness centrality is closely related to ideas of brokerage; it captures the total number of shortest paths between nodes that go through a particular node (Wasserman and Faust 1994). Betweenness and degree centrality in table 1 record ties to the whole network; our brokerage role analysis later shows how ties differ between and within communities. The modularity value (0.25) of our network suggests many cross-community ties, providing opportunities for brokers.

Community 2, labeled the *Textbook NGO Community*, comprises arguably the most well-known international NGOs. Many of the organizations Stroup and Wong (2017) classify as "leading" organizations are in this community: Amnesty International, CARE International, Open Society, and Oxfam, for example. It is fascinating that the

community detection algorithm could group so many of these leading organizations together with no information other than their networking data; the grouping provides support for the validity of our method.

One-sided two-proportion z-tests lead us to conclude that organizations in *Community 2: Textbook NGO Community* have a higher observed proportion of the word "women" in their names than Communities 1 and 4 (*p*-value < .001) and a potentially higher proportion than Community 3 (*p*-value < .1). In addition to women's rights, organizations in this community also tended to focus broadly on development and human rights. As shown in table 1, *Community 2: Textbook NGOs*' mean organization is right in the middle of the various communities' mean degree centrality and betweenness scores.

Table 2.	Brokerage	role distribution	by community

	Community 1: Place-based and faith-based NGO community	Community 2: Textbook NGO community	Community 3: Research and policy NGO community	Community 4: Environmental action NGO community
Coordinator	55%	42%	0%	70%
Gatekeeper/representative	35%	51%	49%	23%
Liaison	10%	7%	29%	7%
Itinerant broker	0%	0%	22%	0%

Community 3, entitled the Research and Policy NGO Community, includes the smallest number of organizations of any of our communities. There are many professional organizations in this community, like the International Sociological Association, the American Psychological Association, and the International Studies Association. The community also includes foundations at both ends of the political spectrum, like the Kroc Institute for Peace and Justice, Focus on the Family, the Heritage Foundation, and the International Planned Parenthood Federation. The communities of practice scholarship would suggest that these organizations still benefit from shared learning and practices, despite their partisan divide (Wenger 2006). If learning could not transcend political boundaries, we would have expected our community detection algorithm to divide this community into two.

Organizations in *Community 3: Research and Policy NGO Community* have the highest average degree centrality score but the lowest average betweenness centrality score of any of our detected communities. This information could imply that organizations in this community are well funded but personally motivated, preferring to build connections to other NGOs themselves as opposed to relying on connections via other NGOs.

The final community, *Community 4: Environmental Action NGO Community*, has a large proportion of environmental organizations, including Greenpeace International, Earth Action, Friends of the Earth International, and the Sierra Club. The observed proportion of the term "environment" in NGO names in this community is more than the observed proportion in all the other communities (*p*-value < .001 for comparisons to Communities 1, 2, and 3). It is the largest of the communities we detected, and organizations in this community have the highest mean betweenness score, perhaps implying some comparative value in this community to connecting disconnected NGOs. A high mean betweenness score could also suggest that this community is efficient in its networking ties, choosing not to tie to organizations where pathways through others already exist.

Brokerage Roles

The second implication of our argument concerned the distribution of brokerage roles across communities. Some communities are likely to have more coordinator brokers, connecting organizations mainly within a specific community, while other communities could have more gate-keeper/representative, liaison, or itinerant brokers, connecting organizations outside of their specific community in divergent ways. In this way, brokerage provides power to organizations differently across communities.

Brokers must connect two organizations: only organizations with at least two neighbors were assigned a specific role. Any given NGO can take on multiple different brokerage roles in its various connections between organizations. For example, the organization Women's Human Rights International Association (WHRIA) in *Community 3: Research and Policy NGO Community* took on the role of a liaison broker in its ties between the Worldwide Organization of Women in *Community 2: Textbook NGO Community* and the Women's Environment and Development Organization in *Community 4: Environmental Action NGO Community*; WHRIA also took on the role of itinerant broker in its ties between the Academy of Mobilizing Rural Urban Action through Education and the Society for the Psychological Study of Social Issues, both in *Community 1: Place-Based and Faith-Based NGO Community*. Brokerage properties were determined using the "brokerage" command in the "sna" R package (Butts 2008). 15

For each organization, we identified the count of the total times the organization was in a particular brokerage role from the typology of Gould and Fernandez (1989). Since one organization may be in different brokerage roles at the same time, we identify which role the organization is in with the highest frequency and assign this role to the organization. For example, the organization WHRIA plays the role of coordinator 12,403 times, gatekeeper/representative 37,762 times, liaison 46,160 times, and itinerant 49,268 times. So, this organization is assigned the role of itinerant. We then compiled the overall distribution of brokerage roles for organizations in each community in table 2. A Chi-squared test allows us to reject the null hypothesis that there is no association between community and brokerage roles at the p < .05level, providing support to the idea that the distribution of brokerage roles is different across the communities (Implication #2).

There are many things in table 2 that are both interesting and surprising. First, Community 1: Place-Based and Faith-Based NGO Community and Community 4: Environmental Action NGO Community are similar in that they have their largest percentages (>50 percent) of brokers in coordinator roles, connecting unconnected organizations within their own communities. Community 4: Environmental Action NGO Community has the highest percentage of coordinator brokers (70 percent). This could make this community particularly prone to isolation from the overall network. Organizations in Community 4: Environmental Action NGO Community may see limited value in brokering with other communities but great value in brokering across organizations within their community, as also evidenced in their high mean betweenness score shown in table 1.

While *Community 2: Textbook NGO Community* also had a large percentage of coordinators, half of the brokerage roles in this community are gatekeeper/representative roles. This is consistent with many of the "network-as-structure" critiques of these household-name organizations (Bob 2005; Carpenter 2014). Somewhat surprisingly, there are no itinerant brokers in this group and a low percentage of liaison brokers (7 percent). Besides gatekeeping, the high status of

 $^{^{15}}$ Please see our Online Appendix for more on brokerage calculation.

those organizations in *Community 2: Textbook NGO Community* may mean they have less of a need to connect organizations in another community or to connect organizations across communities, as would be done with itinerant and liaison brokers.

Community 3: Research and Policy NGO Community is perhaps the most interesting and divergent in its role distribution. It is the only community where there are no coordinators, indicating that brokerage between organizations all within this community may be of little value. Given the divergent partisan bent of many of the NGOs in this community, organizations may have a need to form direct ties to other organizations instead of relying on brokered connections. Community 3: Research and Policy NGO Community is also the only community where we find itinerant brokers. This may be due to the large percentage of professional organizations in this community; these organizations often have missions to support the professional interests of their members to the outside world.

Preexisting Power and Brokerage Roles

The third implication of our theoretical argument was that specific brokerage roles in our detected communities are associated with global North status. Because of their pre-existing power and resources, global North organizations may be more likely to occupy roles that broker relationships across communities, namely gatekeepers/representatives, liaisons, and itinerant brokers. We coded NGOs with addresses in countries that are members of the Organization of Economic Co-operation and Development (OECD) as global North organizations; all other organizations with addresses listed are categorized as organizations from the global South.

Using addresses to categorize global North and global South organizations does not allow us to identify those organizations that are in the global North but have taken initiatives to increase global South representation unless the organization changes its listed address. While these initiatives are important steps to improve representativeness and solidarity, we agree with the many practitioners that have asserted that these initiatives are not a substitute for homegrown and home-led civil society from the global South (Salil 2015; Jackson 2020). Even when global North organizations move more of their operations to the global South, as Amnesty International and Oxfam have done in recent years, there are still issues of representativeness. As the secretary general of the NGO CIVICUS is quoted as saying in The Guardian in 2015, "[m]oving a big [organization] will not be that successful if it simply continues to concentrate power and resources" (Moorehead and Clarke 2015, 1). These concerns help reinforce our coding scheme, which uses addresses in the global North (OECD countries) as a proxy for preexisting power and resources. Preexisting resources persist even if an organization is currently taking steps to move "closer to the ground" and structure more of their operations in the global South (Moorehead and Clarke 2015, 1).

Our dataset shows that global South NGOs are relatively small and stable (around 20–30 percent) parts of the overall network. Despite efforts to increase representation, we see little movement in the percentage of global South NGOs involved in the network over time. If it is worth noting that there is no association (p > .05) between community and OECD status: all communities are made up of between 67

percent and 74 percent OECD organizations. For those interested in the representation of global South NGOs in UN meetings, this is potentially good news. It means that global South organizations are not being relegated to one specific community.

However, even when global South NGOs are involved in the network, we find that they are more likely to take on specific roles that broker within their community as opposed to between communities. In all four communities, we find an association between brokerage role types and OECD status (p < .05), consistent with the third empirical implication of our argument (Implication #3). Figure 6 summarizes the percentage of global North organizations in each brokerage role in each community. The horizontal line in each graph signifies the overall percentage of global North organizations in each community.

Remember again that coordinator brokers are those that connect organizations within a specific community. In the communities where there are coordinators (Community 1: Place-Based and Faith-Based NGO Community, Community 2: Textbook NGO Community, Community 4: Environmental Action NGO Community), these coordinator roles are filled with the lowest percentages of global North organizations. In other words, compared with other brokerage roles, global South NGOs have a higher percentage of organizations in coordinator roles. Conversely, gatekeeper/representative and liaison broker roles are filled with a higher percentage of global North organizations. These intercommunity brokerage roles could help reinforce the power of global North organizations as these brokers could control the flow of information and resources into and out of their communities or between multiple communities.

Community 3: Research and Policy NGO Community shows a very different pattern. Comparatively, this community has an increased percentage of global South organizations in intercommunity brokerage roles (gatekeeper/representative, liaison, and itinerant). Acting as a broker across communities may be especially important for the research and policy goals of NGOs in this community.

Additionally, Community 3: Research and Policy NGO Community was the only one of our identified communities to include brokers in an itinerant broker role. An itinerant broker connects unconnected members within a different community. The results concerning itinerant brokers in this community were surprising to us: only 63 percent of itinerant brokers are from the global North. Perhaps, for organizations in this particular community, networking into a separate community is a special priority, making it the brokerage strategy of choice for both organizations from the global North and the global South. However, this brokerage role may provide limited status gains in the organization's own community (Sullivan and Stewart 2017). Given the relatively little attention organizations in this community have received in the NGO literature, the unique patterns observed in Community 3: Research and Policy NGO Community are particularly interesting.

In sum, in the communities comprising organizations that have been the traditional focus of IR (Community 1: Place-Based and Faith-Based NGO Community, Community 2: Textbook NGO Community, Community 4: Environmental Action NGO Community), organizations from the global North, often thought of as those with high levels of preexisting power and resources, are not only more likely to be involved in the network but also more likely to take liaison and gatekeeper/representative brokerage roles within the emergent community structure. These intercommunity brokerage roles enable organizations to shape the advocacy

 $^{^{16}\}mathrm{See}$ the Online Appendix for more information on global South involvement over time.

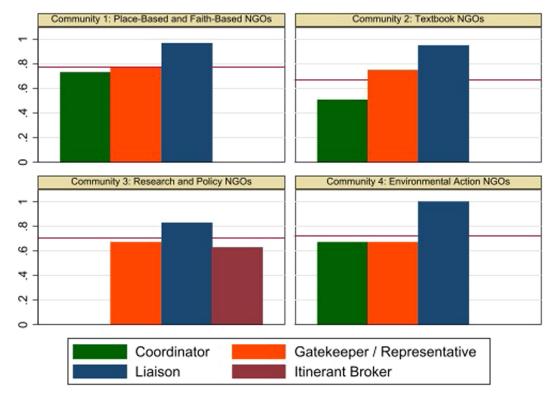


Figure 6. Global north percentages and brokerage roles.

agenda and control resources, ultimately reinforcing their personal power and status. For each community that represents the traditional focus of IR (Community 1: Place-Based and Faith-Based NGO Community, Community 2: Textbook NGO Community, Community 4: Environmental Action NGO Community), a larger percentage of organizations from the global South are in a coordinator broker role. Although this intra-community role may still give organizations access to the network, a coordinator role will not provide the agenda-setting or resource-allocating power associated with gatekeeper/representative or liaison roles. Through evolving communities and disparities in brokerage roles, the advocacy network could be exacerbating preexisting power inequalities.

Conclusion

Like a pointillist painting, understanding TANs and NGOto-NGO networking requires us to gaze at the "complexity" of the overall network structure while also closely examining the "dots" or NGOs that make up that structure (Djelic and Quack 2010b, 385). In this project, we have jointly examined the complex community structure of the overall network and the distribution of distinct brokerage roles within the network, providing a richer, more complete picture of TANs and NGO networking. Our work provides insights into a long-standing puzzle in the NGO literature: namely, why the "network-as-actor" literature sees so much promise in networks while the "network-as-structure" literature sees so much exploitation. While networking can create communities that help solve problems and share knowledge, the broker NGOs that connect these communities may be able to use their specific brokerage positions to garner more power for themselves.

A renewed emphasis on community detection and communities of practice insights can provide further insights on NGOs and TANs. We need to move beyond exogenously assuming that organizations within the same issue area network together. Instead, NGOs have problems and interests that lead more diverse communities to emerge. Some of these communities extend beyond ideological or partisan divides (Community 3: Research and Policy NGO Community), while other communities may be dominated by leading NGOs (Community 2: Textbook NGO Community) or certain coalitions of causes (Community 1: Place-Based and Faith-Based NGO Community and Community 4: Environmental Action NGO Community). Community detection methods help us establish the boundaries between communities of practice, eliminating the "vagueness" previously identified in communitarian approaches (Adler 2005, 23).

Further, by disaggregating brokerage into distinct brokerage roles, we identify variation in NGO and community networking practices. Some emergent NGO communities develop practices that privilege brokerage roles that connect organizations across communities, while others may comprise brokers that focus only within their community, potentially siloing off their community's advocacy causes and practices. Brokerage may help innovation, but it also reinforces hierarchy and power disparities. Preexisting power disparities, like between NGOs from the global North and the global South, lead to differences in brokerage role distributions. To our knowledge, the disaggregation of brokerage into distinct roles is not widespread in IR but has much potential for further theorizing both inside and outside of the study of TANs and NGOs.

Finally, our study offers a cautionary note for NGO practitioners and UN officials interested in ensuring a multitude of NGO voices at UN-facilitated meetings. Even if current efforts to increase access to global South NGOs are

successful, brokerage role dynamics and the community structure of the overall advocacy network may lead global South NGOs to be relegated to certain less powerful brokerage roles within communities, as opposed to the more powerful brokerage roles that transmit information and resources across communities. Hierarchy and power dynamics persist and could even be heightened as a result of well-intentioned but poorly planned initiatives to increase global South involvement.

Our dataset and findings could help in improving initiatives to increase global South representation in the NGO network, especially at UN meetings. First, future studies could use our dataset and findings to identify global South NGOs that are well embedded in the NGO network and occupy powerful brokerage roles between communities.¹⁷ Researchers and practitioners could examine these cases to identify common characteristics that help global South organizations flourish in the current NGO network. Examining these characteristics can provide us with potential best practices and may assist concerned donors with identifying organizations that are well positioned or "ripe" for additional assistance.

Second, our results suggest that efforts to increase global South involvement and representation across communities may be more helpful than efforts that facilitate involvement within a specific community. This may require grants or donations to foster attendance at multiple NGO meetings, hoping to facilitate connections in multiple communities of practice. To the extent that voices from global South NGOs are critical to UN legitimacy, easing the ability for NGOs to be involved in multiple meetings may help improve public opinion about the UN.

Moreover, simply acknowledging that historically powerful actors still dominate the NGO network could help encourage organizational reflection. In their attempt to build connections between organizations, those NGOs with preexisting power may get additional power. If global North organizations are committed to improved representation of global South NGOs, they may need to avoid brokering connections between other NGOs and instead create spaces where NGO ties can develop directly. Through these changes, the advocacy network may be better equipped to listen and respond to the plight of the world's powerless in ways that do not reinforce and exacerbate power disparities.

Supplementary Information

Supplementary information is available at the *International Studies Quarterly* data archive.

References

- Adler, Emanuel. 2005. Communitarian International Relations: The Epistemic Foundations of International Relations. London: Routledge.
- ATHEY, NICHOLAS, AND MARTIN BOUCHARD. 2013. "The BALCO Scandal: The Social Structure of a Steroid Distribution Network." *Global Crime* 14 (2–3): 216–37.
- AVANT, DEBORAH. 2016. "Pragmatic Networks and Transnational Governance of Private Military and Security Services." *International Studies Quarterly* 60 (2): 330–42.
- AVANT, DEBORAH, AND OLIVER WESTERWINTER, eds. 2016. The New Power Politics: Networks and Transnational Security Governance. New York, NY: Oxford University Press.
- 17 We thank an anonymous reviewer for this suggestion. The Online Appendix lists twenty global South organizations that are frequent intercommunity brokers. We hope future research will examine global South intercommunity brokers in more detail.

- BALBOA, CRISTINA. 2018. The Paradox of Scale: How NGOs Build, Maintain, and Lose Authority in Environmental Governance. Cambridge, MA: MIT Press.
- Bob, CLIFFORD. 2005. The Marketing of Rebellion: Insurgents, Media, and International Activism. Cambridge: Cambridge University Press.
- BRYSK, ALISON. 1993. "From Above and Below: Social Movements, The International System, and Human Rights in Argentina." Comparative Political Studies 26 (3): 259–85.
- Bueger, Christian, and Frank Gadinger. 2015. "The Play of International Practice." *International Studies Quarterly* 59 (3): 449–60.
- Bush, Sarah Sunn. 2015. *The Taming of Democracy Assistance*. Cambridge: Cambridge University Press.
- BUSH, SARAH SUNN, AND JENNIFER HADDEN. 2019. "Density and Decline in the Founding of International NGOs in the United States." *International* Studies Quarterly 63 (4): 1133–46.
- Butts, Carter. 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.
- Cheng, Huimin, Yi-Zi Ning, Zhao Yin, Chao Yan, Xin Liu, and Zhong-Yuan Zhang. 2018. "Community Detection in Complex Networks Using Link Prediction." *Modern Physics Letters B*, 32 (01): 1850004.
- CLAUSET, AARON, MARK EJ NEWMAN, AND CRISTOPHER MOORE. 2004. "Finding Community Structure in Very Large Networks." Physical Review E 70 (6): 066111.
- Deloffre, Maryam Zarnegar. 2016. "Global Accountability Communities: NGO Self-Regulation in the Humanitarian Sector." *Review of International Studies* 42 (4): 724–47.
- DEMARS, WILLIAM. 2005. NGOs and Transnational Networks: Wild Cards in World Politics. London: Pluto Press.
- DEPARTMENT (DESA). OF ECONOMIC AND SOCIAL Affairs 8, NGO Branch. 2019. Accessed August 2020. https://esango.un.org/civilsociety/showNewProfile.do?method= addNewProfile&sessionCheck=false.
- DJELIC, MARIE-LAURE, AND SIGRID QUACK. 2010a. "Transnational Communities & Governance." In *Transnational Communities: Shaping Global Economic Governance*, edited by Marie-Laure Djelic and Sigrid Quack, 3–36. Cambridge: Cambridge University Press.
- ——. 2010b. "Transnational Communities and Their Impact on the Governance of Business and Economic Activity." In *Transnational Communities: Shaping Global Economic Governance*, edited by Marie-Laure Djelic and Sigrid Quack, 377–413. Cambridge: Cambridge University Press.
- ——. 2011. "The Power of 'Limited Liability'—Transnational Communities and Crossborder Governance." Research in the Sociology of Organizations 33: 73–109.
- ELKINS, ZACHARY. 2009. "Constitutional Networks." In Networked Politics: Agency, Power, and Governance, edited by Miles Kahler, 43–66. Ithaca, NY: Cornell University Press.
- Fernandez, Roberto M., and Roger V. Gould 1994. "A dilemma of state power: Brokerage and influence in the national health policy domain." *American Journal of Sociology* 9 (99): 1455–91.
- GILSON, JULIE. 2009. "Learning to Learn and Building Communities of Practice: Non-governmental Organisations and Examples from Mine Action in Southeast Asia." Global Society 23 (3): 269–93.
- GODDARD, STACIE E. 2018. "Embedded Revisionism: Networks, Institutions, and Challenges to World Order." *International Organization* 72 (4): 763–97.
- GOULD, ROGER, AND ROBERTO M. FERNANDEZ. 1989. "Structures of Mediation: A Formal Approach to Brokerage in Transaction Networks." Sociological Methodology 19 (1): 89–126.
- HADDEN, JENNIFER, AND LORIEN JASNY. 2019. "The Power of Peers: How Transnational Advocacy Networks Shape NGO Strategies on Climate Change." British Journal of Political Science 49 (2): 637–59.
- Hadden, Jennifer, and Sarah Sunn Bush. 2020. "What's Different about the Environment? Environmental INGOs in Comparative Perspective." Environmental Politics 21 (1-2): 202–23.
- HAFNER-BURTON, EMILIE, MILES KAHLER, AND ALEXANDER MONTGOMERY. 2009. "Network Analysis for International Relations." *International Organization* 63 (3): 559–92.
- HUGHES, MELANIE, PAMELA PAXTON, SHARON QUINSAAT, AND NICHOLAS REITH. 2018. "Does the Global North Still Dominate Women's International Organizing? A Network Analysis From 1978 To 2008." Mobilization: An International Quarterly 23 (1): 1–21.
- HUTCHISON, EMMA. 2016. Affective Communities in World Politics. Cambridge: Cambridge University Press.

- JACKSON, SARAH. 2020. "Towards Transformative Solidarity: Reflections from Amnesty International's Global Transition Programme." Emory International Law Review 34 (3): 705–55.
- KECK, MARGARET, AND KATHRYN SIKKINK. 1998. Activists Beyond Borders: Advocacy Networks in International Politics. Ithaca, NY: Cornell University Press
- KOLIBA, CHRISTOPHER, AND REBECCA GAJDA. 2009. ""Communities of Practice" as an Analytical Construct: Implications for Theory and Practice." International Journal of Public Administration 32 (2): 97–135.
- LAVE, JEAN. 1991. "Situating Learning in Communities of Practice." In Perspectives on Socially Shared Cognition, edited by Lauren B. Resnick, John M. Levine and Stephanie Teasley, 63–82. Washington, DC: American Psychological Association.
- Lupu, Yonatan, and Vincent Traag. 2013. "Trading Communities, the Networked Structure of International Relations, and the Kantian Peace." *Journal of Conflict Resolution* 57 (6): 1011–42.
- MAOZ, ZEEV. 2017. "Network Science and International Relations." In Oxford Research Encyclopedia of Politics. 10.1093/acrefore/9780190228637.013.517.
- Margolin, Drew, Cuihua Shen, Seungyoon Lee, Matthew Weber, Janet Fulk, and Peter Monge. 2015. "Normative Influences on Network Structure in the Evolution of the Children's Rights NGO Network, 1977–2004." Communication Research 42 (1): 30–59.
- Moloo, Rahim. 2011. "The Quest for Legitimacy in the United Nations: A Role for NGOs." UCLA Journal of International Foreign Affairs 16 (1): 1–40.
- MOOREHEAD, JOANNA, AND SANDLER CLARKE. 2015. "Big NGOs Prepare to Move South, But Will It Make a Difference?" *The Guardian*, November 16. Accessed August 8, 2020. https://www.theguardian.com/global-development-professionals-network/2015/nov/16/big-ngos-africa-amnesty-oxfam-actionaid.
- Mucha, Peter, Thomas Richardson, Kevin Macon, Mason Porter, and Jukka-Pekka Onnela. 2010. "Community Structure in Time-Dependent, Multiscale, and Multiplex Networks." *Science* 328 (5980): 876–78.
- Murdie, Amanda. 2014. "The Ties that Bind: A Network Analysis of Human Rights International Nongovernmental Organizations." *British Journal* of *Political Science* 44 (1): 1–27.
- Newman, Mark E.J. 2006. "Modularity and Community Structure in Networks." Proceedings of the National Academy of Sciences 103 (23): 8577–82.
- Newman, Mark E.J., and Michelle Girvan. 2004. "Finding and Evaluating Community Structure in Networks." *Physical Review E* 69 (2): 026113.
- Nexon, Daniel, and Thomas Wright. 2007. "What's at Stake in the American Empire Debate." American Political Science Review 101 (2): 953-71
- O'BRIEN, NINA, ANDREW PILNY, YANNICK ATOUBA, MICHELLE SHUMATE, JANET FULK, AND PETER MONGE. 2019. "How Does NGO Partnering Change Over Time? A Longitudinal Examination of Factors that Influence NGO Partner Selection." Nonprofit and Voluntary Sector Quarterly 48 (6): 1229–49.
- Okumu, Paul., 2019. "How NGOs in Rich Countries Control Their Counterparts in Poor Countries...and Why They Refuse to Resolve It." Inter Press Service. Accessed August 8, 2020. http://www.ipsnews.net/2019/07/ngos-rich-countries-control-counterparts-poor-countries-refuse-resolve/.
- PLUMMER, SAMANTHA, MELANIE HUGHES, AND JACKIE SMITH. 2020. "The Challenges of Organizational Classification: A Research Note." Social Currents 7 (1): 3–10.

- RISSE, THOMAS, STEPHEN ROPP, AND KATHRYN SIKKINK, eds. 1999. The Power of Human Rights: International Norms and Domestic Change. Cambridge: Cambridge University Press.
- Roche, Chris, and Andrew Hewett. 2013. "The End of the Golden Age of International NGOs?" Paper Presented at the ACFID/University Linkage Conference, 21–22 November 2013. Accessed August 8, 2020. https://oxfamblogs.org/fp2p/wp-content/uploads/2014/12/The-End-of-the-Golden-Age-of-NGOs.pdf.
- SALIL, SHETTY. 2015. "Moving Amnesty Closer to the Ground is Necessary, Not Simple." OpenGlobalRights. Accessed August 8, 2020. https://www.opendemocracy.net/en/openglobalrights-openpage/moving-amnesty-closer-to-ground-is-necessary-not-simple/.
- Saner, Raymond, and Lichia Yiu. 2018. "Participation of Civil Society Organisations in the United Nations and in the Aid Effectiveness Discourse and Related Standard-Setting Negotiations." In *Public Policymaking in a Globalized World*, edited by Robin Lewis, 149–82. London: Routledge.
- SCHNEIKER, ANDREA. 2017. "NGO-NGO Relations." In Palgrave Handbook of Inter-Organizational Relations in World Politics, edited by Rafael Biermann and Joachim Alexander Koops, 319–36. London: Palgrave Macmillan.
- ———. 2020. "Why Trust You? Security Cooperation within Humanitarian NGO Networks." *Disasters* 44 (1): 25–43.
- Schneiker, Andrea, and Jutta Joachim. 2018. "Revisiting Global Governance in Multistakeholder Initiatives: Club Governance Based on Ideational Prealignments." *Global Society* 32 (1): 2–22.
- Shumate, Michelle, and Lori Dewitt. 2008. "The North/South Divide in NGO Hyperlink Networks." *Journal of Computer-Mediated Communication* 13 (2): 405–28.
- SNYDER, JACK. 2020. "Backlash against human rights shaming: emotions in groups." *International Theory* 12(1): 109–32.
- STOVEL, KATHERINE, AND LYNETTE SHAW. 2012. "Brokerage." Annual Review of Sociology 38: 139–58.
- STROUP, SARAH, AND WENDY WONG. 2017. The Authority Trap: Strategic Choices of International NGOs. Ithaca, NY: Cornell University Press.
- Sullivan, Bilian NI, and Daniel Stewart. 2017. "Do Connections Always Help? Network Brokerage's Negative Impact on the Emergence of Status." In *Emergence*, 315–49. Bingley: Emerald Publishing.
- TALLBERG, JONAS, LISA DELLMUTH, HANS AGNÉ, AND ANDREAS DUIT. 2018. "NGO Influence in International Organizations: Information, Access, and Exchange." British Journal of Political Science 48 (1): 213–38.
- TSINGOU, ELENI. 2015. "Club Governance and the Making of Global Financial Rules." *Review of International Political Economy* 22 (2): 225–56.
- WASSERMAN, STANLEY, AND KATHERINE FAUST. 1994. Social Network Analysis: Methods and Applications. Cambridge: Cambridge University Press.
- Wenger, Etienne. 2006. "Communities of Practice: A Brief Introduction." Accessed August 8, 2020. https://www.ohr.wisc.edu/cop/articles/communities_practice_intro_wenger.pdf.
- Westerwinter, Oliver. 2014. "The Politics of Transnational Institutions: Power, Bargaining and Institutional Choice." (Ph.D. dissertation, European University Institute).
- Wong, Wendy. 2012. Internal Affairs: How the Structure of NGOs Transforms Human Rights. Ithaca, NY: Cornell University Press.
- Yang, Aimei, and Wenlin Liu. 2020. "CSR Communication and Environmental Issue Networks in Virtual Space: A Cross-National Study." *Business & Society* 59 (6): 1079–1109.
- ZHANG, JINGFEI, AND JIGUO CAO. 2017. "Finding Common Modules in a Time-Varying Network with Application to the Drosophila Melanogaster Gene Regulation Network." *Journal of the American Statistical Association* 112 (519): 994–1008.