

# Strategic Orientation and Relationship Building Among Dyads in Complex Public Management Networks: Perspectives From State Asthma Coalitions

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## Abstract

We explore strategic orientation as an approach to analyzing complexity in public management networks, asking how theoretically informed insights on relationship building fare when examined in the context of sector-, function- and policy arena-oriented dyads that form constituent elements of networks. Our survey of state asthma coalitions provides support for six facilitating factors regardless of strategic pairing, with surprisingly widespread support for differing ideas about how to address problems as a facilitative factor. The study also reveals several differences between dyads by strategic orientation, suggesting the approach offers a promising pathway to advancing analysis of complexity in networks.

## Keywords

public management networks, policy networks, health networks, strategic orientation

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## Introduction

Collaboration among diverse actors has grown alongside recognition that interorganizational networks are integral to the address of complex and boundary defying public management and policy problems, such as disaster relief, mental and behavioral health, terrorism and climate change (Agranoff & McGuire, 2004; Gray, 1989; Imperial, 2005; Kettl, 2006; O'Toole, 1997; van Bueren et al., 2003). Complexity is increasingly recognized as central to the study of such goal- and purpose-oriented networks, but analytical approaches remain underdeveloped (Gugu & Dal Molin, 2016; Kapucu & Garayev, 2013; Nowell & Kenis, 2019; Saz-Carranza & Ospina, 2011). This exploratory study pilots a novel approach to analyzing complexity, offering insights to dyadic relationship building dynamics as a pathway to deepening our understanding of networks.

This article aims to shed light on ways in which strategic orientation—alignment with values, purposes, and priorities that guide actor behavior—and diversity within and among sector, function, and policy arena orientations may play into interorganizational relationships. Diverse strategic orientations may be particularly salient for networks addressing complex social problems. We join other scholars who define such networks as “group[s] of three or more organizations connected in ways that facilitate achievement of a common goal” (Kilduff & Tsai, 2003; Provan et al., 2007, p. 482; Provan & Lemaire, 2012). We are sensitive, however, to the embeddedness of network actors in different communities of practice and varying sets of institutional pressures, as well as “the interplay between individual, organizational, dyadic and network levels of analysis” (Nowell & Kenis, 2019, p. 192). A nuanced treatment of strategic orientation and diversity could help to answer important questions about relationships between network complexity, purposes, processes, and outcomes (Berthod & Segato, 2019; Carboni et al., 2019; Lemaire et al., 2019; Nowell & Kenis, 2019).

We explore the implications of complexity in networks at the dyadic level via three commonly recognized strategic orientations of organizations, including sector, function, and policy arena, and their connections to a set of theoretically informed insights concerning factors that may affect pairwise relationships. Public, nonprofit, and for-profit sector partners feature differing value orientations, serving public or social missions in the first two sectors and striving for financial gains in the latter (Moore, 2000). Network scholarship has paid due attention to sector differences (Almog-Bar & Schmid, 2018; Gugu & Dal Molin, 2016; Herranz, 2008; Isett & Provan, 2005; Milward et al., 2010; Provan et al., 2009; Yang & Cheong, 2019). Policy scholars have established that organizations tend to pursue their goals

in purpose-oriented subsystems or arenas, such as health, education, environment, and transportation (Baumgartner & Jones, 1993; Sabatier & Jenkins-Smith, 1993). Organizations also develop highly specialized functions, such as regulatory enforcement, advocacy, the direct delivery of services, and the production of scientific knowledge, to achieve their aims. Comparative inquiry hinging on strategic orientation may offer new insights to tie formation and maintenance among dyads that make up complex networks.

This study asks how theoretically informed insights concerning relationship building in networks fare when the strategic orientations of dyadic partners are similar and different. We explore these dynamics via reflections of state asthma coalition members on their working relationships with specific partners. We focus on pairwise relationships because they are one of the most basic constituent units of network structure (Nowell & Kenis, 2019). Strong pairwise relationships help to sustain collaboration in networks (Allen et al., 2017). We concentrate on asthma, a chronic respiratory disease, because it is a complex and high-burden public health problem around which coalitions with strategically diverse membership have formed, enabling inquiry into our phenomena of interest (Collard, 2006). Approximately 10% of school-age children and 8% of the overall population in the United States suffered from asthma in 2017 (Centers for Disease Control and Prevention, 2019). Medical care, lost productivity due to missed work and school days and other costs added up to US\$82 billion in 2013 (Nurmagambetov et al., 2018). Dozens of state and local asthma coalitions have formed since the 1990s, with aims ranging from better surveillance to improved clinical, school-based, and self-care to addressing contributing factors like indoor and outdoor air pollution. Such pursuits call for collaboration among partners featuring diverse strategic orientations.

Representatives of 18 state asthma coalitions in the United States participated in a survey we administered in early 2018. Participants were asked to identify coalition partners with whom they converged or differed on strategic orientation, types of ties they shared, and theoretically informed factors that positively and negatively affected their working relationships. We also asked participants to report on achievements made because of these partnerships that they would have had difficulty achieving independently. The study pays particular attention to perceptions of factors that shape ties across strategic orientations.

We use perceptive data from collaborative practitioners to explore dimensions of complexity via diverse strategic orientations in a network setting and provide a practitioner check on the value of theoretical insights. Our work substantiates a need for theory and research on diversity in public management networks by identifying ways in which interorganizational relationship

building may differ by strategic orientation and when partners are strategically diverse. The study contributes to scholarship addressing complexity in purpose-oriented networks by introducing a novel way of examining roles of diverse interests at the dyadic level.

## **Building Relationships in Networks**

Scholars have identified a number of factors that may be instrumental in shaping relationships between network partners. We explore a range of insights culled from several areas of scholarship, including public and non-profit management, policy process, and various veins of network scholarship. Some of the work informing these insights considers sector; policy arena and function orientations are given little if any attention. Table 1 shows how the insights discussed below correspond to survey items.

### *Insight 1: Goals*

Networks form surrounding common purposes to which organizations and broader networks orient their goals (Carboni et al., 2019). Organizations and networks are goal-directed, with networks developing missions, goals, and objectives to structure their organization and activities (Agranoff, 2006; Kilduff & Tsai, 2003; Provan et al., 2007; Provan & Kenis, 2008; Provan & Lemaire, 2012). Partnerships formed surrounding certain organizational goals, including building future relationships, reputation enhancement and appealing to funding agency preferences, are associated with improved inter-organizational relationships and client outcomes (Chen & Graddy, 2010).

### *Insight 2: Ideas*

Policy and service delivery networks often form surrounding shared ideas about problems and their solutions (Huang et al., 2019; Keck & Sikkink, 1998; Sabatier & Jenkins-Smith, 1993). Shared ideas contributed to network efforts to advance such important public health issues as tobacco control, tuberculosis, and maternal health globally (Shiffman et al., 2016). Different ideas about problems and solutions can present major challenges for networks addressing complex problems, such as the environmental impacts of emissions from zinc and galvanized building products (van Bueren et al., 2003). Diverse ideas are not necessarily a negative, however. Collard (2006) reported that new ideas about how to address health disparities helped collaborative partners develop more effective approaches to asthma management in Indian country. Respect for differing perspectives reflects value for diversity, a critical relational element in collaborative capacity (Foster-Fishman et al., 2001).

**Table 1.** Insights From Scholarship and Survey Operationalization.

What factors affect relationship building in networks?		How do the factors listed below affect your or your organization’s work with [named partner]?	
Insights from scholarship		Facilitate (positive phrasing)	Hinder (negative phrasing)
1	Goals	Having common goals	Having divergent goals
2	Ideas	Having shared ideas about how to address the problem	Having different ideas about how to address the problem
3	Champion(s)	They have one or more committed asthma champions	They lack committed asthma champions
4	Coordinating agency	Existence of a lead or coordinating agency	Lack of a lead or coordinating agency
5	Effectiveness	Their effectiveness	Their lack of effectiveness
6	Resource sufficiency	They have sufficient budgetary resources	They lack sufficient budgetary resources
7	Embeddedness	They have many partners within the coalition	They have few partners within the coalition
8	Legal restrictions	A lack of legal restrictions on their advocacy activities	Legal restrictions on their advocacy activities
9	Contractual collaboration mandate	They have a contract mandating stakeholder collaboration	They do not have a contract mandating stakeholder collaboration
10	Resource competition	Weak competition for financial resources	Strong competition for financial resources
11	Professional capacity	They have strong professional capacity/ qualifications	They have limited professional capacity/ qualifications
12	Professional norms	Having much in common with their staff	Having little in common with their staff

Note. Response options included facilitates, facilitates somewhat, hinders somewhat, hinders, or not applicable.

**Insight 3: Champions**

Entrepreneurial leaders champion issues and initiatives, inspiring and solidifying networks. In their review of 37 watershed partnership studies, Leach and Pelkey (2001) found participation by an effective leader, coordinator, or facilitator, to be among the most commonly identified factors in successful

partnerships. Such leadership has been found critical for effective emergency management (McGuire & Silvia, 2009), community collaboration to improve services for children and families (Page, 2003), and increasing attention to national and global health issues (Kingdon, 1995; Shiffman & Smith, 2007).

#### *Insight 4: Coordinating Agency*

There is a tendency to think of networks as representing less hierarchical forms of organization, but their effectiveness is generally understood to be conditioned by some form of coordination. Health and human service delivery networks are more effective when guided by a lead or network administrative organization (Provan & Kenis, 2008; Provan & Milward, 1995). The effectiveness of emergency management networks is enhanced when authority is temporarily centralized to address immediate needs (Moynihan, 2009). Social service delivery and global health policy networks alike reap benefits from coordination (Chen & Graddy, 2010; Graddy & Chen, 2006; Shiffman et al., 2016).

#### *Insight 5: Effectiveness*

Enhanced effectiveness is among the principal reasons for developing interorganizational relationships. For instance, motivation to provide more effective services to clients is among the strongest reasons for human services organizations in Israel (Almog-Bar & Schmid, 2018) and family and children services organizations in Los Angeles County (Chen, 2008) to form cross-sector partnerships. In a similar vein, Huang and Provan (2007) found service needs of clients—serving clients more effectively—to be among the most salient reasons for members of a mental health service delivery network to partner with other agencies.

#### *Insight 6: Resources*

Coping with uncertainties and exigencies of the resource environment are key reasons for interorganizational network formation (Galaskiewicz, 1985; Gulati & Gargiulo, 1999; Pfeffer & Salancik, 1978). Research on interorganizational networks and collaborative initiatives suggests that resources assist in network development (Almog-Bar & Schmid, 2018; Leach & Pelkey, 2001; Provan et al., 2007). Opportunities to overcome resource challenges through sharing have helped partners in watershed management collaboratives to address problems (Imperial, 2005) and increase their overall effectiveness (Leach & Pelkey, 2001).

### *Insight 7: Embeddedness*

Self-organizing networks tend to follow the principle of preferential attachment, prompting new network members to seek partnerships with central, already highly connected or embedded actors (Barabási & Albert, 1999). One reason for preferential attachment may be that a large number of connections to other organizations may serve as a status symbol (Podolny, 2010). Provan et al. (2009) suggested another, connecting a set of desirable social indicators, including trustworthiness, reputation, and influence, with organizational embeddedness in health and human services delivery networks. In sum, preferential attachment suggests actors with many connections are desirable partners.

### *Insights 8 to 12*

A handful of other factors are worth exploring for their effects on dyadic relationships in networks. First, nonprofit human services organizations tend to limit engagement in advocacy due to legal restrictions (Almog-Bar & Schmid, 2014; Building Movement Project, 2016). Such restrictions could constrain relationship building in networks that conduct public health advocacy campaigns, although perceptions of protection conveyed by network membership may encourage this kind of engagement (Fyall, 2016). Second, contracts mandating stakeholder collaboration may facilitate boundary spanning in networks (Chen & Graddy, 2010; Shearer et al., 2016). Third, given the centrality of resource considerations, perceptions that competition for resources among network partners is high may serve as a source of tension or disincentive to partnering (Almog-Bar & Schmid, 2018; Hu et al., 2020; Romzek et al., 2012). Fourth, perceptions of strong professional capacity may work via reputational effects to improve interorganizational relationships (Chen & Graddy, 2010). On the contrary, Romzek et al. (2012) found that depleted capacity due to staff turnover was detrimental to social service delivery networks. Finally, tendencies toward homophily and desires for common understandings and expectations for behavior suggest that shared professional norms may facilitate working relationships between network members (Romzek et al., 2012).

## **Method**

This inquiry asks how theoretically informed insights concerning relationship building in networks fare when examined in the context of underinvestigated dimensions of strategic orientation, with implications for scholarship on complexity in public management networks. We explore factors facilitating and

hindering dyadic working relationships from the perspectives of network members, with analysis across three unitary and three diverse strategic pairings (same and different sectors, specialized functions, and policy arenas). We examine these insights in the context of state asthma coalitions because the complex nature of the problem lends itself to the involvement of networks featuring organizations with diverse strategic orientations.

We administered an online survey to members of state asthma coalitions between February and April of 2018. Organizers involved in 25 state-level coalitions (83% coverage) across the continental United States agreed to share our invitation to participate with their members, distributing our Institutional Review Board–approved invitation via email with a link to the survey. Our findings are based on responses from 55 members of 18 state asthma coalitions (72% of coalitions invited to participate) who met screening criteria for having moderate to strong knowledge of their coalition<sup>1</sup> and responded fully to our central questions concerning factors affecting their work with dyadic partners. Respondents were central members of their coalitions, with 40% indicating membership on the executive board or one or more subcommittees. As summarized in Table 2, our respondents reflect what we understand the general composition of state asthma coalitions to be in terms of sector (45% public/government, 29% nonprofit), function (44% public health education and/or coordination, 27% deliver asthma management or services), and policy arenas (47% health/public health) based on communications with several coalition leaders and as reflected in reports on the Centers for Disease Control and Prevention–sponsored National Asthma Control Program (<https://www.cdc.gov/asthma/nacp.htm>).

The main part of the survey asked respondents to identify partners within the same and different policy arenas (education, health/public health, housing, other) and with the same and different functional specializations (administrative, legislative or media advocacy; deliver asthma management or medical services; produce and/or disseminate research; public health education and/or coordination; other). We derived a measure of sector boundary via self-reported affiliation (public, nonprofit, for-profit, individual) and manual coding of sector for named partner organizations, with two independent coders achieving agreement.

For each dyadic relationship that was within or across sector(s), policy arena(s), and function(s), respondents were asked to use a Likert-type scale to indicate the extent to which a set of factors derived from scholarly insights about network ties facilitated versus hindered their work with a specific partner, as outlined in Table 1. Respondents were also given the option to indicate that a factor was inapplicable to specific relationships. Therefore, there was variation in the number of respondents and the number of dyads for different



**Table 2.** Respondent Characteristics.

Respondent characteristics ( <i>N</i> = 55)	Frequency	%
<b>Sectors</b>		
501(c)(3) Nonprofit organization	16	29
Private for-profit organization	2	4
Public/government	25	45
Individual	10	18
Other	1	2
Did not report	1	2
<b>Functions</b>		
Administrative advocacy (e.g., advise on agency policies and/or implementation)	5	9
Deliver asthma management or medical services	15	27
Legislative advocacy (e.g., educate or lobby elected officials on specific bills)	1	2
Media advocacy (e.g., use traditional or social media to influence public awareness and debate)	1	2
Produce and/or disseminate research	3	5
Public health education and/or coordination	24	44
Other	4	7
Did not report	2	4
<b>Policy arenas</b>		
Education	5	9
Health/public health	26	47
Housing	1	2
Other	3	5
Did not report	20	36

relationship configurations (Table 3). Cross-function dyads (*N* = 76) were most frequently reported; the other relationship pairings are represented by 24 to 35 dyads.

Respondents reported engaging in a wide range of activities with the partners they identified, contributing to a host of collaborative accomplishments. The most common types of activities or ties include sharing learning about best practices and failures, doing community outreach/education together, joint goal setting and strategizing, informal networking, providing referrals and/or coordinating client care, and producing research together. Respondents also reported that their relationships with strategically diverse network partners extended their impacts in ways that exceeded their independent capacity, including by improving provider-, home-, and school-based asthma

**Table 3.** Numbers of Respondents and Dyads.

Number of responses	Same sector	Different sectors	Same arena	Different arenas	Same function	Different functions
Respondents ( $N = 55$ )	15	23	20	20	13	47
Dyads ( $N = 103$ )	24	33	30	35	18	76

management; statewide surveillance and coordination; and stakeholder engagement in improving legislative and environmental conditions, including with marginalized communities.

## Findings

Results are organized in three subsections: (a) findings supported across all six strategic orientation pairings; (b) findings based on the three sets of unitary strategic orientation dyads (same sector, same arena, same function); and (c) findings comparing unitary with diverse dyads (e.g., same vs. different function). Table 4 summarizes support for factors operationalized to reflect scholarly insights across all pairings. Table 5 summarizes responses indicating factors are not applicable to the specific dyads respondents reported on; this is important because not all relationships involve partners with collaboration mandates or legal constraints on advocacy activities, for instance. Percentages in tables refer to the proportion of dyads to which factors were reported to be facilitative, hindering, or not applicable. Shading is used in Tables 4 and 5 to show which insights had relatively high (>66%, medium gray), moderate (34%–66%, light gray), and low levels of reporting (<34%, no shading).

### *Findings Supported Across All Six Strategic Pairings*

Six insights that are highly consistent with the broader literature on relationships in networks are highly supported as facilitative across all six strategic pairings. These include having common goals, shared ideas, committed champions, and effective partners alongside strong professional capacity and shared professional norms. Coordinating agencies and partner embeddedness are perceived as facilitative in dyads at moderate to high levels across all strategic pairings. There was also moderate support (36%–56%) for different ideas as a factor that facilitates work with partners in unitary and diverse strategic pairings.

Among hindering factors, concerns about partners having insufficient budgetary resources are the only factor supported across all pairings with at

**Table 4.** Support for Insights.

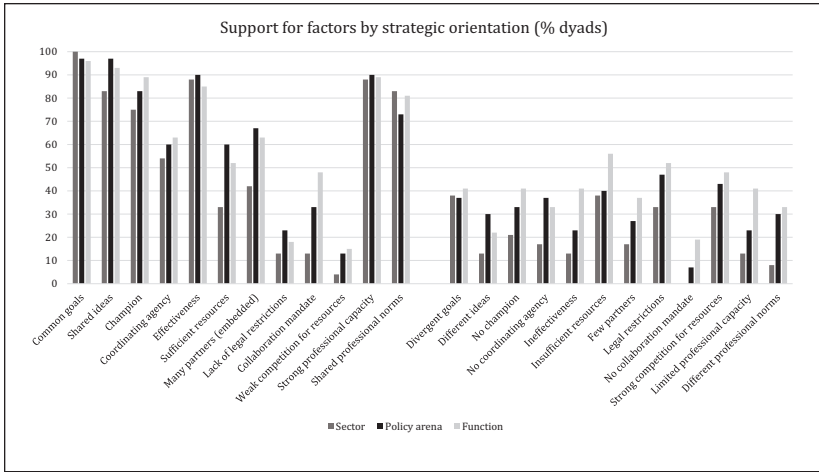
	% Dyads	Same sector	Different sectors	Same arena	Different arenas	Same function	Different functions
<b>Facilitate</b>							
1	Common goals	100	94	97	94	96	93
2	Shared ideas	83	94	97	91	93	89
3	Champion	75	85	83	80	89	79
4	Coordinating agency	54	67	60	63	63	71
5	Effectiveness	88	85	90	83	85	86
6	Sufficient resources	33	73	60	51	52	64
7	Many partners (embedded)	42	76	67	66	63	64
8	Lack of legal restrictions	13	18	23	14	18	21
9	Collaboration mandate	13	42	33	34	48	36
10	Weak competition for resources	4	15	13	11	15	20
11	Strong professional capacity	88	94	90	91	89	92
12	Shared professional norms	83	70	73	74	81	71
<b>Hinder</b>							
1	Divergent goals	38	33	37	34	41	30
2	Different ideas	13	36	30	20	22	25
3	No champion	21	42	33	34	41	39
4	No coordinating agency	17	27	37	23	33	36
5	Ineffectiveness	13	36	23	37	41	33
6	Insufficient resources	38	42	40	46	56	39
7	Few partners	17	33	27	31	37	33
8	Legal restrictions	33	42	47	37	52	37
9	No collaboration mandate	0	9	7	20	19	16
10	Strong competition for resources	33	45	43	43	48	36
11	Limited professional capacity	13	33	23	26	41	31
12	Different professional norms	8	36	30	23	33	36

Note. Shading is used to highlight levels of reporting: high (>66%, medium gray); moderate (34%–66%, light gray); low (<34%, no shading).

**Table 5.** Summary of Responses Indicating Factors Were Not Applicable to Specific Dyads.

	% Dyads	Same sector	Different sectors	Same arena	Different arenas	Same function	Different functions
<b>Facilitate</b>							
1	Common goals	0	6	3	6	4	7
2	Shared ideas	13	6	3	9	4	11
3	Champion	25	12	13	20	8	20
4	Coordinating agency	42	30	33	34	30	25
5	Effectiveness	13	12	10	11	11	13
6	Sufficient resources	58	24	33	40	37	30
7	Many partners (embedded)	58	24	27	31	33	33
8	Lack of legal restrictions	83	70	73	69	67	66
9	Collaboration mandate	88	48	60	57	48	57
10	Weak competition for resources	96	70	77	74	67	66
11	Strong professional capacity	13	6	7	9	7	8
12	Shared professional norms	25	30	27	26	19	28
<b>Hinder</b>							
1	Divergent goals	50	58	57	43	41	39
2	Different ideas	50	27	30	37	22	29
3	No champion	75	55	63	57	48	51
4	No coordinating agency	83	64	63	66	56	58
5	Ineffectiveness	79	60	73	60	56	62
6	Insufficient resources	63	50	57	51	41	55
7	Few partners	67	61	70	51	48	57
8	Legal restrictions	67	48	47	54	41	50
9	No collaboration mandate	96	82	90	69	78	74
10	Strong competition for resources	63	45	43	49	44	50
11	Limited professional capacity	88	64	73	63	48	60
12	Different professional norms	79	60	67	69	59	54

Note. Shading is used to highlight levels of reporting: high (>66%, medium gray); moderate (34%–66%, light gray); low (<34%, no shading).



**Figure 1.** Support for factors by strategic orientation.

least moderate reporting levels (38%–56%). Three other hindering factors are identified with some frequency (30%–52%), including legal restrictions on advocacy, strong competition for resources and divergent goals. The operationalizing frame may be important. Positive operationalizations of insights on legal restrictions and competition for resources received little support; this may be because their “lack” or “absence” is less intuitive than their presence.

A few factors were widely dismissed for inapplicability to the *specific dyads* respondents reported on, which are not necessarily representative of dyads generally and do not preclude importance to some dyads. The following were reported inapplicable to more than 50% of unitary and diverse dyads: a lack of legal restrictions, weak competition for resources, no coordinating agency, partner ineffectiveness, no collaboration mandate, and different professional norms. These results highlight variation in the applicability of a subset of factors to some dyads.

**Findings by Strategic Orientation: Same Sector, Same Arena, and Same Function Dyads**

This section and Figure 1 highlight reporting on dyads for which strategic orientation is unitary. There was clustering around seven facilitating factors,

**Table 6.** Reporting Levels on Hindering Factors by Strategic Orientation.

No.	Hindering factors	Sector		Arena		Function	
		Low	Moderate	Low	Moderate	Low	Moderate
1	Divergent goals		x		x		x
2	Different ideas	x		x		x	
3	No champion	x		x			x
4	No coordinating agency	x			x	x	
5	Ineffectiveness	x		x			x
6	Insufficient resources		x		x		x
7	Few partners	x		x			x
8	Legal restrictions	x			x		x
9	No collaboration mandate	x		x		x	
10	Strong competition for resources	x			x	x	
11	Limited professional capacity	x		x		x	
12	Different professional norms	x		x			
	Total	10	2	7	5	4	8

Note. Low = 0%–33%, moderate = 34%–66%.

including the six highly supported factors discussed previously and coordinating agencies (moderate to high levels of support).

Other factors vary by the strategic orientation of dyads. Reporting on the facilitative nature of embeddedness and sufficiency of partner resources was mostly moderate, but unitary policy arena and function dyads exhibit 20% to 30% higher reporting than same sector dyads. Findings on collaboration mandates also vary. They were facilitative to nearly half of same function dyads, a third of same policy arena dyads and few same sector dyads. Collaboration mandates were reported inapplicable to nearly all same sector dyads, 60% of policy arena, and nearly 50% of function dyads.

The findings on hindering factors also highlight variation by strategic orientation, with some pairings more burdened than others (Table 6). Same sector dyads appear least encumbered, with low levels of reporting on nearly all of the hindering factors. Same policy arena dyads hold middle ground, featuring low levels of reporting on seven of 12 factors and moderate levels on five. Same function dyads are most troubled, with moderate levels of reporting on two thirds of hindering factors.

**Table 7.** Comparison of Unitary and Diverse Dyads by Strategic Orientation.

Strategic orientation	Comparison of unitary and diverse dyads
Sector	Diverse sector dyads feature substantially higher levels of reporting (20%–40%) on three facilitating and five hindering factors
Policy arena	Partner ineffectiveness is more problematic among diverse arena dyads Lack of a coordinating agency is more problematic among unitary arena dyads
Function	Collaboration mandates are more widely reported as facilitative among unitary than diverse function dyads Unitary function dyads feature higher levels of reporting on nine of 12 hindering factors

### *Comparing Unitary and Diverse Dyads by Strategic Orientation*

This section and Table 7 summarize key differences in findings when unitary and diverse dyads are compared by strategic orientation.

*Sector.* Dyads featuring different sector partners have high levels of reporting on embeddedness and collaboration mandates and moderate levels on partner resource sufficiency, indicating these factors are facilitative at 30% to 40% higher rates for diverse than for same sector dyads. Reporting on five hindering factors (different ideas, no champion, partner ineffectiveness, different professional norms, and limited professional capacity) is 20% to nearly 30% higher among different sector compared with same sector dyads, with all but the last reported at moderate levels.

*Policy arena.* Reporting on dyads featuring same and different policy arena partners is largely consistent on facilitating factors, with high levels on the six universal factors and moderate levels on coordinating agency and partner resource sufficiency. About one third of unitary and diverse dyads reported collaboration mandates to be facilitative. There is somewhat more variation on hindering factors, with 14% differences on partner ineffectiveness (more problematic among diverse dyads at 37%) and having no coordinating agency (more problematic among unitary dyads at 37%).

*Function.* Reporting on facilitative factors was largely consistent. Collaboration mandates varied most, with the factor facilitative for 48% of unitary compared with 36% of diverse function dyads. Reporting on hindering

factors shows they are felt more widely (nine of 12) and generally to a greater degree (9% average) among same function compared with diverse function dyads.

## Discussion

How do theoretically informed relationship building insights fare when examined in the context of the strategically diverse dyads that comprise complex networks? The findings of this exploratory study suggest that some fare well regardless of unity or diversity in strategic orientation while others may vary. In addition, diverse sector, arena, and function dyads may differ from unitary ones in important ways. We take each of these points and their implications for public management network theory and research in turn.

First and consistent with the literature, we find a subset of six facilitating factors to be highly supported across dyads unitary and diverse on strategic orientation, including common goals, shared ideas, champions, partner effectiveness, strong professional capacity, and shared professional norms. We add value with a notable counter-intuitive finding—although scholarship consistently suggests that divergent ideas about how to address problems can cause turbulence for networks, our respondents indicate that *differing ideas* often support their work with partners. This is consistent with Collard's (2006) observation that value for new ideas helped the collaborative Tribal Effective Asthma Management project to develop new and more effective approaches. These findings may reflect unusually strong value for diverse perspectives, a collaborative capacity, among asthma coalition leaders (Foster-Fishman et al., 2001). Network scholarship needs to consider the value and roles for diverse ideas among those collaborating to address complex problems.

Second, we advance the study of public management networks by piloting two novel measures of complexity—policy arena and function—providing evidence from state asthma coalition members that sector is not the only strategic orientation that may affect relationship building in meaningful ways. We find partner resource sufficiency, embeddedness, and collaboration mandates to be much more widely facilitative among unitary policy arena and function dyads than among same sector dyads. Furthermore, hindering factors are found more widely experienced in unitary arena and function dyads compared with same sector dyads. Strategic orientation to policy arena and function may thus play outsized roles in conditioning some aspects of relationship building in complex networks.

Finally, our findings suggest that diverse sector, arena, and function dyads may differ from unitary ones in important ways. Diverse sector dyads reported experiencing a host of facilitating and hindering factors to a much wider



degree than unitary sector dyads. There is less variation in reporting on unitary and diverse policy arena dyads; however, diverse policy arena dyads are somewhat more troubled by partner ineffectiveness while unitary policy arena dyads are more troubled when there is no coordinating agency. Unitary function dyads are more affected by a much wider range of hindering factors than diverse function dyads.

Our findings on diverse sector dyads are consistent with what theories of homophily and institutional isomorphism would seem to suggest—that unitary dyads are likely to be more harmonious than diverse ones. But why then are our unitary function dyads more troubled than diverse ones? Function may be different from other strategic orientations; partners with the same primary function may have outsize expectations, especially in fields like health. Perceptions of challenges among unitary function dyads may be amplified in this study because the stakes are so high for the health professionals who are so strongly represented in state asthma coalitions—their success is a matter of life and death for some children and adults, and shapes the educational and economic potential of many others. These patterns and explanations beg investigation in other contexts.

## Conclusion

To summarize, this study takes a novel approach to investigating ways in which the strategic orientations of dyadic partners may affect relationships that are embedded in complex, purpose-oriented public management networks. Furthermore, it illuminates potential assets and liabilities in interorganizational relationship building, providing some preliminary insights for managers of complex networks to consider.

The nuanced and systematic treatment of strategic orientation and diversity in dyads captured by this study is a step toward addressing Nowell and Kenis's (2019) observation that

Whose interests are being represented, and how members are linked together outside of their mutual membership to the network are often overlooked elements of complexity that are likely to both influence, and be influenced by, the actions of the purpose-oriented network itself. (p. 194)

This study offers some potential insights, but findings are not generalizable at this stage of the research endeavor.

Future research using more sophisticated methods is needed to investigate the roles and impacts of different strategic orientations, pairings, and tie configurations on the effectiveness of complex networks. Specifically,

researchers need to collect nomination or behavioral partnership data, such as weblinks, coalition membership, and board interlocks, alongside policy arena and function data for use in formal network analysis when they study collective action by groups of diverse organizational actors. Dyadic heterogeneity in terms of sector, function, and policy arena could then be used in measures of external and internal linkages at the group level (Krackhardt & Stern, 1988), for instance, for insights to group boundaries. In sum, this preliminary work substantiates a need and points to a promising direction for theory and research on strategic orientation and diversity in complex networks that includes and extends beyond sector.

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### Note

1. Including Alabama, California, Connecticut, Florida, Georgia, Illinois, Kentucky, Massachusetts, Mississippi, Montana, New Hampshire, New Mexico, Pennsylvania, Tennessee, Utah, Vermont, Washington, and Wisconsin.

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