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A Multidimensional Network Approach to Strategic Communication

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ABSTRACT

In this article, we introduce a multidimensional network perspective as a theoretical and methodological touchstone for the study of strategic communication. The perspective embraces the various disciplinary traditions that are found under the strategic communication umbrella (e.g., advertising, corporate communication, organizational communication, and public relations) and gives primacy to communication as the constitutive element through which organizations make strategic decisions about network positioning and representation to stakeholders. We begin with an overview of the trends in strategic communication that suggest a network perspective is a viable and timely approach. Next, we present the underlying assumptions of a network perspective and identify the six network types applicable to strategic communication research and practice: activity coordination, affiliation, affinity, flow, representational, and semantic. Finally, we introduce a set of propositions to illustrate the heuristic value of the approach and lay the groundwork for future theorizing.

Introduction

The expansive boundaries of strategic communication scholarship and practice are evidenced in the different topics and research approaches that mark the field. Hallahan and colleagues (2007) note that “strategic communication is a rich, multidimensional concept” (p. 27) that brings together various communication disciplines (e.g., advertising, business communication, corporate communication, marketing, organizational communication, and public relations). Collectively, these disciplines represent the cornerstone of strategic communication scholarship and its examination of the communication activities that organizations employ to advance their mission (Hallahan et al., 2007). In this sense, strategic communication research embraces the interconnectedness of organizations, messages, and stakeholders; this interconnectedness brings into sharp focus the constitutive role of communication in the creation, maintenance, and dissolution of complex relationships between interrelated stakeholders and organizations (Coombs & Holladay, 2015; Frandsen & Johansen, 2015; Hallahan et al., 2007; Heath, 2006, 2013; Knudsen & Lemmergaard, 2014; Nothhaft, 2016; Zoch & Molleda, 2006).

Within this definitional framework, scholars have alluded to strategic communication in network terms (e.g., Coombs & Holladay, 2015; Frandsen & Johansen, 2015; Sandhu, 2009; Wehmeier & Winkler, 2013). For example, researchers acknowledge the multidirectional and complex nature of strategic communication and argue that it must be attuned to the field in which organizations are embedded and the ways in which the field influences organizational messages (Knudsen & Lemmergaard, 2014; Merz, He, & Vargo, 2009; Sandhu, 2009). This sentiment is echoed by other scholars who note the transformative ability of communication and the interconnectedness between...
organizations and stakeholders as the hallmarks of strategic communication research and practice (Hallahan et al., 2007; Lusch & Vargo, 2014).

More explicit is scholarship that suggests strategic communication research could be described as a “networked view of linkages between organizations as a web of mutual relationships” (Sandhu, 2009, p. 86) and identifies the network model as the most “realistic,” albeit the most complex, way to examine a multitude of relationships (Frandsen & Johansen, 2015, p. 258). Although network theory has been applied widely within the communication discipline (see Shumate et al., 2013 for a review), it has received limited attention within the strategic communication field.

The work highlighted in our introduction to this article exposes a desire among scholars for strategic communication research to address the complexity and interconnectedness of the relationships between organizations and stakeholders. Previous research, however, has failed to fully embrace the network approach. This limitation was noted by Wehmeier and Winkler (2013), who called for research that “investigates systematically the communicative interrelations that are desirable to an organization’s broader relational network” (p. 283). Yang and Taylor (2015) partially filled this gap with their theorizing on how public relations can incorporate network ecology as an alternative to more traditional approaches (e.g., Excellence Theory, Situational Theory of Publics, or Organization-Public Relationship). Similarly, Sommerfeldt and Yang (2017) offer a network framework for social movement organizations’ issue management communication. These recent applications of network theory to niche areas of strategic communication provide the foundation from which we introduce a multidimensional network perspective of strategic communication.

A multidimensional network perspective allows us to consider the multiple types of networks that strategic communication activities can create, maintain, and dissolve. This perspective moves beyond previous strategic communication research that has invoked a network perspective in several important ways. First, we contend that network strategies describe relational strategies designed to influence relational outcomes. In other words, both the network strategies created and the outcomes of those strategies are described in network terms. In contrast, previous network research in public relations (e.g., Sommerfeldt & Yang, 2017; Yang & Taylor, 2015) describe the network strategies likely in each phase of an organization’s issue management lifecycle.

Relatedly, a multidimensional approach accounts for the possibility that a single node can have more than one type of relationship. This move embraces Heath’s (2013) definition of relationships as “complex, multidimensional and multilayered” (p. 426). Finally, and perhaps most significantly, our approach provides a clear connection between network constructs and the measurement of networks; thereby offering the strategic communication field a research tradition and set of assumptions that can be subjected to debate and rigorous testing (see Nothhaft, 2016 for a call for such a tradition). In sum, we provide a framework that allows researchers and practitioners to address a range of vexing strategic communication questions (see Nothhaft, 2016 for a related set of questions): How do relationships among stakeholder groups influence the success, failure, and transference of messages? How do messages flow through a network? Why do some messages dissipate rapidly yet others become sticky? Which communication strategies are likely to create, maintain, and dissolve stakeholder relationships?

We begin with a discussion of the trends that suggest the time has arrived for a network approach to be advanced as a possible guide for strategic communication researchers and practitioners. We follow the trends with an overview of multidimensional networks and explicate the application of these networks for strategic communication research and practice. Our discussion unpacks the different types of strategic communication relationships that are evident in the various communication networks. These networks include flow, affinity, representational, semantic, affiliation (Shumate & Contractor, 2013), and activity coordination (McPhee & Zaug, 2000, 2009). Following the network discussion, we offer a set of propositions about the relationships among the various networks and provide illustrative examples of future research that would test each proposition. We end with the implications and future directions for a multidimensional network approach to strategic communication.
Trends in strategic communication

In a field as diverse and robust as strategic communication, there is a wide array of trend predictions. This section relies on well-known trade publications (e.g., AdAge, PRNews, PRNewswire) and research firms (e.g., Cone Communications) to identify three interrelated trends in strategic communication: digital evolution, new message contributors, and one-to-one message platforms. Together, these trends suggest a network perspective is a viable and timely approach to the broad field of strategic communication research and practice. Specifically, the reported trends illuminate the different ways messages, channels, stakeholders, and organizations are interconnected through a range of relationships.

First, the digital evolution continues to transform strategic communication by enhancing and expanding the ways in which organizations and stakeholders cocreate and then build upon their relationships (Cone Communications, 2014; Shapiro, 2016). Digital platforms allow organizations and stakeholders to communicate with each other directly, often in real time (Harres, 2016); these platforms expand the range of stakeholders whose voices are heard and who can make a meaningful impact on organizations and other stakeholders (Cone Communications, 2014). As noted by Mulhern (2009), digital advancements have rapidly expanded the channels through which messages flow and accelerated the speed of message dissemination. The significance of this trend is evidenced by the fact that digital ad spending exceeded television spending for the first time in 2017 (Dumenco, 2017; Welday, 2017).

Digital platforms allow for the individualization of media channels and content. Targeted messaging and segmentation continues to expand as new digital platforms are introduced and adopted (Cone Communications, 2014; Mulhern, 2009; Shapiro, 2016). For example, digital platforms and messaging allow corporations to target their communication with particular stakeholder groups. One way this type of targeting works on digital platforms is via the customization of the digital environment to meet stakeholders’ needs and use history. For example, corporations and large social media outlets use algorithms to enhance stakeholder navigation, provide targeted content, and trigger chains of messages through direct channels (Kannan & Li, 2017). The expansive use of the various social networking sites creates opportunities for strategic communication professionals to tailor their messages, engage stakeholders through multiple sites, and build relationships (Harres, 2016; Shapiro, 2016).

However, as noted by FleishmanHillard (2017), the digital evolution creates a “many messages, many channels, many partners” challenge; it prompts strategic communicators to simultaneously adopt new platforms while developing and maintaining long-term relationships with stakeholders (Mulhern, 2009). In response, strategic communicators have adopted big data analytics to analyze how people and messages are connected; such analysis lays bare relationships that may inspire strategic communication practitioners to create novel, efficient, and meaningful ways to connect with stakeholders (Harres, 2016; Welday, 2017).

A second related trend is the ability of stakeholders to generate content, which in turn has weakened the ability of organizations to control messages (Mulhern, 2009). In particular, stakeholders are able to adapt organizational messages (e.g., memes and GIFs) and share them with other stakeholders in ways that may be at odds with how the organization intended the message to be distributed. One result of this change is that brands are being positioned as “experience facilitators” that encourage stakeholders to engage the brand and share that engagement with their friends and followers (J. Walter Thompson Intelligence, 2016).

An extension of this trend is the increasing role of influencers as message contributors (Gray, 2017; Grimes, 2012; Harres, 2016). In essence, influencers are opinion leaders who go beyond word-of-mouth communication by disseminating messages on the same channels used by corporations. In this capacity, influencers inform public perceptions of organizations and amplify organizational messages, particularly among stakeholders who are cynical about corporate-sponsored content (Grimes, 2012). Albright (2016) contends that influencers can create “micro-propaganda machines which serve as an
influence network that can tailor people’s opinions, emotional reactions, and create viral sharing episodes” (paragraph 6). A recent AdWeek article noted that marketers are doubling their investment in influencer communication—over $1 billion dollars with Instagram influencers alone (Gahan, 2017).

At the agency level, Cone Communications offers its clients a proprietary tool, ConeFluence, to identify top social media influencers based on the topics of their messages. Alex Nicholson, vice president of New and Social Media at Cone, described the benefit of ConeFluence as giving “clients an edge in finding the right stakeholders, trendsetters, and new media journalists to engage with and build relationships of value” (Cone Communications, 2013, paragraph 3).

The third trend, the “dark social,” suggests stakeholders are trying to counteract the open networks associated with the digital evolution and social media (WARC Toolkit, 2017). The dark social refers to conversations between stakeholders that are invisible to the broader network, including strategic communication professionals (WARC Toolkit, 2017). Pineiro (2015) notes that use of one-to-one messaging platforms has expanded significantly, and it is a challenge for strategic communication messages to fit into this media authentically. Millennials, in particular, favor one-to-one message platforms and use broadcast social networks minimally (Pineiro, 2015). The emergence of the dark social has prompted some brands to move toward a conversation-based approach to strategic communication (WARC Toolkit, 2017). Trend observers have noted that the chat functionality has become a “complete eco-system” (WARC Toolkit, 2017, p. 6) for stakeholders, and brands need to find ways to enter the system to create multiple touchpoints (J. Walter Thompson Intelligence, 2016; Pineiro, 2015). Possibilities for entering the dark social include the aforementioned influencer trend (Pineiro, 2015).

Taken together, these trends expose the dynamic nature of strategic communication to create and maintain a wide range of relationships between and among organizations and stakeholders. Specifically, the producers, audiences, messages, and channels of strategic communication are increasingly interconnected in ways previously unimaginable (Pineiro, 2015). The three trends of digital evolution, new message contributors, and one-to-one message platforms highlight a “tectonic shift” (Pineiro, 2015, paragraph 2) in the ways stakeholders and organizations connect to one another and share messages. As noted by Mulhern (2009), it is up to “scholars and practitioners to establish theories, concepts, and methods” to organize the new strategic communication landscape (p. 99).

**Understanding multidimensional networks**

*Key assumptions*

As a theoretical perspective, the multidimensional network approach makes three key assumptions that help to organize the complex landscape of strategic communication for scholars and practitioners. Each of the assumptions highlights the multifaceted nature of networks and encourages researchers to think of networks as a constellation of relationships that are constituted in communication. The assumptions outlined in the subsequent paragraphs provide the framework for the types of networks that will be explained in subsequent sections of this article.

To begin, a network perspective assumes that an Organization (A) is embedded in multiple networks of other organizations (Uzzi, 1997) and stakeholders (Rowley, 1997). Within these networks, organizations and stakeholders may have relationships with one another unmediated by Organization A (see Rowley, 1997). This shift is important in the arena of strategic communication as it moves away from a dyadic perspective (i.e., the organization-stakeholder relationship) to a communication ecology perspective where various organizations and stakeholders act strategically to achieve their goals. As such, a network perspective embraces different types of relationships that make up a network and accepts that stakeholders within a field are networked in both predictable and unpredictable ways. In this sense, networks are inclusive of the “vital and less relevant stakeholder groups” (Raupp, 2011, p. 85). Moreover, the assumption acknowledges the
ability of communication to alter the network structure by creating, strengthening, or dissolving ties among actors in the network.

Second, a network perspective assumes that organizations are open systems that are responsive to factors in their environment, including changes in the opinions and preferences of stakeholders (Cheney & Christensen, 2001; Monge et al., 2011). This assumption highlights the fluid boundaries of organizations, the symbiotic relationship between organizations and stakeholders, and the complex and ever-changing environment that influences both organizations and stakeholders. In relation to strategic communication, this assumption recognizes the viability of two-way symmetrical communication (Grunig & Huang, 2000) and helps us avoid conceptualizing organization–stakeholder relationships as linear.

Finally, a network perspective assumes that the purpose of strategic communication is to effect stakeholder networks (Yang & Taylor, 2015), which includes relationships with other organizations (see Sciarelli & Tani, 2013 for more on a network perspective to Stakeholder Management Theory). In making this assumption, the network perspective offers greater specificity about the aims of strategic communication and shines a spotlight on how organizational messages reverberate through the network. Furthermore, network embeddedness helps us understand how communication is enabled, constrained, and amplified in both intended and unintended ways.

**Defining multidimensional networks**

Shumate and Contractor (2013) define communication networks as “relations among various types of actors that illustrate the ways in which messages are transmitted, exchanged, or interpreted” (p. 449). This definition has both similarities and differences with how social networks have been previously studied. As in past research, the definition understands networks not as a metaphor but a set of relations wherein the patterns and processes of relationships (a.k.a. ties, links, edges) between nodes (a.k.a. vertices, actors) are the focus of attention. As such, the network view moves away from the variable-based understanding of social outcomes and toward a relational understanding, aligning more closely with a systems model. Key network analysis measures such as centrality or average path link also can be applied. Relatedly, messages are at the core of communication networks, but are not reduced to information or data to be transmitted. Instead, the perspective is inclusive of a broad range of socially constructed meanings and messages, rather than narrowly focused on how information or data is transmitted.

However, the definition departs from previous network scholarship in two ways that are critical to its application in the field of strategic communication. First, as a multidimensional network, there are a variety of different types of nodes that are included in the same network. These nodes include, but are not limited to, organizations, media outlets, groups, individuals, stakeholders, words, and technologies. Second, these nodes have more than one type of relationship that connect them in varied ways (e.g., an actor may be an employee, customer, or shareholder). These relationships may or may not overlap, influence other types of relationships, and combine to form unique patterns.

Based upon these points of convergence and divergence, Shumate and Contractor (2013) introduce seven networks in their typology: flow, affinity, semantic, representational, affiliation, physical, and technological. We rely on many of their distinctions but augment their typology with McPhee and Zaug (2000, 2009) four-flows model to accommodate the complexities of the strategic communication field. Specifically, our approach includes their activity coordination network, which describes an interdependent set of activities in which organizations, groups, and individuals engage.

**Types of multidimensional networks**

In the multidimensional network approach, we focus on the networks that we believe have parallels with much of strategic communication research (see Table 1). In this formulation, we rely on the concept of network strategies, or “relationship strategies that organizations strategically adopt to
shape network dynamics to benefit themselves, their communities, and their issue objectives” (Sommerfeldt & Yang, 2017, p. 832). We begin with activity coordination, affiliation, and representation networks. These networks, which we describe as genesis networks, describe a set of network strategies that are intended to influence other network dynamics; in other words, from a strategic communication perspective, shaping activity coordination, affiliation, or representational networks are not the goal. Instead, organizations use network strategies to shape these networks in order to create changes in a second set of networks, which we describe as consequence networks – flow, affinity, and semantic networks. Organizations may also try to directly shape consequence networks (e.g., may send messages as captured in flow networks). And changes in one consequence network may have an influence on other consequence networks. In a departure from Shumate and Contractor (2013), we have chosen to exclude physical and technological networks that draw attention to the ways that the material world enables or constrains communication. Although this is a topic worthy of consideration, it is beyond the scope of this article.

**Genesis networks**

Activity coordination includes both the division of labor and how that labor is coordinated. In short, activity coordination networks describe who does what and who else in the network they must coordinate with to accomplish that work. McPhee and Zaug (2000, 2009) note that much of activity coordination occurs because of formal organizational structuring that stipulates things such as job descriptions, organizational charts, or memorandums of understanding. However, these formal descriptions often do not adequately account for the informal workarounds that individuals, groups, and organizations develop over time. These workarounds are part of activity

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<th>Network</th>
<th>Definition</th>
<th>Related Strategic Communication Concepts</th>
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<td>Genesis Networks</td>
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| Activity Coordination | “Interdependent set of activities engaged in by organizations, groups, and individuals” | (1) Cross-sector social partnerships  
(2) Coordination between marketing, public relations, advertising, corporate communications, and legal departments |
| Affiliation     | “Relationship between agents and organizational entities”                    | (1) Brand communities  
(2) Fan clubs  
(3) Volunteers  
(4) Employees |
| Representational | “A message about an association among actors communicated to a third party or the public” | (1) Lobbying  
(2) Co-branding networks  
(3) Endorsements |

**Consequence Networks**

<table>
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<tr>
<th>Network</th>
<th>Definition</th>
<th>Related Strategic Communication Concepts</th>
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| Flow            | “The transmission or exchange of messages among actors”                      | (1) Media impressions  
(2) Channels of communication  
(3) Word of mouth  
(4) Dissemination of message |
| Affinity        | “A socially constructed relationship that has either a positive or negative valence” | (1) Corporate activists  
(2) Brand loyalists  
(3) Consumers’ attitudes and behavior toward an organization |
| Semantic        | “Co-occurrence of words in a text or shared meaning that individuals give to concepts or organizational fields” | (1) Brand personality  
(2) Organizational image  
(3) Reputation  
(4) Brand experiences |
coordination. In strategic communication, the best-documented areas of activity coordination are found in the connections between organizational leadership (e.g., CEO), marketing, public relations, advertising, corporate communications, and legal departments (Hallahan et al., 2007). The degree to which these areas coordinate their activities varies from organization to organization, and this variation is one of the factors that influences the outcomes of different strategic communication efforts. Importantly, activity coordination networks are not limited to within-container activity for organizations. Instead, as organizational boundaries blur, they include coordination with external groups through alliances and the use of temporary employees via the gig economy.

Affiliation networks describe “relationships between agents and organizational entities” (Shumate & Contractor, 2013, p. 453). In McPhee and Zaug’s (2009) model, this activity is described as membership negotiation, or “the communication that establishes and maintains and transforms [an organization’s] relationship with each of its members” (p. 34). For employees and volunteers, membership negotiation focuses on the communication processes that constitute these forms of affiliation. However, affiliation networks are not limited to membership. Instead, they include the various ways that stakeholders identify with the organization or brand. This identification is evidenced in brand communities and fan clubs. Although these groups are not “member-based,” participation in them illustrates a strong “belonging” to the organization.

The representational network refers to how individuals or organizations describe to stakeholders the nature of their relationships with third parties (Shumate & Contractor, 2013). At the individual level, name-dropping is a good example of a representational network. The person whose name is dropped is not receiving a message, but the person with whom this name is shared has received a message about the assumed relationship between the communicator and this person. McPhee and Zaug (2000, 2009) describe this process among organizations as institutional positioning. In this process, organizations jockey for prestige by aligning themselves with other individuals, issues, or organizations. Co-branding networks and celebrity endorsements each are salient strategic communication examples of such relationships.

Consequence networks
The remaining three networks describe desired outcomes of network strategies. Flow networks describe how information and data move from one party to another (Shumate & Contractor, 2013) and are the essence of much of strategic communications’ focus on symmetric versus asymmetric relationships (Grunig & Huang, 2000). Research that focuses on outcomes such as media impressions, the channels of communication that are most effective, the two-step model of communication that relies on word of mouth, and ultimately the way communication moves across agents all implicitly focus on flow networks. Flow networks are distinct from other networks in two respects. First, ties in flow networks decay rapidly. If new messages are not transmitted, relations cease to exist. And second, flow network activity is often the precursor to the evolution of affinity and semantic networks.

Affinity networks describe the socially constructed communication relationships that are understood between parties (Shumate & Contractor, 2013). Such relationships include friendships, positive attitudes, and negative associations. For strategic communication scholars, affinity networks can be used to describe the set of relationships between various stakeholder groups and organizations. Stakeholders may hold negative, neutral, or positive views of one or more organizations in a market. The pattern of these views may help to identify them as nascent corporate activists or brand loyalists. Affinity ties do not decay as quickly as flow ties. Rather, affinity networks evolve over time, and ties can become more positive, more negative, or disappear completely.

Finally, semantic networks, in the context of strategic communication, describe the ideas, words, and values that individuals associate with organizations and stakeholder groups (Shumate & Contractor, 2013). These networks describe the ecology of concepts, ideas, words, and brands that
make up the socially constructed world of meaning in communications. They may describe an individual’s “mind map” or the aggregate views of a stakeholder group. Such maps are particularly salient for strategic communication scholars interested in brand personality, organizational image, or brand experiences. Semantic network relations, like affinity ties, do not decay quickly. However, semantic network evolution is complex. It is possible, for example, for semantic network changes to create cascading changes in meaning across a network, which can fundamentally alter how networks use particular terms and the meanings associated with those terms.

**Propositions**

One of the key contributions of a network approach is identifying previously unexamined connections among the various strategic communication network types (i.e., activity coordination, flow, affinity, affiliation, representational, and semantic). Although the development of a complete networked theory of strategic communication is beyond the scope of this article, we offer six propositions related to strategic communication networks to illustrate the heuristic value of the perspective and lay the groundwork for future theorizing. The propositions focus on four areas that we think are central to understanding the advantages of a network approach to strategic communication and the vexing questions identified in the introduction: (a) the multiple ways that networks might be related (i.e., number of connections an organization has, the average path length in the network, changes over time, and whole structure connections), (b) the ways that network strategies in genesis networks are related to consequence networks, (c) the ways consequence networks are related to each other, and (d) the outcomes that have been most salient in strategic communication research (see Table 2 for a detailed description of metrics and types of multiplexity).

For each proposition, we begin by explaining the network types in the context of strategic communication. Next, we provide a rationale for the proposition, followed by its formal introduction. After the proposition, we suggest a sketch of an empirical analysis, thereby offering a grounded illustration upon which scholars within a variety of subfields in strategic communication may build. Our goal is to highlight the breadth of strategic communication applications.

Through this structure, we hope to emphasize several differentiating elements of a network approach to strategic communication. First, all of the propositions that we introduce are empirically testable. We are enthusiastic about the research community that may develop around these propositions. Second, the perspective recognizes that, in a given time period, there are multiple organizations within a single field. Thus, the propositions compare the strategic communication strategies, resources, and structures of multiple organizations simultaneously. Finally, this perspective recognizes that stakeholders have connections to one another, as well as to multiple organizations. In essence, the perspective recognizes that stakeholders are affiliated with multiple entities, that the level of identification with each of these entities varies, and that the set of relationships (i.e., network connections) may be complementary and contradictory. In combination, the six propositions embrace the interconnectivity of organizations and stakeholders, thereby making a significant heuristic contribution to strategic communication research.

**Flow and affiliation networks**

Strategic communication scholars and practitioners continue to be interested in the size and patterns of flow networks. For example, scholars often examine the ways that messages spread via word of mouth and what makes some messages more viral than others (e.g., Golan & Zaidner, 2008). However, Saxton and Waters (2014) suggest that current theorizing limits scholars’ understanding of message mobilization. In particular, they argue that the overreliance on behavioral outcomes (Bortree & Seltzer, 2009; Rybalko & Seltzer, 2010) and attitudinal measures (Waters & Bortree, 2010) to determine how organizations use communication strategies to create and cultivate lasting relationships with stakeholders (e.g., Hon & Grunig, 1999) obscures how stakeholders engage with,
respond to, and share messages. Given this critique, we offer flow networks as one way to understand message mobilization. In doing so, the dialogic model of strategic communication becomes animated, and the idea of stakeholders as message creators takes on an expanded meaning.

Related to message flow, many scholars are interested in how organizational engagement strategies increase stakeholder identification with the organization (e.g., Kim, Park, & Wertz, 2010; Morsing, 2006; Park & Reber, 2008). Their interest may be due, in part, to research that suggests the greater the identification individuals have with an organization, the more likely they are to be involved with any message that the organization presents (Haigh & Pfau, 2006). Persuasion research suggests that involvement and identification make individuals more attuned to messages and more likely to discuss those messages with others (Petty & Cacioppo, 1979). As such, we can state:

**P1:** As the affiliation network around an organization grows, the number of actors (i.e., individuals, stakeholder groups, and other organizations) that share the organization’s message increases.

Thus, the outcomes of an organization’s engagement efforts are dependent on three factors: (a) the pre-effort state of the affiliation network, (b) the sophistication and efficacy of the organization’s network strategies to transform its affiliation network, and (c) the effects of other organizational actors network strategies.

An empirical analysis of this proposition could be found in public relations research that is concerned with how interactivity in social media influences the organization–stakeholder relationship (e.g., Allagui & Breslow, 2016; Saffer, Sommerfeldt, & Taylor, 2013). Researchers in this area

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<th>#</th>
<th>Proposition</th>
<th>Type of Multiplexity</th>
<th>Network Metrics Described</th>
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<tbody>
<tr>
<td>1</td>
<td>As the affiliation network around an organization grows, the number of actors (i.e., individuals, stakeholder groups, and other organizations) that share the organization’s message increases.</td>
<td>Centrality (genesis/consequence)</td>
<td>(1) Degree centrality (affinity) (2) Subgraph size (flow)</td>
</tr>
<tr>
<td>2</td>
<td>The size of an organization’s representational network is positively related to the number of sources of information about an organization (i.e., the number of actors speaking about the organization in the flow network).</td>
<td>Centrality (genesis/consequence)</td>
<td>(1) Degree centrality (representational) (2) Number of nodes with outdegree greater than 1 (flow)</td>
</tr>
<tr>
<td>3</td>
<td>The average path length in an activity coordination network is positively related to the number of information sources (i.e., the number of actors speaking about the organization in the flow network).</td>
<td>Complex structural (genesis/consequence)</td>
<td>(1) Average geodesic distance (activity coordination) (2) Number of nodes with outdegree greater than 1 (flow)</td>
</tr>
<tr>
<td>4</td>
<td>Consistent connections between organizations and stakeholders in the flow network is related to the rate of change in the affinity networks.</td>
<td>Longitudinal (consequence/consequence)</td>
<td>(1) Frequency over time (flow) (2) Rate of network change (affinity)</td>
</tr>
<tr>
<td>5</td>
<td>The structure of affiliation networks is strongly related to the structure of affinity networks.</td>
<td>Simple structural (genesis/consequence)</td>
<td>(1) Whole structure</td>
</tr>
<tr>
<td>6</td>
<td>Actors that are central in representational networks are more likely to affect semantic networks through their communication.</td>
<td>Complex structural (genesis/consequence)</td>
<td>(1) Degree centrality (representational) (2) Semantic network resonance</td>
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might be interested in whether organizations should strategically focus on stakeholders “following” them on different social media platforms and the way that impacts engagement. For this illustration, a researcher might consider a set of firms that have relationships with various stakeholders via Twitter. The “following” relationship in this platform is an example of an affiliation relationship. Individuals, groups, or organizations that follow a firm become affiliated with it. The indegree centrality, or number of followers, can easily be calculated for each firm and compared to other organizations. Next, the researcher would calculate how many users retweet a firm’s messages in a given time period, a measure derived from the flow network. The proposition indicates a relationship between these two variables.

Researchers might even push this further, comparing the number of retweets to replies as a more meaningful measure of stakeholder → organization flow versus organization → stakeholder → stakeholder flow. When a firm receives more replies than retweets, they have, in internet speak, been “ratioed.” Being ratioed is a sign of stakeholder engagement, but not approval or willingness to share a message on behalf of the organization. In doing so, researchers might fruitfully differentiate between the effectiveness of different social media strategies for increasing engagement versus the dissemination of organizational messages via social media.

**Flow and representational networks**

Affiliation is not the only way that organizations can signal their relationships with other organizations, individuals, or groups. Organizational leaders and members are aware that they exist in a field of other actors and that the field exerts influence over the organization (see DiMaggio & Powell, 1983; Galaskiewicz & Wasserman, 1989). As such, they use communication to align themselves with other actors, including nonprofits, professional associations, and celebrities, in an effort to increase organizational legitimacy (McPhee & Zaug, 2000, 2009; Shumate & O’Connor, 2010b) and imbue their brand with an endorser’s characteristics (Erdogan, 1999). We recognize this alignment as a representational network.

Representational networks increase the number of information sources that can legitimately communicate on behalf of an organization. In other words, as the number of aligned entities increases, so too do the number of potential endorsers or detractors (Shumate & O’Connor, 2010b). For example, when Chiquita aligned itself with the Rainforest Alliance and the SA/SA8000 wage certification program (Chiquita, 2017), those two organizations became sources of information for consumers, investors, and other stakeholders interested in Chiquita’s corporate social responsibility. The endorsements may be found on corporate websites, social media, and/or other communication platforms utilized by any of these organizations. As such, we propose:

**P2:** The size of an organization’s representational network is positively related to the number of information sources about an organization (i.e., the number of actors speaking about the organization in the flow network).

As an illustration, consider marketing research that examines the impact of co-branding as a way to reinforce or shape brand image (e.g., Geylani, Inman, & Ter Hofstede, 2008; Mazodier & Quester, 2014) as a potential test of the proposition. Most of the empirical research in this space uses experimental models that focus on one brand pair at a time. In this empirical illustration, we consider this same topic from the perspective of the communication ecology of multiple firms and brands; in particular, we focus on the way that alignment through communication influences the number of sources that speak on behalf of an organization. A researcher could conduct a content analysis to identify how a set of firms or a set of firms coupled with nonprofit organizations align their brands (i.e., co-brand).

The findings from the content analysis could then be used to create a representational network (see Shumate & O’Connor, 2010a for an example). From that network, the researcher is able to compute the number of co-branding relationships each organization has. Next, the researcher might conduct a media scan to identify the number of organizations that mention or speak on behalf of that organization or its brands. Computerized content analysis might speed this effort considerably.
Flow and activity coordination networks

Representational alignment is not the only strategy that an organization has at its disposal to increase the number of actors that speak on its behalf. Activity coordination, or decisions about how work is coordinated, has important strategic communication implications that have been long recognized in scholarly research (e.g., Grunig & Grunig, 1998). The study of activity coordination has some advantages over the study of formal organization structures (e.g., matrix organizations, highly centralized organizations, and organizational outsourcing). In the activity coordination network, the way that units coordinate the work is of consequence. In network terms, the key feature is the average path length. A path is defined as the shortest distance between two nodes (Wasserman & Faust, 1994). For example, if the CEO communicates the organizational vision to the internal public relations counsel, who then explains the goals to the communication agency, the length of the path between the CEO and the agency is 2. Understanding the average path length allows strategic communication researchers to assess the complexity of an organization’s structure, work flow, and supply chains. In addition, longer path lengths increase the likelihood that messages will be distorted during the activity coordination process. Thus, we propose:

**P3**: The average path length in an activity coordination network is positively related to the number of information sources (i.e., the number of actors speaking about the organization in the flow network).

Affinity networks and flow networks

Strategic communication researchers are concerned with more than just the origin and diffusion of information. Many researchers are interested in the attitudes that different stakeholder groups have toward organizations and their resulting behavior. For example, Ki and Hon’s (2007) study examined the organization–stakeholder relationships most likely to predict stakeholder’s attitudes toward an organization. Surprisingly, perceptions of trust, commitment, communal relationship, and exchange relationship did not significantly affect attitude or behavioral intentions; rather, perceptions of control mutuality and relationship satisfaction predicted positive attitude and behavioral intentions. The network perspective is able to capture the set of positive and negative relationships as an affinity network (Shumate & Contractor, 2013). Affinity networks are inclusive of the relationships between various stakeholders and organizations, as well as the relationships among stakeholder groups, as suggested by stakeholder theory (Friedman & Miles, 2006).

Affinity networks, unlike flow networks, have resilient ties that do not decay quickly over time. However, those ties can be changed in several ways. They can be made more positive, more negative, or they can be dissolved. The primary mechanism by which organizations seek to influence affinity networks is through communication with stakeholder groups (e.g., flow networks). Because flow
network ties decay rapidly, one of the key elements of the network is how often messages are disseminated and how consistent those messages are. We expand this argument to the network level and propose:

**P4**: Consistent connections between organizations and stakeholders in the flow network is related to the rate of change in the affinity networks.

Potential lines of inquiry include research on the relationships that organizations have with stakeholders across digital platforms (e.g., Fu & Shumate, 2017). Within this focus, a scholar could conduct a mixed methods study using digital trace data to evaluate the frequency and consistency of communication with stakeholders across social media platforms (see Ihm, 2015). Such a study would not only capture the frequency and consistency of messages but the number of impressions that those messages generated. Then, the scholar might embed a short survey into various platforms to elicit stakeholders’ attitudes toward a set of organizations during two time periods. A mixed method study, rather than just the use of digital trace data, is necessary because individuals’ attention to media related to an organization does not necessarily equate to positive opinion of that organization (see Jungherr, Schoen, Posegga, & Jürgens, 2016). This illustrative research project would then examine the relationship between the frequency of receiving consistent messages from organizations and the stability of stakeholder attitudes toward that organization.

**Affinity networks and affiliation networks**

One of the key arguments for uniting internal and external communication into a single line of research, now known as strategic communication, is based on organizational identity (Cheney & Christensen, 2001). The way that people identify with the organization, their image of that organization, and their attitudes toward the organization are related. As organizations increasingly become boundaryless (Hirschhorn & Gilmore, 1992), psychological attachment and identification become increasingly important. In this context, we posit that affiliation networks are related to affinity networks:

**P5**: The structure of affiliation networks is strongly related to the structure of affinity networks.

Consider an example from organizational communication, one of the disciplines under the strategic communication umbrella. Organizational communication research has often been interested in new forms of organizing and employment (e.g., Fulk & DeSanctis, 1995; Golden & Elia, 2017), including temporary workforces, virtual organizations, and the gig economy. In addition, scholars have been interested in how websites, like Glassdoor, allow employees to express their dissent in new ways (e.g., Dabirian, Kietzmann, & Diba, 2017; Gossett & Kilker, 2006). An organizational communication scholar might be interested in how more temporary forms of employment are related to different types of employee (dis)satisfaction. A study set in a metropolitan area might employ a survey of individuals who engage in contingent work; the survey might include measures of their level of identification with a set of firms that are headquartered in that city (i.e., their affiliation) and their attitude toward them (i.e., affinity) in a telephone survey. Using random digit dialing methods could make the results more generalizable. The advantage of this method would be to allow comparison between different sites of organizational identification and (dis)satisfaction.

This example illustrates a useful way that the organization–stakeholder relationship can be mapped. Most studies in network analysis focus on relationships among a set of individuals or a set of firms. However, networks can also be constructed where the only connection is between actors of two different types, the organization and the individuals working in the contingent workforce, in this example. This is known in network science as a bipartite network (Wasserman & Faust, 1994). A host of techniques are available to analyze these special networks, and they should be of keen interest to strategic communication scholars interested in relationships between organizations and stakeholders.
**Semantic and representational networks**

Understanding semantic networks, or the ways that concepts, words, and meanings become interconnected in the minds of stakeholders, is the least theorized aspect of network research in general (see Shumate & Contractor, 2013). Although there have been some attempts to theorize these networks (see Carley & Kaufer, 1993), semantic network research is largely atheoretical. This makes it difficult, at best, to create propositions about semantic networks. However, given the importance of brand associations in strategic communication (e.g., Han, Choi, Kim, Davis, & Lee, 2013; Park, Jaworski, & Maclnnis, 1986), this area of inquiry represents a significant opportunity for scholars.

Strategic communication scholars have long studied how issues are framed, taken up among stakeholders, and transformed over time. Issue management represents the proactive attempts to address internal (Dutton & Jackson, 1987) and external (Heath & Palenchar, 2008) issues in a manner that is beneficial to the organization’s overall mission. Jones and Chase (1979) authored the foundational issue management model that includes issue identification, analysis, change strategy options, action programs, and evaluation. Similarly, Crable and Vibbert (1985) argue that communication strategies are tied to stakeholder interpretations of the messages and issues. These early conceptualizations provide a framework for studying semantic networks, which network research has lacked.

A primary example is the relationship between central actors in a representational network, with whom many other actors attempt to align, and semantic networks. We contend that centrality in representational networks, or having more actors claim to have relationships with one particular organization than other organizations in the field, is a powerful indicator of who has legitimacy and credibility in an issue. Actors with centrality in representational networks have more influence regarding how issues are framed in stakeholders’ semantic networks than actors that are peripheral in these networks. Thus, we propose:

**P6**: Actors that are central in representational networks are more likely to affect semantic networks through their communication.

Issue management scholars are often interested in how actor legitimacy influences the outcomes of issue management (e.g., Coombs, 1992). Consider the study of issue management around a political issue as an illustrative example of how this proposition might be tested. The network might include lobbyists, political action groups, politicians, and corporations. The researcher might scan press releases, public statements, and news coverage for the number of times one of these actors references another (e.g., the spokesperson for a firm references the position held by a politician). These public references to the other can be assembled into a representational network. The scholar might identify actors with more or less legitimacy by computing the indegree centrality, a measure of prestige in social network research.

Next, the scholar might identify texts, perhaps on websites or in briefs, where the different actors summarize their position. These texts are combined and then, using software like AutoMap (Carley, 2017), a semantic network is created that summarizes the semantic field overall. The most frequently used words become highly central in these maps, and commonly affiliated terms become tightly connected to one another.

Finally, the researcher could create semantic networks for actors who are highly central in the representational network as well as those who are less so. The actors who are highly central in the representational network should have semantic networks that more closely resemble the overall semantic network of the issue than the actors who are less central in the field. O’Connor and Shumate (2014) used a similar approach to study the descriptions of organizations that were highly central in a representational network.

**Implications and future directions**

The implications of adopting a multidimensional network perspective for researching the complex relationships influenced by strategic communication are threefold. At the broadest level, it offers...
scho...traditional disciplinary boundaries. We believe this is fitting, given the sizable umbrella of strategic communication and scholars’ interpretations of organizations as having translucent boundaries (Cheney & Christensen, 2001). The network perspective, as outlined here, offers theoretical concepts (e.g., affiliation and affinity networks) to explain the social world that are not disciplinarily idiosyncratic. The concepts provide ways of knowing and explaining strategic communication through a relational lens thereby extending previous work by Yang and Taylor (2015). Methodologically, a multidimensional network perspective offers a distinctive approach that allows scholars to investigate how the theoretical concepts relate to one another. The relationship between theoretical concepts and the methodological approach is noteworthy in so much as it encourages scholars to embrace a network approach fully. In particular, previously methodologically untethered network concepts are able to align with a well-defined and time-tested methodology. Taken together, the theoretical and methodological concepts offer scholars a shared vocabulary that may enhance opportunities for interdisciplinary research.

Second, a multidimensional network approach embraces the increasingly interconnected and complex environment inhabited by organizations and stakeholders. This approach makes explicit the different types of relationships that exist within a network and gives primacy to the role strategic communication has in creating, maintaining, and dissolving network ties. A range of possible networks (e.g., representational or affiliation) are available within the approach; relatedly, researchers are able to move smoothly across different levels of analysis (e.g., the actor, the dyad, and the whole network), thereby capturing the complexity of different networks and advancing comparisons across network levels and types.

Finally, a multidimensional network perspective to strategic communication is grounded in the assumption that messages have effects on networks. The multiple network types are suited to examine the boundaryless modern organization where internal and external messages flow freely. This may be of particular interest to strategic communication scholars and practitioners who seek to discern how message effects are enabled, constrained, or amplified by different types of networks. In this sense, the approach provides the tools necessary to answer questions about how messages flow through networks, why some messages dissipate rapidly while others become sticky, and which messages create, maintain, and dissolve stakeholder relationships.

Certainly, there is much work to be done to fully develop the network approach outlined in this article. To begin, a more robust network theory about strategic communication needs to be articulated. The illustrative propositions presented here offer a starting point for such development; we call upon scholars to enter into the conversation and advance additional propositions that expand the approach’s applicability to strategic communication. In addition, empirical research projects that examine the multidimensional network approach are needed to test the utility of the approach in different strategic communication contexts. Although we outline several possibilities, the scope of the strategic communication field suggests a wide variety of applications are possible.

Conclusion

This article began by suggesting that a multidimensional network approach can help answer some of the most vexing strategic communication questions, including how relationships among stakeholder groups influence message flow, outcomes, and salience, as well as the ability of strategic communication to strengthen or weaken relationships. By providing greater specificity to the conceptual and methodological assumptions presented in a relational approach to strategic communication (Coombs & Holladay, 2015; Frandsen & Johansen, 2015; Hallahan et al., 2007; Heath, 2006, 2013; Nothhaft, 2016; Zoch & Molleda, 2006), we are able to build and test the complex set of relationships that exist in strategic communication. In particular, the network perspective provides the methodological framework to analyze strategic communication messages far beyond the organization–stakeholder dyad, which allows for novel explanations of interconnectivity to be identified. Relatedly,
there is inherent flexibility in a network framework, which can account for differences between actors, dyads, and networks. In these ways, a network perspective addresses the trends in modern strategic communication and expands upon previous strategic communication research that has tentatively invoked network terms (e.g., Coombs & Holladay, 2015; Frandsen & Johansen, 2015; Sandhu, 2009; Wehmeier & Winkler, 2013).

To demonstrate the utility of a multidimensional approach to strategic communication, we offer six propositions and corresponding empirical study sketches. The propositions seek to illuminate previously unidentified connections among strategic communication network types and encompass a breadth of strategic communication applications (e.g., crisis communication, corporate social responsibility, social media messaging, and employee communication). The networks identified (activity, affiliation, affinity, flow, representational, and semantic) in the different propositions help researchers organize the complex landscape of strategic communication and provide a framework to empirically examine how different network forms intersect. Within the propositions, it is possible to examine how networks take a variety of forms as well as to assess the multiple actors that are present in any network. In sum, the six propositions illustrate the heuristic value of the perspective and lay the groundwork for future theorizing.

In conclusion, the approach outlined in this article provides a framework for scholars to compare strategic communication strategies, resources, and structures of multiple organizations and stakeholders simultaneously. The dynamic, complex nature of strategic communication is foundational, and the interplay between organizations, stakeholders, and messages takes center stage as networks are identified and analyzed. Our hope is that the expansive nature of the approach can accommodate our unique subdiscipline areas of inquiry while drawing us closer together under the umbrella of strategic communication. We invite scholars across disciplinary boundaries to consider the possibilities a multidimensional network approach offers and to join us in advancing the approach across a variety of strategic communication contexts.

References


