Social networks play a critical role in people’s responses to influence attempts, determining whether a person seeks the support of others as an alternative to compliance or as a way to cope with being the target of an influence attempt. In 2 experiments (N = 458 and N = 105), sociograms were used to represent social relationships and to investigate the social network member who would be sought for social support after an influence attempt. Results showed that targets were seen as likely to seek social support in more threatening situations and from more useful (e.g., powerful, connected) network members. Differences found in the 2 experiments appear to represent differences between intergroup and intragroup networks.

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The social connections between agents and targets of influence attempts shape observers’ expectations of how the influence event will ensue. For example, when agents and targets of influence are members of the same social network, observers may assume that the target is likely to comply with the agent to avoid rejection by fellow members of the network (e.g., Schachter, 1951). On the other hand, if a target of influence is part of a coalition with other network members, this alliance reduces the expectation of group rejection (Allen, 1966), thereby decreasing the likelihood of compliance.

In addition to influencing the likelihood of compliance, social networks provide a means to respond to or help cope with an influence attempt. With the exception of the literature on minority influence (see Mugny, 1984), social support obtained from network members has received little attention in studies of social influence. The present study attempts to rectify this omission by considering different rationales for seeking support in a social network. We draw on the social influence, social network, and social support literatures to examine the process by which the target of an influence attempt responds by seeking support from network members.

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According to Bochner and Insko (1966), targets of influence attempts may respond to these attempts in a variety of ways, including by obtaining social support from like-minded others to resist compliance. This resistance may be one mechanism by which targets of influence attempts separate themselves from those who attempt to alter their behavior (Latané, 1996). A second way targets may respond to influence attempts is by turning to other members of their social network for assistance in coping with the distress or anxiety caused by the attempt (e.g., Krause, Goldenhar, Liang, Jay, & Maeda, 1993; Lewis & Rook, 1999; Schachter, 1959). Because of the constraints imposed on their behavior (Lewis & Rook, 1999), individuals rely on members of their social network, especially friends (Toegel, Anand, & Kilduff, 2007), to provide assistance or comfort subsequent to an influence attempt. Here we employ a structural explanation for social support: Seeking and receiving social support are influenced by a person’s position in a social network.

Understanding the relationship between compliance dynamics and social support helps us understand fundamental communication acts such as influencing, resisting influence, creating coalitions, and engaging in voice (e.g., speaking up or complaining) as opposed to exit (e.g., leaving a group; see Hirschman, 1970). How do influence attempts affect seeking social support? Are there structural predictors of who becomes a source of social support? Finally, what kinds of social support are sought and provided? These are the questions that the two experiments reported here seek to answer.

Influence and social support

People possess a naïve psychology of social influence, and people in every culture use this naïve psychology to predict how influence attempts and responses to these attempts proceed. Smith and Fink (2010) showed that participants use information available in sociograms (i.e., visualizations of social networks), such as the perceived power of network members, to predict responses to influence attempts. The current study asks how social networks, as represented in sociograms, shape observers’ expectations of which targets of influence attempts are likely to seek support and which network members are chosen to be support providers.

Which targets of influence are likely to seek social support?

Burleson and MacGeorge (2002) defined social support as “verbal and nonverbal behavior produced with the intention of providing assistance to others perceived as needing that aid” (p. 374). Social support may be sought after major life stressors or minor hassles (Burleson & MacGeorge, 2002; Hale, Tighe, & Mongeau, 1997), and support has been associated with a variety of positive outcomes, including emotional improvement, enhanced self-esteem, resistance to alternative views, and relief from distress (Burleson & MacGeorge, 2002; Xu & Burleson, 2001). However, little research has examined influence attempts as stimuli that effect seeking social support or the network characteristics associated with such activities.
The characteristics of social networks gain particular importance when the agent of a stressor is a member of a target’s social network. Communication within a network may produce hardship and stress, and the adverse effects of such interactions may be stronger than the ameliorative influences of supportive interactions (Rook & Pietromonaco, 1987). Rook (1990) encouraged researchers to examine both social support and social strain (i.e., actions by a member of a social network that cause adverse reactions or relational problems), including attempts at social influence or control (see also Rook & Pietromonaco, 1987).

Strained social relationships produce depression, dissatisfaction, distress, and negative affect (DeLongis, Capreol, Holtzman, O’Brien, & Campbell, 2004; Walen & Lachman, 2000). In contrast, social support, which occurs more frequently than strain in most social networks, buffers the consequences of social strain (Rook, 1984; Walen & Lachman, 2000). As Walen and Lachman (2000) indicated, “Because positive and negative aspects of relationships can occur within one network, studying how they work in tandem is a logical next step, yet is not often done” (p. 25).

The literature on social support and social strain raise important questions. One question asks about how the social network affects the experience of social support or strain (Rook, 1990). More specifically, researchers have not investigated the structural characteristics of networks that influence the sources or types of social support people desire when they are a target of interpersonal influence. We suggest that the severity of influence attempts (i.e., social strain) and the perceptions of power within a social network predict which targets of an influence attempt are likely to seek social support; thus, those targets seeking social support are not a random subset of network members. Social support may be sought by (1) all targets, (2) less powerful targets, (3) targets with less supportive impact than the agents have persuasive impact (i.e., more positive relative influence; see Nowak, Szamrej, & Latané, 1990; Smith & Fink, 2010, p. 238), and (4) targets with more supportive impact than the agents have persuasive impact (i.e., more negative relative influence). Below we provide the theoretical rationales for these alternative predictions.

Support sought by everyone
If influence attempts and social strain induce psychological stress by constraining a target’s behavior (Krause et al., 1993; Lewis & Rook, 1999), then every target may seek social support. Ensel and Lin (1991) argued that traumatic life events produce distress, which causes people to mobilize their social networks to provide social support. Consistent with this view, Miller, Smerglia, Gaudet, and Kitson (1998) observed that stress was positively associated with seeking support from social network members. Anxiety or stress has also been found to increase affiliation motivation (see Schachter, 1959; Taylor, 2006), and people faced with an influence attempt may translate this heightened motivation to seek support from members of their social network. Turning to members of a social network may be an expected response for anyone under duress, which leads to the following hypothesis:

Alternative H1a: Subsequent to an influence attempt, all targets are equally likely to seek social support.
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Support sought by less powerful targets
If influence attempts generate stress because of power dynamics, then targets with less power may be especially stressed by the influence attempt and in relatively greater need of social support. One aspect of a social situation that influences a target’s power is his or her position within a social network, and network centrality has been found to predict observers’ perceptions of a target’s power (Smith & Fink, 2010).

There are several different measures of network centrality, and this study focuses on network members’ eigenvector centrality and betweenness centrality (Borgatti, 2005; Newman, 2010; Wasserman & Faust, 1994). Eigenvector centrality (Bonacich, 1972; Borgatti, 2005) reflects the idea that connections to well-connected others create more and better opportunities and resources than few connections or associations with less-connected others; eigenvector centrality is an estimate of the number and quality of a member’s connections. Betweenness centrality emphasizes the benefits of nonredundant network paths (Burt, 1992). If equal amounts of information flow between people in a network, and the information takes the shortest path within that network, betweenness centrality represents the amount of information that flows past a given person on its way through the network (Freeman, 1979). People with higher betweenness centrality have greater access to and more control over information because they are located at the intersection of different regions in a network (Borgatti, 2005).

Less power is associated with less eigenvector and betweenness centrality. Compared to powerful people, individuals with less power are more constrained by their environment (Anderson & Galinsky, 2006) and are more vulnerable to negative actions from others (Allen, 1966). Relatively powerless people consider the constraints on their behavior (Anderson & Galinsky, 2006), including how those with power may respond to their actions (Berdahl & Martorana, 2006). Powerless people have relatively few resources at their disposal and consequently lack sufficient support to cope with stressors (Litwin & Landau, 2000). Because the constraints imposed by an influence attempt may generate greater stress for those with low power (as assessed by network centrality), low power targets may be more likely to seek support. This view results in the following hypothesis:

Alternative H1b: Subsequent to an influence attempt, the less absolute power the target has, the more likely the target is to seek social support.

Support sought by targets in positions of positive relative influence
A competing view regarding the targets that are likely to seek support is grounded in a structural perspective to compliance dynamics. Based on dynamic social impact theory (DSIT; Nowak et al., 1990), Smith and Fink (2010) defined the relative influence of an agent over a target as the agent’s persuasive impact minus the target’s supportive impact. Positive relative influence (i.e., an agent having more persuasive impact than a target has supportive impact) should result in a target complying to an influence attempt. In contrast, negative relative influence (i.e., a target having greater supportive impact than an agent has persuasive impact) should result in target resistance.
In a situation of positive relative influence, targets may comply with an influence attempt rather than try to resist it because their relatively lower power (i.e., positive relative influence) limits their ability to resist the agent. If such compliance dynamics are stressful, then targets may seek support from network members to cope with their inability to resist the influence attempt. This view considers social support as a resource to cope with compliance-related distress, resulting in the following hypothesis:

Alternative H1c: Subsequent to an influence attempt, the greater the positive relative influence between agent and target (i.e., the less power the target has relative to the agent), the more likely the target is to seek social support.

Support sought by targets in positions of negative relative influence
According to Bochner and Insko (1966), targets may respond to influence attempts by engaging in some form of resistance, such as obtaining “social support from other like-minded individuals” (p. 614). Social support would then be an asset that targets can leverage in influence situations. Similarly, some scholars conceptualize social support as a form of social capital that is associated with robust resources and improved wellbeing (Roustit et al., 2011). In a situation of negative relative influence, when targets are likely to resist compliance, targets may attempt to garner support from members of their social networks to resist compliance or even to counterpersuade the influence agents. This perspective suggests that the target exercises the power of network position, thereby “flexing one’s structural muscle.” Therefore:

Alternative H1d: Subsequent to an influence attempt, the greater the negative relative influence between agent and target (i.e., the more power the target has relative to the agent), the more the target seeks social support.

How does the type of influence attempt affect seeking social support?
In addition to characteristics of the agent and target, the tactic employed in the influence attempt may determine the extent to which participants seek social support. For example, threats may be viewed as more serious relational transgressions than attempts at persuasion. “Agents threaten a target when they indicate that they will make the target’s situation worse if the target does not comply with their request” (Fink et al., 2003, p. 297, emphasis in original). Threats are acts of dominance that show indifference to a target’s autonomy, self-esteem, and social value (e.g., Fink et al., 2003; Kaplowitz, Fink, & Lin, 1998). Thus, threats are messages that are both unconventional (Marwell & Schmitt, 1967) and powerful (Kaplowitz et al., 1998).

In contrast, persuasion focuses on altering someone’s beliefs, attitudes, or behavior but not “hurt[ing] the target directly as a consequence of that change or lack thereof” (Fink et al., 2003, p. 297). Persuasion may be perceived to be a fallback position when agents hold less power than their targets (Smith & Fink, 2010). Fink et al. (2003) reported that persuasion is considered to be less severe and involves minor relational transgressions as compared to threats. The level of distress from these two kinds of influence attempts differs, with the target more upset by a threat than by an attempt at persuasion. Such considerations are relevant to social support because people are more likely to seek support when they encounter more severe stressors (Bodie et al.,
Other things being equal, threats should induce more distress, more resistance, and therefore a stronger desire for support than do attempts at persuasion. The following hypothesis is proposed:

H2: Targets are more likely to seek social support after being subjected to a threat than to an attempt at persuasion.

Who is likely to be sought for social support?
Research has documented the qualities of support providers and the features of messages that are valued by support seekers (see Bodie et al., 2011; Burleson, 2003; Burleson & MacGeorge, 2002; Jones, 2004), but comparatively little is known about the structural characteristics of social networks that influence the selection of support providers. The research on seeking support suggests that people prefer to receive support from individuals who are similar to them in some way (Burleson & Denton, 1992; Burleson & Samter, 1996). The type of stressor also plays a role: Stressors that involve intimate matters are likely to result in seeking support from confidants, whereas situations that require a particular skill or specific knowledge are likely to result in seeking support from trusted experts (Burleson & MacGeorge, 2002; Cutrona & Suhr, 1994; Sullivan, 1996). Below we discuss three explanations for the choice of a support provider: structural similarity, sociometric distance, and power.

Structural similarity
As suggested by Bochner and Insko (1966), targets of an influence attempt may turn to “other like-minded individuals” (p. 614). In the context of a social network, members who occupy similar structural positions often pay attention to one another because their opinions, interests, and behaviors have implications for each other (Burt, 1992). Structurally similar members often monitor each other, compete with one another, and enact similar behaviors, even if they do not directly communicate with each other (Abrahamson & Rosenkopf, 1997). These individuals are also likely to experience similar stressors, receive similar information, communicate with similar contacts, and possess similar social resources. People in structurally similar positions in a social network may be attractive sources of social support because they possess the knowledge and resources to offer support that matches the circumstances of the target. Accordingly, the following hypothesis is proposed:

Alternative H3a: The greater the similarity in network centrality between the target of an influence attempt and another network member, the more likely the network member is a source of social support for the target.

Sociometric distance
A path refers to the distance between two nodes (here, people) in a network (Newman, 2010; Wasserman & Faust, 1994). The shortest path (also called the geodesic path or geodesic) is the path between two nodes with the fewest edges (i.e., undirected links). Here we define the number of edges for the shortest path to be the shortest distance.

People with less sociometric distance from targets may be seen as more accessible, and targets may be expected to seek support from a sociometrically close other
rather than a distant other because people select the path of least resistance or effort (Zipf, 1949). For example, seeking support from a friend is easier than a friend of a friend because those directly related are more likely to respond positively (Cai & Fink, 2011; Cai, Fink, & Xie, 2012). DSIT includes a concept called *immediacy*, which refers to closeness in space or time (Nowak et al., 1990). One’s sociometric neighborhood surrounds and protects an individual: Greater immediacy protects minority groups from being overwhelmed by majority groups. People cluster together to form coherent, bounded entities (Kincaid, 2004; Latané, 1996), and this clustering may reflect targets turning to sociometrically close others for social support in the face of influence attempts.

People who are structurally closer to targets are viewed as both more accessible and more similar to the target. In the current study, sociograms are used to describe a simulated friendship network with ties between network members reflecting mutual friendship. People who are close in their structural locations are likely to communicate more and become similar to their fellow network members (see, e.g., Berger & Calabrese, 1975; Fink & Chen, 1995). Conversely, people who hold distinct values and beliefs are often located further apart in a social network and interact relatively infrequently.

Research on network evolution suggests that people develop friendships with those who are like them (e.g., Bearman, Moody, & Stovel, 2004; Kandel, 1978), and they seek to validate their opinions by communicating with similar others (Festinger, 1954). Similar people gravitate toward each other, thereby creating cohesive subgroups of individuals located in close proximity (Kincaid, 2004; Latané, 1996).

Because of their accessibility and similarity, sociometrically close network members may be considered valuable support providers. Their value may be understandable given Cutrona and Russell’s (1990) suggestion that the most effective social support is provided by people who match their support to their experiences, resources, and history of interaction with the support recipient (see also Thrasher, Campbell, & Oates, 2004). Thus, the following hypothesis is proposed:

**Alternative H3b:** The smaller the network distance between the target of an influence attempt and another network member, the more likely the network member is a source of social support for the target.

**Power**

In general, people form connections with, communicate with, and seek comfort from people whom they perceive to possess adequate and beneficial resources. Friendships have costs (Burk, Kerr, & Stattin, 2008), so people avoid undesirable partners and gravitate toward those whom they perceive to have positive attributes (Bearman et al., 2004).

Network members with greater perceived power may be attractive support providers. Those with more power have access to more resources, both material and social; encounter less interference when pursuing rewards (Anderson & Galinsky, 2006); and have the ability to control others’ access to resources (Berdahl & Martorana, 2006). People can use their associations with powerful others to secure
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benefits (Dutta-Bergman, 2004). If targets use the resources of their social networks to defend against influence attempts, then members in positions of relatively high power may be valuable, and thus valued, support providers. Thus, we propose the following hypothesis:

Alternative H3c: The greater the perceived power of a network member, the more likely the network member is a source of social support for the target.

Experiment 1

Method

Participants

Participants were 458 undergraduate students from a variety of majors at a large U.S. university (286 males, 171 females, and 1 with gender unreported). They were recruited from basic communication courses and received extra credit for their participation. Their mean age was 20.21 (\(Mdn = 20.00\), \(SD = 1.85\), age range 18–44). Participants self-identified as Caucasian (87%), Asian (6%), African American (2%), Hispanic or Latino (2%), Native American (1%), or they did not indicate a racial or ethnic membership (2%).

Procedures

After receiving approval from the university’s IRB, the participants were asked to complete a Web-based survey, part of which presented simulated sociograms as stimuli. Such simulations have been found to provide insight into social processes because people have expectations for the antecedents and consequences of social behavior (Fink et al., 2003; Kelley, 1992); they apply these expectations to novel and even hypothetical situations, a phenomenon Heider (1958) labeled “common sense psychology.” To the extent that participants’ beliefs about social situations reflect observed behavior, those beliefs can be interpreted as valid representations of their social reality (Kelley, 1992).

The simulations used in the two experiments reported here follow the logic employed by Fink et al. (2003): These designs are “similar to what scientists in other domains do: Simplify context to clarify process and structure” (p. 312). Social scientists have successfully examined communication using simulations (Stasser, 1988), hypothetical scenarios (Burleson, 2003), and confederate-based interactions (Jones, 2004), without providing participants with detailed contextual knowledge. The sociograms used in the current experiments follow this tradition and are used here to provide insight into participants’ decisions regarding social support subsequent to an attempt at interpersonal influence.

The sociograms. Sociograms were employed to represent friendships between 11 hypothetical individuals who were described as being in the same university class. Classmates were identified by letters, and participants were not given any other information about them. In the sociogram, the classmates were the nodes and their
friendships were the links. The links appeared as undirected lines, so the friendships were implicitly defined as symmetric.

The letters used to identify classmates were selected because they are the most commonly used letters in the English language. Following the pilot study reported in Smith and Fink (2010), the two hypothetical actors (i.e., the agent and target of social influence) were designated by the letters T and R, which were observed to have equivalent and neutral power in a pilot study (see Smith & Fink, 2010). In this experiment, six sociograms were used, and T and R were situated in different locations in these sociograms. Figure 1 shows the four locations used for the two nodes identified as the agent and target. The sociograms depicted T and R in one of the six combinations of positions: 1–2, 1–3, 1–4, 2–3, 2–4, and 3–4. Thus, in four sociograms (1–3, 1–4, 2–3, and 2–4) the agent and target nodes were not pictured as directly linked, which means that they were not considered to be friends. Two variations of each combination pair were generated so that each agent-target order was represented (e.g., T in position 1 as the agent and R in position 2 as the target versus T in position 1 as the target and R in position 2 as the agent).

The positions of the agents and targets within this sociogram vary in their centrality. According to Smith and Fink (2010), position 1 in Figure 1 has high eigenvector centrality but low betweenness centrality; position 2 has high eigenvector centrality and high betweenness centrality; position 3 has low eigenvector centrality but high betweenness centrality; and position 4 has low eigenvector centrality and low betweenness centrality.

Experimental design. Each participant answered questions about one sociogram. Participants were asked to consider an influence attempt between two classmates, T and R. Participants were presented with one of four statements, which varied in both order and tactic: Classmate T threatened Classmate R; Classmate T attempted to persuade Classmate R; Classmate R threatened Classmate T; or Classmate R attempted to persuade Classmate T. The experiment was a 6 (number of sociograms) × 2 (threaten
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vs. attempt to persuade) \( \times 2 \) (agent = R vs. agent = T) between-subjects factorial design, which generated 24 experimental conditions.

**Measures of covariates and dependent variables**

Many of the measures described below were calculated from structural positions within the sociogram and were, therefore, not solicited as perceptions from participants. In particular, measures of network centrality, persuasive impact, supportive impact, relative influence, network similarity, and shortest path were all calculated directly from positions within the sociogram. Participants provided measures of perceived power, responses by the target of the influence attempt, and the probability that the target would seek social support from network members.

**Target's network centrality.** Using UCINET (Borgatti, Everett, & Freeman, 2002), the normalized betweenness centrality (\( \times 100; M = 29.59, SD = 25.29 \)) and normalized eigenvector centrality (\( \times 100; M = 35.86, SD = 30.67 \)) were computed for the target in each condition. The two centrality measures for the four nodes included in this experiment were relatively independent (\( r = .11, ns \)); thus, both betweenness centrality and eigenvector centrality were used in the analyses presented below.

**Agent's persuasive impact.** Drawing on concepts and modified formulae from DSIT (Nowak et al., 1990), the agent’s persuasive impact (\( i_p \)) is \( p_i/d_i^2 \), where \( p_i \) is the agent’s perceived power before the influence attempt, and \( d_i \) is the shortest path distance between the agent and the target.

**Target’s supportive impact.** Drawing on concepts and modified formulae from DSIT (Nowak et al., 1990), the target’s supportive impact (\( i_s \)) is \( N_s^{1/2} \sum (s_i/d_i^2) / N_s \), where \( N_s \) is the number of nodes in the sociogram with exclusive connections to the target (i.e., paths from nodes that go through the target to reach the agent), \( s_i \) is the perceived power of the source of support, and \( d_i \) is the shortest path distance between the target and the source of support.

**Relative influence.** This variable equals \( i_p - i_s \).

**Network similarity.** Using UCINET, the normalized betweenness centrality (\( \times 100; M = 16.85, SD = 20.92 \)) and normalized eigenvector centrality (\( \times 100; M = 32.50, SD = 26.03 \)) were estimated for each network member in each condition. In this hypothetical network, the correlation between these two centrality measures is \( r = .16 (ns) \); thus, both scores were used in the analyses. The absolute value of the difference between the network member’s and the target’s betweenness centrality (\( M = 28.89, SD = 22.29 \)) and eigenvector centrality (\( M = 33.91, SD = 24.91 \)) was calculated, with lower scores indicating greater similarity between their positions in the network.

**Shortest path.** The minimal number of edges between the target and each network member (or shortest path) was assessed. The distance varied from one to six, with higher scores indicating greater sociometric distance.
Perceived power. Participants reported their perceptions of each hypothetical network member’s power using five different statements with response alternatives ranging from 0 (no power) to 10 (highest power). The five statements corresponded to French and Raven’s (1959) conceptions of power in small groups (e.g., reward power, coercive power, referent power, legitimate power, and expert power). The responses for each person were averaged. Confirmatory factor analyses (CFAs) using maximum likelihood estimation were conducted for each hypothetical classmate’s power. All the solutions produced acceptable model fit. For example, the power assessments for the two main characters, Classmate T: \( \chi^2(5, N = 456) = 8.82, \chi^2/df = 1.76, p = .12; \) NFI = .99, CFI = 1.00, RMSEA = 0.04, 90% CI [.00, .08]; and Classmate R: \( \chi^2(4, N = 458) = 5.56, \chi^2/df = 1.39, p = .35; \) NFI = 1.00, CFI = 1.00, RMSEA = 0.02, 90% CI [.00, .07], fit well; these summaries include all versions of the sociogram. An overall perceived power score was created by averaging the five responses for the agent (\( \alpha = .84 \)) and the target (\( \alpha = .81 \)), with higher scores indicating more power.

Responses by the target of the influence attempt. Based on Bochner and Insko (1966), participants were told that the target had at least five different ways (strategies) to react to the influence attempt: (a) comply with the agent’s request; (b) disparage (ridicule, discredit, or criticize) the agent; (c) persuade the agent to not want what he or she wants; (d) obtain social support from similar others; and (e) do nothing; this last option was not mentioned by Bochner and Insko. Participants were asked to provide examples, in their own words, of each of these options. These open-ended answers were evaluated to determine whether the participants understood the different strategies; in all cases their answers were appropriate to the categories.

Next, participants were asked to indicate the likelihood, from 0% to 100%, that the target would engage in each of the five different options and then to indicate which option the target would try first. This experiment focuses on Option 4: obtain social support. Based on the five options, the likelihood of selecting social support as the first choice and the overall likelihood of seeking social support (on the 0–100% scale) were significantly correlated, \( r(456) = .47, p < .05; \) the overall likelihood of selecting Option 4 was used for the analyses below.

Source selection. Participants were asked to indicate the probability, from 0% to 100%, that the target would seek social support from each of the nine remaining members of the network, which excludes the influence agent and target.

Analytic issues
To test AH3a–AH3d, the data first needed to be transposed and restructured to allow for mixed models (e.g., repeated-measures analyses of covariance, i.e., ANCOVAs). Participants indicated the likelihood that the target would turn to the remaining network members for social support, excluding the target and agent. The nine remaining probabilities were restructured as the rows of the data matrix: Each participant had nine rows of data. Noninteger degrees of freedom are reported for the repeated measures ANCOVAs.
Results

Likelihood of seeking social support

Targets were perceived to have less than a 50% probability ($M = 43.40\%$, $SD = 28.61$) of seeking social support after an influence attempt. In contrast to AH1a, not all targets were perceived to have an equal likelihood of seeking support. An overall test was conducted, with perceived probability of seeking social support as the dependent variable and message condition as the independent variable; there were 24 conditions. The overall model was statistically significant, $F(23, 434) = 4.14$, $p < .001$, $R^2 = .18$. The highest means for seeking social support appeared in two conditions: the agent in position 4 threatening either a target in position 1 ($M = 68.50$, $SD = 22.60$) or position 3 ($M = 65.47$, $SD = 19.29$). The lowest means for seeking social support appeared in three conditions: target in position 4 attempting to be persuaded by an agent in position 1 ($M = 25.50$, $SD = 21.45$), position 2 ($M = 24.83$, $SD = 19.82$) or position 3 ($M = 22.36$, $SD = 22.99$).

AH1b, AH1c, AH1d, and Hypothesis 2 test the factors associated with seeking social support. To test these hypotheses, a one-way ANCOVA was conducted with perceived probability of seeking social support as the dependent variable, tactic (threaten vs. attempt to persuade, H2) as the independent variable, and target’s perceived power (AH1b) and relative influence (AH1c and AH1d) as covariates. The model was statistically significant, $F(3, 454) = 23.77$, $p < .001$, $R^2 = .14$.

Power

Targets perceived to be more powerful in general were thought to be more likely to seek social support, unstandardized $b = 2.57$, $SE = 0.50$, $p < .001$. AH1b, which predicted the opposite, was not supported.

Relative influence

AH1c and AH1d made opposing predictions about the role of relative influence in predicting social support. As predicted by AH1d, relative influence was negatively related to the likelihood that targets were thought to seek social support (unstandardized $b = -0.37$, $SE = 0.14$, $p < .01$). Targets who had more supportive impact than their agents had persuasive impact (i.e., negative relative influence) were predicted to be more likely to seek social support. AH1d was supported; AH1c was not.

Tactic

As predicted by H2, targets were more likely to seek support after an influence attempt using threats ($M = 47.72$, $SD = 27.83$) than persuasion ($M = 38.88$, $SD = 28.78$), $F(1, 454) = 9.56$, $p < .01$, partial $\eta^2 = .02$. This hypothesis is supported.

Sources of social support. Alternative Hypotheses 3a – 3c (AH3a – AH3c) predicted the valence of the attributes of network members — similar network centrality, smaller sociometric distance, and greater perceived power — that may explain who is sought for social support. A mixed-model ANCOVA for the likelihood of selecting a network member was conducted, with network member in the simulated friendship network
being a repeated measure within participants. Member’s similarity for eigenvector centrality and betweenness centrality (AH3a), sociometric distance (AH3b), and perceived power (AH3c) were covariates; the identifying letter of the network member (i.e., A, D, E, H, I, L, N, S, and U) was the independent variable.

As predicted by AH3a, network members whose eigenvector centrality and betweenness centrality were more similar to the target had a greater likelihood of being identified as a source of social support, coefficient $= -0.67$, SE = 0.02, $t(3608.20) = -37.33$, $p < .001$, $R^2 = .28$, and coefficient $= -0.14$, SE = 0.02, $t(3705.69) = -6.59$, $p < .001$, $R^2 = .01$, respectively. Contrary to AH3b, greater sociometric distance from the target led to being selected as a source of social support, coefficient $= 2.29$, SE = 0.44, $t(2722.06) = 5.15$, $p < .001$, $R^2 = .01$. As predicted by AH3c, network members with greater perceived power had a greater likelihood of being a source of social support, coefficient $= 2.09$, SE = 0.23, $t(3284.57) = 9.10$, $p < .001$, $R^2 = .02$.

In addition to these hypotheses, the letter used to identify the network member was also statistically significant, $F(8,1101.06) = 45.00$, $p < .001$, $R^2 = .25$. The pattern of means was explored to investigate the effects of the network positions associated with the letters. After adjusting for other model variables, the perceived power of positions H ($M = 14.70$, SE = 1.36, 95% CI [12.03, 17.38]) and L ($M = 22.11$, SE = 1.38, 95% CI [19.39, 24.83]) had a lower likelihood of being selected to be support providers than other network members. The next lowest member, the person in position S ($M = 30.55$, SE = 1.37, 95% CI [28.04, 33.05]), had overlapping confidence intervals with almost all of the other network members. These results suggest that some quality about the power associated with the network members in positions H and L warrants investigation (see Figure 1 for their sociometric location).

A post hoc analysis examined this issue. First, paired-sample $t$ tests were used to assess systematic differences in the perceived power of the members in positions H and L in comparison to the target. Although across scenarios position H was perceived to be less powerful than the target, paired-sample $t(456) = -3.54$, $p < .001$, the results for position L were not statistically significant, paired-sample $t(456) = 0.21$, ns. These two positions were not the lowest in eigenvector centrality or betweenness centrality; the two positions with the least network centrality appear above and below position 3, at the right-hand side of the sociogram. The perceived power of position H was within sampling error of these two right-hand positions.

**Discussion**

Experiment 1 investigated the conditions under which participants expected targets of influence attempts to seek social support and the attributes of the network members they selected to provide support. We embraced a structural explanation for seeking support. This experiment found that the likelihood of seeking support was associated with the relative influence between the agent and target (i.e., negative relative influence), threats more than attempts at persuasion, and more powerful targets. These findings suggest that social support may bolster resistance to compliance. In other
words, powerful targets may use their structural resources to seek support from others to maintain their autonomy in the wake of an influence attempt. The network members selected for support are consistent with this argument. Targets were found to seek support from network members with network centrality similar to that of the target, with greater sociometric distance from the target, and who were perceived to be more powerful.

An unanswered question from Experiment 1 concerns the avoidance of two network members, those members identified as H and L. A previously discussed post hoc analysis showed that these two members did not hold positions of particularly low network centrality nor were they perceived to be the least powerful network members. These results suggest that other structural qualities make network members attractive support providers.

**Experiment 2**

**Types of social support**
To this point, we have discussed social support as a single resource; however, support providers can communicate comfort or assistance in different ways, and different situations may call for distinct forms of comfort. These different forms of support, including reappraising stressors, suggesting healthy habits, and offering forms of distraction, may be beneficial for support seekers (Burleson & Goldsmith, 1998; Callaghan & Morrissey, 1993; Dewe & Guest, 1990; Xu & Burleson, 2001). This issue was not investigated in Experiment 1.

**Structural differences in sociograms**
The results of Experiment 1 were based on one sociogram, which has a particular network structure. In Experiment 2, we used a sociogram that was created to reflect different patterns of centrality compared to the sociogram used in Experiment 1. Whereas the sociogram in Experiment 1 included nodes that were situated in positions of high and low betweenness or eigenvector centrality, the sociogram used in Experiment 2 featured nodes in positions of high degree centrality, high closeness centrality, and high betweenness centrality. Furthermore, the sociogram employed in the second experiment has higher correlations between the measures of centrality than the sociogram used in the first experiment. These differences represent structural properties of the networks, not subjective perceptions of the participants.

**Intergroup versus intragroup structure**
Structural differences between these sociograms may create differences in the way people respond to hypothetical influence attempts. More specifically, the sociogram employed in Experiment 1 (see Figure 1) may represent two separate groups, thereby arousing intergroup tensions, whereas the sociogram used in Experiment 2 (see Figure 2) represents a single, cohesive group, which may elicit intragroup pressures.
Turner (1985) noted that “simply imposing a shared group membership on people can be sufficient to generate attraction between them” (p. 84) and that sharing a common fate, a shared threat (e.g., a common enemy, intergroup competition), proximity, or similarity is enough to evoke feelings of intragroup belonging or intergroup tension.

Prior research on group communication affirms that group membership influences its members, causing them to abide by the norms, pressures, and values of the group (Turner, 1985). Imposing group membership on people, even on an arbitrary basis, creates intragroup cohesion. Although group members accentuate their differences from and discriminate against members of outgroups, they report more positive attitudes, greater liking, increased similarity, and heightened altruistic motivation toward members of their ingroup (Howard & Rothbart, 1980; Tajfel, 1981; Turner, 1985).

The goals and interests of group members are often shared, which further promotes intragroup cooperation and harmony (see, e.g., Turner, 1985). Conversely, intergroup conflict or competition magnifies differences and creates tensions between groups (Turner, 1982, 1985). Ingroup members are perceived to be more attractive simply by virtue of their membership in a common group; intergroup tensions create feelings of depersonalization, reduced attraction, lessened success, and less prestige for outgroup members (Lott & Lott, 1965; Turner, 1985). Therefore, social networks that create differences in group entitativity (Campbell, 1958) should create differences in behavior following an influence attempt. Whereas networks that foster notions of intergroup tension may generate conflict or resistance to influence attempts, networks that elicit perceptions of intragroup cohesion may encourage compliance and social support to manage the stresses of compliance. These ideas can be tested by examining any differences in results between the two experiments presented here.
Identifying and labeling the network nodes

Another difference between the sociograms in the two experiments is that the sociogram in Experiment 2 uses names, rather than letters (as in Experiment 1), to label the nodes in the sociogram; this change may have the advantage of making it easier for participants to envision an actual friendship network. On the other hand, the use of names may predispose participants to employ stereotypes associated with particular names. This issue is discussed below.

Strategies of social support

Barbee and colleagues (e.g., Barbee & Cunningham, 1995; Barbee et al., 1993) used the term interactive coping to encapsulate the range of supportive behaviors network members can communicate. These behaviors vary on the dimensions of approach and avoidance. Approach behaviors, which involve actively and deliberately working to improve people’s situation, include finding answers to problems (solve) and addressing a person’s emotional state (solace). Avoidant behaviors, which involve disengagement to allow distressed people to cope as they see fit, include downplaying the details of a problem (dismiss) and providing distractions from negative or harmful emotions (escape).

People generally prefer and react more positively to approach compared to avoidant support behaviors (e.g., Derlega, Winstead, Oldfield, & Barbee, 2003); however, this is not a universal preference. Some individuals indicate a preference for avoidant support, and certain feelings, such as grief or anxiety, which further complicate stressful situations, correspond to a greater appreciation of avoidant support (Barbee, Gulley, & Cunningham, 1990; Winstead & Derlega, 1991).

Other research indicates that avoidance is used in strategic ways during conflict (Wang, Fink, & Cai, 2012), and avoidance can be used in similar ways in episodes that require supportive communication. People who prefer avoidant support do not want others to be directly involved with their stressors; rather, they prefer to be distracted from their problems or desire to be left alone to cope as they see fit. Furthermore, research on false consensus and social projection shows that participants often assume that their preferences are shared by others (see Krueger, 2000, for a review). The weight of the evidence and our naive psychology suggest the following hypothesis:

H4: Following an influence attempt, approach support behaviors are considered preferable to avoidance support behaviors.

Source selection

Middle-person sources and transitivity

The middle-person position—centered between, in this case, two antagonistic members of a social network—is an attractive source of social support, promoting the creation of transitive relationships. Transitive relationships are common and occur when people befriend their friends’ friends. In fact, people rarely maintain indirect relations with others; they prefer to establish direct relationships with their friends’ friends (Burk, Steglich, & Snijders, 2007). Because there is an impetus for two indirectly connected individuals to develop a friendship, Burk et al. (2008) claimed that,
based on their research on adolescent school friendships, “reciprocity and transitivity are the most prominent predictors of friendship ties” (p. 517; see also Snijders & Baerveldt, 2003). Similar ideas follow from balance theory (Heider, 1958). This research and theory suggest that participants desire to convert indirect network relations into direct ones, thereby establishing mutual friendships.

In some cases, the mutual friend (i.e., the middle person) is the person with the most knowledge, greatest ability, or strongest likelihood of balancing resources and restoring harmony after an influence attempt. Middle persons occupy a distinct position with respect to a conflicted dyad because they know both parties; they may be able to provide comfort or advice from a perspective that represents the views of both partners (see also Caplow, 1968). Simmel (1950) described one role in a triad as a mediator, “whose equal distance to both conflicting parties assures his impartiality...” (p. 151), making the mediator a good candidate for providing social support to both members of a conflicting dyad. Research on supportive communication also emphasizes the importance of relational knowledge in enabling a support provider to tailor comforting messages (see Burleson, 2003; Burleson & MacGeorge, 2002).

Although Experiment 1 benefited from having agents and targets in positions varying in network centrality, the sociogram did not allow us to test the attractiveness of middle persons for social support. This idea provides us with another reason to employ a different sociogram in Experiment 2 (see Figure 2), one with two middle persons (Fernando and Garth) between the hypothetical agent and target (Diane and Heather). When an influence attempt occurs between two indirectly linked members, the middle person may be the most accessible person from whom to seek support and the most knowledgeable support provider. Thus:

H5: Targets are more likely to select as sources of social support network members who occupy middle positions between themselves and the influence agent rather than network members with more distant relations.

Method

Participants

Participants were 105 undergraduate students from a variety of majors at the same university used for Experiment 1 (54 males, 49 females, and 2 with gender unreported). None of the participants from Experiment 1 participated in Experiment 2. The participants were recruited from basic communication courses and received extra credit for their participation. Their mean age was 20.76 years old (\(Mdn = 20.00, SD = 2.12, Range = 13.00\)). Participants self-identified as Caucasian (80%), African American (8%), Asian (3%), Hispanic or Latino (3%), other (2%), or they did not indicate a racial or ethnic membership (4%).

Procedures

After receiving approval from the university’s IRB, participants completed a Web-based survey. After agreeing to an online consent form, participants were shown a simulated social network (Figure 2, the kite formation credited to Krackhardt, as found in Krebs, 2011).
In a pilot study, a separate set of participants \((N = 16)\) was asked to consider the names used in this sociogram in combination with a list of eight attributes: power, reward, punishment, admiration, ability to enforce appropriate behavior, strength, activity, and goodness. Participants were asked if they thought each name exhibited more than a typical amount of each different attribute, and we did not observe any consistent patterns across the names. Specifically, the scores describing power associated with the two names used for the influence inductions (Diane and Heather) were transformed via an arcsine-root transformation and then compared by using paired-sample \(t\) tests, except when the measure had no variance. There was no statistically significant difference between these two names for their association with any of the eight attributes. These pilot data suggest that any findings in this experiment would not be due to stereotypes associated with the names used for the two actors in the influence attempt.

The procedures and most measures were the same as those used for Experiment 1. Participants in the main experiment were shown a Web page containing a sociogram, which had 10 nodes. As in Experiment 1, participants were asked to consider an influence attempt presented in one of four versions: Diane threatened Heather, Diane attempted to persuade Heather, Heather threatened Diane, or Heather attempted to persuade Diane. Participants then were asked to indicate the probability that the agent got what she wanted from the target, and after imagining that they were the target of the influence attempt, to select network members for support (see Experiment 1 for the exact wording of the questions for compliance and source selection). Unlike Experiment 1, participants were asked to consider which of Barbee and Cunningham’s (1995) support strategies they would most like to receive from the network member they selected for support. We also used an open-ended question to ask participants to describe the supportive comments, actions, or behaviors they would desire from members of the social network if they were the target of the influence attempt. Finally, participants were asked to provide their demographic information.

Instrumentation

Power. Participants reported their perceptions of each hypothetical network member’s power using the same five items used in Experiment 1 (see Table 1 for \(\alpha\)s, means, and standard deviations). The responses for each person were averaged. CFAs were conducted to examine each hypothetical network member’s power, and all of the solutions produced acceptable model fit. For example, the power assessments for the two main characters, Diane: \(\chi^2(5, N = 105) = 4.91, p = .43; NFI = .98; CFI = 1.00; RMSEA = 0.00, 90\% CI [0.00, 0.13]\); and Heather: \(\chi^2(5, N = 105) = 5.30, p = .38; NFI = .98; CFI = 1.00; RMSEA = 0.02, 90\% CI [0.00, 0.14]\), fit well.

Support strategies. Participants imagined they were the target of the influence attempt and indicated their preference for different strategies of social support using the scales developed by Barbee and colleagues (reported in Derlega et al., 2003). Participants used 5-point scales (1 = not at all; 5 = very much) to complete a total of 20 statements that correspond to approach strategies (solve and solace) and avoidance strategies.
Table 1  Perceived Power, Network Centrality, and Support Measures of Network Members (N = 105), Experiment 2

<table>
<thead>
<tr>
<th>Network Member</th>
<th>Perceived Power M (SD)</th>
<th>Alpha</th>
<th>Network Centrality NEigen</th>
<th>NBetween</th>
<th>Support Nominate</th>
<th>Likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andre</td>
<td>5.84 (1.61)</td>
<td>.88</td>
<td>49.81</td>
<td>2.32</td>
<td>5.61%</td>
<td>40.07 (29.49)</td>
</tr>
<tr>
<td>Beverly</td>
<td>5.76 (1.58)</td>
<td>.87</td>
<td>49.81</td>
<td>2.32</td>
<td>15.89%</td>
<td>39.88 (29.47)</td>
</tr>
<tr>
<td>Carol</td>
<td>5.45 (1.59)</td>
<td>.88</td>
<td>40.42</td>
<td>0.00</td>
<td>12.15%</td>
<td>42.87 (26.93)</td>
</tr>
<tr>
<td>Diane</td>
<td>8.08 (1.91)</td>
<td>.80</td>
<td>68.03</td>
<td>10.19</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Ed</td>
<td>5.39 (1.56)</td>
<td>.86</td>
<td>40.42</td>
<td>0.00</td>
<td>4.67%</td>
<td>41.08 (26.03)</td>
</tr>
<tr>
<td>Fernando</td>
<td>6.45 (1.71)</td>
<td>.86</td>
<td>56.24</td>
<td>23.13</td>
<td>16.82%</td>
<td>60.67 (26.84)</td>
</tr>
<tr>
<td>Garth</td>
<td>6.50 (1.72)</td>
<td>.86</td>
<td>56.24</td>
<td>23.13</td>
<td>12.15%</td>
<td>58.66 (27.40)</td>
</tr>
<tr>
<td>Heather</td>
<td>5.07 (1.73)</td>
<td>.90</td>
<td>27.70</td>
<td>38.89</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Ike</td>
<td>3.79 (1.96)</td>
<td>.88</td>
<td>6.80</td>
<td>22.22</td>
<td>12.15%</td>
<td>40.72 (37.83)</td>
</tr>
<tr>
<td>Jane</td>
<td>3.14 (2.61)</td>
<td>.91</td>
<td>1.58</td>
<td>0.00</td>
<td>16.82%</td>
<td>28.30 (33.61)</td>
</tr>
</tbody>
</table>

Note: Perceived power = participants’ estimates of hypothetical classmate’s power; NEigen = normalized eigenvector centrality × 100; NBetween = normalized betweenness centrality × 100; Nominate = percentage of participants who nominated the classmate as their top choice for support; Likelihood = participants’ estimates (means and standard deviations) of how likely it is that the target would go to the given classmate for support after the influence attempt.

strategies (dismiss and escape), with five statements devoted to each of the four strategies.

We found strong, positive associations between the measures of solve and solace (r = .80, p < .01) and between dismiss and escape (r = .68, p < .01). We also examined the results of two CFAs. The items measuring preferences for approach support strategies exhibited unidimensionality, with adequate model fit, $\chi^2(35, N = 103) = 53.27$, $\chi^2/df = 1.52, p < .05$; NFI = .89; CFI = .96; RMSEA = .07, 90% CI [.03, .11]; and acceptable reliability ($\alpha = .89$). Similarly, the items measuring preferences for avoidant support exhibited unidimensionality, with adequate model fit, $\chi^2(35, N = 103) = 66.01$, $\chi^2/df = 1.89, p < .05$; NFI = .85; CFI = .92; RMSEA = .08, 90% CI [.04, .11]; and acceptable reliability ($\alpha = .85$). Finally, composite measures of approach support ($M = 3.90, SD = .68$) and avoidant support ($M = 2.27, SD = .71$) were created by averaging the relevant items, with higher scores indicating greater preferences for the support strategies (see also Derlega et al., 2003). Preferences for approach and avoidant support strategies exhibited a significant negative association, $r = - .50, p < .001$, which indicates that the two scales share 25% of their variance.

Results
Preliminary analyses
We first examined participants’ responses to being the target of an influence attempt according to the options presented by Bochner and Insko (1966). We conducted these
Table 2  Participant Responses to Being the Target of an Influence Attempt From a Member of a Social Network, Experiment 2

<table>
<thead>
<tr>
<th>Type of Response</th>
<th>Number of Responses</th>
<th>Percent of Total Responses (N = 452)</th>
<th>Adjusted Average Percent of Responses (N = 414)</th>
<th>Adjusted Average Percent of Responses per Category (Seeking social support vs. not seeking support)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not seeking social support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conform</td>
<td>14</td>
<td>3.10%</td>
<td>3.38%</td>
<td>10.53%</td>
</tr>
<tr>
<td>Disparage the source</td>
<td>54</td>
<td>11.95%</td>
<td>13.04%</td>
<td>40.60%</td>
</tr>
<tr>
<td>Persuade the agent</td>
<td>65</td>
<td>14.38%</td>
<td>15.70%</td>
<td>48.12%</td>
</tr>
<tr>
<td>Total</td>
<td>133</td>
<td>29.43%</td>
<td>32.12%</td>
<td>99.25%</td>
</tr>
<tr>
<td>Seeking social support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informational support</td>
<td>71</td>
<td>15.71%</td>
<td>17.15%</td>
<td>25.27%</td>
</tr>
<tr>
<td>Emotional support</td>
<td>2</td>
<td>0.44%</td>
<td>0.48%</td>
<td>0.71%</td>
</tr>
<tr>
<td>Esteem support</td>
<td>1</td>
<td>0.22%</td>
<td>0.24%</td>
<td>0.36%</td>
</tr>
<tr>
<td>Network support</td>
<td>176</td>
<td>38.94%</td>
<td>42.51%</td>
<td>62.63%</td>
</tr>
<tr>
<td>Tangible support</td>
<td>31</td>
<td>6.86%</td>
<td>7.49%</td>
<td>11.03%</td>
</tr>
<tr>
<td>Total</td>
<td>281</td>
<td>62.17%</td>
<td>67.87%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Other</td>
<td>38</td>
<td>8.40%</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Note: N = 452 responses; the number of respondents = 105. Percent of total responses indicates the proportion of each category as it occurs in the total sample of responses. Each specific type of social support is included under the larger category of seeking social support. Adjusted average percent of responses utilizes only those responses in the sample that fit this coding scheme (38 responses from the total sample did not fit this coding scheme). Adjusted average percent of responses per category indicates the frequency of each code’s occurrence within its larger category, seeking or not seeking social support. The values for conform, disparage the source, and persuade the agent are computed from the responses that did not mention social support as a possibility. The percentages for the specific types of social support are computed from the subset of the responses that indicated seeking social support was an option. Not all totals equal 100% due to rounding error.

analyses to determine how participants understood their position in the sociogram and how frequently they would choose to seek social support from individuals within the simulated network. As indicated in Table 2, 3% of our responses indicated that they conformity to the influence attempt, 12% reported that they would disparage the source, and 14% indicated attempts to persuade the agent. In contrast, 62% indicated seeking social support from other members of the social network.

Those who expressed a desire to seek social support were asked to write out the supportive comments, actions, or behaviors that they would desire from members of the social network if they were the target of the influence attempt. These written responses were categorized according to a widely used typology of supportive communication that differentiates informational, emotional, esteem, network, and
tangible support (Xu & Burleson, 2001). These types of support are distinguished by the functional content of the messages or behaviors that are communicated to the person in distress.

This categorization revealed that 63% of the responses indicated seeking network support, which involves bolstering people’s social contacts or initiating interpersonal connections; 25% sought informational support; 11% indicated seeking tangible support; and fewer than 1% of responses expressed an interest in emotional or esteem support (see Table 2). These preliminary analyses suggest that our sample members not only understood their role in the hypothetical social network well enough to appreciate the benefits of seeking support, but that they also differentiated and desired distinct types of support.

To assess whether our judgment that the sociograms differed in the way we proposed, we had six communication doctoral students, who were blind to our hypotheses and judgment regarding the sociograms, evaluate the sociograms on a 5-item scale (with 1 = not at all; 5 = very much for each item), based on items used to measure entitativity in prior research (e.g., Carpenter & Radhakrishnan, 2002; Spencer-Rodgers, Williams, Hamilton, Peng, & Wang, 2007). Group entitativity measures the extent to which people perceive a group as containing a unified, cohesive collection of people rather than an independent association of individuals (e.g., “How cohesive is this group?”; “How unified is this group?”).

There were significant differences in the entitativity of the two sociograms, $F(1, 4) = 144.64, p < .001, \eta^2 = .97$. In particular, participants perceived the sociogram used in Experiment 1 to have less entitativity ($M = 2.37, SD = 0.46$) than the sociogram used in Experiment 2 ($M = 3.87, SD = 0.16$). These perceptions of entitativity were not influenced by the order in which people viewed the two sociograms, $F(1, 4) = 3.56, ns$, or by the interaction between the sociogram and the order in which they were viewed, $F(1, 4) = 3.50, ns$. These results confirm that the sociogram used in Experiment 2 represents a more unified, cohesive, and intact group than the sociogram used in Experiment 1.

**Likelihood of seeking social support**

On average, targets were perceived to have less than a 50% likelihood of seeking social support from the other network members ($M = 44\%, SD = 18\%$); this likelihood replicates that found in Experiment 1 ($M = 43\%, SD = 29\%$). The ANCOVA in Experiment 1 was replicated with perceived probability of seeking social support as the dependent variable, tactic (threaten vs. attempt to persuade) as the independent variable, and the target’s perceived power and relative influence as covariates. In addition, perceived likelihood of compliance was included as a covariate to explore the relationship between compliance and seeking support.

The model was statistically significant, $F(4, 101) = 3.14, p < .05, R^2 = .11$. The relationship between the likelihood of compliance and seeking support was positive, unstandardized $b = 0.25, SE = 0.08, p < .01$, which suggests that support was sought to cope with compliance, not as a form of resistance as was found in Experiment 1.
Other findings from Experiment 1 were not replicated: Tactic, the target’s perceived power, and relative influence did not predict the likelihood of seeking support in Experiment 2.

Selecting members for social support
A mixed-model ANCOVA for the perceived likelihood of selecting a network member as a support provider was conducted, with network member as a within-subjects factor. Member’s similarity of eigenvector centrality and betweenness centrality, sociometric distance, and perceived power were included as covariates, and the network member’s name was the independent variable.

The absolute difference between the member’s and target’s network centrality was not significantly related to the likelihood of being considered a source of social support, eigenvector centrality coefficient = −0.01, SE = 0.16, t(497.34) = −0.06, and betweenness centrality coefficient = 0.17, SE = 0.13, t(497.55) = 1.32. Therefore, the support for AH3a found in Experiment 1 was not replicated. In addition, contrary to Experiment 1, AH3b was supported, coefficient for sociometric distance = −21.27, SE = 2.68, t(491.99) = −7.83, p < .001, R^2 = .11: Sociometric distance was negatively related to source selection. In both experiments, sociometric distance significantly predicted selecting a network member for support; however, Experiment 1 found a positive relationship between sociometric distance and source selection, whereas Experiment 2 found a negative relationship between these variables.

Network members with greater perceived power had a greater likelihood of being considered a source of social support, coefficient = 1.46, SE = 0.51, t(666.23) = 2.85, p < .01, R^2 = .01. Thus, the support we found for AH3c in Experiment 1 was replicated in Experiment 2.

Strategies of support
Hypothesis 4 examined whether approach support behaviors were preferable to avoidance support behaviors following an influence attempt. To test this hypothesis, a mixed-model ANOVA was conducted with perceptions of the target’s need for approach and avoidance support as within-subject variables and the top choice for social support (the person in the sociogram who received the highest likelihood of being selected for support) as a between-subjects variable. The within-subject effect was statistically significant, F(1, 95) = 143.07, p < .001, partial η^2 = .60: Participants reported that the target would prefer approach support (M = 3.83, SE = 0.07) more than avoidance support (M = 2.35, SE = 0.07). These findings support H4. The between-subjects effect was not statistically significant, F(7, 95) = 0.67, ns, partial η^2 = .05, indicating that the selected support source did not affect these preferences.

In an exploratory analysis, a mixed-model ANCOVA for support preferences (approach scores minus avoidance scores) was calculated with network member as a repeated factor within each participant and condition. Tactic was the independent variable and the covariates were the target-member similarity in perceived power, target closeness, member’s perceived power, member-agent discrepancy in perceived power, and relative influence.
The results showed that tactic, relative influence, target-member similarity, and member-agent differences in perceived power were significantly associated with participant’s preferences for approach support over avoidant support. Preferences for approach support over avoidant support was higher after influence attempts using threats ($M = 1.74, SE = 0.06$) rather than persuasion ($M = 1.53, SE = 0.06$), $t(808.30) = 2.47, p < .05, R^2 = .01$, and when relative influence was positive, coefficient $= 0.06, SE = 0.01, t(748.12) = 4.31, p < .001, R^2 = .02$. This pair of results suggests that approach support is especially valued relative to avoidant support in intense situations that may be difficult to resist, those in which targets are threatened by agents who are more powerful than they are.

Preference for approach versus avoidance support was also higher when target-member similarity was higher, coefficient $= 0.10, SE = 0.03, t(772.40) = 3.79, p < .001, R^2 = .02$; and when the selected network member had greater perceived power than the agent, coefficient $= 0.10, SE = 0.03, t(801.64) = 3.82, p < .001, R^2 = .02$. These findings suggest that approach support is preferred when selecting sources that are socially close and relatively powerful. Overall, the findings from these exploratory analyses suggest that there is a strategic basis for people’s preference for approach support over avoidant support.

**Middle-person position**

Hypothesis 5 predicted that targets would be more likely to select middle people as sources of social support than people in other positions. To investigate Hypothesis 5, we constructed 95% confidence intervals around participant’s scores for the likelihood that they would seek each network member for support following the influence attempt. In particular, we investigated whether participants were more likely to choose the middle people (i.e., Garth and Fernando) as support providers than the other members of the social network. An examination of the means and confidence intervals in Table 1 revealed that participants chose the middle people to be support providers significantly more often than they chose other members of the social network. Overall, participants were more likely to rely on network members who occupy middle positions to be support providers (combined $M$ for Garth and Fernando $= 59.67, SD = 27.12$) than members who occupied other positions in the social network (combined $M$ for other network members $= 38.82, SD = 30.56$), unstandardized $b = 20.20, t(384.08) = 9.02, p < .001, R^2 = .18$. These results support Hypothesis 5 and add nuance to the previously reported finding of Experiment 2 that participants would seek support from sociometrically close members of their social network.

**Discussion**

Experiment 2 extended the investigation of social support after influence attempts by seeking to replicate and extend the results from Experiment 1 by using a different sociogram and additional measures of social support. In contrast to Experiment 1, relative influence, target’s perceived power, and tactic did not predict likelihood of
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seeking support in Experiment 2. One predictor of source selection was replicated: More powerful network members had a greater likelihood of being considered a support provider. Similarity in network centrality positively predicted supporter selections in Experiment 1, but it was unrelated to selections in Experiment 2. In both experiments, the sociometric distance between the target and the network member was a critical predictor in selecting a support provider; however, the association was positive in Experiment 1 and negative in Experiment 2.

Changing the sociogram in Experiment 2 allowed us to test whether middle persons are attractive sources of support, and they were. By also measuring strategies of social support, the findings provide some insight into the forms of support that were sought. Responses from Experiment 2 indicated interest in many types of social support, with the most interest in network support, which involves bolstering people’s social contacts. The interest in network support contrasts with other studies reporting that emotional support is the most common and desired type of support for many situations, including family traumas, academic disappointments, and relationship terminations (Burleson, 2003; Burleson & MacGeorge, 2002). The prominence of network support in this study may have been influenced by our use of sociograms.

As predicted, targets preferred to receive approach support more than avoidant support. The relative preference for approach versus avoidant support was stronger when targets were subjected to threatening (versus persuasive) influence attempts by relatively more influential agents. These findings suggest that social support may be sought in order to cope with compliance, and approach support may be most preferred when the situation seems dire.

Indeed, in Experiment 2 we observed a positive association between the likelihood of seeking support and complying with the influence attempt. Although speculative, this pattern of results suggests that by choosing sociometrically close and powerful network members to provide involving approach support in intense situations, the participants in this experiment sought to remedy their troubles and ameliorate their negative affect. The results from Experiment 1 were inconsistent with this view; in that experiment, social support indicated resistance to influence rather than distress relief.

General discussion

This study investigated the intersection of two communication processes: responding to an influence attempt and seeking social support. Five questions were examined: (a) Who is likely to seek social support?; (b) How do the kinds of influence attempts (threats vs. persuasion) affect seeking social support?; (b) Who is likely to be considered a support provider?; (d) What are the reasons for seeking support?; and (e) What kind of support is preferred after an influence attempt?

The two experiments provided answers—some consistent and some inconsistent—to these questions. We surmise that the different sociograms in the two experiments account for some of the different results that were observed.
Sociograms as situations: Intergroup and intragroup dynamics

One explanation for the different findings between our two experiments is that the sociograms represent different structures, and these structures shape people’s needs and preferences for seeking support (see Goldsmith & Fitch, 1997; Hobfoll & Vaux, 1993). The sociogram used in Experiment 1 represents two cohesive subgroups, whereas the sociogram from Experiment 2 suggests one highly connected group with one relatively disconnected member (Jane). Indeed, the density (i.e., total number of ties divided by the total number of possible ties; Newman, 2010; Wasserman & Faust, 1994) for the two sociograms differed: It was 25% for Experiment 1 and 40% for Experiment 2.

Similarly, our pilot study measuring perceptions of entitativity between the sociograms revealed that the sociogram used in Experiment 2 was perceived to represent a cohesive, unified group more than the sociogram used in Experiment 1. Thus, the explanation for the discrepancies found between the sociograms may reflect intergroup versus intragroup dynamics. The likelihood targets would seek support was almost exactly the same in both experiments (43% in Experiment 1 and 44% in Experiment 2); however, the manner in which they sought support differed between the experiments.

A network with two possible subgroups (Experiment 1) may evoke notions of intragroup loyalty and intergroup rivalry, thereby encouraging resistance to persuasion. Sociometric distance was an importance predictor of support provider selection in both experiments; however, the direction of influence differed in the two experiments. In Experiment 1, more distant members were more likely to be chosen; in Experiment 2, closer members were more likely to be chosen. To resist the influence attempt, participants in one group may have felt that it was in the targets’ best interest to join or establish connections with members of the other coherent group.

This idea may explain what was observed in Experiment 1: the unexpected positive association between sociometric distance and the likelihood of being selected to be a support provider. In four of the six structural pairings that were used to represent the influence attempt in Experiment 1, the agent and target were positioned in separate groups, and our participants may have felt compelled to seek support from someone in the same group as the agent to most effectively combat that person’s influence attempt. Research suggests that people prefer to seek support from more distant associates when they encounter problems that are particularly sensitive or that they are unable to discuss or resolve with closely connected others (Granovetter, 1973; Wright, Rains, & Banas, 2010).

The network with a single, tightly knit core (Experiment 2) may evoke notions of conformity (Schachter, 1951), thereby encouraging compliance and seeking support to manage compliance-related distress. Tightly knit groups constrain the consideration of alternatives and do not facilitate connections with outsiders (Janis, 1971); consequently, people may feel compelled to submit to the group and seek support from sociometrically close members of the network. There may simply be too few
alternatives for support to generate resistance in this tightly knit network; therefore, the participants opt for conformity.

As predicted, Experiment 2 also found that participants preferred those who occupy a middle position between the agent and the target of an influence attempt as a source of social support. Middle people may be in the best position to balance the interests of two individuals engaged in a dispute and mediate an attempt at interpersonal influence, which allows both parties to save face and continue a relationship. The results suggest that people seek out their friends’ friends as an extension of their personal networks and as resources in times of relational strife.

In general, we found that participants prefer approach support behaviors more than avoidant support behaviors (Derlega et al., 2003). Approach support is an involving form of support that includes finding answers to problems and addressing a person’s affective reaction to stressors (Barbee & Cunningham, 1995; Barbee et al., 1993).

The differences in the types of supportive communication that we categorized in Experiment 2 also suggest that the sociogram used in this experiment elicits perceptions of conformity. Network support, for example, was the most commonly reported type of support in this experiment (63% of the support that was listed was for network support), whereas emotional support was mentioned fairly infrequently (i.e., <1% of the support that was sought).

In Experiment 2, we also found that informational support and tangible support were desired. These three types of support—network, informational, and tangible support—are characterized by an instrumental focus; thus, our results suggest that participants call on the members of their social network to provide practical support in an involving, approach-oriented manner subsequent to an interpersonal influence attempt.

The lack of emphasis on emotional support is inconsistent with prior research that claims emotional support is the most commonly desired type of support and is suitable for coping with many stressors (see Burleson, 2003, 2008; Burleson & MacGeorge, 2002). The combination of the topic of this experiment (i.e., an attempt at interpersonal influence by a member of the participants’ purported social network) and the structure of the network (i.e., one with a single cohesive group) appears to have created a low desire for emotional support.

**Differences in influence**

The differences in network structure may explain why the perceived likelihood of seeking social support was related to features of the influence attempt (the tactic used and the relative influence of the agent and the target) in Experiment 1 but not in Experiment 2. The features of the influence attempt may be more salient in situations that provoke resistance rather than elicit relief. In Experiment 1, targets that had more supportive impact than their agents had persuasive impact were found to be more likely to seek support. The likelihood of seeking support was also higher when agents used threats rather than persuasion. This power relationship and influence tactic were negatively related to compliance in
Smith and Fink (2010); in that study, obtaining social support was an alternative to compliance.

The principles underlying interpersonal influence may differ in intragroup versus intergroup situations. In intragroup situations, compliance and social support are positively related because people seek support to cope with the stress resulting from the attempt at interpersonal influence by members of their own group. In intergroup situations, in which ingroup and outgroup pressures are more common, compliance and social support are negatively related because people turn to others to resist interpersonal influence from outgroup members.

The findings support these ideas. The structure of the sociograms used in Experiment 1 and Experiment 2 differed in two main ways: Experiment 1 only included one condition in which the target and agent were separated by a single middle person, whereas that was always the case in Experiment 2. Experiment 2 also represented a single group, whereas Experiment 1 pictured a less dense network with two subgroups. Beyond differences in structure, Experiment 1 used letters to label the nodes, whereas Experiment 2 used names. It is possible that using names enhanced perceptions of intimacy within the network and lessened the desire to resist influence.

Although the two experiments in this study revealed some differences in the way that supportive communication functions, prior research in this area has also had conflicting results: Some studies have reported that social support has no effect in buffering the individual from the effects of social strain, and some have reported a positive effect of social support. In addition, a reverse buffering effect has been found, in which social strain is more strongly linked to depression when support is readily available (see Walen & Lachman, 2000, for a review).

These conflicting results—ours and those found in other studies—lead us to conclude that more research needs to be done to understand why people seek social support from members of their social network subsequent to an influence attempt. Social support may function as a source of resistance to compliance (as indicated by Experiment 1) or as a source of relief from the distress that may accompany compliance (as indicated by Experiment 2). Future research can identify the structural factors regarding social support, as well as other factors (e.g., personal, relational, and contextual) that might help explain this process (see Burleson, 2009) and most effectively lead to a positive buffering effect of supportive communication.

Limitations
A few issues limit these findings. First, the sociograms did not include isolates (i.e., individuals without ties to other network members). Isolates may be sought for social support because they are outside of, and possibly irrelevant to, network-based power dynamics. Second, the samples of participants used in this study are not diverse in age or ethnicity, which may influence attention to social dynamics, experiences with them, or decision-making about them. However, as Courtright (1996), Shapiro (2002), and others have reminded us, the nonprobability sample may be less
important to scientific explanation and development than the careful investigation of communication processes and focused replications.

This study is also limited because we did not examine the intrapersonal mediators—evaluations and other cognitions—that may help explain the participants’ decisions. In their review of group theories and experiments, Collins and Raven (1968) pointed out that many experiments have shown that people often look to others to evaluate their own responses (see also Schachter, 1959). We think it is important to understand not only how social networks facilitate resistance to and coping with influence attempts, but also how networks shape targets’ thoughts and behaviors, which are also shaped by the reactions, behaviors, and suggestions of the other network members.

Conclusion

Social influence and its associated responses are processes in which social context and communication are profoundly interrelated. Our findings indicate that position in a social network shapes perceptions of power and plays a critical role in how participants think about responding to influence (Smith & Fink, 2010). These experiments document differences in participant's reactions to interpersonal influence, including the use of social support—a notion presented by Bochner and Insko almost fifty years ago but never tested. We showed that social context and compliance dynamics shape who is sought for support and the kinds of support that are sought.

The findings indicated a preference for approach support and a consistent, strong preference for powerful support providers; other determinants varied between the two experiments. These results expand our knowledge about supportive communication by including the structural factors involved in the identification and selection of support providers. Understanding the intersection of social relationships and social behavior provides critical insights that relate communication to influence, power, social support, and group structure.

Bateson (as reported in Watzlawick, Beavin, & Jackson, 1967) wrote:

When one octopus or one nation puts on a threatening gesture, the other might conclude “he is strong” or “he will fight,” but this was not in the original message. (p. 101)

The goal of our study has been to understand how such conclusions are made—for example, “he is strong”—and the ongoing effects that these conclusions have for people. Our results show some progress toward this human goal; generalizations about octopodes and nations are currently beyond our reach.

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References


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