Types of Network Brokerage: How Sense of Power, Seniority and Gender Matter

ABSTRACT

Studies demonstrate the importance of brokerage positions in organizations for motivation, promotions and career success. However, we still lack a thorough understanding of how psychological factors like an individual's sense of power can explain specific differences in brokerage activities and outcomes. In this paper, we seek to explain that the way an individual construes and interprets their sense of power impacts the way that they broker, using either a tertius iungens orientation, such as bringing individuals together, or a tertius gaudens orientation, such as keeping individuals apart.

Applying a processual view of brokerage, we show how these two central strategic orientations towards brokerage depend on an individual's perception of their ability to influence others. We find that actors with a low sense of power more often engage in tertius iungens brokerage while those with a high sense of power more often engage in tertius gaudens brokerage. Findings further demonstrate that gender and the level of seniority also shape the way that brokerage is enacted, with women more often engaging in tertius iungens brokerage, and senior employees more often referring to tertius gaudens brokerage.

Keywords: Sense of power, brokerage, networks, gender, seniority

INTRODUCTION

Previous research shows that career achievement is significantly associated with organizational actors' networks (Coleman, 1988; Burt, 1992; Gulati & Gargiulo, 1999; Bagilhole & Goode, 2001; Linehan, 2001; Seibert, Kraimer & Liden, 2001; Kilduff & Brass, 2010; Nahapiet, 2011). Professional networks are a resource that enhance actors' performance (Brass, 1984, 1992; Bolles, 1992; Mehra, Kilduff & Brass, 2001; Barrick & Piotrowski, 2002), strengthen the commitment to work (Ibarra, Kilduff & Tsai, 2005) and lead to innovation (Rodan & Galunic, 2004; Aime, Van Dyne & Petrenko, 2011; Baer, Evans, Oldham & Boasso, 2015). As a consequence, networks convey benefits such as getting access to promotions, increased salaries and influence (Burt, 1992, 1997; Coleman, 1988, 1990; Borgatti & Foster, 2003; Ibarra & Hunter, 2007). However, various types of professional networks may result in different levels of support and resources (Bidwell & Briscoe, 2010). Findings enumerate well-documented advantages that professionals gain from occupying brokerage positions, such as novel ideas and access to alternative standpoints (Burt, 2004). For instance, a person who plays a role in connecting people who are not already directly connected may influence the effectiveness of the information system and perform better (Fernandez & Gould, 1994; Mehra et al., 2001; Quintane & Carnabuci, 2016). There is also evidence that actors in positions of mediation bring more significant resources and organize information flowing towards members of diverse groups (Long Lingo & O'Mahony, 2010). Likewise, increasing social relationships across structural holes generates opportunities for brokers to span information between outsider and insider groups (Bidwell & Fernandez-Mateo, 2010). Also, a brokerage role is beneficial for developing relationships with others and may serve to extend an individual's reach into the highest echelons (Gould & Fernandez, 1989; Mehra et al., 2001). Well-positioned actors control access to resources and manage information (Granovetter,

1973; Podolny, 2001) exchanged through relationships (Sparrowe, Liden, Wayne & Kraimer, 2001). Brokerage roles thereby increase power and influence (Brass, 1985; Stovel & Shaw, 2012; Fang, Landis, Zhang, Anderson, Shaw & Kilduff, 2015).

A network, even if it is extensive, may not provide the same benefits as one in which an actor occupies a brokerage position (Burt, 1992; Burt, Kilduff & Tasselli, 2013). The success of brokerage is rooted in organizational actors' capacity to develop links between a set of individuals or groups who would not otherwise be related to each other. It is an essential means through which individuals can pinpoint opportunities and mediate knowledge across boundaries (Carlile, 2004; Reagans & McEvily, 2003; Ibarra & Hunter, 2007; Kellogg, 2014). Brokerage roles which allow the controlled flow of information are seen as increasingly crucial to career success (Burt, 1992; Halevy, Halali & Zlatev, 2019). Based on their exposure to diverse knowledge (Reagans & McEvily, 2003; Perry–Smith, 2014; Clement, Shipilov & Galunic, 2018), brokers leverage various benefits, such as promotions (Kleinbaum, 2012), innovation outcomes (Baer, Evans, Oldham & Boasso, 2015) and social identity (Mehra, Kilduff & Brass, 1998; Schwarz, 2009). These benefits are shown to help brokers achieve competitive advantage (Borgatti, 2005).

Studies suggest that benefits from occupying brokerage positions oscillate between two conceptions (Gould & Fernandez, 1989; Obstfeld, 2005, 2017). One, tertius gaudens, describes that brokers can act as the only passageway in the flow of information, thereby preserving their unique ties to others and maintaining separation. The other, tertius iungens, describes that brokers can mobilize and share their valuable knowledge in order to achieve common goals between parties that are not connected (Burt, 2000; Ibarra, Kilduff & Tsai, 2005; Kilduff & Tsai, 2003; Obstfeld, Borgatti & Davis, 2014). These studies provide valuable insights speaking to the benefits of brokerage in networking activities. However, we know very little about what triggers the apparent

preferences of actors to apply a tertius iungens versus a tertius gaudens approach to brokerage.

Psychological factors may not come to mind immediately when talking about networks, but early research shows that they have an impact on networks (Casciaro, Barsade, Edmondson, Gibson, Krackhardt & Labianca, 2015; Kilduff & Tsai, 2003; Landis, Kilduff & Menges, 2018). Some studies examine whether psychological factors can account for a variance of network size and formation (Mehra et al., 2001; Clifton & Webster, 2017). Early pioneering work of Breiger and Ennis (1979) include concepts for research on the juncture of personality, social role and interpersonal orientations to depict the character of representative members of each group in the organization. For example, Mehra, Kilduff and Brass (1988) look at whether identity and distinctive characteristics are the basis for social identification for members of minority groups. As Kilduff and Tsai (2003) argue, the study of individual attributes and demographics are essential predictors of outcomes in relationships, yet they have been largely ignored by network research. Several individual characteristics are shown to have a substantial impact on social network structures and behaviours. High self-monitoring actors occupy more central roles (Mehra et al., 2001) while those low in self-monitoring take fewer central roles in networks (Klein, Saltz & Mayer, 2004) which, in return, can influence the structure of the network. Evidence also indicates that individuals who differ in personalities are likely to create different types of networks (Kalish & Robins, 2006). This kind of analysis helps us recognise the specific network conformations that personality characteristics are supposed to influence. Their outcomes reveal significant evidence about the role of personality based on values, beliefs and behaviours. Burt, Jannotta and Mahoney (1998) find associations between network constraint and psychological characteristics in the egocentric networks of 51 MBA students, with students affluent in structural holes endorsing items describing independent outsiders seeking change and authority. Conversely, respondents with

highly restricted networks tend to support items showing compliance and stability. Forret and Dougherty (2001) found that professionals' higher self-esteem and extraversion are predictors of some common networking behaviours, such as engaging in relations, maintaining contacts and improving visibility.

However, the way that individuals' decision-making in professional networks is affected by their ability to exercise influence over others is lacking from most network research. What is little understood is the potential influence of psychological factors on the brokers, themselves. Studies at the intersection of networks and gender indicate that there are harmful effects from a phenomenon known as stereotype threat (Spencer, Logel & Davies, 2016) that may influence the development of networks for female professionals. Stereotypes are cognitive structures that hold our beliefs about certain types of social groups. Inherent to stereotyping is the belief that all members of a group share the same features (Judd, Ryan & Parke, 1991). Conclusions can be drawn and stereotypes can be developed, assumptions that may be attributed to all of the members within a group. Previous studies show that this stereotype threat can negatively influence performance in the relevant domain (Steele, 1997). Specifically, negative stereotypes about women's gender group can influence their behaviour. Because of unsuccessful attempts to suppress self-relevant stereotypes, women may decide to withdraw from roles and positions that evoke such stereotype threats (Logel, Iserman, Davies, Quinn & Spencer, 2009). If negative stereotypes surround the performance of women in brokerage positions, it is likely that these stereotypes will affect how men and women construct broker networks (Brands & Mehra, 2019; Kray, Thompson & Galinsky, 2001; Fiske, Cuddy, Glick & Xu, 2002; Galinsky, Magee, Gruenfeld, Whitson & Liljenquist, 2008; Inzlicht & Schmader, 2012). For women who perceive themselves as brokers in their networks, stereotype threat is likely to raise doubts about being categorized by this negative stereotype.

Responding to such opposing expectations, women brokers may find themselves trapped in situations where their role is to balance conflicting demands.

In bringing the individual back into social network analysis (Kilduff & Krackhardt, 1994), we seek to understand how psychological factors, such as a sense of power and the resulting differences in brokerage strategies, can account for a variance in brokerage approach. We argue that the subjective sense of power affects individual brokerage in a work context and therefore we aim to answer the following question: How does the psychological experience of power affect different types of brokerage that professionals engage in, such as creating or facilitating ties among people (tertius iungens) or exploiting disconnected parties to the actor's benefit (tertius gaudens)? We propose that individuals use different brokerage approaches based on their subjective experience of power to detect constraints and opportunities. We expect that the higher the individual's awareness of his or her capacity to hold power over another person, the higher the individual's tertius gaudens orientation towards brokerage will be. For women who compare themselves with male peers (Cross & Madson, 1997), we argue that due to the stereotype threat, female professionals are more likely to use a tertius iungens strategy. Therefore, this paper also examines the differences between men and women in the use of such brokerage strategies. Specifically, our research looks at how the sense of power impacts the type of brokerage organizational actors engage in. A greater sense of power may trigger actors to feel more distant from other individuals (Magee & Smith, 2013; Trope & Liberman, 2010). Because of their perception of the need to exercise control over information, this may result in the use of a tertius gaudens strategy. A lower sense of power, on the other hand, may prompt actors to use a tertius iungens strategy.

While network research has shown that network structures impact careers, we argue that there are variations in obtaining benefits from such advantageous network structures through personality variables such as the sense of power. Our study contributes to the ongoing debate about how perceptions influence the way that brokerage behaviour is triggered and exercised. In providing a better understanding of the psychological factors and dynamics at play for brokerage, this paper intends to add to the growing debate on psychological factors in social networks (Landis et al., 2018). A better understanding of the sense of power helps to understand the role of brokers in shaping networks.

Sense of power and brokerage

For a long time, there has been an underlying assumption that brokerage was connected with the position individuals occupied within networks structures (Granovetter, 1973; Burt, 1992). The structural hole theory of social capital advocates that individuals operating on the edge of the network have an informational advantage by linking disconnected clusters of people (Cook &Whitmeyer, 1992; Burt, 2004; Liu & Chiu, 2010). Few studies have focussed on how structural cohesion is advantageous, consistent with Coleman's (1988, 1990) theory of network closure which explains whether organizational coordination, trust and solidarity facilitate specific actions of organizational actors (Ahuja, 2000; Tortoriello & Krackhardt, 2010). Many other researchers instead endorse Burt's (1992) theory, where social capital gains in non-redundant network positions are due to the lack of network closure (for empirical support see, for example, Aarstad, Haugland &Greve, 2010; Burt, 2004; Rodan, 2010; Vissa & Chacar, 2009; Zaheer & Soda, 2009). Furthermore, scholars claim that network closure and structural holes are associated by examining contextual issues (Rowley, Behrens &Krackhardt, 2000), or that they can co-exist (Burt, 2005; Hite & Hesterly, 2001). While sparse networks provide more diverse knowledge (Cross &Sproull,

2004), broader information and enable greater autonomy (Lazer & Friedman, 2007), closed networks facilitate coordination, trust and cohesion (Granovetter, 1985; McPherson, Smith-Lovin & Cook, 2001). Recent work focussing on professional services firms highlights the critical role that networks play for different types of information and resource flows (Von Nordenflycht, 2010; Newell & Robertson, 2002). These resources can include financial capital, knowledge or social capital (Burt, 2000; Vissa & Bhagavatula, 2012). For example, the relationships built and maintained using predominately individual resources are more likely to connect the firm to diverse information, provide greater autonomy to managers, and ease access to resources held by contacts (Sorenson & Rogan, 2014). Several scholars demonstrate that professional services firms rely on professionals' interactions when they search for novel knowledge and opinions (Karantinou & Hogg, 2009). With the demand for consulting services being consistently high, there are mechanisms such as experience-based trust relation and network reputation that bridge these uncertainties (Glückler & Armbrüster, 2003).

A merely structure-focused network perspective posits that the lack of a tie between entities leads to non-redundant information, and brokers are more exposed to others and ideas outside of their networks (Cross & Sproull, 2004). Network actors that span across gaps are therefore engaged in brokerage (Burt 1992; McFadyen, Semadeni & Cannella, 2009; Grosser, Venkataramani &Labianca, 2017). Prior work on the benefits of brokerage, however, assumed that individuals are similar in their ability to notice contact disconnections (Burt, 2005) and therefore have outstanding job performance (Baer, Evans, Oldham & Boasso, 2015). As previous studies suggest, brokerage has typically been measured by looking at the pattern of ties in an individual's network (Mischel, 2013). Emerging studies instead argue that the ego's behaviour in the creation of her/his network (Kleinbaum, Jordan &Audia, 2015) matters, posing the question as to whether the ability of brokers

to create a diverse set of relations depends, in part, on personality features (Anderson & Kilduff, 2009; Pollet, Roberts &Dunbar, 2011; Fang, Landis, Zhang, Anderson, Shaw & Kilduff, 2015).

Recent studies reveal that individuals with higher power tend to be more action-oriented (Galinsky, Gruenfeld & Magee, 2003; Lammers, Stoker & Stapel, 2010; Magee, Galinsky & Gruenfeld, 2007; Maner, Kaschak & Jones, 2010; Smith & Bargh, 2008), more risk-seeking (Anderson & Galinsky, 2006; Maner, Gailliot, Butz & Peruche, 2007), less averse to potential losses (Inesi, 2010), and more attentive to goal-relevant information (Guinote, 2017; Slabu & Guinote, 2010; Smith, Jostmann, Galinsky & Van Dijk, 2008). Consistent with previous research, power comes in different forms, such as hierarchical relations, control over resources and official positions which include subjective feelings about how much influence individuals have (Kipnis, 1972; Neuberg & Fiske, 1987; Fiske, 1993; Anderson & Berdahl, 2002; Magee & Galinsky, 2008; Guinote & Phillips, 2010; Guinote, 2017; Galinsky, Rucker & Magee, 2015). Recent cognitive studies offer significant insights into how individuals with a strong sense of power are often extraverted, optimistic, open to new experiences, and feel they can affect the thoughts and beliefs of fellow group members (Anderson, John & Keltner, 2012). One fundamental assumption of behavioural network research is that a subjective sense of power motivates individuals to achieve work-related goals and opportunities (Galinsky, Gruenfeld & Magee, 2003; Keltner, Gruenfeld & Anderson, 2003; Smith & Bargh, 2008; Lammers, Stoker & Stapel, 2010; Magee, Maner, Kaschak & Jones, 2010). This is due to two dynamics. First, people with a higher sense of power are more risk-seeking to achieve their goals (Anderson & Galinsky, 2006; Maner, Gailliot, Butz & Peruche, 2007). Second, actors who feel powerful and confident also appear to be robust and confident in other people's eyes. Influence has been related to behavioural and cognitive consequences for those who handle it (Galinsky, Magee, Inesi & Gruenfeld, 2006). Being powerful might affect how an

individual perceives others related to him/her. Based on a situated view of power, influential individuals will be more aware of their networks, compared to the less powerful individuals. Recent studies suggest the possibility that power might affect people's behaviours, such as their propensities to engage in self-rewarding and self-benefitting behaviours (Dubois, Rucker & Galinsky, 2015). A person's high sense of power may imply their disposition to adopt a gaudens orientation, while one's low sense of power may tend towards a shared orientation (Berger & Webster, 2006). Those who are powerful are characterized by attending to some aspects of the environment that are useful for achieving their goals. This distinction may further increase the propensity of high-powered individuals to feel distinct and thus emotionally distant from others (Lee & Tiedens, 2001). Consistent with this idea, role identity theory suggests that over time influential actors become psychologically divided from the rest of the group (Hogg & Reid, 2001). As a result, the sense of being powerful may be further strengthened. For example, individuals who believe they can find their way into a group often believe they can control the attitudes and opinions of fellow group members (Marineau, Labianca & Kane, 2016; Stoverink, Bradley, Kirkman & Benson, 2020). In such a scenario, the tertius gaudens strategy would be more efficiently utilized by those who have a high sense of power. Thus, we expect to see differences in brokerage strategies depending on the sense of power. We therefore hypothesize:

Hypothesis 1: *The lower an individual's personal sense of power, the higher the individual's tertius iungens orientation to brokerage.*

Hypothesis 2: The higher an individual's personal sense of power, the higher the individual's tertius gaudens orientation to brokerage.

Brokerage over the career life cycle

We argue that an individual's sense of power in a given context is linked to their structural position within that organizational context. Previous studies have assumed that individuals rich in structural holes have fewer constraints in exploring new ideas (Burt, 1992; Burt, 2015) since they are less affected by dominant cognitive schemes and influential members (Wang, Rodan, Fruin & Xu, 2014; Yu & Kilduff, 2020). The achievement associated with bridging a structural hole becomes more salient when the broker is in a senior role which enjoys a better return on advantages (Elder & Glen, 1994; Burt, 2016). At the same time, evidence exists that an individual's expectations about their position may lead to considerably more influence and control of their interactions, thereby also contributing to their sense of power (Guinote, 2017; Magee & Galinsky, 2008). It is also possible that the position itself leads to network knowledge differences among individuals and that network changes are due to a variety of psychological factors over time (Bidwell & Briscoe, 2010; Burt, 2012).

A growing body of network literature has indicated that psychological factors such as self-monitoring lead to a rise in brokerage activities over the career life cycle (Sasovova, Mehra, Borgatti & Schippers, 2010). Specifically, behavioural network strategies are influenced by subjective feelings (Krackhardt, 1990; Oh & Kilduff, 2008). Research identifies the profound changes individuals experience when they rise to a newly expanded role (Stephens, 1994; Galunic, Ertug & Gargiulo, 2012) which, in turn, can impact their interactions and network structures (Shipilov, Labianca, Kalnysh & Kalnysh, 2007; Jonczyk, Galunic & Bensaou, 2016). Taken together, these findings indicate that individuals in high and low power conditions may differ in their subjective experience of power. While network structure reflects the opportunities and social resources available, it does not necessarily determine which brokerage behaviours will be used, particularly at

different stages of the career. Maintaining the brokerage opportunity and implicitly undercutting others' opportunities to communicate and cooperate with group members may require excluding others from the information flow, which could explain why some individuals benefit from different brokerage approaches at different points in their careers. Actors in the highest level positions should have a more pronounced ability to influence others than those in the lower level positions (Simpson & Borch, 2005). Consequently, such occupations might increase the possibility of utilizing the advantages associated with separation brokerage. Thus, we expect that partners or senior managers will be more motivated to reduce the value that their alters extract from their relationships using a tertius gaudens brokerage strategy. We therefore hypothesize:

Hypothesis 3: As individuals with a high sense of power are more willing to control information for their own benefit, senior-level managers are more likely than juniors to adopt a tertius gaudens strategic orientation to brokerage.

Gender, brokerage and sense of power

Gender stereotypes pervade society and influence how men and women are perceived and experience their lives (Spencer, Steele & Quinn, 1998; Eagly, 2009; Heilman, 200; Greguletz, Diehl & Kreutzer, 2018; Campero, 2020). Social role theory suggests that the roles women and men engage in, within both the private and organizational context, generate beliefs and expectations about their behaviours (Eagly & Karau, 2002; Ridgeway, 2011; McDonald, 2011; Brescoll, 2012). As a consequence, women are seen to be communal, supportive and other-oriented, whereas men are expected to show agency and assertiveness (e.g. Eagly, 2009; Eagly 2019). Brokering activities are often associated with leadership traits as confidence and independence, characteristic ascribed more often to men (Brands & Kilduff, 2014) as such it is natural to expect gender can influence one's occupancy of brokerage positions (Fang, Zhang &

Shaw, 2020). When individuals perceive a pattern of disconnection around them in their friendship network, for instance, they can draw different inferences about others' expectations about them (Rudman & Phelan, 2008; Eagly, 2009). In the broader context, as examples, they may infer that others expect them to play the role of a mediator who resolves a conflict between friends (Gould & Fernandez, 1989), an entrepreneur who capitalizes on information flow in the network (Burt, 1992, 1998), or a connector who brings friends together in productive ways (Obstfeld, 2005). In particular, because of the masculine associations linked with brokerage (Brands & Kilduff, 2014), we propose that an individual's gender is likely to affect how that individual construes, perceives and interprets broker networks. Evidence suggests that gendered stereotypes about brokerage in networks negatively affects the status of women who are perceived to engage in these behaviours (Brands & Kilduff, 2014; Brands, Menges & Kilduff, 2015). Brand & Kilduff (2013) explore how gender stereotypes about women's ability to construe their positions as brokers in networks affect the performance of men and women who see themselves in the same positions. The role played by the feeling of a lack of legitimacy in the workplace hampers the ability of female brokers to exploit the potential benefits of brokerage positions (Burt, 1998; Sparrowe & Liden, 2005) since women are expected to use their relationships to encourage colleagues and support them instead of pursuing their own interests (Miller, 2012).

In line with this reasoning, we argue that female professionals may engage in tertius iungens orientations because the perception of others adds a psychological burden and hence influences their strategy to brokerage. Thus, we contribute to a new research direction by suggesting that gender does have a role to play in differentiating the choice of brokerage strategies. We propose that negative associations extend to the domain of brokerage strategies through the following hypothesis:

Hypothesis 4a: *As networks are associated with female gender stereotypes, women are more likely than men to adopt a tertius iungens orientation to brokerage.*

There is also evidence suggesting that gender stereotypes influence the perception of social network roles, resulting in schematic representations of networks that require engaging in behaviour usually associated with men (Brescoll, 2012). Further, given that brokerage has been found to provide advantages for professionals in specific contexts (Von Nordenflycht, 2010; Briscoe & Von Nordenflycht, 2014), we more broadly hypothesize that women who have carved out a successful career in finance, which is a particularly competitive and male-dominated context, may engage in behaviour with more agency:

Hypothesis 4b: *As networks are associated with female gender stereotypes, women are more likely than men to adopt a tertius gaudens orientation to brokerage when working in financial services.*

Mapping networks structure

Actors may outperform their colleagues because of differences in the networks to which they belong, and not all structure configurations are likely to be similarly helpful. Having an extensive network, for example, may be less significant than being strategically positioned within a network (Burt, 1992). For example, occupying a position between disconnected others is advantageous to career advancement by enabling the exchange of diverse resources, knowledge and experience (Kilduff & Lee, 2018). The question then is whether or not these structures aim to support and strengthen the dynamics at play in organizations. Previous work has focused on the effects of structural position on outcome variables, such as performance (Mehra et al., 2001) and promotion (Podolny & Baron, 1997), but has offered little conclusive evidence concerning

brokerage strategies and power in the organization. The structure of the network, and connections of certain individuals, makes some people more influential than others. Extending this research to the current study of professionals within the organization, we might expect to discover that only individuals high in the sense of power can draw on advantages to structurally favourable network positions to use diverse brokerage strategy to advance their careers. A mediation model would suggest that any effect of the sense of power on brokerage strategies, tertius iungens or tertius gaudens, is due to the individual's structural position in their networks. Therefore, the analysis would seem to indicate some support for the structuralist view (Burt, Jannotta & Mahoney, 1998) that actors' dispositions can serve as proxies for the network positions that employees are likely to occupy. A related hypothesis holds that individuals with either a high or low sense of power may differentially succeed in organizations because they are in structurally diverse positions in networks. The purpose of mediation analysis is to explore if the influence of the structural position is stronger than the direct influence of the sense of power. Others' observations indicate that individuals high in the sense of power may be differentially able to exploit structurally advantageous positions. Given the separate literature on social networks and psychological factors, the question is how the structural network position and sense of power combine to affect individual brokerage strategies in organizations.

DATA AND METHODS

Data and Sample

The data analyzed for this paper comes from an ego network survey from 161 professionals (82 men, 79 women), each with around five years of experience working in different professional services firms (PSFs) located in Europe, across audit, finance, and strategy consulting.

The average age of the respondents was 37 years (SD=5.6). The survey covered information about the respondent's involvement in teams, as well as his or her informal communication with colleagues within their unit. Each respondent was asked to indicate who they would go to for help or advice on work issues, and who would come to them for work-related advice. In a similar vein, the respondents were asked to indicate who they helped them to be innovative and which individuals offered them political buy-in. Of the initial group of 199 participants, 38 cases were dropped from further analysis because those participants did not complete the alter-alter relationship matrix, resulting in a final number of 161. The questionnaire data was gathered between June 2019 and November 2019. The data were analyzed using SPSS.

Measures

Social networks. We collected data on professionals' contacts and workflow relations using the ego network surveys. We asked respondents to write down a list of employees they considered work advice partners, sponsors or people that they recognized as essential sources of buy-in. For each network question, respondents were free to choose as many contacts as they considered appropriate. Limiting respondents to a fixed number of options can result in measurement error in the network data (Hollanda & Leinhardt, 1973). Responses were made using a five-point Likert scale, and a simple averaging approach was used when either of the two people reported on the same alter–alter distance.

Network structures. In considering how network position relates to the sense of power, it is important to explore the interactions between network size, network structure and the sense of power. Some of the questions that our research attempts to answer are: While controlling for the size of the individual's network, does the extent to which the individual's network spans social divides predict the sense of power? How many ties does the ego have with non-redundant alters?

What role does gender play in the creation of network structure? By looking at several network measures simultaneously, we can assess whether there is a relationship between network size, structural holes and brokerage strategies and an individual's perception of their ability to influence another person.

Structural holes. As a measure of the extent to which each person occupies a structurally advantageous position, connecting otherwise unconnected others in the networks, we used brokerage measures proposed by Burt (1992). To explore the ego's ties with non-redundant alters, we chose the measure of effective size, efficiency, hierarchy and constraint (Burt, 1992). In this particular case, we chose constraint to focus primarily on the direct ties in the ego's immediate circle of contacts, whereas betweenness centrality takes both direct and indirect ties into account (Brass, 1984; Brass & Burkhardt, 1993) and is mostly used on the whole network (Oh & Kilduff, 2008). Because we were interested in the extent of disconnectedness (i.e., brokerage) in the ego's network, we opted to use Burt's (1992) constraint measure which determines the extent to which an ego is invested in people who are invested in other alters of the ego, and hierarchy, which is an adjustment of constraint indicating the extent to which an ego is concentrated in a single alter. A strong hierarchy describes a situation in which one ego alter is nearly as well connected to other's ego alters as the ego is. The network data was analyzed with UCINET VI to measure the structural holes (Borgatti, Everett &Freeman, 1992).

Network size. A measure, also known as degree centrality, that is the total number of each person's direct links with other actors in the network (Scott, 1991).

***Outcome variable: Tertius iungens orientation*.** Our first dependent variable is whether or not a broker introduces or facilitates interaction between two other parties. We define tertius iungens brokerage action as a strategic behavioural orientation to introduce previously unconnected

alters. This type of broker cooperates. Obstfeld refers to this brokering as a strategy that smooths the flow of information across the structural hole by allowing a direct exchange between the different groups (Obstfeld et al. 2014). We operationalized tertius iungens orientation using Obstfeld's (2005) scale consisting of six items. An example item is: "I introduce two people when I think they might benefit from becoming acquainted at work" (0.91).

Tertius gaudens orientation. Our second dependent variable is whether or not a broker is likely to strive for control, to use network alters' knowledge and information, and to avoid sharing this knowledge and information among their network of contacts. This behaviour is called tertius gaudens. A tertius gaudens broker (Long Lingo & O'Mahony, 2010) is often active in different networks, tries to structure the social space to maintain disconnection between individuals, and takes advantage of exclusive access to diverse sources of data and information (Burt, 1992; Soda, Tortoriello & Iorio, 2018). We used the six items identified to capture the separation brokerage orientation subscales of Grosser, Obstfeld, Labianca and Borgatti (2018). An example item is: "I sometimes mediate interactions between coworkers that do not get along" (0.83). This recently developed scale focuses on brokering contacts that remain disjunct.

Independent variable: Our independent variable is whether or not a person perceives their ability to influence another. We argue that agency induced by this feeling is likely to shape an individual's behaviour and influence their choice to engage or not in brokerage opportunities. We operationalized the psychological experience of power based on the existing eight-item sense of power scale (Anderson, John & Keltner, 2012). Examples include, "I think I have a great deal of power," "I can get them to listen to what I say," and "Even when I try, I am not able to get my way." We used the average of the eight items (Anderson et al., 2012). To capture the psychological experience of power, we prefaced each question with the stem: "In my working relationships with

others."

Control variables: To establish the validity of our findings over and above possible alternative explanations, we controlled for age, gender, tenure, department, and formal organizational rank, given the likelihood that these variables affect the sense of power. *Age:* A person's years of life experience is likely to affect the pattern of participation in networks. For example, as age increases, so may the sense of being in control, and a person may be more likely to engage in central positions in social networks (Baum, McEvily & Rowley, 2012). *Gender:* We controlled for gender in the analysis because of its possible impact on network configurations (Brass, 1985; Ibarra, 1993). Gender differences in the sense of power have important implications for the association with one's actual power level, and are likely to affect who is seen as a key referent for social comparison, including underlying stereotypes to see individuals in a particular light (Anderson & Berdahl, 2002). *Tenure:* The extent of time a person has been with the company is also likely to influence the pattern of engagement in networks. For example, individuals who have been with the company longer may be more likely to engage in more instrumental networks. *Department:* Baker and Obstfeld (1999) argue that a tertius gaudens strategy (keeping alters apart) works better in a competitive market, whereas tertius iungens behaviour (bringing alters together) is more effective in a cooperative context with dense networks. *Rank:* Differences in formal rank are likely to influence patterns of relations. For example, an individual with a high level of seniority may be better positioned in social networks (Lincoln & Miller, 1979) due to heartier decision-making authority, as well as being better prepared to act upon the opportunities provided by the structure.

Data analysis

The statistics software SPSS26 was used to perform descriptive data analysis in each sample separately (males and females). The analysis of variance (t-test for independent samples) was applied to examine differences in the variables' means between the two samples to reveal any differences between male and female professionals' networks. To test the hypothesized model and the measurement model across both samples, a hierarchical regression analysis was conducted. The professionals had been with the firm for 5 years, on average. Men made up 51% of the sample. The density of the network, as measured by the average cell value in the matrix, was .66. We also tested for multicollinearity and found no evidence of it. Following the method of Baron and Kenny (1986), and to assess support for mediation, we conducted other statistical tests to see if any significant relation between sense of power and brokerage strategies was absent or significantly reduced once network position was controlled for. We used MANOVA to explore whether the sense of power significantly predicted the network variables taken as a set. Finally, to estimate the overall mediation model, we used a generalized linear model regression analysis to observe whether the inclusion of the network variables significantly affected the relationships between sense of power and brokerage strategies. We computed interaction terms by multiplying the centred sense of power with each of the centred network variables.

Results

Descriptive statistics and correlations for variables of interest are reported in Table 1. All the significant correlations for both dependent variables were in line with the expected directions (p-values <0.05). The relationships are significant at 5% level of significance. Sense of power has a negative and significant correlation with a tertius iungens brokerage orientation (TJBO) (r = -

.28, $p < 0.00$) and is positively associated with tertius gaudens brokerage orientation (TGBO) ($r = .40$, $p < 0.01$).

Insert Table 1 about here

Analysis of variance between the male and female samples demonstrated a significant difference in brokerage strategy: Tertius iungens brokerage orientation (TJBO) has a significantly higher mean for females (M = 3.64, SD =0.697) compared to males (M = 2.54, SD =0.876), see Table 2. Independent sample t-tests were conducted to identify whether or not differences exist between the brokerage behaviours of male and female managers. From Leven's test, we see a p-value <0.05. On average, the tertius iungens brokerage orientation (TJBO) is significantly higher for females compared to males, and on average the tertius gaudens separation brokerage orientation is significantly higher for males compared to females (p-value <0.05).

Insert Table 2 about here

In line with the mediation model, the individuals with a higher sense of power might choose a tertius gaudens strategy due to the greater control they feel in occupying strategically advantageous positions in social networks in organizations. To test this model, we first examined the relationship between the sense of power and brokerage strategy.

The collinearity statistics (i.e., Tolerance and VIF) were all within acceptable limits; the assumption of multicollinearity was supposed to have been met (Coakes, 2005). An examination of the Mahalanobis distance scores indicated no multivariate outliers. Residual and scatter plots indicated that the assumptions of linearity and homoscedasticity were all satisfied (Hair, William, Black, Barry, Rolph & Anderson, 1998). The hierarchical regression results presented in Model 2 of Table 3 show that individuals who reported feeling more powerful tended to use tertius gaudens strategy. Controlling for gender, age, formal organizational rank, tenure and department, individuals who reportedly felt more powerful significantly predicted the use of a tertius gaudens strategy ($\beta = 0.27$, $p < .05$). The model with control variables predicts tertius iungens brokerage orientation better than the model without controls. R-square in model 2 is 0.43, which indicates that the predictor and controls can explain about 43% of the model variation. Sense of power is significant at a 5% level of significance ($p<0.05$) for both models. However, the impact is lower in the model with controls compared to the model without controls. The coefficient in Model 2 is -0.36. That means a 1-unit increase in rating of sense of power will cause, on average a 0.36-unit decrease in tertius iungens brokerage orientation, keeping others at a fixed level. For control variables, we see gender and tenure are significant at a 5% level of significance ($p <0.05$). Age is significant at a 10% level of significance ($p<0.1$). Among departments, finance, business management and audit are significant at a 5% level of significance, with p-values<0.05. The coefficient for gender is -1.09; on average males have a 1.09-unit lower tertius iungens brokerage orientation compared to females, keeping others at a fixed level. The coefficient for age is -0.04, meaning a one-year increase in age will cause on average a 0.04-unit decrease in tertius iungens brokerage orientation, keeping others at a fixed level. The coefficient for time working with the firm is 0.08., meaning that a 1-unit increase in time working with the firm will cause on average a

0.08-unit increase in tertius iungens brokerage orientation, keeping others at a fixed level. The coefficient for the finance department is -0.97. That means on average professionals working in the finance department have a 0.97-unit lower tertius iungens brokerage orientation compared to people working in other departments, keeping others at a fixed level.

For the second hierarchical regression, the sense of power is significant ($p<0.05$) for both models, with the model with control variables predicting tertius gaudens brokerage orientation proving greater than the model without controls (R-square in model 2 is 0.52). For control variables, we see that only gender is significant at a 5% level of significance, $p<0.05$. The coefficient for gender is 1.32. That means that on average males have a 1.32-unit higher tertius gaudens brokerage orientation compared to females, keeping others at a fixed level. Having established support for the first two hypotheses, the purpose of the study was also to test Hypothesis 3, which focuses on the hierarchy responsible for differences in brokerage strategies. We tested if individuals occupying senior positions are more likely than juniors to adopt a tertius gaudens strategic orientation to the brokerage. The regression model was significant. Respondents in more senior roles exhibited a greater sense of power to use tertius gaudens strategies across relationships.

In line with our predictions, to the extent that women perceived themselves to be less powerful in their work networks, they used a tertius iungens orientation. Women reported a lower sense of power about their network than men. We found that this variable was significantly related to gender. The regression analysis showed significant differences between genders for the lower sense of power as well as the brokerage strategies. Female professionals used a tertius iungens strategy in their networks significantly more than males.

In support of Hypothesis 4, we found that gender-based differences in the use of brokerage strategies were the result of underlying dispositional differences in the tendency to introduce

disconnected others. Taken together, the results offer robust support for the idea that men and women perceive different levels of sense of power which leads to the use of different brokerage strategies. This is valid across professional domains. Our prediction in Hypothesis 4b that women would adopt a tertius gaudens orientation to brokerage when working in financial services was not supported. There was no significant correlation between women working in financial services and the strategies used.

Insert Table 3 about here

High power individuals may use greater tertius gaudens strategy than those who perceive they have less power. However, we still need to know if they also tend to occupy structurally advantageous positions in social networks. According to MANOVA results presented in Table 4, there was a significant multivariate effect of sense of power ($F(5,150)= 4.70$, $p<0.01$) and gender ($F(5,150)=2.30$, $p<0.05$) on the set of five network variables (at the 1% significance level), while their interaction was insignificant ($F(5,150)=1.34$, $p>0.1$). According to linear regressions estimated for each dependent variable individually, the effect of sense of power is statistically significant in the case of efficiency, effsize and hierarchy. In the case of efficiency and effsize, the effect of sense of power is significantly negative ($B=-0.09$, $p<0.001$ and $B=-0.95$, $p<0.001$, respectively) and does not significantly differ by gender. The effect of sense of power on the hierarchy is negative for males ($B=-0.02$, $p=0.001$), but zero for females (the interaction terms indicates that +0.018 is added to the effect identified for males, $p=0.035$).

Insert Table 4 about here

To check the sensitivity of our findings, control variables were included as additional covariates in MANOVA (Table 5). According to MANOVA's Pillai's Trace test statistic, the effects of sense of power, gender and their interaction remained significant after the inclusion of control variables ($p<0.05$). Age, tenure, high rank and working in the financial department were significant in explaining network variables at the 5% level. Sense of power and each of the network variables displayed significant variance in brokerage strategies; the corresponding signs of their influence on each of the dependent variables can be inferred from Table 5.

Insert Table 5 about here

To appraise for the mediation model, we explored whether the connection between the sense of power and brokerage strategies was due to the significant relationship between the sense of power and the network variables. Including the network variables in the regression equation, however, did not significantly affect the association between sense of power and brokerage strategies, tertius iungens (Table 6) and tertius gaudens (Table 7). None of the interactions between the sense of power and network variables are significant ($p<0.1$). Including the network variables in the regression equation, however, did not significantly affect the connection between the sense of power and brokerage strategies (sense of power is <0.05). Few interactions with a sense of power and network variables are significant. The results presented show that the tertius iungens score is higher for females ($B=1.01$, $p<0.01$) and, the effect of sense of power use this strategy is negative ($B=-0.61$, $p<0.01$) for males. Other things being equal, efficiency, tenure and working in a human resources department contribute positively to the tertius iungens score ($p<0.05$).

Insert Table 6 about here

In the case of tertius gaudens, neither demographic control variables nor interactions between the sense of power and network variables are significant (Table 7). Controlling for the main effects of network variables, the tertius gaudens score is lower for females ($B=-1.30$, $p<0.01$), while the effect of sense of power on tertius gaudens orientation is positive ($B=0.47$, $p<0.05$). Even though the individuals with a higher sense of power tended to occupy central positions in networks, and even though the occupants of these positions tended to have higher use of tertius gaudens strategy, their higher sense of power was not explained by networks' size and their differential success in occupying network positions. After controlling for the significant relationships between the network variables and brokerage strategies, sense of power continued to describe the significant variance in brokerage strategies. The full set of results indicate that although the sense of power supports a significant variance in brokerage strategies and in the set of structural variables, the mediation model is not supported. Although high power individuals may employ tertius gaudens more often than individuals low in power, we still need to know if they also tend to occupy structurally advantageous positions in social networks.

The results also suggest a more complex relationship between sense of power, structural position, and brokerage orientation. Individuals with high power tended to use tertius gaudens strategy, as did individuals who are in centrality positions in their networks.

Insert Table 7 about here

DISCUSSION

This paper aims to study the role of sense of power in the choice of brokerage strategies such as tertius gaudens or tertius iungens. In general, employees occupying brokerage positions are expected to enjoy a vision advantage, not only to perceive people's disconnections in networks but also to realize the potential for productive bridging across these contacts to improve individual and organizational functioning (Burt, 2005). Our findings contribute to the literature on social networks and psychological factors in several ways. First, it appears that high and low sense of power actors pursue different network brokerage strategies; those actors with a high sense of power tend to adopt a brokerage orientation that divides, whereas those actors with a low sense of power tend to remain tied to a coordination strategy in their professional networks. High and low sense of power actors, thereby, clearly shape distinctive social environments at work. Our results therefore suggest an answer as to why the mere occupation of a brokerage position may be insufficient to generate brokerage advantage. Only those who feel powerful are likely to engage in a tertius gaudens strategy between people who represent opportunities for their advantage. On the other hand, those that have a lower sense of power will, despite their objective advantageous network position, engage in a brokerage that brings disconnected parties together and hence follow a tertius iungens approach. While this approach may benefit their organizations, it does not privilege their career advancement.

The consistent outcomes that these two strategies of brokering fit the hypothesis that both forms of brokering share a common core of social influence (Obstfeld, Borgatti & Davis, 2014)

and enrich the literature on brokering orientation with personality characteristics (Halevy, Halali & Cohen, 2020).

The dynamics we uncover in this study contribute to the broader current debate on the role of structure versus agency in network research (Emirbayer & Mische, 1998; Tasselli & Kilduff, 2020). Our findings clearly show that network structures offer potential benefits, yet the way that individuals construe their sense of power determines how they enact their brokerage strategies. The structural position is a necessary but not a sufficient condition for the brokerage to occur in the classical tertius iungens orientation with all its well-described benefits. This study also represents a theory-driven analysis of how individual characteristics relate to social structure and how social structure and disposition combine to predict the type of brokerage. As a recent body of literature on power has shown, we found that people who perceive power tend to occupy positions of centrality.

Furthermore, we notice that the correlation between individuals perceiving themselves as powerful and brokerage positions in the firms remains significant, despite controlling for several other significant variables involving network structure measures. Strong claims of causality would require studying the effects of sense of power on the network structure over time. Nevertheless, our research proposes some major assumptions regarding the occupancy of strategically advantageous network positions. First, personality predicts social structure: the individuals that generally perceive themselves as more powerful than others tend to occupy central positions in organizational networks. Second, personality affects the way people build networks: the role of networks in creating or reinforcing the perception of one's ability to influence another person or other people may account partially for differences in career outcomes. Third, a high sense of power and centrality in networks predicts that individuals who use tertius gaudens brokerage strategies

for access to resources are better equipped to overcome the uncertainties inherent in interactions because they might pursue a more assertive approach to other people. The results paint a picture of individuals shaping the networks that constrain and enable the dynamics of network brokerage. It appears that individuals perceiving themselves as lacking power pursue different network brokerage strategies than do those who experience power. The latter tend to engage in tertius gaudens, whereas individuals who feel less powerful tend to adopt tertius iungens strategy. Actors feeling powerful, relative to those experiencing little power, irrespective of their brokerage orientations seem to be active agents in the structuring of distinctive social networks in the workplace. Individuals' attitudes about their power can affect their actual influence over others, above and beyond the effects of their network position. The overview we offer in this article regarding the way individuals employ their character traits to forge diverse types of network structures proposes a new direction for social network analysis.

Additionally, over and above the influence that the sense of power has for the adoption of different brokerage strategies, we identify another two factors that play an essential role in shaping the choice of brokerage strategies: gender and level of seniority. Our findings suggest that a brokerage role may be seen as both communal and agentic. Women appear to be more concerned with the communal characteristics than with agentic characteristics and therefore may engage more in tertius iungens brokerage than in tertius gaudens brokerage, as compared to their male colleagues. Even if women and men do significantly differ in the frequency with which they engage in brokerage strategies, those females occupying senior positions are more likely than their female juniors to adopt a tertius gaudens strategic orientation to the brokerage. Thus, respondents in more senior roles exhibit a greater sense of power to use tertius gaudens strategies across relationships. Our results, however, do not indicate if this preference of a tertius gaudens orientation is a self-

driven choice or more a reaction to comply with deeply held gender expectations about how women are supposed to act. This is particularly interesting as we found a modification of this finding in female professionals that work in financial services, a sector with a clear underrepresentation of women and at the same time an instruct which is still very much shaped by male alpha type stereotypical patterns of behaviour. One highlight of this finding may be that women who self-select into the male-dominated financial service industry may be more inclined to adopt more stereotypical male patterns of behaviour, including tertius gaudens brokerage strategies. Future research should observe this more closely and look into the underlying dynamics of why women, in general, seem to prefer a tertius gaudens brokerage and what particular factors explain the particularities for the financial institutions sector.

Limitations and future research

As with all research having a cross-sectional approach, this study did not permit establishing causality relations between variables (Podsakoff, MacKenzie & Podsakoff, 2012). Further studies should use a longitudinal design to examine the causal relationship between sense of power as a determinant, and brokerage orientation as a consequence. Longitudinal studies could also integrate network variations at various career levels of a profession, thereby shedding more light on the question of whether or not the sense of power and associated brokerage strategies evolve over the career life cycle.

A second limitation is that our study employed self-reported questionnaires that can hypothetically pollute results, since observed relationships may be artificially overestimated because respondents tend to answer coherently. Nonetheless, self-reported data tends to be the best approach for our study as it measures professionals' subjective understanding of power and associated brokering strategies.

This analysis may also have limitations based on the small sample size. Further analysis should aim for a larger sample to verify if results can be generalized to different professions and occupations, as well as to understand why we find different dynamics for female professionals working in the financial institutions sector. Moving beyond brokerage behaviours may reveal the motivations for brokers to act as they do. Research on brokerage perceptions could unpack the causes of different patterns of brokerage and their underlying dynamics, feasibly using qualitative approach methodologies.

Finally, future studies could integrate quantitative research methods with qualitative ones. This would lead to a better understanding of the meaning of sense of power in individuals, what mechanisms can amplify its influence on professional networks, and what processes of perception and meaning construction around these issues affect men and women at work, taking into account both the organizational and the national cultures. As well, future research should examine whether or not women exhibit such gender-role-congruent behaviours because they feel constrained by a narrower possible range of behaviours that require them to comply with gender stereotypes.

On a broader level, the interplay between structural opportunities and constraints, on the one hand, and an individual's perception of opportunities and the actual enactment of networking strategies, on the other, merits exploration in greater detail. We need to better understand which conditions benefit structures correlated with particular network positions. Future studies should delve into the role of psychological factors at play in enacting or refraining from engagement in particular networking strategies. More interdisciplinary research is needed to enhance our understanding of how gender expectations lead to different perceptions of the same actions, depending on if a male or a female organizational actor performs them. At the same time, we need to comprehend how these gendered expectations lead to women self-restricting their behavioural

repertoire (for example applying a tertius iungens instead of tertius gaudens brokerage orientation), and what the outcomes of these orientations are for performance and career.

From a practical perspective, our study results may inform organizations' policies and practices to better support their professional network creation and to explore barriers that might impede women from reaching the upper echelons or practices that might result in their encountering prejudice in the promotion process. While the active participation of women in networking remains a necessary condition to reduce the disadvantage they still face in organizations, our study shows that most of the challenges are embedded in cultural expectations and organizational dynamics. As firms increasingly have to rely on brokers to access knowledge to overcome internal practical and cognitive limitations (Kirkels & Duysters, 2010) in a context where information is poorly distributed, it might be that opportunities for more tertius iungens behaviours (independent of gender) emerge since this benefits the organisation. Similarly, organizations might want to favour increased value creation and capture diversity for gender balance at all levels of the organisation, maintaining collaboration, coordination and bringing people together, for example, to better distinguish themselves from competitors (McEvily & Zaheer, 1999). Also, network research corroborates findings in favour of more gender balance. Further interdisciplinary research that draws from diverse views and contributes to a more holistic picture of how the role of actors affects outcomes in organizations is needed to better understand the way that network structure influences social processes.

REFERENCES

Ahuja, G., 2000. Collaboration networks, structural holes, and innovation: A longitudinal study. *Administrative Science Quarterly*, 45(3): 425-455.

Aime, F., Van Dyne, L., & Petrenko, V. O. 2011. Role innovation through employee social networks: The embedded nature of roles and their effect on job satisfaction and career success. *Organizational Psychological Review,* 1, (4):339-361.

Anderson, C., & Berdahl, J. L. 2002. The experience of power: Examining the effects of power on approach and inhibition tendencies. *Journal of Personality and Social Psychology*, 83: 1362-1377.

Anderson, C., & Galinsky, A. D. 2006. Power, optimism, and risk-taking. *European Journal of Social Psychology*, 36: 511-536.

Anderson, C., & Kilduff, G. J. 2009. Why do dominant personalities attain influence in face-to-face groups? The competence-signalling effects of trait dominance. *Journal of Personality and Social Psychology*, 96: 491-503.

Anderson, C., John, O. P., & Keltner, D. 2012. The personal sense of power. *Journal of Personality*, 80: 313-344.

Baer, M., Evans, K., Oldham, G. R., & Boasso A. 2015. The social network side of individual innovation: A meta-analysis and path-analytic integration. *Organizational Psychology Review*, 5:191-223.

Bagilhole, B., & J. Goode, J. 2001. The contradiction of the myth of individual merit, and the reality of a patriarchal support system in academic careers: a feminist investigation. *European Journal of Women's Studies*, 8:161-180.

Baker, W. E., & Obstfeld, D. 1999. Social Capital by Design: Structures, Strategies, and Institutional Context. chapter 4 in R.T.A. J. Leenders and Shaul Gabbay (eds). *Corporate Social Capital Liability*. Norwell, MA: Kluwer Academic.

Baron, R. M., & Kenny, D. A. 1986. The moderator mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51: 1173-1182.

Barrick, M.R., & Piotrowski, M. 2002. Personality and job performance: Test of the mediating effects of motivation among sales representatives. *Journal of Applied Psychology*, 87: 43-51.

Baum, J. A. C., McEvily, B., & Rowley, T. J. 2012. Better with age? Tie longevity and the performance implications of bridging and closure. *Organisation Science*, 23(2): 529-546.

Bensaou, B. M., Galunic, C., & Jonczyk-Sédès, C., 2014. Players and purists: Networking strategies and agency of service professionals. *Organisation Science*, 25: 29-56.

Berger, J., & Webster, M. 2006. *Expectations, status, and behaviour.* In P. J. Burke (Ed.), Contemporary social psychological theories (pp. 268-300). Stanford, CA: Stanford University Press.

Bidwell, M., & Briscoe, F. 2010. The dynamics of inter-organizational careers. *Organization Science*, 21(5): 1034-1053.

Bidwell, M., & Fernandez-Mateo, I. 2010. Relationship duration and returns to brokerage in the staffing sector. *Organization Science*, 21(6): 1141-1158.

Bolles, R. N. 1992. *What colour is your parachute*? Berkeley, CA: Ten Speed Pre.

Borgatti, S. P. 2005. Centrality and network flow. *Social networks*, 27(1): 55-71.

Borgatti, S. P., & Foster, P. C. 2003. *The* Network Paradigm in Organizational Research: A Review and Typology. *Journal of Management*, 29(6): 991-1013.

Borgatti, S. P., Everett, M. G., & Freeman, L. C. 1992. UCINET IV: Reference Manu-al. Columbia, SC: Analytic Technologies.

Brands, R. A. & Kilduff, M. 2014. Just like a woman. Effects of gender-biased perceptions of friendship network brokerage on attributions and performance. *Organization Science*, 25(5): 1530-1548.

Brands, R., Menges, J. I. &Kilduff, M. 2015. The leader-in-social-network schema: Perceptions of network structure affect gendered attributions of charisma. *Organisation Science*, 26, (4): 1210-1225.

Brands, R., & Mehra, A. 2019. Gender, Brokerage, and Performance: A Construal Approach. *Academy of Management Journal*, 62, 1: 196-212.

Brass, D. J. 1984. Being in the right place: A structural analysis of individual influence in an organization. *Administrative Science Quarterly*, 29: 518-539.

Brass, D. J. 1985. Men's and Women's Networks: A study of interaction patterns and influence in an organization. *Academy of Management Journal*, 28, 2: 327-343.

Brass, D. J. 1992. Power in organizations: A social network perspective. In G. Moore & J. A. Whitt (Eds.). *Research in politics and society*. Greenwich, CT: JAl Press.

Brass, D. J., &. Burkhardt, M. E 1992. Centrality and power in organizations. In N. Nohria and R. G. Eccles (eds.), *Networks and Organizations: Structure, Form, and Action*: 191-215. Boston: Harvard Business School Press.

Brass, D. J., Galaskiewicz, J., Greve, H. R., & Tsai, W. 2004. Taking stocks of networks and organizations: a multilevel perspective. *Academy of Management Journal*, 47: 795-817.

Breiger, R. L., & J. G. Ennis 1979. Personae and social roles: The network structure of personality types in small groups. *Social Psychology Quarterly*, 42: 262-270.

Brescoll, V. L. 2012. Who takes the floor and why: Gender, power, and volubility in organizations? *Administrative Science Quarterly*, 56(4): 622-641.

Briscoe, F., & Von Nordenflycht, A. 2014. Which path to power? Workplace networks and the relative effectiveness of inheritance and rainmaking strategies for professional partners. *Journal of Professions and Organization*: 33-48.

Burt, R. S. 1992. *Structural holes: The social structure of competition.* Cambridge, MA: Harvard University Press.

Burt, R. S. 1997. The contingent value of social capital. *Administrative Science Quarterly*, 42: 339-365.

Burt, R. S. 2000. The network structure of social capital. In R. I. Sutton and B. M. Staw (eds.), *Research in Organizational Behaviour*, 22: 345-423. New York: Elsevier/J.A.I. Press.

Burt, R. S. 2004. Structural holes and good ideas. *American Journal of Sociology*, 110 (2): 349-399.

Burt, R. S. 2005. *Brokerage and closure: An introduction to social capital*. New York, NY: Oxford University Press.

Burt, R. S. 2012. Network-related personality and the agency question: Multi-role evidence from a virtual world. *American Journal of Sociology*, 118(3): 543-591.

Burt, R. S. 2015. Reinforced structural holes. *Social Networks*, 43: 149-161.

Burt, R. S. 2016. Life Course and Network Advantage: Peak Periods, Turning Points, and Transition Ages. *Social Networks and the Life Course*.

Burt, R. S., & Ronchi, D. 1990 Contested control in a large manufacturing plant. In J. Weesie and H. D. Flap (eds.), *Social Networks through Time*: 121-157. Utrecht: Isor.

Burt, R. S., Jannotta, J. E. J., & Mahoney, J. T. 1998. Personality correlates of structural holes. *Social Networks*, 20, (1): 63-87.

Burt, R. S., Kilduff, M., &Tasselli, S. 2013. Social network analysis: Foundations and frontiers on advantage. *Annual Review of Psychology*, 64: 527-547.

Campero, S. 2020. Hiring and Intra-occupational Gender Segregation in Software Engineering. *American Sociological Review.*

Carlile, P. R. 2004. Transferring, translating, and transforming: An integrative framework for managing knowledge across boundaries. *Organisation Science*, 15: 555-568.

Casciaro, T., Barsade, S. G., Edmondson, A. C., Gibson, C. B., Krackhardt, D., & Labianca, G. 2015. The integration of psychological and network perspectives in organizational scholarship. *Organization Science*, 26(4): 1162-1176.

Clifton, A., & Webster, G. D. 2017. An introduction to social network analysis for personality and social psychologists. *Social Psychological and Personality Science,* 8: 442-453.

Clement, J., Shipilov, A., & Galunic, D. C. 2018. Brokering as a public good: The externalities of network hubs for different formal roles in creative organizations. *Administrative Science Quarterly*, 1: 251-286.

Coakes S. J.2005. *SPSS: Analysis without anguish: Version 12.0 for Windows*. Queensland, Australia: Wiley.

Coleman, J. S. 1958. Relational Analysis: The Study of Social Organizations with Survey Methods. *Human Organization,* 17(4): 28-36.

Coleman, J. S. 1988. Social capital in the creation of human capital. *American Journal of Sociology*, 94: S95-S120.

Coleman, J. S. 1990. *Foundations of social theory*. Cambridge, MA: Belknap Press of Harvard University Press.

Cook, K. S., &Whitmeyer, J. M. (1992). Two approaches to social structure: Exchange theory and network analysis. *Annual Review of Sociology*, 18: 109-127.

Cross, S. E., & Madson, L. 1997. Models of the self: Self-construals and gender. *Psychological Bulletin*, 122(1): 5-37.

Cross, R., & Sproull, L. 2004. More Than an Answer: Information Relationships for Actionable Knowledge. *Organization Science,* 15(4): 446-462.

DeRue, D. S., Nahrgang, J. D., &Ashford, S. J. 2015. Interpersonal perceptions and the emergence of leadership structures in groups: A network perspective. *Organization Science*, 26(4): 1192-1209.

Dubois, D., Rucker, D. D., & Galinsky A. D. 2015. Social class, power, and selfishness: When and why upper and lower class. *Journal of Personality and Social Psychology*, 108(3): 436-449.

Eagly, A. H., & Karau, S. J. 2002. Role congruity theory of prejudice toward female leaders. *Psychological Review,* 109 (3): 573-598.

Eagly, A. H. 2009. The his and hers of prosocial behaviour: An examination of the social psychology of gender. *American Psychologist*, 64 (8): 644-658.

Eagly, A. H., & Sczesny, S. (2019). Gender roles in the future? Theoretical foundations and future research directions. *Frontiers in psychology*, 10.

Elder, J. R., & Glen H. 1994. Time, Human Agency, on the Life Course. *Social Psychology Quarterly*, 57(1): 4-15.

Ely, R. J., Ibarra, H., & Kolb, D. M. 2011. Taking gender into account: Theory and design for women's leadership development programs. *Academy of Management Learning & Education,* 10(3): 474-493.

Emirbayer, M., & Mischel, A. 1998. What is agency? *American Journal of Sociology* 103(4): 962-1023.

Fang, R., Landis, B., Zhang, Z., Anderson, M.H., Shaw, J.D., & Kilduff, M. 2015. Integrating personality and social networks: A meta-analysis of personality, network position, and work outcomes in organizations. *Organization Science*, 26(4): 1243-1260.

Fang, R., Zhang, Z., & Shaw, J. D. 2020. Gender and social network brokerage: A meta-analysis and field investigation. *Journal of Applied Psychology*.

Fernandez, R. M., & Gould, R. V. 1994. A dilemma of state power: Brokerage and influence in the national health policy domain. *American Journal of Sociology*, 99: 1455-1491.

Fiske, S. T. 1993. Controlling other people: The impact of power on stereotyping. *American Psychologist*, 48: 621-628.

Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. 2002. A model of (often mixed) stereotype content: competence and warmth respectively follow from perceived status and competition. Journal of personality and social psychology: 82(6): 878.

Forret, M.L., & Dougherty, T.W. 2004. Networking behaviors and career outcomes: Differences for men and women? *Journal of Organizational Behavior*, 25(3): 419-437.

Freeman, L. C. 1979. Centrality in social networks: Conceptual clarification. Social Networks, 1: 215-239.

Freeman, L. C., A. K. Romney, & S. C. Freeman, 1987. Cognitive structure and informant accuracy. *American Anthropologist*, 89: 310-325.

Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. 2003. From power to action. *Journal of Personality and Social Psychology*, 85: 453-466.

Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld D. H. 2006. Power and perspectives not taken. *Psychological Science*, 17: 1068-1074.

Galinsky, A. D., Magee, J. C., Gruenfeld, D. H., Whitson, J., & Liljenquist K. A. 2008. Power reduces the press of the situation: Implications for creativity, conformity, and dissonance. *Journal of Personality and Social Psychology*, 95: 1450-1466.

Galinsky, A. D., Rucker, D. D., & Magee, J. C. 2015. *Power: Past findings, present considerations, and future directions*. In M. Mikulincer and P. R. Shaer (Eds.), A.P.A. handbook of personality and social psychology (421-460). Washington, DC: American Psychological Association.

Galunic, C., Ertug, G., & Gargiulo, M. 2012. The positive externalities of social capital: Benefiting from senior brokers. *Academy of Management Journal*, 55(5): 1213-1231.

Glückler, J., & Armbrüster, T. 2003. Bridging Uncertainty in Management Consulting: The Mechanisms of Trust and Network Reputation. Organiz*ation Studies*, 24(2): 269-297.

Gould, R., & Fernandez. R. 1989. Structures of mediation: A formal approach to brokerage in transaction networks. *Sociological Methodology,* 19: 89-126.

Granovetter, M. 1973. The strength of weak ties. *American Journal of Sociology*, 78(6): 1360-1380.

Granovetter, M. S. 1985. Economic action and social structure: The problem of embeddedness. American. *Journal of Sociology*, 91: 481-510.

Grosser, J. T., Obstfeld, D., Labianca, G. J., & Borgatti S. 2018. Measuring mediation and separation brokerage orientations: A further step toward studying the social network brokerage process. *Academy of Management Discoveries,* In-Press.

Grosser, T. J., Venkataramani, V., & Labianca, G. J. 2017. An alter-centric perspective on employee innovation: The importance of alters' creative self-efficacy and network structure. *Journal of Applied Psychology*, 102: 1360-1374.

Greguletz, E., Diehl, M. R., & Kreutzer, K. 2018. Why women build fewer effective networks than men: The role of structural exclusion and personal hesitation. *Human Relations*, 56(6): 635-662.

Guinote A., & Phillips A. 2010. Power can increase stereotyping: evidence from managers and subordinates in the hotel industry. *Social psychology,* 41:3-9.

Guinote, A. 2017. How power affects people: Activating, wanting, and goal-seeking. *Annual Review of Psychology*, 68: 353-381.

Gulati, R., & Gargiulo, M. 1999. Where do inter-organizational networks come from? *American Journal of Sociology*, 104(5): 1439-1493.

Gould, R., & Fernandez., R. 1989. Structures of mediation: A formal approach to brokerage in transaction networks. *Sociological Methodology*, 19: 89-126.

Hair, F. J, William, J., Black, C., Barry J., Rolph, R. &Anderson, E. 1998. *Multivariate Data Analysis with Readings.* Englewood Cliffs, NJ Prentice-Hall.

Halevy, N., Halali, E., & Zlatev, J. J. 2019. Brokerage and Brokering: An Integrative Review and Organizing Framework for Third Party Influence. *Academy of Management Annals,* 13 (1): 215-239.

Halevy, N., Halali, E., & Cohen, T. R. 2020. Brokering orientations and social capital: Influencing others' relationships shapes status and trust. *Journal of personality and social psychology*, 119(2): 293.

Heilman, M. E. 2001. Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, 57(4): 657-674.

Holland, P. W., & Leinhardt, S. 1973. The structural implications of measurement error in sociometry. *Journal of Mathematical Sociology,* 3: 85-111.

Hite, J. M., & Hesterly, W. S. 2001.Evolution of Firm Networks: From Emergence to Early Growth of the Firm, Strategic Management Journal, 22 (3): 275-286

Hogg, M. A., & Reid, S. A. 2001. *Social identity, leadership, and power*. In A. Y. Lee-Chai and J. A. Bargh (Eds.), The use and abuse of power: Multiple perspectives on the causes of corruption (159-180). Philadelphia: Psychology Press.

Jonczyk, C., Lee, Y. G., Galunic, C., & Bensaou, B. 2016. Relational changes during role transitions: The interplay of efficiency and cohesion. *Academy of Management Journal*, 59 (3): 956-98

Ibarra, H., M. Kilduff &, Tsai, W. 2005. Zooming in and out: Connecting individuals and collectivities at the frontiers of organizational network research. *Organisation Science*, 16: 359-371.

Ibarra, H., & Hunter, M. 2007. How Leaders Create and Use Networks. *Harvard Business Review*, 85(1): 40-47.

Inesi, M. E. 2010. Power and loss aversion. Organizational Behavior and Human Decision Processes, 112(1): 58-69.

Inzlicht, M. &, Schmader, T. 2012. Stereotype threat: Theory, process, and application: Oxford University Press.

Kalish, Y. &, Robins, G. 2006. Psychological predispositions and network structure: The relationship between individual predispositions, structural holes and network closure. *Social Networks*, 28(1): 56-84.

Karantinou, K. M., & Hogg, M. K. 2009. An empirical investigation of relationship development in professional business services. *Journal of Services Marketing*, 23 (4), 249-260.

Kellogg, K. 2014. Brokerage professions and implementing reform in an age of experts. *American Sociological Review*, 79, 912-941.

Keltner, D., Gruenfeld, D. H. &, Anderson, C. 2003. Power, approach, and inhibition. *Psychological Review*, 110: 265-284.

Kilduff, M. &, Krackhardt, D. 1994. Bringing the individual back in: A structural analysis of the internal market for reputation in organizations. *Academy of Management Journal*, 37: 87-108.

Kilduff, M. &, Tsai, W. 2003. *Social Networks and Organisations*. London: Sage.

Kilduff, M., & Lee, J. W. 2018. David Obstfeld: Getting New Things Done: Networks, Brokerage, and the Assembly of Innovative Action. *Administrative Science Quarterly*, 63 (2): 26-29.

Kilduff, M. &, Brass, D. J. 2010. Organizational social network research: Core ideas and key debates. *The Academy of Management Annals*, 4: 317-357.

Kipnis, D. 1972. Does power corrupt? *Journal of Personality and Social Psychology*, 24: 33-41.

Kirkels, Y. & Duysters, G. 2010. Brokerage in SME networks. *Research Policy,* 39(3): 375-385

Klein, K. J., Lim B-C., Saltz, J. L. &, Mayer, D. M. 2004. How do they get there? An examination of the antecedents of centrality in team networks. *Academy of Management Journal*, 47(6): 952-963.

Kleinbaum, A. M. 2012. Organizational misfits and the origins of brokerage in intrafirm networks. *Administrative Science Quarterly,* 57(3): 407-452.

Kleinbaum, A. M., Jordan A. H., & Audia P.G. 2015. An altercentric perspective on the origins of brokerage in social networks: How perceived empathy moderates the self-monitoring effect. *Organization Science,* 26(4): 1226-1242.

Krackhardt, D. 1990. Assessing the political landscape: Structure, cognition, and power in organizations. *Administrative Science Quarterly*, 35: 342-369.

Kray, L. J., Thompson, L., & Galinsky, A. 2001. Battle of the sexes: gender stereotype confirmation and reactance in negotiations. *Journal of personality and social psychology,* 80(6): 942.

Lammers, J., Galinsky, A. D., Gordijn, E. H., & Otten, S. 2008. Illegitimacy moderates the effects of power on approach. *Psychological Science*, 19: 558-564.

Lammers, J., Stoker, J. I., & Stapel, D. A. 2010. Power and behavioral approach orientation in existing power relations and the mediating effect of income. *European Journal of Social Psychology,* 40: 543-551.

Landis, B., Kilduff, M., Menges, J. I., & Kilduff, G. J. 2018. The Paradox of Agency: Feeling Powerful Reduces Brokerage Opportunity Recognition yet Increases Willingness to Broker. *Journal of Applied Psychology,* 103(8): 929-938.

Lazer, D. L., & Friedman, A. 2007. The network structure of exploration and exploitation. *Administrative Science Quarterly*, 52(4): 667-694.

Lee, F., & Tiedens, L. Z., 2001. Is it lonely at the top? The independence and interdependence of power holders. *Research in Organisational Behaviour,* 23: 43-91.

Lincoln, J. R., & J. Miller. 1979 Work and friendship ties in organizations: A comparative analysis of relational networks. *Administrative Science Quarterly*, 24: 181-199.

Linehan, M. 2001. Networking for female managers' career development. *Journal of Management Development*, 20 (10): 823-829.

Liu, C., Chiu, S., & Chiu, C. 2010. Intranetwork relationships, creativity, knowledge diversification, and network position. *Social Behaviour and Personality: An International Journal*, 38(9): 1173-1190.

Long Lingo, E. L. & O'Mahony, S., 2010. Nexus work: brokerage on creative projects. Administrative Science Quarterly, 55: 47-81.

Magee, J. C., & Galinsky, A. D. 2008. Social hierarchy: The self-reinforcing nature of power and status. *The Academy of Management Annals*, 2: 351-398.

Magee, J. C., & Smith, P. K. 2013. The social distance theory of power. *Personality and Social Psychology Review*, 17: 158-186.

Maner, J. K., Gailliot, M. T., Butz, D. A., & Peruche, B. M. 2007. Power, risk, and the status quo: Does power promote riskier or more conservative decision making? *Personality and Social Psychology Bulletin*, 33: 451-462.

Maner, J. K., Kaschak, M. P., & Jones, J. L. 2010. Social power and the advent of action. *Social Cognition*, 28: 122-132.

McDonald, S. 2011. 'What's in the "old boys" network? Accessing social capital in gendered and racialized networks. *Social Networks*, 33: 317-330.

McEvily, B., & Zaheer, A. 1999. Bridging ties: A source of firm heterogeneity in competitive capabilities. *Strategic Management Journal*, 20(12): 1133-1156.

McFadyen, M. A., Semadeni, M. & Cannella J. 2009. Value of strong ties to disconnected others: Examining knowledge creation in biomedicine. *Organisation Science*, 20: 552-564.

McPherson, M., Smith-Lovin, L., & Cook, J. M. 2001. Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27: 415-444.

Mehra, A., Kilduff, M., & Brass, D. J. 1998. At the margins: A distinctiveness approach to the social identity and social networks of under-represented groups. *Academy of Management Journal*, 41(4): 441-452.

Mehra, A., Kilduff, M., Brass, D. J. 2001. The social networks of high and low self-monitor: Implications for workplace performance. *Administrative Science Quarterly*, *46*, (1): 121-146.

Miller, J. B. 2012. *Toward a New Psychology of Women*. Beacon Press, Boston.

Mischel, W. 2013. *Personality and assessment*. Psychology Press.

Nahapiet, J. 2011. *A social perspective: Exploring the links between human capital and social capital*. In A. Burton-Jones & J. C. Spender (Eds.) The Oxford handbook of human capital:71-95. Oxford: Oxford University Press.

Neuberg, S. L. & Fiske, S. T. 1987. Motivational influences on impression formation: Outcome dependency, accuracy-driven attention, and individuating processes. *Journal of Personality and Social Psychology*, 53: 431-444.

Newell, S., & Robertson, M. 2002. Managing knowledge work. *Management Learning*, *43*(4): 484-487.

Obstfeld, D. 2005. Social networks, the tertius iungens orientation, and involvement in innovation. *Administrative Science Quarterly*, 50: 100-130.

Obstfeld, D., 2017. *Getting new things done: Social networks, brokerage, and the assembly of innovative action*. Redwood City, CA: Stanford University Press.

Obstfeld, D., Borgatti, S. P., & Davis, J. 2014. Brokerage as a process: Decoupling third party action from social network structure. *Research in the Sociology of Organizations*, 40: 135-159.

Oh, H., & Kilduff, M. 2008. The ripple effect of personality on social structure: Self-monitoring origins of network brokerage. *Journal of Applied Psychology*, 95(5): 1155-1164.

Perry-Smith, J. E. 2014. Social network ties beyond non-redundancy: An experimental investigation of the effect of knowledge content and tie strength on creativity. *Journal of Applied Psychology*, 99(5): 831-846.

Podolny, J. M., & Baron, J. N. 1997. Resources and relationships: Social networks and mobility in the workplace. *American sociological review*: 673-693.

Podolny, J. M., 2001. Networks as the pipes and prisms of the market. *American Journal of Sociology*, 107: 33-60.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P., 2012. Sources of method bias in social science research and recommendations on how to control it. *Annua*l *Review of* Psychology: 63, 539-569.

Pollet, T.V., Roberts, S. G. B., & Dunbar, R. I. M. 2011. Extraverts have larger social network layers: But do not feel emotionally closer to individuals at any layer. *Individual Differences* 32:161-169.

Quintane, E., & Carnabuci, G. 2016. How Do Brokers Broker? Tertius Gaudens, Tertius Iungens, and the temporality of structural holes. *Organisation Science*, 27: 1343-1360.

Reagans, R., & McEvily, B. 2003. Network structure and knowledge transfer: The effects of cohesion and range. *Administrative Science Quarterly*, 48: 240-267.

Ridgeway, C. L. 2011. *Framed by gender: How gender inequality persists in the modern world*. Oxford University Press.

Rodan, S. 2010. Structural holes and managerial performance: Identifying the underlying mechanisms. *Social Networks*, 32(3): 168-179.

Rowley, T., Behrens, D., & Krackhardt, D. 2000. Redundant governance structures: An analysis of structural and relational embeddedness in the steel and semiconductor industries. *Strategic Management Journal*, 21(3): 369-386.

Rudman, L. A., & Phelan, J. E. 2008. Backlash effects for disconfirming gender stereotypes in organizations. *Research in Organizational Behavior*, 28: 61-79.

Sasovova, Z., Mehra, A., Borgatti, S. P., & Schippers, M. C. 2010. Network churn: The effects of self-monitoring personality on brokerage dynamics. *Administrative Science Quarterly*, 55(4): 639-670.

Scott, J. 1991 Social Network Analysis: A Handbook. Newbury Park, CA: Sage.

Seibert, S. E., Kraimer, M. L. & Liden, R. C. 2001. A social capital theory of career success. *Academy of Management Journal*, 44: 219-237.

Simpson, B. & Borch, C. 2005. Does power affect perception in social networks? Two arguments and an experimental test. *Social Psychology Quarterly*, 68: 278-287.

Schwarz, N. 2009. Mental construal in social judgment. *Social cognition: The basis of human interaction*: 121-138.

Shipilov, A., Labianca, G. Kalnysh, V., & Kalnysh., Y. 2007. Career-related network building behaviors, range social capital, and career outcomes. *Acad. Management Proc*. (Meeting abstract supplement), 1-6.

Slabu, L. & Guinote, A. 2010. Getting what you want: Power increases the accessibility of active goals. *Journal of Experimental Social Psychology*, 46(2): 344-349.

Smith, P. K., & Bargh, J. A. 2008. Nonconscious effects of power on basic approach and avoidance tendencies. *Social Cognition*, 26: 1-24.

Smith, P. K., Jostmann, N. B., Galinsky, A. D., & Van Dijk, W. 2008. Lacking power impairs executive functions. *Psychological Science*, 19: 441-447.

Soda, G., Tortoriello, M., & Iorio, A. 2018. Harvesting Value from Brokerage: Individual Strategic Orientation, Structural Holes, and Performance. *Academy of Management Journa*l, 61(39): 896-918.

Sparrowe, R. T., Liden, R. C., Wayne, S. J., & Kraimer, M. L. 2001. Social networks and the performance of individuals and groups. *Academy of Management Journal*, 44: 316-325.

Sparrowe, R. T., & Liden, R. C. 2005. Two routes to influence: Integrating leader-member exchange and social network perspectives. *Administrative Science Quarterly*, 50(4): 505-535.

Spencer, S. J., Steele, C. M., & Quinn, D. M. 1998. Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, 35: 4-28.

Spencer, S. J., Logel, C., & Davies, P. G. 2016. Stereotype threat. *Annual review of psychology*, 67: 415-437.

Stephens, G. K. 1994. Crossing internal career boundaries: The state of research on subjective career transitions. *Journal of Management*, 20: 479-501.

Stovel, K., & Shaw, L. M. 2012. Brokerage. *Annual Review of Sociology*, 38, 139-158.

Tasselli, S., & Kilduff, M. 2020. On Network Agency. *Academy of Management Annals*.

Tortoriello, M., & Krackhardt, D. 2010. Activating cross-boundary knowledge: The role of Simmelian ties in the generation of innovations. *Academy of Management Journal, 53*(1), 167-181.

Trope, Y., & Liberman, N. 2010. Construal-level theory of psychological distance. *Psychological Review*, 117: 440-463.

Vissa, B., & Chacar, A. S. 2009. Leveraging ties: The contingent value of entrepreneurial teams' external advice networks on Indian software venture performance. *Strategic Management Journal,* 30(11): 1179-1191.

Von Nordenflycht, A. 2010. What Is a Professional Service Firm? Toward a Theory and Taxonomy of Knowledge-Intensive Firms. *Academy of Management Review*, 35: 155-74.

Wang, C., Rodan, S., Fruin, M., & Xu, X. 2014. Knowledge networks, collaboration networks, and exploratory innovation. *Academy of Management Journal*, 57, (2): 484-514.

Yu, S., & Kilduff, G. J. 2020. Knowing where others stand: Accuracy and performance effects of individuals' perceived status hierarchies. *Journal of personality and social psychology, 119*(1):159.

Zaheer, A., & Soda, G. 2009. Network evolution: The origins of structural holes. *Administrative Science Quarterly,* 54(1):1-31.

TABLE 1**: Means, Standard Deviations and Correlations**

		M	SD	1	2	3	4	5	6	7	8
1	Gender	.51	.5								
2	Age	2.24	.78	.1							
3	Rank	1.18	.63	.08	.77**						
4	Department	.63	.49	-.04	.09	.20*					
5	Education	1.03	.26	.02	.18*	.12					
6	Sense of Power	2.96	.36	.19*	.03	.04	.08	.04			
7	Tertius Iungens	3.08	.96	-.57**	-.09	-.15	-.01	-.05	-.28***		
8	Tertius Gaudens	3.28	1.03	.69**	.07	.09	.09	-.01	.27**	-.68**	

* $p \leq .05$
** $p < .01$
*** $p < .001$

TABLE 2:

Differences Across Gender

Descriptive Statistics					
Gender		N	Mean	Std. Deviation	Std. Error Mean
Tertius Iungens Brokerage Orientation	Female	79	3.64	0.70	0.08
	Male	82	2.54	0.88	0.10
Tertius Gaudens Brokerage Orientation	Female	79	2.56	0.79	0.09
	Male	82	3.97	0.72	0.08

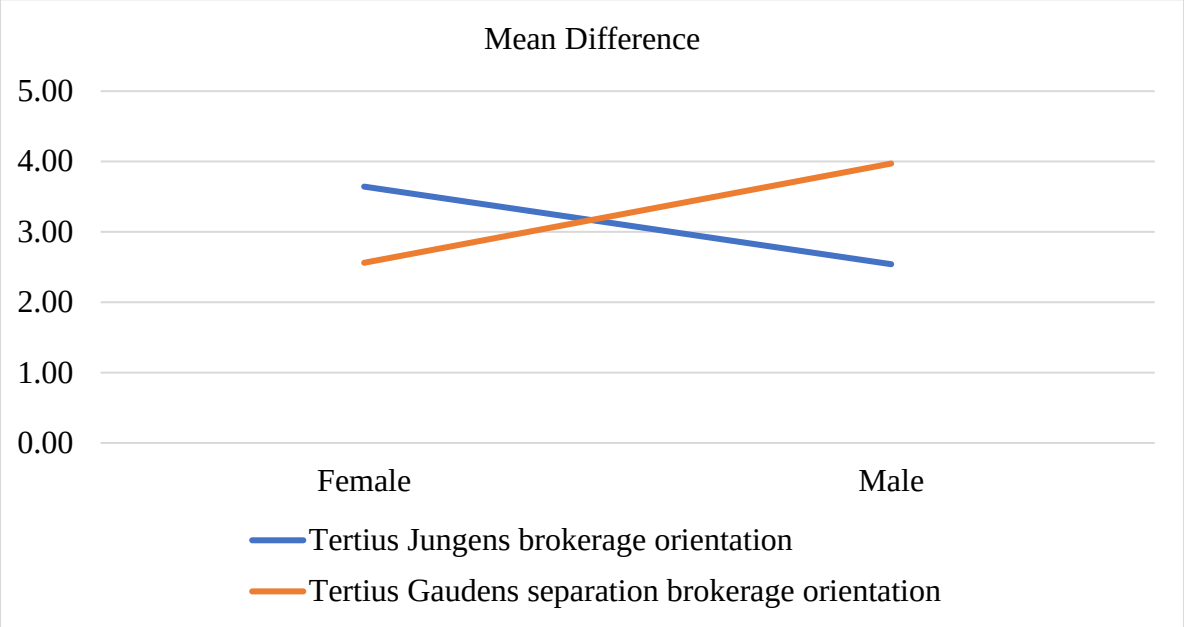
Mean Difference
5.00
4.00
3.00
2.00
1.00
0.00
Female
Male
Tertius Jungens brokerage orientation
Tertius Gaudens separation brokerage orientation

TABLE 3**:**
Hierarchical Regression: The Effect of Sense of Power on the Brokerage Strategies

Model		*Dependent Variables*			
		Tertius Iungens		Tertius Gaudens	
	Independent Variables	*Beta*	*p*	*Beta*	*p*
1	Sense of Power	-0.28	0.00***	0.27	0.00
2	Sense of Power	-0.14	0.04*	0.13	0.04*
	Gender (0, Female; 1, Male)	-0.56	0.00***	0.64	0.00***
	Age	-0.20	0.09	0.04	0.70
	Tenure	0.30	0.00***	-0.06	0.46
	Rank	-0.09	0.31	0.02	0.82
	Finance	-0.48	0.01**	0.07	0.70
	Management	-0.24	0.03*	-0.08	0.47
	Audit	-0.39	0.01**	-0.03	0.81
	Human Resource	-0.21	0.08	-0.04	0.72
	R^2	0.08		0.07	
	R^2 change	0.43		0.52	

* $p \leq .05$
** $p \leq .01$
*** $p \leq .001$

TABLE 4-5**:**

Differences in Network Variables Between Males and Females Using MANOVA:

Table 4: **MANOVA Results (Without Additional Controls)**

	Dependent Variable					*Multivariate Test Statistics*	
	Size	Efficiency	EffSize	Constraints	Hierarchy	Pillai's Trace	F-Statistic
	(1)	(2)	(3)	(4)	(5)		
Sense of Power	0.69	-0.09***	-0.95*	-0.03	-0.02***	0.134	4.70***
Sense of Power*Female	-0.07	0.04	0.62	-0.02	0.01	0.070	1.34
Female	0.54	-0.09	-1.37	0.07	-0.05*	0.042	2.30**
Constant	9.93***	0.63***	7.26***	0.43***	0.09***		
Observations	161	161	160	161	161		
R^2	0.01	0.13	0.04	0.02	0.07		
Adjusted R^2	-0.01	0.11	0.02	-0.003	0.06		
Res.Std. Error (df=157)	3.57	0.08	1.83	0.12	0.02		
F Statistic (df = 3; 156)	0.29	7.80***	2.33*	0.86	4.14***		

Note: *p≤0.1; **p≤0.05; ***p≤0.01

Table 5: **MANOVA Results (With Additional Controls)**

	Dependent Variable:					*Multivariate Test Statistics*	
	Size	Efficiency	EffSize	Constraints	Hierarchy	Pillai's Trace	F-Statistic
	(1)	(2)	(3)	(4)	(5)		
Sense of Power	-0.02	-0.08***	-1.15**	-0.01	-0.02***	0.144	4.83***
Sense of Power*Female	0.3	0.06	0.95	-0.02	0.01	0.085	2.65**
Female	-0.45	-0.14	-2.26	0.06	-0.05*	0.043	1.28
Age	0.05	-0.002	0.04	-0.0005	-0.0003	0.160	5.43***
Tenure	0.15	0.004	0.09	0.002	-0.0005	0.102	3.24***
Rank	-0.62	0.01	-0.4	-0.02	0.002	0.056	1.71
Finance	-0.96	0.08***	0.29	0.03	-0.01*	0.118	3.82***
Management	-0.64	0.05**	-0.14	0.04	0.005	0.040	1.18
Audit	-0.9	0.02	-0.19	0.004	-0.002	0.028	0.83
Legal	-1.21	-0.03	-0.85	0.01	-0.02**	0.038	1.12
Human resources	-2.89	0.09**	-0.1	0.11*	0.01	0.046	1.38
Constant	9.59**	0.65***	6.06***	0.40***	0.10***		
Observations	161	161	160	161	161		
R^2	0.07	0.24	0.1	0.06	0.16		
Adjusted R^2	-0.004	0.17	0.02	-0.02	0.09		
Res.Std. Error (df=148)	3.56	0.08	1.83	0.12	0.02		
F Statistic (df= 12; 148)	0.95	3.80***	1.31	0.77	2.30**		
Note:	*p≤0.1; **p≤0.05; ***p≤0.01						

TABLE 6: **Hierarchical Generalized Linear Models:**
Dependent: Tertius Iungens Brokerage Orientation

	Dependent Variable:					
	Tertius Iungens					
	(1)	(2)	(3)	(4)	(5)	(6)
Spower	-0.90*** (0.23)	-0.78*** (0.23)	-0.70*** (0.23)	-0.61*** (0.23)	-0.60** (0.25)	-0.51** (0.25)
Spower *Size					-0.07 (0.26)	-0.24 (0.27)
Spower* Efficiency					9.48* (5.72)	3.45 (5.95)
Spower *Effsize					-0.57 (0.53)	-0.05 (0.55)
Spower *Constraints					-7.33* (4.27)	-4.31 (4.51)
Spower *Hierarchy					-13.70* (8.15)	-13.24 (8.09)
Spower*Female	0.96*** (0.34)	0.97*** (0.35)	0.86** (0.33)	0.80** (0.34)	0.66* (0.38)	0.55 (0.39)
Female	1.05*** (0.12)	1.10*** (0.12)	0.94*** (0.12)	1.01*** (0.12)	0.97*** (0.13)	1.02*** (0.13)
Size			0.05 (0.05)	0.04 (0.05)	0.09 (0.06)	0.06 (0.06)
Efficiency			3.70** (1.53)	3.65** (1.65)	7.81*** (2.34)	5.90** (2.56)
Effsize			-0.05 (0.11)	-0.08 (0.12)	-0.38* (0.20)	-0.26 (0.20)
Constraints			-0.47 (0.97)	-1.18 (1.04)	-3.07** (1.50)	-2.64 (1.62)
Hierarchy			-1.39 (3.29)	-0.22 (3.49)	-1.87 (3.33)	-1.37 (3.50)
Age		-0.04* (0.02)		-0.03 (0.02)		-0.03 (0.02)
Tenure		0.08*** (0.02)		0.07*** (0.02)		0.07*** (0.02)
Rank		-0.17 (0.29)		-0.23 (0.28)		-0.27 (0.28)
Finance		0.25 (0.22)		0.07 (0.23)		0.03 (0.23)
Management		0.13 (0.23)		0.002 (0.24)		0.02 (0.24)
Audit		-0.10 (0.18)		-0.14 (0.18)		-0.19 (0.18)
Legal		0.07 (0.31)		0.17 (0.31)		0.07 (0.30)
Human resources		1.05*** (0.37)		0.96** (0.37)		1.07*** (0.40)
Constant	2.60*** (0.09)	3.61*** (0.64)	2.65*** (0.08)	3.47*** (0.66)	2.61*** (0.10)	3.62*** (0.68)
Observations	161	161	160	160	160	160
R^2	0.39	0.46	0.46	0.51	0.49	0.55
Adjusted R^2	0.38	0.42	0.43	0.45	0.45	0.47
Residual Std. Error	0.76(df=157)	0.74 (df = 148)	0.73(df = 151)	0.71 (df = 142)	0.71 (df = 146)	0.70 (df = 137)
F Statistic	33.51*** (df = 3; 157)	10.49*** (df = 12; 148)	16.05*** (df = 8; 151)	8.74*** (df= 17; 142)	10.99*** (df= 13; 146)	7.47*** (df= 22; 137)

Note: *p≤0.1; **p≤0.05; ***p≤0.01

TABLE 7: **Hierarchical Generalized Linear Models**
Dependent: *Tertius Gaudens Separation Brokerage Orientation*

	Dependent Variable:					
	Tertius Gaudens					
	(1)	(2)	(3)	(4)	(5)	(6)
Spower	0.58*** (0.22)	0.60*** (0.23)	0.49** (0.23)	0.58** (0.24)	0.44* (0.26)	0.50* (0.27)
Spower*Size					0.12 (0.26)	0.13 (0.28)
Spower* Efficiency					5.65 (5.83)	6.06 (6.22)
Spower* Effsize					-0.63 (0.54)	-0.70 (0.58)
Spower*Constraints					-4.11 (4.35)	-4.82 (4.72)
Spower*Hierarchy					2.64 (8.31)	3.79 (8.47)
Spower*Female	-0.39 (0.33)	-0.55 (0.35)	-0.32 (0.33)	-0.46 (0.35)	-0.20 (0.39)	-0.32 (0.41)
Female	-1.36*** (0.12)	-1.33*** (0.12)	-1.29*** (0.12)	-1.28*** (0.13)	-1.24*** (0.13)	-1.22*** (0.14)
Size			-0.08 (0.05)	-0.07 (0.05)	-0.04 (0.06)	-0.03 (0.06)
Efficiency			-4.98*** (1.53)	-4.97*** (1.69)	-2.50 (2.38)	-2.08 (2.68)
Effsize			0.24** (0.11)	0.26** (0.12)	-0.01 (0.20)	-0.02 (0.21)
Constraints			0.77 (0.96)	1.22 (1.06)	-0.91 (1.53)	-0.69 (1.69)
Hierarchy			2.44 (3.27)	2.19 (3.56)	3.19 (3.40)	2.99 (3.66)
Age		0.01 (0.02)		-0.01 (0.02)		-0.005 (0.02)
Tenure		-0.02 (0.02)		-0.02 (0.03)		-0.02 (0.03)
Rank		-0.03 (0.28)		0.10 (0.29)		0.10 (0.30)
Finance		-0.30 (0.22)		-0.07 (0.24)		-0.13 (0.25)
Management		-0.49** (0.23)		-0.35 (0.24)		-0.35 (0.25)
Audit		-0.25 (0.18)		-0.18 (0.18)		-0.22 (0.19)
Legal		0.40 (0.31)		0.41 (0.31)		0.37 (0.32)
Human resources		-0.22 (0.37)		-0.10 (0.38)		-0.27 (0.42)
Constant	3.93*** (0.08)	3.87*** (0.64)	3.90*** (0.08)	4.35*** (0.67)	3.84*** (0.10)	4.19*** (0.71)
Observations	161	161	160	160	160	160
R^2	0.50	0.53	0.53	0.56	0.54	0.57
Adjusted R^2	0.49	0.49	0.51	0.50	0.50	0.50
Residual Std. Error	0.74 (df = 157)	0.74 (df = 148)	0.72 (df = 151)	0.73 (df = 142)	0.73 (df = 146)	0.73 (df = 137)
F Statistic	51.36*** (df = 3; 157)	13.80*** (df = 12; 148)	21.60*** (df = 8; 151)	10.45*** (df = 17; 142)	13.26*** (df = 13; 146)	8.09*** (df = 22; 137)
Note:	*p≤0.1; **p≤0.05; ***p≤0.01					