# Journal of Personality and Social Psychology

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Nir Halevy, Eliran Halali, and Taya R. Cohen Online First Publication, August 19, 2019. http://dx.doi.org/10.1037/pspi0000213

# **CITATION**

Halevy, N., Halali, E., & Cohen, T. R. (2019, August 19). Brokering Orientations and Social Capital: Influencing Others' Relationships Shapes Status and Trust. *Journal of Personality and Social Psychology*. Advance online publication. http://dx.doi.org/10.1037/pspi0000213



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http://dx.doi.org/10.1037/pspi0000213

# Brokering Orientations and Social Capital: Influencing Others' Relationships Shapes Status and Trust

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Individuals often influence others' relationships, for better or worse. We conceptualize social influence processes that impact others' social networks as brokering, and advance a multifaceted model that explains how brokering behaviors can create, terminate, reinforce, and modify others' network ties. To empirically study brokering, we introduce and validate the Brokering Orientations Scale (BOS), a multidimensional measure that captures individuals' behavioral tendencies to act as intermediaries, conciliators, and dividers. Six studies (N=1,723) explored the psychometric properties of the BOS (Studies 1a-c) and investigated the effects of distinct forms of brokering on brokers' social capital (Studies 2-4). The intermediary, conciliatory and divisive brokering orientations related differently to extraversion, agreeableness, perspective-taking, moral identity, and Machiavellianism, among other individual differences. The effects of brokering on social capital varied as a function of the brokering orientation and the aspect of social capital. Intermediary behavior garnered status; conciliatory behavior promoted trust and prestige; and divisive behavior fueled brokers' perceived dominance. Overall, the current article elucidates the concept of brokering orientations, introduces a novel measure of brokering orientations, and explains how brokering behavior shapes brokers' social capital.

Keywords: Brokering Orientation Scale, scale development, social influence, social networks, group processes

Supplemental materials: http://dx.doi.org/10.1037/pspi0000213.supp

Social life is constantly determined in its course by the presence of the third person.

—Simmel (Simmel & Wolff, 1950, p. 149)

Brokering is a fascinating social behavior. It permeates every aspect of social life; indeed, it may be the primary driver of change in social life. Unlike many social influence processes

Editor's Note. Shaul Shalvi served as the action editor for this article.—KK

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We thank Monica Nelson for her assistance with data collection. We thank Alessandro Iorio and the participants in research seminars at Stanford University, University of Michigan, University of Maryland, and Harvard University for their helpful comments and suggestions on earlier versions of this work. Eliran Halali gratefully acknowledges support from the Israel Science Foundation (grant 1699/17).

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that aim to shape our opinions and attitudes, brokering processes take aim at our social interactions and relationships. Brokering processes play a crucial role in the formation, maintenance, and termination of social relations. They are manifested in social and professional introductions, gossip among friends and coworkers, matchmaking and romantic triangles, job referrals and letters of recommendation, the production of music and films, entrepreneurship and deal-making, legal proceedings and mediation, as well as in numerous other interactions. In all of these cases, formal or informal brokers operate to influence our interactions and relationships with others, for better or worse. The pervasiveness and significance of brokering in social life warrants a thoughtful consideration of the social psychological processes that govern it.

The context for brokering processes is often the small group, and in particular, the triad (Gould & Fernandez, 1989; Granovetter, 1973). As noted in the opening quote from Simmel, the presence of a "third person" can fundamentally alter dyadic interactions and relationships. More important, third parties can be helpful or harmful in their impact. Simmel and Wolff (1950) noted: "... among three elements, each one operates as an intermediary between the other two, exhibiting the twofold function ... to unite and separate" (p. 135). Thus, a third party can act as a conciliator

who "save(s) the group unity from the danger of splitting up" (p. 154), but also as a divider who "intentionally produces the conflict in order to gain a dominating position" in the group (p. 162).

Whereas Simmel's analysis focused on social influence processes in small groups, sociological and organizational research in the decades that followed focused on analyzing *structural aspects* of social networks (Burt, Kilduff, & Tasselli, 2013; Stovel & Shaw, 2012). Consequently, little is known about the *behavioral processes* through which individuals shape others' social networks (Casciaro et al., 2015; Obstfeld, Borgatti, & Davis, 2014).

Here we aim to make four meaningful contributions to the emerging literature on brokering. First, we complement prevailing structural models of social networks by studying brokering as a multifaceted social influence process whereby individuals shape others' social networks (i.e., their patterns of social interactions and relationships). Second, we introduce and validate a theoretically derived, multidimensional measure of brokering orientations—the BOS (Brokering Orientations Scale). Third, we utilize the BOS to address multiple open questions in the emerging social psychological literature on brokering, such as: How do social networks change? How do different brokering processes relate to each other? and: How do different brokering orientations relate to various social skills? Finally, contributing to the social capital branch of the social networks literature, we explore how individuals' tendencies to engage in different brokering behaviors shape their status in the eyes of others as well as how much they are trusted by others.

The remainder of the article is organized in three sections. We begin by outlining our theoretical model and explaining what brokering orientations are. We then address the methodological question of how brokering orientations can be assessed. Finally, the third section explores brokering orientations' consequences for social capital. Our empirical studies mirror this threefold structure, illuminating conceptual and measurement issues first before turning to brokering's consequences.

# A Unifying Framework for the Psychology of Brokering

Brokering processes take different forms. For example, individuals influence others' interactions and relationships by engaging in romantic matchmaking (Anik & Norton, 2014), by acting as thirdparty conflict managers (Halevy & Halali, 2015), and by limiting others' opportunities to interact or communicate (Case & Maner, 2014). What do these distinct kinds of social influence share in common? To what extent are they conceptually distinct and empirically distinguishable? To address these and other open theoretical and empirical questions, we build on the COR (Changing Others' Relationships) Framework—a recent multifaceted conceptualization of brokering that focuses on the manner in which third parties' actions influence others' social networks (Halevy, Halali, & Zlatev, 2019). Following the sociological literature on brokerage, we label the actor who engages in brokering ego or broker, and the individuals whose relationship the broker influences alters. Applying this terminology, the COR framework proposes that distinct brokering activities by ego can impact alters' network ties in profoundly different ways. In the current research we focus on three functional forms of brokering: intermediary, conciliatory, and divisive.

# **Intermediary Behaviors**

Some brokering behaviors entail introducing and coordinating others who were previously disconnected or independent from one another. For example, ethnographic research with producers of country music in Nashville highlights producers' role in facilitating coordination and cooperation between performers, musicians, songwriters, personal managers, production studio staff (e.g., engineers), and labels (Lingo & O'Mahony, 2010). Additional evidence for the important role brokering processes play in establishing and maintaining collaborative relationships comes from field research on the production of TV game shows (Clement, Shipilov, & Galunic, 2017), innovations in the automotive industry (Obstfeld, 2005), and interdisciplinary collaborations in academia (Kaplan, Milde, & Cowan, 2017). Following the COR framework, we label third parties who engage in brokering behaviors that transform neutral or nonexistent ties into positive ties-that is, independence into positive interdependence—intermediaries.

Intermediaries may hold a formal role that defines the nature of their brokering activities, such as real-estate agents, or pursue brokering activities without having a formal role, such as friends who act as informal matchmakers (Anik & Norton, 2014). Intermediaries may act as the bridge that connects alters indirectly while maintaining the separation between alters (labeled tertius gaudens). Alternatively, intermediaries may promote direct contact between alters (labeled tertius iungens; Obstfeld, 2005). Irrespective of their formal or informal role, or whether they connect alters indirectly or directly, intermediaries are cooperation catalysts: They create and cultivate new collaborations between individuals who previously did not collaborate in a given domain (Obstfeld, 2017). We consider intermediaries to be helpful in their impact on others' social networks as they help others who were previously disconnected, or had weak or limited preexisting ties, to establish stronger positive relationships in the brokered domain.

#### **Conciliatory Behaviors**

Whereas intermediary behaviors transform prebrokering independence (or neutrality) into postbrokering positive interdependence, conciliatory behaviors transform prebrokering negative ties—that manifest in conflict, rivalry, or competition—into postbrokering positive ties—characterized by voluntary cooperation (Nakashima, Halali, & Halevy, 2017). That is, conciliatory behaviors aim to transform negative interdependence into positive interdependence. Conciliators can help disputants manage their conflict or resolve their dispute in various ways: by serving as arbitrators or mediators; by asking questions and providing advice and information (e.g., about norms and precedents); and by rewarding cooperative behavior and sanctioning competitive behavior (Halevy et al., 2019). Similar to intermediaries, conciliators may occupy a formal role that prescribes a particular set of brokering activities (e.g., an organizational ombudsperson) or seek to resolve others' conflict without holding a formal role (e.g., helping friends resolve their disagreement).

<sup>&</sup>lt;sup>1</sup> Brokering behaviors that transform negative interdependence into neutral interdependence or independence also qualify as conciliatory behaviors. For simplicity, we focus on the clearest and most notable form of conciliatory brokering, which transforms a negative tie into a positive tie.

#### **Divisive Behaviors**

Some third parties are harmful in their impact on others' network ties (Labianca & Brass, 2006; Posner, Spier, & Vermeule, 2010). Based on the COR framework, we label third parties who transform prebrokering neutral or positive ties into postbrokering negative ties dividers. That is, divisive behaviors aim to transform independence or positive interdependence into negative interdependence. Research on gossip suggests that sharing negative evaluative information about someone in their absence is a fundamental way in which individuals undermine others' network ties and breed animosity, hostility, and rivalry (Ellwardt, Labianca, & Wittek, 2012; Grosser, Lopez-Kidwell, & Labianca, 2010). Research on dominance-seeking managers (Case & Maner, 2014) suggests that dividers sometimes physically separate others and limit their communication opportunities as a means to protect their alpha-status in the group. In the domain of labor relations, researchers have suggested that some consultants occasionally act as dividers by using disinformation and incentives to supplant unity and accord with division and discord (Godard, 2009; Logan, 2006). Finally, in the domain of close relationships, jealousy or romantic interest in one of the individuals in a pair may lead a third party to pursue divisive actions that "threaten the unique intimacy that a dyad has developed" (Kelley et al., 2003, p. 402).

In summary, theoretically integrating Simmel and Wolff's (1950) classic analysis of social influence processes in triads with the notion that "qualitatively different roles [can] have equal claim to the term *brokerage*" (Gould & Fernandez, 1989, p. 123; italics in source), the COR framework introduced by Halevy et al. (2019) provides a common language for defining different brokering behaviors—by considering how ego's brokering behavior influences alters' network ties. In the current research, we extend the initial theoretical work on the COR framework by developing and validating a new measure for assessing brokering orientations—the Brokering Orientations Scale (BOS)—and by exploring how brokering orientations relate to social capital.

### **Conceptualizing Brokering Orientations**

We conceptualize the intermediary, conciliatory, and divisive brokering orientations as *complementary and habitual behavioral tendencies* that characterize how individuals influence others' social networks (cf. Grosser, Obstfeld, Labianca, & Borgatti, 2019; Soda, Tortoriello, & Iorio, 2018). We use the term *complementary* to articulate that different brokering behaviors are not mutually exclusive at the level of the broker. Rather, they are distinct-yet-interrelated social influence tools that the same broker can potentially utilize across different parts of their social network to shape others' interactions and relationships.

Consider for example the brokering behaviors of producers in the aforementioned ethnographic study of country music production (Lingo & O'Mahony, 2010). In addition to acting as intermediaries by introducing new artists to song writers, producers also acted as conciliators by helping different production staff coordinate on their respective jurisdictions; and they enacted divisive behavior by creating direct competition between different label heads (e.g., in a showcase concert) as a means to get the best contract for the performer they were promoting. Although different brokering behaviors are likely to be mutually exclusive within a given triadic configuration (e.g., ego may promote either cooper-

ation *or* competition among a given pair of alters), different brokering orientations are *not* mutually exclusive 'personality types.' Rather, they are behavioral tendencies that can be enacted simultaneously by a given broker across different parts of their network, sometimes in the service of the same ultimate goal, as in the country music production example.

We use the term habitual in our conceptualization to clarify that individuals are likely to engage in certain brokering behaviors repeatedly, especially when these have produced desirable outcomes in the past (Nakashima et al., 2017). Thus, consistent with research on individual differences that describe personality traits as tendencies to show consistent patterns of behavior (i.e., an act-frequency approach: Digman, 1990; Lee & Ashton, 2004, pp. 334–336), we define brokering orientations as individuals' recurring patterns of social behavior, and more specifically, as their habitual tendencies to influence others' network ties in particular ways. This conceptualization means we expect individuals to have a stable sense of how they (and other individuals) typically influence others' relationships that researchers can assess with straightforward self-report and other-report measures. Further, we expect brokering orientations to be somewhat (but not completely) stable over time (Soda et al., 2018) and to associate in theoretically meaningful ways with individual differences that previous research has linked to social behavior. Put differently, we expect individuals to engage in brokering behaviors that fit their values, traits, and skills more often, and in brokering behaviors that do not fit their values, traits, and skills less often.

#### **Measuring Brokering Orientations**

The literature on social networks offers multiple established measures of structural aspects of social networks but few measures of brokering as a social influence process. The few studies that previously explored brokering behavior empirically focused on organizational contexts and distinguished between brokering behaviors based on whether they facilitate direct contact, indirect contact, or no contact between alters (Grosser et al., 2019; Obstfeld, 2005; Soda et al., 2018). Specifically, the tertius iungens measure (Obstfeld, 2005) captures the extent to which brokers promote *direct contact* between alters, whereas a more recent measure, the DBOS (Disjunctive Brokerage Orientations Scale: Grosser et al., 2019) assesses brokering processes that promote either *indirect contact* or *no contact* between alters. The former orientation is labeled *mediating*<sup>2</sup> whereas the latter orientation is labeled *separating* in the DBOS framework.

Our conceptualization of brokering orientations is quite different. Rather than focusing on the question of whether brokers promote direct contact, indirect contact, or no contact between alters, we focus on how brokers change alters' social networks by creating new ties, by terminating ties, or by modifying preexisting ties (e.g., turning weak ties into strong ties; turning positive ties into negative ties, or vice versa). Additionally, our theoretical

<sup>&</sup>lt;sup>2</sup> The term 'mediating' is used in the third-party conflict management literature to denote a particular form of dispute resolution whereby a third party exercises control over the process (but not the outcome) of conflict management (Halevy et al., 2019; Ury et al., 1988). This alternative meaning of the term mediating led to our choice of the term intermediaries (rather than mediators) in the current work.

interest transcends specific contexts; rather than focusing solely on organizational networks, we seek to understand how brokering behaviors change social networks of different kinds. Therefore, in the current research we introduce and validate new cross-situational measures to assess the intermediary, conciliatory, and divisive brokering orientations as conceptualized in the COR framework (Halevy et al., 2019). Studies 1a–c focus on establishing the multidimensional structure, reliability, and validity of the BOS. Studies 2–4 then explore brokering orientations' consequences for social capital. The next section articulates our hypotheses concerning the effects of brokering orientations on social capital.

#### **Brokering Orientations Shape Status and Trust**

Research on social networks from a structural perspective tends to valorize the social capital benefits that come from occupying brokerage positions, that is, the social, occupational, and material advantages that ensue to individuals whose bridging position allows them to connect disconnected others, thereby bridging structural holes in the social structure (Burt et al., 2013; Stovel & Shaw, 2012). To the best of our knowledge, the current work is the first empirical investigation to explore how different brokering behaviors relate to complementary aspects of brokers' social capital. Previous research on tertius iungens and gaudens orientations examined how brokering behaviors shape creativity and innovation in organizations (Grosser et al., 2019; Kauppila, Bizzi, & Obstfeld, 2018; Obstfeld, 2005) and employee performance evaluations (Soda et al., 2018). Here we explore how intermediary, conciliatory, and divisive brokering orientations relate to brokers' social capital. Specifically, we examine how brokering orientations relate to status conferral by others, judgments of prestige and dominance by others, and trust from others, in friendship and work contexts.

# **Brokering Orientations and Status**

Individuals tend to confer status (i.e., respect and admiration) on others who engage in helpful behaviors. Individuals confer status on generous exchange partners (Flynn, 2003; Flynn, Reagans, Amanatullah, & Ames, 2006), as well as on individuals who make costly contributions to public goods (Halevy, Chou, Cohen, & Livingston, 2012; Willer, 2009). Consistent with the established tendency of individuals to reward prosocial behavior with status conferral, we expect individuals to reward helpful brokering behaviors, but not harmful brokering behaviors, with status.

Hypothesis 1: The intermediary and conciliatory brokering orientations, but not the divisive orientation, will positively predict one's sense of status (ego/self-reports) and conferred status (alter/other reports).

Although we propose that both intermediary and conciliatory brokering behaviors are rewarded with status, it remains an open question whether individuals confer status on intermediaries and conciliators to similar degrees. The current research allows us to explore whether intermediary behaviors, which create new network ties for alters, are rewarded with more status, less status, or the same level of status as compared with conciliatory behaviors, which transform preexisting negative ties into positive ties.<sup>3</sup>

#### **Prestige and Dominance**

Recent research on social hierarchy has identified prestige and dominance as distinct pathways to navigating one's hierarchical position within a group (Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; Kakkar & Sivanathan, 2017; Maner & Case, 2016). Although prestige is often defined similarly to status, the two constructs differ. Prestige captures the use of prosocial behavior (e.g., generously sharing resources like time, effort, and knowledge with others) as means to ascend in the social hierarchy. Thus, prestige is a particular pathway toward higher social rank. In contrast, status—defined as respect, admiration, and esteem in the eyes of others (Anderson, Hildreth, & Howland, 2015; Magee & Galinsky, 2008)—captures a state rather than a strategy. Put differently, prestige captures *how* an individual ascends in the hierarchy whereas status captures *where* one is situated in the hierarchy.

Individuals tend to seek the company and advice of others they see as high in prestige, and associate prestige with other-regarding and group-serving behavior (Cheng, Tracy, & Henrich, 2010; Halevy et al., 2012). In contrast, dominance is commonly defined as a forceful approach to self-promotion whereby individuals use aggression and intimidation to coerce others into deference (Cheng et al., 2013; Maner & Case, 2016). Hence, individuals tend to fear and keep their distance from others whom they perceive to be high in dominance. Given that prestige is inherently about the use of prosocial behavior to ascend in a social hierarchy, we expect helpful brokering behaviors to positively predict prestige.<sup>4</sup> In contrast, given the Machiavellian nature of divisive brokering behaviors, and their adverse impact on alters' relationships, we expect individuals will see those who engage in divisive behavior as high in dominance. Put differently, we expect that prosocial brokering behaviors that increase prestige will decrease dominance and that competitive and harmful brokering behavior that decrease prestige will increase dominance.

Hypothesis 2: The intermediary and conciliatory brokering orientations will positively predict one's sense of prestige (ego/self-reports) and conferred prestige (alter/other reports),

<sup>&</sup>lt;sup>3</sup> Individuals may differentiate between intermediaries and conciliators on several different grounds. First, they may perceive conciliatory brokering (that changes the sign of a network tie from negative to positive) as more helpful or prosocial than intermediary brokering (that creates a new tie). Second, they may perceive conciliatory brokering as a form of subservient stewardship, and hence as less agentic or proactive, as compared with intermediary brokering that creates new ties. Third, they may perceive greater ambiguity with respect to the motivations underlying intermediary behavior (that they may see as driven simultaneously by ego's self-interest and concern for others) as compared with the motivations underlying conciliatory behavior (that alters and observers may see as purely altruistic on the side of ego). Because these attributional processes exceed the scope of this article, and to our knowledge have not been studied before, we do not articulate distinct hypotheses concerning the social capital consequences of conciliatory versus intermediary behavior. Instead, we treat it as an exploratory empirical question that we hope to provide initial insight

<sup>&</sup>lt;sup>4</sup> Prestige is linked to prosocial behavior more directly than status. Whereas prosocial behavior can lead to status (e.g., Willer, 2009), *prestige* is by definition the use of prosocial behavior to ascend. Hence, finding that certain brokering behaviors relate to prestige but not to status may suggest that they are seen as particularly prosocial. We revisit this point in the General Discussion section.

whereas the divisive brokering orientation will negatively predict one's sense of prestige and conferred prestige.

Hypothesis 3: The intermediary and conciliatory brokering orientations will negatively predict one's sense of dominance (ego/self-reports) and conferred dominance (alter/other reports), whereas the divisive brokering orientation will positively predict one's sense of dominance and conferred dominance.

As with our first hypothesis, though we propose that both kinds of helpful brokering behaviors will relate positively to prestige and negatively to dominance, it remains an open question whether intermediary and conciliatory behaviors will show similar versus different magnitudes of associations with prestige and dominance. The current research allows us to address this empirical question as well

#### **Brokering Orientations and Trust**

Trust is a psychological state of willingness to be vulnerable to the actions of another, which is typically based on an expectation that the other will not exploit or otherwise harm the trustor (Mayer, Davis, & Schoorman, 1995; Rousseau, Sitkin, Burt, & Camerer, 1998). Trust is often viewed as a form or a component of social capital (Bagnasco, 2004; Putnam, 2000) as it enables individuals to partner and collaborate with others. The main question we aim to answer with regards to trust is: How much do people trust brokers of different kinds? Structural perspectives highlight grounds for suspicion and distrust of brokers. For example, Stovel, Golub, and Milgrom (2011) postulated that individuals tend to distrust brokers because brokers' monopolistic bridging position in the social structure enables them to withhold or distort information, as well as charge alters increasingly more for their services. Our own perspective, which unpacks brokering behavior to distinct social influence processes in groups (Halevy et al., 2019), enables us to formulate separate hypotheses concerning individuals' willingness to be vulnerable to intermediaries, conciliators, and dividers. Put differently, we expect the effect of brokering on trust to depend on the nature of brokers' actions. Because people trust those who are believed to be benevolent (Mayer et al., 1995), we expect individuals to trust those who engage in helpful brokering—who positively influence others' interactions and relationships (i.e., those who act as intermediaries and conciliators)—but distrust those who engage in harmful brokering—who negatively influence others' interactions and relationships (i.e., those who act as dividers).

*Hypothesis 4:* The intermediary and conciliatory brokering orientations will positively predict, whereas the divisive brokering orientation will negatively predict, trust from others.

Here too, our research allows us to explore the extent to which intermediary versus conciliatory brokering behaviors, two distinct kinds of helpful brokering, inspire trust to similar versus different degrees.

#### **Research Overview**

We report findings from six studies. Studies 1a-c summarize our scale development process by providing evidence of the threefactor structure, internal consistency reliability, and convergent and discriminant validity of the BOS. Hence, these studies address our first two goals in this article—to clarify what brokering orientations are and to offer a tool to assess them.

Study 2 provides initial evidence of the predictive validity of our measure, over and above existing measures. Specifically, it demonstrates that the BOS explains unique variance in individuals' sense of status and self-evaluations of prestige and dominance, as well as predicts behavioral intentions to intervene in others' relationships, above and beyond other measures of brokering behavior. Thus, Study 2 provides initial tests of our four hypotheses. Study 3 examines self-reports (by ego) and other reports (by alters) of brokering behaviors with a sample of university roommates.

Study 3's participants reported their own and their roommate's brokering behaviors twice, with the two measurements separated by one month. Participants also reported the extent to which they ascribed status, prestige, dominance, and trust to their roommate at both time points. Thus, Study 3 provides information about the consistency of brokering behaviors over time, as well as about self-other agreement concerning actors' brokering orientations; it also allows testing all four hypotheses using other reports (rather than self-reports) as the criterion variables. Finally, whereas Studies 2 and 3 use correlational designs to test our hypotheses, Study 4 uses an experimental design, which allows us to make causal inferences about the effects of the intermediary, conciliatory, and divisive brokering orientations on conferrals of status, prestige, dominance, and trust.

We consistently aimed to recruit 300 participants in each of our scale validation studies. This sample size is consistent with recommendations for studies that use factor analytic techniques (Tabachnick & Fidell, 2007), and develop quantitative measures for social psychological research (Wegener & Fabrigar, 2004). A sensitivity analysis using GPower (Version 3.1) showed that this sample size can detect correlations of r=.23 with power = 0.99 and  $\alpha=.05$ . The only study with a smaller sample size is Study 3, in which our sample size was constrained by the availability and willingness of pairs of roommates to participate in the two waves of our study (Study 3 N=182 individuals, 91 pairs of roommates).

We report all measures, manipulations, and exclusions in each of these studies. When appropriate, auxiliary analyses and results are reported in the online supporting materials rather than in the main text to keep the exposition fluent and focused on the effects of brokering orientations on complementary aspects of social capital. We analyzed the data in each study only after data collection was completed and the data were cleaned according to predetermined criteria. Across all of our studies, we consistently excluded participants who attempted to complete a survey twice or more (in which case all observations by the same participant were excluded). We report for each study exactly how many participants were excluded based on this a priori criterion. In each study, we used all available data for a particular variable, including data available from complete as well as incomplete surveys.

# Study 1a: Introducing the BOS

Study 1a had two main goals. First, we sought to establish the three-dimensional factor structure of the BOS. Second, we explored the interrelations among the intermediary, conciliatory, and divisive brokering orientations.

#### Method

**Sample and procedure.** We aimed to recruit 300 participants from a participant pool maintained by a west-coast university in the United States. A total of 302 participants provided complete responses, and 10 additional participants provided incomplete responses (including 7 individuals who accessed the study and existed it without completing any portion of it; 69.2% female; age: M=25.5, SD=8.3). The participants consisted of undergraduate students (42.1%), graduate students (32.1%), university staff (22.8%), and others (3%), and reported the following ethnicities: 39.7% White/Caucasian, 33.1% Asian/Asian American, 8.9% Hispanic, 3% African American, and 15.2% other. No participant attempted to complete the study multiple times; thus, no data were excluded in Study 1a. Participants completed the study online and each received a \$5 e-gift-card to an online retailer for their participation in the study.

#### Measures.

The BOS. We created 15 items to assess participants' brokering orientations, with five items focusing on each of the three orientations. Table 1 presents all 15 items. The 15 items were displayed in three blocks that matched the three brokering orientations (i.e., items assessing the same orientation were presented within the same block). We randomized for each participant the presentation order of the three blocks as well as the presentation order of each of the items within each block. Consistent with our focus on behavioral tendencies, the stem that appeared before each block read: "Please indicate how frequently or infrequently you engage in each of the following behaviors." Participants made their ratings using 5-point scales (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always). Cronbach's  $\alpha$  reliabilities for the intermediary, conciliatory, and divisive scales were .78, .87, and .80, respectively.

Additional measures. Participants subsequently responded to additional measures, which we included to explore the convergent

Table 1
The 15-Item Brokering Orientations Scale (BOS)

- Refer people I know to organizations who seek employees (i.e., job referral)
- 2. Introduce people to each other at parties and other social events
- Connect people who do not know one another to work together on a project or an assignment
- 4. Introduce people who I think would be a good fit romantically (i.e., matchmaking)
- Translate or transfer information from one source to others who need it
- 6. Intervene to help others stop fighting or quarrelling
- 7. Mediate, arbitrate, or otherwise help others settle a dispute
- 8. Help other people overcome a misunderstanding or conflict
- 9. Offer a solution to others' joint problem
- 10. Give others relationship advice to help them restore trust and rapport
- 11. Spread gossip that undermines others' relationship
- 12. Encourage someone to behave competitively toward another
- 13. Make someone jealous, suspicious, or hostile toward another
- 14. Pit people against each other
- 15. Create tension and rivalry between other people

*Note.* Instructions: "Please indicate how frequently or infrequently you engage in each of the following behaviors": 1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always. Items 1–5 capture the intermediary orientation; Items 6–10 capture the conciliatory orientation; Items 11–15 capture the divisive orientation. There are no reverse-coded items.

and discriminant validity of the BOS. The Online Supporting Materials (OSM) file provides full information about these measures and their associations with the three brokering orientations.

#### Results

Factor structure. In this study and the ones that follow, we conducted confirmatory factor analyses using the AMOS statistical package (Version 25) with Maximum Likelihood (ML) estimation to explore the extent to which the three brokering orientations are empirically distinguishable. Factors were allowed to correlate in all the CFA analyses. Table 2 provides the standardized factor loadings of the 15 items on the three theorized factors. Table 3 provides the fit indices for the three-factor structure, as well as the fit indices for two alternative models-a one-factor model that subsumes all three forms of brokering under one latent factor (given that all three brokering orientations share a common core of social influence), and a two-factor model that distinguishes helpful forms of brokering (the 10 items that capture the intermediary and conciliatory orientations) from harmful brokering (the five items that capture the divisive orientation). As Table 3 shows, the three-factor model demonstrated very good fit with the data, and was superior on all fit indices to the one-factor and two-factor solutions.5

**Correlations.** The three brokering orientations correlated positively with each other. Consistent with the greater conceptual similarity between the intermediary (M=2.94, SD=0.74) and conciliatory orientations (M=3.23, SD=0.76), which share both a common core of social influence and a positive impact on others' relationships, the positive correlation between the intermediary and the conciliatory orientations was significantly stronger, r=.55, p<.001 than the correlation between each of these orientations and the divisive brokering orientation (M=1.66, SD=0.56; intermediary with divisive: r=.22, p<.001; conciliatory with divisive: r=.15, p<.05; Z>4, p<.0001 for both comparisons; Steiger, 1980).

#### **Discussion**

Study 1a's findings provide initial evidence for the three-factor structure and reliability of the BOS. They also show that, although the three brokering orientations are conceptually distinct and empirically distinguishable, they all correlate positively with each other. At the same time, the intermediary and conciliatory orientations—that share both a common core of social influence and helpfulness (i.e., positive impact on others' relationships)—correlated more strongly with one another than either correlated with the divisive orientation.

<sup>&</sup>lt;sup>5</sup> Although Item 5 in our 15-item scale loaded less strongly than other items on its hypothesized factor, removing it from the scale did little to improve the three-factor model's fit indices. Theoretically, Item 5 captures intermediary behavior that connects alters indirectly (by transferring information via the broker, e.g., Stovel et al., 2011) whereas Items 1–4 capture intermediary behavior that connects alters directly (e.g., matchmaking), which is consistent with the distinction between the tertius gaudens and the tertius iungens in the sociological and organizational literatures on brokering (e.g., Obstfeld, 2005, 2017). To maintain the conceptual breadth of the intermediary subscale, and given the similarity of the fit indices with versus without it (across all our studies with the scale), we chose to keep Item 5 in the intermediary subscale.

Table 2
Standardized Factor Loadings of the 15 Items in the Brokering Orientations Scale (BOS) on the Intermediary (I), Conciliator (C), and Divider (D) Scales in Studies 1a, 1b, 1c, and 2

		Study 1a			Study 1b			Study 1c			Study 2	
Item: Factor	I	С	D	I	С	D	I	С	D	I	С	D
1. Refer	.73			.75			.68			.61		
2. Introduce (social)	.67			.73			.65			.72		
3. Connect	.69			.75			.72			.73		
4. Introduce (romantically)	.67			.68			.66			.69		
5. Translate	.49			.58			.44			.44		
6. Intervene		.78			.78			.75			.78	
7. Mediate		.83			.85			.84			.79	
8. Help		.79			.81			.76			.71	
9. Offer		.70			.78			.71			.72	
10. Give		.68			.75			.69			.72	
11. Spread			.60			.69			.75			.71
12. Encourage			.53			.56			.57			.54
13. Make			.75			.78			.79			.70
14. Pit			.78			.74			.86			.77
15. Create			.73			.85			.80			.84

Note. I = intermediary; C = conciliator; D = divider. Loadings from confirmatory factor analyses with Maximum Likelihood estimation. Factors were allowed to correlate in all analyses.

Study 1b was designed to replicate and extent these findings by administering alongside the BOS a battery of individual difference measures intended to ascertain the psychological characteristics associated with enacting intermediary, conciliatory, and divisive behaviors. Whereas Study 1a sampled students and staff from a particular university, Study 1b recruited a more diverse set of participants from across the United States.

# Study 1b: Psychological Correlates of Intermediary, Conciliatory, and Divisive Behaviors

Study 1b had two main goals. First, we sought to replicate the three-dimensional factor structure and the interrelations among the intermediary, conciliatory, and divisive orientations observed in Study 1a with a different sample. Second, we sought to validate the BOS by relating brokering orientations to individual differences in social skills and broad dimensions of personality.

To influence others' relationships as brokers, individuals need the requisite social skills and personality traits for wielding social influence. Hence, we assessed individuals' self-monitoring tendencies (Flynn et al., 2006; Snyder, 1974), and interpersonal responsiveness (empathic concern and perspective taking: Epley, Keysar, Van Boven, & Gilovich, 2004; Galinsky, Maddux, Gilin, & White, 2008), characteristics that previous research has linked to brokering behavior (Halevy et al., 2019). Additionally, we assessed participants' personality traits along the six HEXACO dimensions: Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience (Ashton & Lee, 2009).

Two of the six HEXACO dimensions—Extraversion and Agreeableness—are related to social interactions with others. They should show moderate relations with brokering orientations. Three of the HEXACO dimensions—Honesty-Humility, Conscientiousness, and Agreeableness—have been conceptualized as capturing aspects of individuals' moral character (Cohen, Panter, Turan, Morse, & Kim, 2014); hence, their association with brokering

orientations may illuminate the morality versus immorality of different brokering behaviors. Finally, Openness to Experience and Emotionality should show only weak or null associations with brokering orientations as they are not directly relevant to wielding either helpful or harmful social influence (providing discriminant validity of the BOS).

Additional measures were also collected in Study 1b for exploratory purposes. The OSM file provides full information about these measures and how they relate to the BOS scores.

# Method

**Sample and procedure.** We aimed to recruit 300 participants from a national participant pool maintained by a west-coast university in the United States. We ended with a total of 302 observations from participants who provided complete responses, and 33 additional observations from participants who accessed the study and provided either incomplete responses or no responses. Individuals who attempted to complete the study twice or more accounted for 48 of the data points; these participants' data were excluded before data analysis. Two additional participants who accessed the study exited it without completing any portion of it, leaving 285 observations (283 complete and 2 incomplete) for analyses. Participants (74.9% female; age: M = 32.1, SD = 12.0) reported the following ethnicities: 70.7% White/Caucasian, 15.5% Asian/Asian American, 6.7% African American, 4.9% Hispanic, and 2.1% other. Participants completed the study online and each received a \$5 e-gift-card to an online retailer for their participation in the study.

**Measures.** We administered the BOS as described in Study 1a. Descriptive statistics for the three BOS scales, as well as the other measures in Study 1b are presented in Table 4.

We assessed *self-monitoring* using Snyder's (1974) 25-item scale. To assess the degree to which individuals alter their expressive behavior and self-presentation to meet situational demands, this measure uses statements to which individuals respond with a

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Table 3

Model Fit Indices From Confirmatory Factor Analyses of the BOS (Studies 1a-2)

		Study 1a			Study 1b			Study 1c			Study 2	
No. of factors	1	2	8	1	2	8	1	2	3	1	2	æ
$\chi^2$	780.14	334.08	169.30	88.968	273.32	200.21			171.77	767.10		
CFI	.596	.856	.952	.601	.860	.944			.953	.583		
TLI	.461	908.	.933	.469	.811	.923			.943	.513		
RMSEA	.157	.094	.055	.177	.106	.067			.058	.165		
[90% CI]	[.147, .167]	[.083, .105]	[.043, .067]	[.167, .188]	[.095, .117]	[.055, .080]	[.173, .194]	[.082, .104]	[.046, .071]	[.155, .176]	[.077, .100]	[.048, .074]

CFI = comparative fit index; TLI = Tucker-Lewis Index; RMSEA = root mean square error of approximation; CI = confidence interval.  $\chi^2 df$  are 90, 89, and 87, in the one-factor, two-factor, and three-factor models, respectively binary *yes* or *no*. Responses indicative of self-monitoring behavior receive a score of 1, and are summed to create each individual's self-monitoring score, which can range from 0 to 25. Example items include: "I guess I put on a show to impress or entertain people" and "I would probably make a good actor."

We used two of the subscales in Davis's (1983) Interpersonal Reactivity Index (IRI) to asses two facets of interpersonal responsiveness—empathic concern (e.g., "I often have tender, concerned feelings for people less fortunate than me") and perspective taking (e.g., "I try to look at everybody's side of a disagreement before I make a decision")—with seven items each. Participants responded to these 14 items using 5-point scales that ranged from 1 = does not describe me at all to 5 = describes me very well.

Finally, we assessed participants' broad personality traits with the 60-item HEXACO inventory, which uses 10 items to assess each of the six dimensions (Ashton & Lee, 2009). Examples items for the six dimensions include: "I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed" (Honesty-Humility); "I sometimes can't help worrying about little things" (Emotionality); "I prefer jobs that involve active social interaction to those that involve working alone" (Extraversion); "I tend to be lenient in judging other people" (Agreeableness); "I often push myself very hard when trying to achieve a goal" (Conscientiousness); and "I like people who have unconventional views" (Openness to Experience). Participants indicated how much they agree or disagree with each statement on a response scale ranging from 1 = completely disagree to 5 = completely agree.

#### **Results**

**Factor structure.** As Tables 2 and 3 show, all 15 items loaded on the intended factors, and the goodness-of-fit indices indicated that the three-factor model showed adequate fit and surpassed the fit indices of the one-factor and two-factor solutions. These findings replicate Study 1a's results and lend support to our theorizing about the distinctiveness of the three brokering orientations.

**Correlations.** Replicating Study 1a's findings, the three brokering orientations correlated positively with each other (see Table 4), lending additional support to the idea that they share a common core of social influence (Halevy et al., 2019). As in Study 1a, the positive correlation between the intermediary and the conciliatory orientations was significantly stronger than the correlation between each of these orientations and the divisive brokering orientation (Z > 6, p < .001 for both comparisons; Steiger, 1980).

As Table 4 shows, the correlations among the three brokering orientations and the other scales offer evidence of convergent and discriminant validity of the BOS. With regards to social skills, self-monitoring correlated positively with the intermediary, conciliatory, and divisive orientations. The intermediary and conciliatory brokering orientations correlated positively with perspective taking, whereas the divisive orientation correlated negatively with perspective taking. Empathic concern related positively to the conciliatory orientation, negatively to the divisive orientation, and was unrelated to the intermediary orientation.

With regards to broad dimensions of personality, the intermediary brokering orientation correlated negatively with Honesty-Humility and positively with Extraversion, Agreeableness, and Openness to Experience. The conciliatory brokering orientation

Table 4

Means, SDs, Alphas, and Correlations Between the Intermediary, Conciliator, and Divider Brokering Orientations, and Individual Differences in Social Skills and Personality (Study 1b)

Variable	M $(SD)$	1	2	3	4	5	6	7	8	9	10	11	12
1. Intermediary	2.90 (.83)	$\alpha = .82$											
2. Conciliator	3.19 (.79)	.62***	$\alpha = .89$										
<ol><li>Divider</li></ol>	1.67 (.63)	.17**	$.11^{\dagger}$	$\alpha = .83$									
4. Self-monitoring	11.75 (4.30)	.32***	.28***	.25***	$\alpha = .73$								
<ol><li>Empathic concern</li></ol>	3.85 (.68)	.10	.22**	24***	01	$\alpha = .81$							
6. Perspective taking	3.60 (.67)	.22***	.29***	24***	.03	.55***	$\alpha = .80$						
7. Honesty-Humility	3.42 (.71)	17**	03	36***	43***	.30***	.22***	$\alpha = .77$					
8. Emotionality	3.42 (.64)	09	.03	04	03	.44***	.07	.05	$\alpha = .74$				
<ol><li>Extraversion</li></ol>	3.21 (.75)	.55***	.37***	.03	.23***	.18**	.25***	06	20**	$\alpha = .83$			
<ol><li>Agreeableness</li></ol>	3.09 (.71)	.19**	.24***	25***	004	.35***	.54***	.27***	13*	.26***	$\alpha = .81$		
11. Conscientiousness	3.74 (.61)	.01	03	28***	13*	.17**	.24***	.24***	.05	.13*	$.11^{\dagger}$	$\alpha = .76$	
12. Openness to experience	3.51 (.71)	.27***	.31***	12*	.21***	.26***	.35***	.10 <sup>†</sup>	.03	.27***	.25***	.18**	$\alpha = .77$

 $<sup>^{\</sup>dagger} p < .10. \quad ^* p < .05. \quad ^{**} p < .01. \quad ^{***} p < .001.$ 

correlated positively with Extraversion, Agreeableness, and Openness to experiences. Finally, the divisive brokering orientation correlated negatively with Honesty-Humility, Agreeableness, Conscientiousness, and Openness to Experience.

Multiple regressions. Given the positive correlations between the three brokering orientations, to establish the unique association of each brokering orientation with other variables we subsequently regressed each of the other measured constructs on the three brokering orientations simultaneously. As Table 5 shows, compared with the simple correlations presented in Table 4, perspective taking was no longer significantly associated with the intermediary orientation, while its associations the conciliatory and divisive orientations (in opposite directions) remained significant. Additionally, whereas both the intermediary and conciliatory orientations correlated positively with Extraversion and Agreeableness in Table 4, only the intermediary orientation associated significantly with Extraversion, and only the conciliatory orientation associated significantly with Agreeableness, in the regressions analyses. These differences aside, the pattern of regression coefficients depicted in Table 5 largely mirrored the correlations in Table 4.

#### Discussion

Study 1b replicated Study 1a's findings by providing evidence for the three-factor structure of the BOS, and documenting that the three brokering orientations are positively correlated yet distinct constructs. Study 1b's findings extended Study

1a's findings by shedding light on the psychological characteristics that are associated with enacting intermediary, conciliatory, and divisive behaviors. Study 1b's findings corroborate previous social networks research that identified individual differences in self-monitoring as an important precursor of social influence (Oh & Kilduff, 2008; Sasovova, Mehra, Borgatti, & Schippers, 2010). As Tables 4 and 5 show, the intermediary orientation is associated with both Extraversion and self-promotion (i.e., it has a negative relationship with Honesty-Humility). Thus, acting as a cooperation catalyst seems to involve asserting oneself socially. The negative association between the intermediary orientation and Honesty-Humility may speak to the potential duality of intermediary behaviors, which seem to reflect both helpfulness and instrumentality these behaviors are self-serving and other-serving at the same time. In contrast, the conciliatory orientation is associated with Agreeableness, Openness to Experience, and interpersonal responsiveness (empathy and perspective-taking), suggesting that helping others repair relationships is associated with tolerance, open-mindedness, and sensitivity to others' needs. Finally, the divisive orientation associated negatively with Honesty-Humility, Agreeableness, Conscientiousness, Openness to Experience, and interpersonal responsiveness, indicating that an orientation toward undermining others' network ties is at odds with moral character and concern for others. We note that not all of the variables we measured in Study 1b related as strongly as we expected with the BOS scales and some of the observed

Table 5
Regressions of Social Skills and the HEXACO Personality Dimensions on the Three Brokering Orientations (Study 1b)

Variable	Self- monitoring	Empathic concern	Perspective taking	Honesty- Humility	Emotionality	Extraversion	Agreeableness	Conscientiousness	Openness to Experience
Intermediary Conciliatory Divisive Adjusted R <sup>2</sup> F value	.21** .13 <sup>†</sup> .20*** .14 16.97***	01 .26*** 27*** .11 12.87***	.10 .26*** 28*** .16 18.54***	19** .12 <sup>†</sup> 34*** .14 16.26***	$17^*$ $.14^{\dagger}$ $02$ $.01$ $1.81$	.52*** .06 07 .30 40.56***	.11 .21** 29*** .14 15.83***	.09 06 29*** .08 8.68***	.15* .24*** 18** .13 14.82***

Note. Values represent standardized regression coefficients.

<sup>†</sup> p < .10. \* p < .05. \*\* p < .01. \*\*\* p < .001.

correlations were unexpected; we discuss these relationships further and speculate about their possible meaning in the OSM file. In Study 1c we dive deeper into the associations between brokering orientations and moral character by investigating how the three brokering orientations relate to other indicators of moral character.

# Study 1c: The Morality and Immorality of Brokering

We designed Study 1c to further validate the structure and psychological meaning of the three brokering orientations, with a particular focus on how brokering relates to moral character. Helpfulness and harmfulness are essential aspects of morality (Cushman, Young, & Hauser, 2006; Graham, Haidt, & Nosek, 2009). Because different brokering orientations vary in their helpful versus harmful impact on others' relationships, we expected to find meaningful associations between brokering behaviors and individuals' self-reports of their moral character traits (Cohen & Morse, 2014; Cohen et al., 2014). Specifically, we expected helpful brokering behaviors to correlate positively with moral identity and negatively with Machiavellianism, and that this pattern will be stronger for the conciliatory orientation than the intermediary orientation. In contrast, we expected harmful brokering behaviors to correlate negatively with moral identity and positively with Machiavellianism. As in the previous studies, additional measures were also collected in Study 1c; the OSM file provides full information about these measures and how they relate to the BOS scales.

#### Method

Sample and procedure. We aimed to recruit 300 participants from a national participant pool maintained by a west-coast university in the United States. We ended with a total of 308 observations from participants who provided complete responses, and 31 additional observations from participants who accessed the study and provided either incomplete responses or no responses. Individuals who attempted to complete the study twice or more accounted for 52 of the data points; these participants' data were excluded before analysis. One additional participant who accessed the study exited it without completing any portion of it, leaving 286 observations (282 complete and 4 incomplete) for analyses. Participants (72.7%

female; age: M=32.6, SD=11.8) reported the following ethnicities: 62.8% White/Caucasian, 15.6% Asian/Asian American, 10.3% African American, 6.4% Hispanic, and 5% other. Participants completed the study online and each received a \$5 e-gift-card to an online retailer for their participation in the study.

**Measures.** We administered the BOS as in Studies 1a and 1b. Table 6 presents descriptive statistics for the three BOS scales, as well as the other measures in Study 1c.

We assessed the importance individuals place on their *Moral Identity* with the 10-item scale developed by Aquino and Reed (2002). The scale lists nine morally relevant characteristics (e.g., "caring" and "fair") and asks individuals to indicate their agreement (1 = completely disagree, 5 = completely agree) with statements that fall into one of two subscales. The internalization subscale captures the extent to which one privately views these characteristics (as a holistic set) as central to their self-concept (example item: "It would make me feel good to be a person who has these characteristics"). The symbolization subscale captures the extent to which one publicly demonstrates to others that they possess these characteristics (example item: "The kinds of books and magazines that I read identify me as having these characteristics"). Scale items were presented in a random order for each participant.

We assessed Machiavellianism using a four-dimensional, 16item scale (Dahling, Whitaker, & Levy, 2009). The four dimensions include amoral manipulation of others (example item: "I am willing to sabotage the efforts of other people if they threaten my own goals"); desire for control (example item: "I enjoy having control over other people"); desire for status (example item: "Status is a good sign of success in life"); and distrust of others (example item: "Team members backstab each other all the time to get ahead"). Notably, unlike common definitions of status, which focus on respect and admiration from others (e.g., Magee & Galinsky, 2008), the Machiavellianism subscale labeled desire for status actually measures desire for wealth and power, as well as general success (with items that read: "Accumulating wealth is an important goal for me" and "I want to be rich and powerful someday"). Hence, we refer to it subsequently as desire for success to differentiate it from the concept of status used elsewhere in the current article. Participants responded to the items using 5-point scales that

Table 6
Means, SDs, Alphas, and Correlations Between the Intermediary, Conciliatory, and Divisive Brokering Orientations, Moral Identity, and Machiavellianism (Study 1c)

Variable	M(SD)	1	2	3	4	5	6	7	8	9
1. Intermediary	2.79 (.75)	$\alpha = .77$								
2. Conciliatory	3.20 (.76)	.56***	$\alpha = .86$							
3. Divisive	1.68 (.67)	.24***	.11 <sup>†</sup>	$\alpha = .86$						
4. Moral identity: Internalization	4.41 (.69)	01	.16**	$42^{***}$	$\alpha = .80$					
5. Moral identity: Symbolization	3.37 (.74)	.40***	.38***	03	.36***	$\alpha = .75$				
6. Machiavellianism: Amorality	1.60 (.76)	.13*	.01	.50***	51***	14*	$\alpha = .86$			
7. Machiavellianism: Desire for control	2.42 (1.01)	.12*	.12*	.35***	25***	06	.55***	$\alpha = .79$		
8. Machiavellianism: Desire for success	2.64 (1.14)	.26***	.09	.24***	24***	.06	.50***	.46***	$\alpha = .87$	
9. Machiavellianism: Distrust of others	2.06 (.87)	.06	06	.31***	41***	14*	.56***	.41***	.42***	$\alpha = .81$

p < .10. p < .05. p < .01. p < .001.

ranged from 1 = does not describe me to 5 = describes me extremely well.

#### Results

**Factor structure.** Study 1c replicated the results of Studies 1a and 1b by finding support for our three-dimensional model of brokering orientations. As in our previous studies, confirmatory factor analyses indicated that the goodness-of-fit indices for the three-factor solution were satisfactory, and exceeded the goodness-of-fit indices for the one-factor and two-factor solutions. Tables 2 and 3 provide complete results from our CFA analyses.

**Correlations.** Table 6 reports descriptive statistics and correlations among Study 1c's variables. Replicating the results from Studies 1a and 1b, the intermediary brokering orientation correlated positively with both the conciliatory orientation and the divisive orientation. The conciliatory and divisive orientations did not correlate significantly with each other. It is notable that, despite the opposite effects of conciliatory and divisive brokering on others' relationships (i.e., helping others resolve conflicts vs. instigating conflicts between others), the conciliatory and divisive brokering orientations did not correlate negatively.

Table 6 shows that the divisive brokering orientation correlated negatively with the internalization subscale of moral identity, but not with the symbolization subscale of moral identity. The absence of an association with the public aspect of moral identity is consistent with the idea that divisive brokering behaviors are often carried out privately and covertly rather than publicly (Halevy et al., 2019). Both forms of helpful brokering correlated positively with public displays of one's moral identity (i.e., the symbolization subscale of moral identity); the conciliatory orientation correlated positively also with the internalization subscale of moral identity.

Divisive brokering correlated positively with all four subscales of Machiavellianism. The intermediary orientation correlated positively with three of the Machiavellianism subscales: amorality and the desires for success and control. The conciliatory orientation correlated positively only with the desire for control subscale of Machiavellianism. These findings extend Study 1b's findings concerning the associations between brokering orientations and aspects of moral character.

**Multiple regressions.** We subsequently used all three brokering orientations simultaneously to predict the other measured variables as a means to assess the unique associations between each brokering orientation and other constructs while controlling for the other two brokering orientations. Table 7 depicts the findings from these regression analyses, which reinforce the pat-

tern of associations shown in Table 6. The regression coefficients in Table 7 show that the three brokering orientations jointly explain considerable proportions of the variance in moral identity and the amorality aspect of Machiavellianism. These findings underscore the links between moral character and different brokering behaviors.

#### Discussion

Study 1c's findings further illuminate the interrelations between different brokering behaviors, and advance our understanding of the shared as well as the unique elements of different brokering orientations. Study 1c's findings indicate that brokering behaviors are morally relevant. The pattern of associations depicted in Tables 6 and 7 goes beyond the notion that helpful brokering (i.e., intermediary and conciliatory behaviors) is moral, whereas harmful brokering (i.e., divisive behaviors) is immoral. Rather, it shows that different kinds of helpful brokering relate differently to aspects of moral identity, and that harmful brokering relates to certain moral character traits more strongly than to others. Specifically, the positive associations between all four facets of Machiavellianism and divisive brokering, as well as between the desire for success facet of Machiavellianism and intermediary brokering, suggest that individuals engage in these acts of social influence deliberately as a means to promote their own personal goals, often with disregard to the harm they inflict on others.

# Study 2: Brokering Orientations, Workplace Brokering, and Sense of Status

We designed Study 2 to extend Studies 1a–c in three important ways. First, to further validate the BOS, we explored the associations between the intermediary, conciliatory, and divisive brokering orientations and a recently introduced measure of individual differences in disjunctive brokerage (Grosser et al., 2019). Second, we explored the extent to which the conciliatory brokering subscale predicts willingness to intervene in others' disputes, building on previous research that conceptualized conciliatory brokerage in this manner (Halevy & Halali, 2015; Nakashima et al., 2017). Third, Study 2 provides an initial test of Hypotheses 1–3 by exploring the predictive validity of the BOS with one's sense of status, prestige, and dominance.

Study 2 allowed us to explore the distinctiveness of the BOS, DBOS, and tertius iungens measures (thereby establishing convergent and discriminant validity), as well as explore the extent to which they predict workplace status (an organizational construct,

Table 7
Regressions of Moral Identity and Machiavellianism on the Three Brokering Orientations (Study 1c)

Variable	Moral identity:	Moral identity:	Machiavellianism:	Machiavellianism:	Machiavellianism:	Machiavellianism:
	Internalization	Symbolization	Amorality	Desire for control	Desire for success	Distrust of others
Intermediary Conciliatory Divisive Adjusted R <sup>2</sup> F value	04	.31***	.05	01	.26***	.05
	.23***	.22***	07	.09	08	12 <sup>†</sup>
	43***	12*	.50***	.34***	.19**	.31***
	.21	.22	.24	.12	.10	.10
	25.96***	20.46***	31.30***	13.86****	11.20***	10.96***

Note. Values represent standardized regression coefficients.

<sup>†</sup> p < .10. \* p < .05. \*\* p < .01. \*\*\* p < .001.

and hence closer to the contexts in which previous research used the tertius iungens measure and the DBOS), as well as crosssituational prestige and dominance (consistent with the crosssituational applicability of the BOS).

#### Method

**Sample and procedure.** We aimed to recruit 300 participants from the online participant pool Prolific Academic (https://prolific .ac/). A total of 302 participants provided complete responses, and six additional participants provided incomplete responses. Given that some of Study 2's measures focus specifically on employee behavior and outcomes in work organizations (i.e., the DBOS, tertius iungens measure, and workplace status measure are specific to workplace contexts), we set the a priori specification that we would only analyze data from individuals who reported they were employed full-time when taking the survey, which left us 276 individuals for analysis (48.2% female; age: M = 32.9, SD = 9.5). Thus, we excluded from the analyses individuals who indicated they were self-employed (n = 17), employed part-time (n = 4), students (n = 3), unemployed or other (n = 2) because the focal measures could have a different meaning or no meaning for those respondents; and we excluded the six participants who did not complete the demographics portion of the survey as we could not determine whether they were employed at the time of the survey. Participants resided in a wide range of countries, including the United Kingdom (44.9%), United States (15.6%), Poland (8.7%), Canada (5.4%), Mexico (3.3%), the Netherlands (2.5%), Spain (2.2%), and other countries (17.4%). Participants completed the study online and each received \$1 for their participation in the study.

**Measures.** Study 2 included multiple measures of brokering behavior. The BOS appeared in one survey block while the tertius iungens and DBOS appeared in a separate survey block. The presentation order of these two blocks was randomly determined for each respondent. These two blocks were followed by the social capital measures (prestige, dominance, and workplace status) and the measures of behavioral intentions to intervene in others' conflicts.

Brokering Orientations Scale (BOS). We administered the BOS in the same manner as in Studies 1a-c. Table 8 reports

descriptive statistics and correlations of the BOS and the other measures in Study 2.

**Tertius iungens.** We used Obstfeld's (2005) six-item tertius iungens scale to assess bridging brokering behavior in work contexts. Participants rated their agreements with these items using scales ranging from  $1 = strongly\ disagree$  to  $7 = strongly\ agree$ .

Disjunctive Brokerage Orientations Scale. We used the DBOS (Grosser et al., 2019) to assess individuals' mediation and separation brokerage orientations in workplace contexts. Mediation brokerage is assessed with three items that capture individuals' propensity to bridge structural holes among others in their organizational network (example item: "I often work as a "gobetween" at work for others who cannot interact directly"). Separation brokerage is assessed with three items that capture individuals' attitudinal preference (rather than the behavioral propensity) to keep work contacts separate (example item: "It can be advantageous to maintain separation between some of my work contacts"). Participants rated their agreement with the items using scales ranging from 1 = strongly disagree to 7 = strongly agree.

**Prestige.** Prestige and dominance items appeared in the same block and the order in which items were presented was randomly determined for each participant. We assessed participants' sense of prestige with four items from the self-report scale developed by Cheng et al. (2010). Participants rated the extent to which others respect and admire them using scales ranging from 1 = does not describe me to 5 = describes me extremely well (example items: "Members of my peer group respect and admire me"; "My unique talents and abilities are recognized by others").

**Dominance.** We assessed participants' sense of dominance with four items from the self-report scale developed by Cheng et al. (2010). Participants rated the extent to which they use force to assert control using scales ranging from  $1 = does \ not \ describe \ me$  to  $5 = describes \ me \ extremely \ well$  (example items: "I am willing to use aggressive tactics to get my way"; "Others know it is better to let me have my way").

Workplace status. We assessed participants' sense of workplace status with the five-item measure developed by Djurdjevic et al. (2017; example items: "I possess a high level of prominence in my organization"; "I possess high status in my organization"). Scale items were presented in a random order for each participant.

Table 8

Means, SDs, Alphas, and Correlations Between Brokering Orientations, Sense of Social Capital, and Conciliatory Intervention
Intentions (Study 2)

Variable	Mean (SD)	1	2	3	4	5	6	7	8	9	10
1. Intermediary	2.84 (.75)	$\alpha = .77$									
2. Conciliatory	3.26 (.76)	.60***	$\alpha = .86$								
3. Divisive	1.61 (.62)	.08	.17**	$\alpha = .82$							
4. Tertius iungens	4.93 (1.08)	.62***	.51***	05	$\alpha = .87$						
5. Mediation (DBOS)	4.34 (1.40)	.32***	.56***	$.10^{\dagger}$	.41***	$\alpha = .85$					
6. Separation (DBOS)	4.66 (1.34)	.04	.23**	.20**	.09	.21***	$\alpha = .81$				
7. Workplace status	2.72 (1.01)	.38***	.28***	.03	.34***	.37***	.02	$\alpha = .94$			
8. Prestige	3.21 (.83)	.42***	.43***	.02	.48***	.35***	$.10^{\dagger}$	.50***	$\alpha = .83$		
9. Dominance	2.07 (.95)	.30***	.28***	.46***	.07	.17**	.19**	.31***	.28***	$\alpha = .83$	
10. Conciliatory intervention											
intentions	5.28 (1.02)	.30***	.49***	19**	.44***	.41***	.08	.27***	.37***	.06	$\alpha = .55$

Note. DBOS = Disjunctive Brokerage Orientations Scale.

<sup>†</sup> p < .10. \*\* p < .01. \*\*\* p < .001.

Participants rated the extent to which their coworkers confer status on them using scales ranging from 1 = strongly disagree to 5 = strongly agree.

Conciliatory intervention intentions. Building on behavioral decision-making measures that assess third parties' propensity to intervene in bilateral conflicts (Halevy & Halali, 2015; Nakashima et al., 2017), we created three items to assess participants' behavioral intentions to intervene as conciliators in disagreements embedded in different relational contexts (friends, community, and family). The three items used to assess intentions to intervene in others' conflicts as a conciliator were as follows:

- "Imagine that you are planning a vacation together with a group of friends. Two of your friends are fighting passionately over the route and transportation. How likely are you to act as a mediator?"
- 2. "Imagine that you are a member of a community theater group and that the producer and the director are engaged in a heated debate about who to cast for a particular role in the upcoming play. How likely are you to try and help them resolve their disagreement?"
- 3. "Imagine that your sister recently started dating someone new. Your mother strongly disapproves of this person and often criticizes them in front of your sister. How likely are you to intervene and help your sister and your mother manage this conflict?"

Scale items were presented in a random order for each participant. Participants responded to the three questions using scales ranging from  $1 = extremely \ unlikely$  to  $7 = extremely \ likely$  ( $\alpha = .55$ ). The relatively modest alpha coefficient for these three items as a set may reflect the differences that exist between the three contexts captured by the items. Participants subsequently reported their demographic characteristics and exited the online survey.

#### Results

**Factor structure.** Study 2 replicated the results of Studies 1a–c by finding support for our three-dimensional model of brokering orientations in yet another sample drawn from a different participant pool that spans multiple countries. As in our previous studies, the confirmatory factor analyses findings depicted in Tables 2 and 3 show that the goodness-of-fit indices for the three-factor solution were satisfactory, and exceeded the goodness-of-fit indices for the one-factor and two-factor solutions.

Correlations. Replicating the results from Studies 1a–c, the intermediary brokering orientation correlated positively with the conciliatory orientation (see Table 8). The correlation between the intermediary and divisive orientations was weak and nonsignificant; in contrast, the positive correlation between the conciliatory and divisive orientations was significant. These findings reinforce the idea that the three brokering orientations share a common core of social influence. The tertius iungens, mediation and separation brokering behaviors were likewise either positively related or unrelated to one another (but never negatively related), lending further support to the view that different brokering behaviors are all forms of social influence. Thus, even brokering behaviors that are inverse in their effects on others (e.g., conciliatory and divi-

sive; tertius iungens and separation) do not correlate negatively with each other.

The intermediary and conciliatory brokering orientations, but not the divisive orientation, correlated positively with the tertius iungens measure, providing convergent validity to the intermediary and conciliatory scales, and discriminant validity to the divisive scale. The intermediary and conciliatory brokering orientations, but not the divisive orientation, correlated positively with the mediation subscale of the DBOS, further establishing the convergent validity of the intermediary and conciliatory scales (see Table 8). The weaker associations between BOS dimensions and DBOS dimensions that capture distinct kinds of brokering provide discriminant validity to the BOS. For example, separation brokerage correlated only r = .20, p = .001, with divisive behaviors, consistent with the theoretical distinction between the preference that others remain disconnected (separation brokerage) and actively instigating conflict between others (divisive orientation). These findings suggest that the BOS and DBOS assess related yet distinct constructs.

It is noteworthy that the three self-report measures of social capital that we administered (workplace status, prestige, and dominance) were not redundant with one another: Correlations among these scales were positive and significant, ranging from r=.28 to r=.50, suggesting that these three variables capture distinct aspects of social capital. Both helpful brokering orientations had significant positive correlations with all three measures of social capital, as well as with conciliatory intervention intentions. The divisive orientation was negatively associated with conciliatory intervention intentions, and as expected, positively associated with dominance.

Multiple regressions. Table 9 presents findings from a series of multiple regression analyses that predicted workplace status, prestige, dominance, and conciliatory intervention intentions from the three BOS scales and the other brokering measures we administered in Study 2. Three notable findings emerge from Table 9. First, adding to our efforts to validate the BOS, Table 9 shows that the conciliatory subscale is the strongest predictor of behavioral intentions to intervene as a conciliator in others' disputes. The divisive brokering orientation expectedly had the opposite, and weaker, relation with conciliatory intervention intentions, and the intermediary brokering orientation was unrelated to intentions to intervene in others' disputes as a conciliator (Model 1). The same pattern held when adding the three additional brokerage measures (Model 3). Notably, the three scales of the BOS jointly explained 31.2% of the variance in conciliatory intervention intentions, with the tertius iungens, mediation, and separation measures adding 4.7% on top of it.

Second, the results reported in Table 9 lend initial support to Hypotheses 1–3 by showing that the three BOS scales explain considerable portions of the variance in one's sense of workplace status (13.8%), prestige (22.3%), and dominance (27.4%). Third, the different brokering orientations captured by the BOS predicted different aspects of social capital. Specifically, inspection of Model 3 for each of the four criteria in Table 9 shows that only intermediary behaviors associated significantly with one's sense of workplace status; only conciliatory behaviors associated significantly with one's sense of prestige; and both intermediary and divisive behaviors associated significantly with one's sense of dominance.

Table 9
Regressions of Social Capital and Conciliatory Intervention Intentions on the Three Brokering Orientations (Study 2)

	Wo	orkplace sta	atus		Prestige		]	Dominance	e		atory inter	
Variable	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Intermediary	.32***		.28***	.26***		.13 <sup>†</sup>	.22***		.31***	01		12
Conciliatory	.09		09	.29***		.15*	.06		.06	.55***		.41***
Divisive	01		.01	05		02	.43***		.39***	29***		26***
Tertius iungens		.22***	.09		.40***	.26***		.004	16*		.32***	.22***
Mediation (DBOS)		.30***	.31***		.19*	.12†		.13†	.04		.28***	.16**
Separation (DBOS)		06	04		.03	.02		.16**	.09†		.05	.01
Adjusted R <sup>2</sup>	.14	.18	.21	.22	.25	.27	.27	.04	.29	.31	.24	.36
F value	15.61***	20.22***	12.82***	27.38***	31.27***	18.07***	35.62***	5.08**	19.45***	42.49***	30.52***	26.68***
Adjusted $R^2$ change (M3-M1)			.07			.05			.02			.05
F change (M2-M1)			8.64***			7.33***			2.70*			8.44***
Adjusted $R^2$ change (M3-M2)			.03			.02			.25			.12
F change (M3-M2)			4.61**			4.29**			32.16***			17.30***

*Note.* DBOS = Disjunctive Brokerage Orientations Scale. Values represent standardized regression coefficients.  $^{\dagger}p < .10. ^{*}p < .05. ^{**}p < .01. ^{***}p < .01.$ 

# Discussion

Study 2 advanced our investigation by replicating the factor structure of the BOS with a different sample; demonstrating the distinctiveness of the BOS from the recent DBOS and earlier tertius iungens measures; and providing initial findings that speak to the predictive validity of the BOS. Specifically, lending initial support to Hypotheses 1–3, Study 2 found that brokering orientations relate positively and significantly to different aspects of social capital: workplace status, prestige, and dominance. Whereas intermediary behaviors predicted all three aspects of social capital, the conciliatory orientation uniquely predicted prestige (consistent with the prosocial nature of prestige), and the divisive orientation uniquely predicted dominance. Thus, although the different aspects of social capital are positively interrelated (as Table 8 shows), they have distinct antecedents in terms of the social influence processes that predict them.

A notable shortcoming of Study 2 concerns the reliance on self-report measures of social capital. Although Study 2 utilized validated multi-item scales to assess individuals' sense of work-place status, prestige, and dominance, it is important to understand social capital from alters' perspective and not just ego's. Hence, in Study 3 we collected observer reports of social capital. Additionally, Study 3 expanded our investigation to an additional aspect of social capital that has attracted considerable scholarly attention: interpersonal trust.

#### Study 3: Integrating Brokers' and Alters' Perspectives

The main goal of Study 3 was to test our four hypotheses concerning the effects of brokering orientations on social capital using self-reports (ego) and other reports (alter). Thus, in Study 3 we obtained reports from both ego and alter about ego's brokering orientations and reports from alter about ego's status, prestige, and dominance, as well as how much they trust ego. In addition to testing our hypotheses, this design allowed us to explore the degree of self-other agreement in evaluating ego's brokering orientations. We used this actor-partner design across two waves of data col-

lection. Hence, Study 3 also allowed us to examine patterns of consistency and change over a 1-month period.

Because all of our dependent variables reside within alters (e.g., unlike one's sense of status, conferred status captures respect and admiration in the eyes of others), we expect alters' perceptions of ego's brokering orientations to be more strongly related to alters' conferral of status, prestige, dominance, and trust on ego. Put differently, what matters is not how much ego thinks they act as an intermediary, conciliator, or divider; what matters is how much others around ego think that ego acts as an intermediary, conciliator, or divider (e.g., Kilduff & Krackhardt, 1994, concerning the role that social perceptions play in network phenomena).

#### Method

Participants and procedure. We aimed to recruit 100 pairs of roommates (i.e., 200 individuals) at a west-coast United States university for a two-wave survey about social relationships. Study 3's sample size was constrained by the feasibility of recruiting students who were willing to participate in such a study together with their roommate. We sent out e-mail invitations to all the undergraduate students enrolled in the lab's participant pool. Participants were invited to arrive with their roommate to one of several data collection sessions that took place in a large classroom on campus. Upon arrival at a session, the two roommates checked in with a research assistant and each received two unique threedigit identifiers—one identifying them and one identifying their roommate—that allowed us to match each person with their roommate. Roommates were then escorted to different sections of the tiered classroom and each of them completed the 15-min, online survey privately. Individuals who arrived to the session without an electronic device (laptop, tablet, etc.) completed a printed version of the survey. Each participant received \$10 for completing the Wave 1 survey, and were reminded upon leaving that they will be contacted again in one month to complete a similar, follow-up survey for an additional payment of \$10. The Wave 1 and Wave 2 surveys were identical with one exception—some demographic information was collected only in Wave 1. Both data collection waves took place during the academic spring quarter; thus, roommates had known each other for a while at the time they took part in Study 3.

A total of 198 individuals completed the Wave 1 survey, and 184 individuals completed the Wave-2 survey approximately 4 weeks later upon receiving an e-mail reminder from a research assistant. Data from some respondents needed to be excluded because of errors in data entry (e.g., individuals who incorrectly entered their own 3-digit ID or their roommates 3-digit ID with a typo, or who accidentally swapped their own 3-digit ID with their roommate's 3-digit ID, resulting in multiple entries with the same participant code). Excluding entries with errors left 182 observations in Wave 1 (91 pairs of roommates; 58% female; age: M =19.3, SD = 1.3; 65% freshman, 17% sophomores, and the rest juniors and seniors; 38% Asian/Asian American, 35% Caucasian/ White; 13% Hispanic/Latino; 7% Black/African American; and 7% other/unreported). Of these 182 participants, 156 provided usable data in Wave 2. Thus, our overall sample across the two data collection waves in Study 3 consisted of 338 observations.

#### Measures.

Brokering orientations. Participants completed the same 15item BOS used in Studies 1a and 2, with one exception: Instead of reporting their brokering behavior in general, we prompted participants to report their brokering behavior "in the past month." Participants completed the measure twice—once with regards to themselves by indicating how frequently they engage in each brokering behavior, and a second time by indicating how frequently their roommate engages in each brokering behavior. The presentation order of the two targets (self, other) was randomly determined for each respondent. In Wave 1, Cronbach's α reliabilities for the intermediary, conciliatory, and divisive orientations were .70, .84, and .82, respectively, for self-reports, and .74, .87, and .79, respectively, for other reports. In Wave 2, Cronbach's α reliabilities for the intermediary, conciliatory, and divisive orientations were .77, .88, and .87, respectively, for self-reports, and .82, .91, and .90, respectively, for other reports.

Ego's impact on alter's relationships. Study 3 provided a unique opportunity to assess not only ego's brokering behaviors (as reported by both ego and alter), but also alter's judgment of how ego's brokering behaviors impact alter's social relationships. Hence, we created a nine-item measure that asked each participant to indicate how their roommate's brokering behaviors affects them personally. Table 10 presents these nine items, which formed three scales designed to assess ego's intermediary (Items 1–3), conciliatory (Items 4–6), and divisive (Items 7–9) impact on alter's relationships. The order in which the nine items were presented was randomized for each participant. Participants indicated their agreement with each item on a scale ranging from 1 = strongly disagree to 7 = strongly agree. Cronbach's α reliabilities for the three scales were .73, .82, and .79, respectively, in Wave 1, and .85, .86, and .88, respectively, in Wave 2.

**Trust.** Participants subsequently reported how much they trust their roommate using an eight-item measure adapted from Levine, Bitterly, Cohen, and Schweitzer (2018). Example items include: "Generally, I believe that my roommate would never intentionally misrepresent my point of view to others" and "If my roommate promised to do me a favor, I believe that they would follow through." Items were presented in a random order for each participant, and rated on a 7-point scale ranging from 1 = strongly

Table 10

Nine Items Used to Assess Ego's Impact as Broker on Alter's Relationships (Study 3)

- 1. Helped me form new connections with others
- 2. Strengthened my relationships with other people
- 3. Fostered collaborative relationships between me and others
- 4. Helped me manage or resolve disagreements with others
- 5. Assisted me in overcoming misunderstanding with other people
- 6. Helped alleviate tension between me and other people
- 7. Harmed my social relations with others
- 8. Undermined my relationships with other people
- 9. Weakened my ties with others

Note. Instructions: "Please indicate how much you agree with each of the following statements: In the past month, my roommate's behavior has:"

1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = strongly agree.

disagree to  $7 = strongly \ agree$ . Cronbach's  $\alpha$  reliabilities for our measure of interpersonal trust were .84 in Wave 1, and .90 in Wave 2.

**Prestige and dominance.** We then assessed prestige and dominance with the same eight items used in Study 2 (four items per scale), but adapted these for an observer rather than self-report format. Participants indicated how accurately each item describes their roommate on a scale ranging from 1 = does not describe my roommate to 5 = describes my roommate extremely well. Scale items were presented in a random order for each participant. Cronbach's  $\alpha$  reliabilities for the prestige and dominance scales were .76 and .76, in Wave 1, and .84, and .87, respectively, in Wave 2.

Status. Participants subsequently responded to four items assessing the status of their roommate. We modified the measure of status used in Study 2 such that participants indicated how much status they believed their roommate has in the eyes of others. Additionally, whereas in Study 2 the context was employees' workplace, here the context was the students' university. The four items were: "My roommate is respected and admired by their peers at [university name]," "My roommate has a great deal of prestige among their peers at [university name]," and "My roommate possesses high status relative to their peers at [university name]." Scale items were presented in a random order for each participant. Cronbach's  $\alpha$  reliabilities for our measure of status were .90 in Wave 1, and .93 in Wave 2.

Additional items. Participants also reported their social perceptions of their roommate (e.g., warmth, competence; see OSM file for full information about the social perception variables). Finally, participants reported their demographic characteristics, responded to few additional questions about their relationship with their roommate (e.g., "how long have you known your roommate?"), and exited the survey.

#### Results

Table 11 presents descriptive statistics and correlations related to the temporal stability of our measures across Waves 1 and 2. Table 12 presents correlations among Study 3's ego-report variables, providing information about the association between actors' brokering behavior, their perceptions of their roommates' broker-

Table 11

Means, SDs, and Stability Correlations of Brokering Behavior and Social Capital (Study 3)

Variable	Wave 1 Mean (SD)	Wave 2 Mean (SD)	Correlation of Wave 1 with Wave 2 <sup>a</sup>
Ego's report of ego's behavior			
Intermediary	2.60 (.70)	2.63 (.67)	.57
Conciliatory	3.07 (.76)	3.01 (.81)	.52
Divisive	1.62 (.60)	1.60 (.66)	.50
Ego's report of alter's behavior			
Intermediary	2.60 (.74)	2.59 (.79)	.54
Conciliatory	3.07 (.84)	3.03 (.85)	.56
Divisive	1.44 (.52)	1.56 (.70)	.40
Ego's report of alter's impact on them			
Intermediary	5.07 (1.04)	4.95 (1.15)	.53
Conciliatory	4.68 (1.28)	4.53 (1.30)	.45
Divisive	1.84 (.98)	2.04 (1.10)	.37
Ego's report of alter's social capital			
Status	3.54 (.90)	3.41 (.91)	.74
Prestige	3.80 (.84)	3.69 (.84)	.57
Dominance	1.85 (.86)	1.99 (1.01)	.57
Trust	6.21 (.72)	5.99 (.90)	.71

*Note.* N=182 individuals in Wave 1, and 156 in Wave 2. The Wave 1 and Wave 2 surveys were approximately 1 month apart. Consistent with the idea that divisive behaviors are typically covert, self-reported divisive behaviors are significantly higher than other-reported divisive behaviors in Wave 1: F(1, 181) = 17.21, p < .001; the difference was nonsignificant in Wave 2: F(1, 155) = 1.12, p = .29.

<sup>a</sup> All Wave 1-Wave 2 correlations are significant at p < .001.

ing behavior, their assessments of their roommates' impact as brokers on them, and the association between brokering behaviors and aspects of social capital. Table 13 presents multilevel modeling analyses testing our hypotheses concerning the relations between brokering behaviors, status, prestige, dominance, and trust.

Temporal stability versus change of brokering orientations. Our two-wave design allowed us to explore the temporal stability of brokering behaviors over a 1-month period as reported by oneself (i.e., from ego's perspective) as well as by one's roommate (i.e., from alter's perspective). The Wave1–Wave2 self-report cor-

relations for the intermediary, conciliatory, and divisive brokering orientations were r=.57, r=.52, and r=.50, respectively (n=156, p<.001 for all). The Wave1–Wave2 other-report correlations (i.e., individuals reporting about their roommates' brokering behavior) for the intermediary, conciliatory, and divisive brokering orientations were r=.54, r=.56, and r=.40, respectively (n=156, p<.001 for all). As Table 11 shows, the four measures of social capital also showed considerable stability over time. Thus, individuals showed considerable consistency in assessing their own and their roommates' brokering behaviors and social capital

Table 12
Correlations Among Self-Reports of Brokering Behavior and Aspects of Social Capital (Study 3)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
Ego's repor	t of ego's	behavior											
1. I		.59***	.31***	.60***	.60***	.28***	.29***	.39***	.04	.29***	.07	.05	$.14^{\dagger}$
2. C	.53***		.16*	.41***	.57***	.16*	.25**	.47***	04	.27**	.29***	.04	.24**
3. D	.21**		.17*	.25**	.66***		$13^{\dagger}$	03	.44***	.04	08	.38***	30***
Ego's repor	t of alter'	s behavior	•										
4. I	.54***	.22**		.54***	.22**		.39***	.36***	04	.39***	.27***	.02	.17*
5. C	.45***	.63***	.19*	.49***		.18*	.34***	.53***	11	.30***	.28***	02	.26**
6. D	$.14^{\dagger}$	.04	.45***	.18*	.03		$15^{\dagger}$	12	.65***	.02	18*	.56***	36***
Ego's repor	t of alter'	s impact of	n them										
7. I	.28***	.32***	06	.35***	.41***	13		.64***	35***	.33***	.34***	12	.48***
8. C	.27***	.31***	.04	.31***	.49***	07	.56***		22**	.33***	.37***	13	.43***
9. D	.01	.04	.29***	.02	01	.43***	$30^{***}$	18*		11	$20^{*}$	.43***	$45^{***}$
Ego's repor		s social ca	ıpital										
10. S	.19*	.17*	02	.38***	.26***	12	.40***	.29***	18*		.58***	.09	.26**
11. P	$.12^{\dagger}$	.20**	09	.29***	.35***	$17^{*}$	.44***	.49***	35***	.58***		03	.38***
12. Do	.01	.13 <sup>†</sup>	.16*	.06	003	.39***	$13^{\dagger}$	27***	.31***	.01	$17^{*}$		28**
13. T	.08	.08	23**	.02	.19**	34***	.31***	.30***	43***	.22**	.38***	33***	

Note. N = 182 individuals in Wave 1, and 156 in Wave 2. I = intermediary; C = conciliatory; D = divisive; S = status; P = prestige; Do = dominance; T = trust. Correlations below the diagonal are from Wave 1. Correlations above the diagonal are from Wave 2. The Wave 1 and Wave 2 surveys were approximately one month apart.

 $<sup>\</sup>hat{p} < .10. \quad \hat{p} < .05. \quad \hat{p} < .01. \quad \hat{p} < .001.$ 

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Hierarchical Linear Modeling Analyses Predicting Brokers'. Social Capital (as Reported by Roommates) From Self-Reports and Roommate Reports of Brokering Orientations (Study 3)

		Status			Prestige			Dominance			Trust	
Source model	1	2	3	1	2	3	1	2	3	1	2	3
Ego's self-	Ego's self-report of own brokering orientations	rokering orien	tations									
I	.11 (.08)	(80.) 60.	.10 (.07)	$.15^{\dagger}$ (.09)	.11 (.08)	.10 (.08)	10(.08)	08(.07)	09(.06)	005(.06)	02(.05)	008(.05)
C	.001(.07)	02(.08)	00(.08)	.05 (.06)		.04 (.06)	01(.08)	02(.07)	02(.07)	$11^{\dagger}$ (.06)	$12^*$ (.06)	$11^*$ (.05)
О	.18* (.08)	$.20^{*}(.08)$	.20** (.07)	01(.07)		.03 (.06)	.18* (.08)	(80.) 60.	.10 (.08)	05(.08)	03(.08)	05(.07)
Alter's rep	Alter's report of ego's brokering orientations in general	skering orientat	ions in general									
I	1	$.25^{***}$ (.07)	$.19^{**}$ (.06)		.12 (.09)	.05 (.08)		.0002 (.07)	.03 (.07)		.02 (.04)	04(.04)
C		.05 (.06)	02(.06)		.18** (.05)	.06 (.05)		07(.06)	.004 (.06)		.17*** (.04)	$.10^{*}$ $(.05)$
D		$-15^*$ (.07)	(60.) $60$		$31^{***}$ (.07)	10(.08)		.67*** (.08)	.47*** (.11)		$45^{***}$ (.09)	$23^{*}$ (.09)
Alter's rep	ort of ego's im	pact as broker	Alter's report of ego's impact as broker on them personally	ally								
I			.11* (.04)			.06 (.05)			.05 (.06)			.05 (.05)
C			.08* (.03)			$.15^{**}$ $(.05)$			$13^*$ (.04)			.07 (.04)
D			02(.05)			$16^{**}$ (.05)			.19* (.07)			$21^{***}$ (.05)
Time	$14^{**}$ (.05)	$12^{*}$ (.05)	$09^{\dagger}$ (.05)	$12^{\dagger}$ (.06)	08(.06)	04 (.06)	$.17^*$ $(.07)$	.11 (.07)	.07 (.07)	$23^{***}$ (.06)	$19^{***}$ (.05)	$14^{**}$ (.05)
Intercept	3.54*** (.06)	3.53*** (.06)	3.53*** (.05)	3.80*** (.06)	3.79*** (.06)	3.77*** (.05)	1.85*** (.06)	1.87*** (.06)	1.88*** (.06)	$6.21^{***}$ (.06)	$6.20^{***}$ (.06)	$6.19^{***}$ (.05)

Results are from fixed effects models with robust SEs and random intercepts. Values represent coefficients (with SEs) for fixed effects. Level 1 units (observations): 338; Level 2 units: (individuals): 182; Level 3 units (pairs): 91 I = intermediary; C = conciliatory; D = divisive.

over a 1-month period. These values are somewhat lower than test-retest reliabilities typically found for broad dimensions of personality (e.g., .66-.83 for the six HEXACO dimensions over a 3-month period: Cohen, Panter, Turan, Morse, & Kim, 2013). These relatively lower correlations may reflect the fact that social behavior may vary across situations and time, as research on the expression of personality traits shows (Robinson, 2009).

Self-other agreement. Study 3's design also enabled us to explore the extent to which ego and alter view ego's brokering orientations similarly. The self-other agreement correlations at Time 1 were r = .30, r = .26, and r = .29 for the intermediary, conciliatory, and divisive orientations, respectively (n = 182, p < 182,.001 for all). The self-other correlations at Time 2 were r = .23(p = .007), r = .25 (p = .003), and r = .12 (p = .17) for theintermediary, conciliatory, and divisive orientations, respectively (n = 142). Table 12 also reveals moderate positive associations between ego's reports of their brokering behaviors and alters' reports of ego's impact on their relationships with others. These modest levels of self-other agreement may: (a) result from ego's tendency to broker among individuals other than their roommate; (b) reflect the fact that some brokering behaviors are covert rather than overt (divisive brokering, in particular); or (c) reveal actorobserver gaps in interpreting one's social behavior; or result from any combination of the aforementioned psychological processes.

Brokering orientations predict social capital. Given that observations (Level 1) were nested within individuals (Level 2), and individuals were nested within pairs of roommates (Level 3), we conducted hierarchical linear modeling analyses in the HLM software package v7.03. Predictors were grand mean centered. The results we report are from fixed effects models with robust SEs and random intercepts, and control for the time in which observations were reported (Wave 2 vs. 1). We explored three kinds of models: First, a model that included only ego's reports of their brokering orientations to predict alter's reports of ego's social capital; second, a model that adds also alter's reports of ego's brokering orientations; and third, a model that adds also alter's reports of ego's impact on their social network. Table 13 reports the results of the three models for each of the four aspects of social capital (status, prestige, dominance, and trust).

Two general patterns are noteworthy before we turn to specific findings. First, all three types of predictor variables—ego's report of their own brokering orientation, alter's report of ego's brokering orientation, and alter's reflection on how ego shapes their social network—predict alter's reports of ego's social capital. Second, as expected, alters' perceptions of ego's brokering behaviors are generally more predictive of alter's reports of ego's social capital than are ego's perceptions of their own brokering behavior.

In looking closely at Model 2 across the different social capital variables, several noteworthy findings become apparent. First, alter's reports of ego's intermediary orientation were positively associated with status, such that those perceived to have an intermediary orientation were more likely to be conferred status, but not necessarily more prestige, dominance, or trust. Second, alter's reports of ego's conciliatory orientation was positively associated with prestige and trust. Thus, students perceived to have a conciliatory orientation were more likely to be trusted and held in high esteem for their prosocial behavior by their roommate. Third, alter's reports of ego's divisive orientation was positively associated with dominance, and negatively associated with status, prestige, and trust.

With regard to Model 3, our results reveal that, first, alter's perception of ego's intermediary behaviors toward them personally was associated with higher conferrals of status, but again, not necessarily more prestige, dominance, or trust. Second, alter's perception of ego's conciliatory behaviors toward them personally was associated with higher conferrals of status, and prestige, and marginally more trust, but lower conferrals of dominance. And, third, alter's perception of ego's divisive behaviors toward them personally was associated with lower prestige and trust, and greater dominance.

#### Discussion

Study 3's design provided unique advantages to this program of research by shedding light on the temporal stability versus change of brokering orientations, on the degree to which ego and alter view ego's brokering behaviors similarly versus differently, and by using other reports to explore the effects of ego's brokering orientations on ego's social capital. Study 3's findings lend partial support to our hypotheses by showing that alter's perceptions of ego's brokering orientations relate in meaningful ways to the social capital that alter confers on ego. Specifically, alter's perception that ego engages in conciliatory behaviors versus divisive behaviors toward them had opposite effects on complementary aspects of ego's social capital (Model 3 of Table 13). Whereas alter's perception that ego engages in conciliatory behaviors toward them positively predicted status, prestige, and (marginally) trust, and negatively predicted dominance, alter's perception that ego engages in divisive behaviors toward them negatively predicted prestige and trust, and positively predicted dominance.

An additional interesting finding from Study 3 is that ego's assessments of their own divisive brokering orientation positively predicted their status in the eyes of their roommates (Models 1–3), whereas alter's perceptions that ego generally engages in divisive behavior (Model 2) negatively predicted ego's status in the eyes of alter. This finding highlights the importance of distinguishing between the perspectives of actors and observers when examining brokering behaviors and their downstream consequences.

This study reveals that the effects of brokering behavior on social capital vary as a function of both the kind of brokering behavior and the kind of social capital. For example, whereas ego's divisive brokering as assessed by alter was negatively associated with conferrals of status, prestige, and trust, it was positively associated with conferrals of dominance. In contrast, ego' conciliatory brokering as assessed by alter was positively associated with prestige and trust, but not status or dominance. Intermediary behaviors were only associated with conferrals of status, but surprisingly, were unrelated to conferrals of prestige, dominance, and trust. It is plausible that the intermediary behaviors assessed with the BOS were less relevant or applicable in this context of undergraduate roommate relationships, as indicated by the somewhat low mean tendency to engage in intermediary behavior in this sample as compared with the other samples reported in the current article. Alternatively, it is plausible that intermediary behaviors in this context are seen as mundane and hence often go unnoticed, impacting social capital only minimally or not at all.

Although Study 3's findings provide rich insights beyond those provided by Study 2 (that used self-reports only), they fall short of providing evidence for a causal effect of brokering orientations on social capital. Study 4 was designed to complement the prior studies by using an experimental design to show that alter's perception of ego's brokering behavior causally influences ego's social capital.

# Study 4: Causal Effects of Brokering Orientations on Social Capital

Studies 2 and 3 used self-reports and peer reports to explore the associations between the intermediary, conciliatory, and divisive brokering orientations and different aspects of social capital, including workplace status (Study 2), peer-group status (Study 3), prestige and dominance (Studies 2 and 3), and trust (Study 3). Study 4 was designed to complement these correlational designs by providing experimental evidence for a causal effect of brokering orientations on actors' social capital.

#### Method

All the procedures and analyses described below were preregistered on the AsPredicted website (#13558: http://aspredicted.org/blind.php?x=7ic7t8).

**Sample and procedure.** We aimed to recruit 500 participants from a nation-wide participant pool maintained by a west-coast university in the United States. Participants completed the study online and each received \$2 for their participation in the study. We ended with a total of 502 observations from participants who provided complete responses, and 29 additional observations from participants who accessed the study and provided either incomplete responses or no responses. Individuals who attempted to complete the study twice or more accounted for 60 of the data points; these participants' data were excluded based on our a priori exclusion criteria. One additional participant who accessed the study exited it without completing any portion of it, leaving 470 observations (468 complete and 2 incomplete). In addition to these exclusions, 89/470 (19%) of the participants failed to correctly answer at least one of the two manipulation check items included in the study materials. Consistent with the preregistration plan, these participants were excluded from the analyses.<sup>6</sup> Thus, our analyses are based on a final sample of 382 participants (380 participants who passed both manipulation checks and completed the entire questionnaire, plus two additional participants who provided incomplete responses). Despite these exclusions, a post hoc power analysis revealed that with the 382 participants that we had available for analysis we still had 98% power to detect a mediumsized effect in an analysis of variance (ANOVA) of our six experimental conditions. Participants (72.1% female; age: M =34.3, SD = 11.5) reported the following ethnicities: 71.3% White/ Caucasian, 13.2% Asian/Asian American, 6.8% African American, 5.0% Hispanic, and 3.7% other.

<sup>&</sup>lt;sup>6</sup> The breakdown by condition of exclusions based on attention-check failures in Study 4 was as follows. Intermediary condition: 21/96 in the male condition and 13/62 in the female condition. Conciliatory condition: 19/89 in the male condition and 13/77 in the female condition. Divider condition: 4/75 in the male condition and 18/70 in the female condition.

**Design and materials.** We used a 3 (brokering orientation: intermediary, conciliatory, divisive)  $\times$  2 (target gender: male vs. female), between-participants factorial design. We did not have hypotheses concerning main or interactive effects of gender; rather, target gender was included as a factor in the design to explore the extent to which our effects are generalizable to both men and women acting as brokers.

Participants were randomly assigned to one of the six experimental conditions. In all conditions, participants read about a target named Alex (that was described either using masculine or feminine pronouns depending on the gender condition). Alex was described in all brokering conditions as follows: "Alex is a young professional. She is 25-years-old, and has been working as a chemist in a large pharmaceutical company since she graduated from college three years ago." We subsequently described Alex's brokering behaviors using the language used in the BOS for each of the orientations. Specifically, participants in the three conditions read:

Intermediary condition: "Alex often introduces people to each other at parties and other social events. She connects people who have shared interests; refers people to organizations who look for employees; and frequently tries to match her single friends with others who she thinks would be a good fit romantically."

Conciliatory condition: "Alex frequently mediates when others disagree or have a dispute. She often intervenes to help others resolve a conflict; offers solutions to others' relationship problems; and provides her friends with advice to help them navigate difficult interpersonal situations."

Divisive condition: "Alex frequently creates tension and rivalry between other people. She often encourages people to behave competitively toward others; spreads gossip that can undermine others' relationships; and hurts others' relationships by stimulating jealousy, suspicion and hostility in people."

**Measures.** As in Studies 2 and 3, our main dependent measures included the status conferred to Alex, judgments of Alex's prestige and dominance, and trust in Alex. A description of additional measures included in the study (i.e., social perception variables) is provided in the OSM file. All the measures described below used scales ranging from 1 = strongly disagree to 5 = strongly agree. The order in which the different dependent measures were administered was randomly determined for each participant, as was the order of items within each measure.

**Workplace status.** We used the same five items used in Study 2 (Djurdjevic et al., 2017) to assess the extent to which participants thought Alex had high status in their workplace ( $\alpha = .94$ ).

**Prestige and dominance.** We used the same eight items used in Studies 2 and 3 (Cheng et al., 2010) to assess the extent to which participants thought Alex was respected and held in high esteem by their peers (prestige; 4 items;  $\alpha = .95$ ) and the extent to which participants thought Alex tends to force their control on others (dominance; 4 items;  $\alpha = .86$ ).

**Trust.** We used the same eight items used in Study 3 to assess how much participants trusted Alex (Levine, Bitterly, et al., 2018;  $\alpha = .96$ ).

*Manipulation checks.* After completing our dependent measures, and before they reported their demographic characteristics, participants were asked to respond to two forced-choice questions asking them to recall Alex's social behavior (i.e., whether the description they read indicated Alex introduces and connects people, mediates and helps others resolve conflicts, or stimulates rivalry and conflict between others) as well as Alex's gender (i.e., whether Alex is a man or a woman), the two characteristics of the target we experimentally manipulated.

#### **Results**

Because we did not formulate a priori hypotheses concerning main or interactive effects of gender, and did not find any significant brokering orientations by target-gender interactions, we collapsed the data across the target-gender condition and only present here results for the main effects of brokering orientations on social capital (using a series of one-way ANOVAs). We report the complete three-way ANOVAs (with brokering orientations, target-gender, and participant-gender) in the OSM file. All the results below, including the magnitude of the effect sizes, replicate also in the three-way ANOVA reported in the OSM file. Table 14 presents the means and standard deviations of all four aspects of social capital by condition.

**Workplace status.** An ANOVA of workplace status indicated a significant main effect of brokering orientation on perceptions of workplace status, F(2, 378) = 93.60, p < .001,  $\eta_p^2 = .40$ . As Table 14 shows, participants perceived the divisive target to have lower workplace status as compared with the intermediary and conciliatory targets, F(1, 378) = 247.25, p < .001,  $\eta_p^2 = .40$ . Perceptions of workplace status were not significantly different for the intermediary and conciliatory targets, F(1, 378) = 1.12, p = .29.

**Prestige.** An ANOVA of prestige indicated a significant main effect of brokering orientation, F(2, 378) = 352.51, p < .001,  $\eta_p^2 = .65$ . Participants perceived the divisive target as lower in prestige as compared with the intermediary and conciliatory targets, F(1, 378) = 702.96, p < .001,  $\eta_p^2 = .65$  (see Table 14).

Table 14

Means and SDs of Social Capital as a Function of Brokering Orientations (Study 4)

Criterion	Intermediary	Conciliatory	Divider	F value (2, 378) <sup>a</sup>	Effect size $(\eta_p^2)$
Workplace status	3.88 (.77) <sub>a</sub>	3.76 (.87) <sub>a</sub>	2.32 (.96) <sub>b</sub>	123.89***	.40
Prestige	4.06 (.81) <sub>a</sub>	4.14 (.83) <sub>a</sub>	1.75 (.79) <sub>b</sub>	352.51***	.65
Dominance	2.40 (1.03) <sub>a</sub>	1.83 (.81) <sub>b</sub>	3.85 (1.01) <sub>c</sub>	150.74***	.44
Trust	5.44 (1.00) <sub>a</sub>	5.72 (.82) <sub>b</sub>	2.19 (.89) <sub>c</sub>	591.81***	.76

Note. Means in the same row with different subscripts differ significantly from each other (p < .05).

\*\*\* p < .001.

<sup>&</sup>lt;sup>a</sup> Degrees of freedom for the trust dependent variable are F(2, 379).

Perceptions of prestige were not significantly different for the intermediary and conciliatory targets F(1, 378) = .72, p = .40.

**Dominance.** An ANOVA of dominance indicated a significant main effect of brokering orientation, F(2, 378) = 150.74, p < .001,  $\eta_p^2 = .44$ . As Table 14 shows, participants perceived the divisive target as higher in dominance than the intermediary and the conciliatory targets, F(1, 378) = 274.59, p < .001,  $\eta_p^2 = .42$ . Participants perceived the intermediary target as significantly higher in dominance than the conciliatory target F(1, 378) = 23.23, p < .001,  $\eta_p^2 = .06$ .

**Trust.** An ANOVA of trust indicated a significant main effect of brokering orientation on trust, F(2, 379) = 591.81, p < .001,  $\eta_p^2 = .76$ . Participants trusted the divisive target less than they trusted the intermediary and the conciliatory targets, F(1, 379) = 1173.26, p < .001,  $\eta_p^2 = .76$  (see Table 14). Further, participants trusted the intermediary target less than they trusted the conciliatory target F(1, 379) = 6.46, p = .011,  $\eta_p^2 = .02$ .

#### Discussion

Study 4 provided evidence for a causal effect of brokering orientations on social capital. As in Study 3, the effects of brokering behavior on social capital depended on both the kind of brokering behavior and the kind of social capital. Conciliatory brokering generated the highest level of interpersonal trust, followed by intermediary brokering and then by divisive brokering. Divisive behaviors generated the highest level of perceived dominance, followed by intermediary brokering and then by conciliatory brokering. Finally, workplace status and prestige were similar for those acting as intermediaries and conciliators, and significantly higher than the workplace status and prestige of those acting as dividers. Study 4's findings suggest that different helpful brokering orientations may exert different effects on social capital.

#### **General Discussion**

In this article we set out to achieve three goals: clarify the concept of brokering orientations; introduce and validate a novel measure of brokering orientations; and test four hypotheses concerning the effects of brokering orientations on complementary aspects of social capital. With regards to the first two objectives, our theory and findings elucidate the meaning of brokering orientations and facilitate the measurement of brokering orientations by providing consistent evidence for the factor structure, reliability, convergent validity, discriminant validity, and predictive validity of the BOS. With regards to the third objective, our findings demonstrate that different brokering orientations exert distinct effects on workplace and peer-group status, prestige, dominance, and trust.

Whereas Studies 1a–2 focused on the associations between the BOS scales and other self-reported measures, Studies 3 and 4 used different methodologies to illuminate the effects of brokering orientations on social capital. In Study 3 we collected self-reports and other reports from pairs of roommates who completed measures of brokering behavior and social capital twice, separated by 4 weeks. Study 4 used an experimental design and provided evidence for causal effects of brokering behaviors on social capital.

# **Theoretical Implications**

The current findings make four meaningful contributions to the emerging literature on brokering as a social influence process. We address each of these contributions in turn.

Interrelations among the intermediary, conciliatory, and divisive brokering processes. Studies 1a-c and 2 provided compelling evidence that the three brokering orientations we identified are not only conceptually distinct, but also empirically distinguishable. Across different samples, confirmatory factor analyses consistently showed that a three-factor solution fit the data better than either a single-factor or a two-factor solution. The distinctiveness of the three brokering orientations notwithstanding, the three brokering orientations typically correlated positively in our studies; when they did not correlate positively, they were unrelated to each other rather than negatively correlated. Across the different studies, the strongest association emerged between the two helpful brokering orientations—the intermediary and conciliatory orientations. Even brokering behaviors that have the opposite impact on other' interactions and relationships-conciliatory and divisive brokering-did not correlate negatively with each other. The consistent finding that all three functional forms of brokering correlate positively fits recent theorizing that all forms of brokering share a common core of social influence (Halevy et al., 2019; Obstfeld et al., 2014).

Psychological characteristics associated with brokering behaviors. Our studies suggest that the tendencies to engage in intermediary, conciliatory, and divisive behaviors are associated with different personality profiles. Engaging in intermediary behaviors was associated with the desire for social and financial success. For example, in Study 1c the intermediary orientation was positively associated with the importance attributed to public displays of one's moral identity as well as with the desire to accumulate wealth and influence (one of the four facets of Machiavellianism). Of the three brokering orientations in the BOS, the intermediary orientation associated most strongly with Extraversion (Study 1b). In contrast, engaging in conciliatory behaviors was positively associated with concern for others, as indicated by its positive associations with empathic concern, perspective taking, and Agreeableness in Study 1b. Finally, engaging in divisive behaviors was associated with desire for control and disregard for moral and social constraints. Specifically, the divisive orientation correlated negatively with moral character, as indicated with its negative relationships with empathic concern, perspective taking, Honesty-Humility, Agreeableness, and Conscientiousness in Study 1b, and with moral identity internalization in Study 1c. Together, these findings suggest that, whereas divisive brokering behaviors, and to a lesser extent intermediary behaviors, are likely rooted in self-promotion motivations, conciliatory brokering behaviors may be motivated by genuine concern for others. The prosocial nature of conciliatory behaviors explains their association with prestige, the prosocial path to ascending in social hierarchies.

Effects of brokering orientations on social capital. The social capital branch of the networks literature has established the positive effects of occupying brokerage positions on individual advantage in organizational contexts. The findings of Studies 2–4 enrich this literature by exploring the return on investment for engaging in different brokering behaviors and by considering four distinct aspects of social capital. Two important observations that

inform this literature emerge from Studies 2-4. First, these studies show that the effects of brokering behavior on social capital depend both on the kind of brokering behavior and the kind of social capital. Our data shows that: (a) different brokering behaviors can have opposite effects on the same aspect of social capital (e.g., perceived conciliatory behaviors decrease dominance whereas perceived divisive behaviors increase dominance); and (b) the same kind of brokering behaviors can have opposite effects on two different aspects of social capital (e.g., perceived divisive behaviors increase dominance yet decrease prestige and trust). Second, we found that alters' views of their roommates' brokering behaviors were by-and-large more predictive of their evaluations of their roommates' social capital than were their roommates' own reports of their brokering behaviors. This finding suggest that how much ego thinks they act as an intermediary, conciliator, or divider may matter less for their social capital than how much others around them think that they act as an intermediary, conciliator, or divider (Kilduff & Krackhardt, 1994). By using self-reports (Study 2), other reports (Study 3), and an experimental design in which observers evaluate targets exhibiting different brokering behaviors (Study 4), Studies 2-4 underscore the value of using a multimethod approach when examining the effects of brokering behaviors on social capital.

How do social networks change? Finally, our theory and empirical findings provide an initial answer to the important question of how social networks change. Social networks change when individuals engage in brokering behaviors to create new ties for others, to modify the intensity or the sign of preexisting ties (turning weak ties to strong ties, negative ties to positive ties, or vice versa), and to undermine others' ties. The introduction and validation of the BOS opens the door for future research to explore how numerous brokering behaviors of different kinds by individuals add up to produce structural changes in social networks over time. Future research may also explore additional ways in which brokers impact alters' networks identified in the COR framework (Halevy et al., 2019).

#### Strengths, Weaknesses, and Future Directions

Our empirical studies provide consistent support for the three-factor structure of the BOS and for the pattern of interrelations among different brokering orientations. Our findings largely replicated across different studies that used diverse samples and different research methods to ascertain the effects of intermediary, conciliatory, and divisive brokering behaviors on social capital. These aspects of our studies increase our confidence in the validity of our findings.

Nonetheless, like all research, ours also has certain limitations, which highlight promising directions for future research on brokering. For example, to study naturally occurring brokering processes in everyday life, our research relied primarily on correlational designs, with the exception of Study 4. Though Study 4 was experimental, future research may be able to build on our work by using other experimental designs to further study specific kinds of brokering behaviors. For example, previous research on social interactions has randomly assigned participants to connect with strangers on trains and buses or maintain their typical commute routines (Epley & Schroeder, 2014). Future research might similarly randomly assign participants to increase their efforts to form

new connections among others in their network or maintain their typical intermediary behavior as a means to enhance our understanding of the social psychological processes involved in intermediary brokering. Although demonstrating causal effects of antecedent conditions (e.g., power: Landis, Kilduff, Menges, & Kilduff, 2018) on brokering behavior exceeds the scope of the current article, it remains an important pursuit for future research.

Another limitation of the current set of studies concerns the focus on brokers' perspectives. Although Studies 3 and 4 provide insight into alters' perspectives of ego's brokering behavior, future multisource research is warranted. Specifically, Studies 1a-2 assessed the meaning of different brokering processes through the eyes of individuals who considered their own brokering behaviors. Future research may enrich our understanding of the psychology of brokering by further exploring alters' perspectives. Alters may attribute intermediary, conciliatory, and divisive brokering behaviors to different social motives than brokers, and construe the meaning of these brokering processes differently as compared with individuals acting as brokers. Recent research has documented robust asymmetries between actors and targets, showing that actors focus on the costs of actions to them whereas targets focus more on whether they are helped or harmed by others' actions (Levine, Hart, et al., 2018; Malhotra, 2004). Exploring brokering orientations from multiple perspectives simultaneously could also help clarify the extent to which the positive association we observed between different brokering orientations is a methodological artifact (common method) or the result of a shared higher-order factor (social influence). We hope that future research on brokering will likewise consider multiple perspectives simultaneously, including brokers', alters', as well as uninvolved observers' perspectives.

The studies reported in the current article described brokers' personal profiles—their interpersonal orientations, personality traits, moral character, social skills, and social capital. Future research may explore how brokering orientations relate to individual differences in related constructs such as political skill (Ferris et al., 2005) and propensity to engage in networking (Totterdell, Holman, & Hukin, 2008). To complement the picture that emerges from this particular focus, future research should explore situational profiles of the settings in which different brokering processes emerge. An initial exploration of this possibility suggests that intermediary, conciliatory and divisive brokering processes may emerge in distinct settings characterized by unique situational profiles. Specifically, in a study we report in the online supplementary materials (Study 1), we asked research participants to recall and describe in writing a time they acted as an intermediary, conciliator, or divider. Participants then rated the situations in which they enacted these brokering behaviors on established dimensions of situational characteristics (Parrigon, Woo, Tay, & Wang, 2017; Rauthmann et al., 2014) and reported the feelings they felt in these circumstances. The findings from that study suggest that: (a) the situations in which individuals engage in intermediary behaviors are more positive and typical than the situations in which individuals engage in conciliatory and divisive behaviors; (b) the situations in which individuals engage in conciliatory behaviors are experienced as unpleasant and dutiful; and (c) the situations in which individuals engage in divisive behaviors are more amenable to deception than the situations in which individuals engage in intermediary and conciliatory behaviors. Thus, it appears that people experience situations in which they act as intermediaries, conciliators, and dividers as meaningfully different. Establishing the situational profiles of the circumstances in which different kinds of brokering processes emerge would greatly enhance our understanding of brokering processes.

Finally, whereas the current set of studies focused on brokering behaviors' consequences for individuals (i.e., their social capital in the eyes of others), future research should examine how individuals' brokering behaviors shape group-level processes and outcomes. For example, future research could explore how the presence of individuals with different propensities to engage in intermediary, conciliatory, and divisive behaviors within the same team (e.g., the members of an orchestra or a soccer team) impacts the amount of conflict within the team, the level of trust within the team, as well as team performance. Supplementing the individual-level focus with a focus on group-level processes and outcomes will enrich the emerging literature on brokering as a social process.

#### Conclusion

The current article introduced and validated a novel, multidimensional measure of brokering orientations derived from a recent conceptualization of brokering as a multifaceted social influence process (Halevy et al., 2019). It also explored, for the first time, how different brokering orientations influence four complementary aspects of social capital: status, prestige, dominance, and trust. As a whole, the six studies reported in the current article suggest that intermediary, conciliatory, and divisive brokering processes: (a) are theoretically distinct and empirically distinguishable; (b) correlate positively with each other; (c) are associated with different traits and social skills; and (d) exert distinct effects on complementary aspects of social capital. These findings enhance our understanding of how individuals influence others' social networks, as well as how these social influence processes shape brokers' social standing. We hope that the theoretical, methodological, and empirical contributions made in this article will spur future research on brokering in social and personality psychology, sociology, organization science, and related disciplines.

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Received August 5, 2018
Revision received June 14, 2019
Accepted July 1, 2019