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GUANXI MULTIPLEXITY: ANOTHER STEP IN SEPARATING RELATIONSHIP STRENGTH FROM LOCATION

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Abstract (149 words), text including references (5450 words),
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Abstract: We present a category of relationships (termed *guanxi* in China) often associated with competitive advantage. Those relations are stage for the research question in this chapter: Are the identified relations in fact a source of advantage, or is their advantage derivative from the kinds of relations with which they occur? To resolve the multiplexity issue, we first determine the kinds of relations in which *guanxi* develops. Then we explore whether the strong bridges associated with *guanxi* result from *guanxi* regardless of the kinds of relationships in which *guanxi* occurs. We conclude that the strong bridges provided by *guanxi* emerge from time and help in resolving significant events. The process does not require any particular foundation relationship. These findings contribute to the argument for separating relation strength from the location of a relationship (e.g., bridge versus structurally embedded) and highlights a consequential way to counter the oft-presumed fragility of brokerage.

Keywords: brokerage, bridge relationship, trust, *guanxi*, competitive advantage

A central theme in Ed Laumann's rise to prominence as a sociologist is his work with social stratification displayed as a social space. Connections between pairs of elements are displayed such that related elements are proximate in the space. The elements can be people, organizations, occupations, or other categories (Laumann 1966; Laumann and Pappi 1976; Laumann and Heinz 1982; Laumann and Knoke 1987; Laumann et al. 1993). Dimensions to the space, clusters in the space, and the spatial location of individual elements, are clues to understanding social stratification. The first author of this chapter has put to frequent and vigorous use what he learned in graduate school from Laumann's interpretations of visualized social space. This chapter is homage in the form of a recent example, written with an expert in the Chinese institutions on which we report.¹ We identify a category of relationships that provide competitive advantage and set a stage for the chapter's research question: Are the identified relations in fact a source of advantage, or is their advantage derivative from the kinds of relations with which they occur?

A SPECIAL KIND OF RELATIONSHIP

Figure 1 is a baseline for this chapter. The unit of analysis is a relationship. We have data on relations with 3,148 business contacts cited by 1,084 sample Chinese entrepreneurs. When interviewed, the entrepreneurs were the CEO of a small to medium size private enterprise in the Yangtze River delta region (median 67 full-time employees; for sampling see Burt and Oppen 2006:Appendix). Familiar network questions in face-to-face interviews elicited names of business contacts (people important to the entrepreneur at the time of the survey, or during key events in the history of the entrepreneur's business), connections among the contacts, and characteristics of the relationship with each contact.

Relationships are sorted on the horizontal axis in Figure 1 by the extent to which they are embedded in a surrounding network of mutual contacts, as illustrated by network diagrams below the horizontal. Dots are people and lines are relationships. An arrow in the diagram to the left shows a person citing a contact in

another group. Citer and cited have no mutual contacts. Their relationship is a “bridge” between two groups. The diagram to the right differs in that citer and cited share six mutual contacts. Their relationship is embedded in a closed network of interconnected people. In our survey data, few relations are embedded in more than six mutual contacts, so we truncate the horizontal scale at six or more.

The Closure-Trust Association

The vertical axis in Figure 1 indicates trust. Entrepreneurs indicated on a five-point scale their level of trust in each business contact they cited. The dashed line in Figure 1 shows a nonlinear, positive association between network closure and trust for routine business contacts. “Routine” here is a business contact who is not family to the respondent entrepreneur, is not cited for help during a significant event in the history of the entrepreneur’s business, and is not cited as guanxi (explained below). Bridge relationships, to the left of the graph, show relatively low levels of trust. Embedded relationships, to the right of the graph, show the highest. Strength increases most with the addition of one or two mutual contacts. The increase is smaller for relationships embedded in several mutual contacts. We will refer to this as a closure-trust association: Trust between two people tends to increase with the strength of the indirect connection between the two people through mutual contacts (Burt 2005: Chap. 3, for review).

———— Figure 1 About Here ————

The association is widely familiar in the social sciences. It can be expected with or without instrumental effort. Some arguments make the association a passive result of similarity (homophily) or logistics: People who like each other are likely to like the same other people, or relationships tend to develop between people who spend time in the same place with the same people (Festinger, Schachter, and Back 1950, on physical proximity facilitating social connection; Heider 1958; Cartwright and Harary 1956, on balance theory; Laumann 1973, on homophily in dense networks; Feld 1981, on social foci). The association is more often argued with agency in terms of reputation: The more closed the network around a relationship,

the more likely that misbehavior will be detected, which creates reputation costs that reduce the likelihood of misbehavior and hence the risk of trust, which increases the probability of trust. In economics, the association is at the heart of business relationships, which become manageable when embedded in a formal or informal social structure (Coase 1937; Greif 1989), and in law, the association is the basis for discussions of social order with or despite contracts (Ellickson 1991; Bernstein 1992). In sociology, the association is the basis for Granovetter's (1985) work on relationships embedded in social structure and Coleman's (1988) work on social capital as the control people have over each other in closed networks, later applied in Putnam's (1993) work with the social capital metaphor. Causality runs in both directions. Mutual friends cluster around the strong connection between two people, and a strong connection is likely to develop between two people who have many mutual friends. Strong ties generate adjacent strong ties, increasing the density of ties within a social cluster, and closing the network around each member.

Special Relationships: Guanxi

Relations described by the solid line in Figure 1 violate the closure-trust association. Trust does not vary across the horizontal axis. To the left in the graph, trust is high for bridge relations despite no support from mutual friends. To the right, trust is high for relations supported by many mutual friends.

The relations described by the solid line are known colloquially in China as “guanxi.” After survey respondents had named core business contacts, they were asked to distinguish “strongest guanxi,” “other guanxi,” and “definitely not guanxi.” (Language note: *Guanxi* is both singular and plural. It refers to special relationships as well as contacts reached through those relationships.) Guanxi are most often cited for the competitive advantage they provide, and discussed as relations of warmth, obligation, and trust (Bian 2019). Burt and Oppen (2024, 2026) show that guanxi have their origin in the personal history between two people. They tend to be relationships that go back several years, and they tend to be relationships in which the guanxi contact was perceived to be particularly helpful during one or more

significant events. Guanxi contacts are people one can rely on in difficult times, like a comrade in arms, or close “mates.” These contacts are seen as trustworthy; they helped when help was dearly needed. This imagery resonates with various bits of research so as to not stand out as culturally unique to China. For example, Kollock (1994) shows higher levels of trust, once trustor and trustee have experienced a “critical test” in exchanging and receiving a unilateral favor. Receiving fair, and potentially advantageous treatment can solidify trust (Hardin, 1991), and such effects can be pronounced when help is in short supply and therefore most valuable — as in the early stages of business development characterized by weak organizational legitimacy (Suchman, 1995), exposure to the liability of newness (Stinchcombe 1965) or, in the case of China, weak institutional support providing necessary access to key resources (Nee & Oppen, 2012; Xin & Pierce, 1996).

Granovetter’s (1992: 41-47) phrasing is useful here. He distinguishes two ways in which a relationship can be embedded in its context: It can be embedded in surrounding social structure such as mutual friends (structural embedding), or it can be embedded in its own history (relational embedding). Trust in relations described by the dashed line in Figure 1 are an example of structural embedding while trust in relations described by the solid line are an example of relational embedding. The two kinds of embedding can occur together – as illustrated at the right of Figure 1. Trust is high in structurally-embedded guanxi contacts, and high in structurally-embedded routine business contacts.

What makes guanxi special is the left side of the graph. Trust is high in guanxi bridge relations (solid line), but it is low in bridge relations with routine business contacts (dashed line). In other words, guanxi relations can be strong bridges between groups. Bridge relations in general are essential to the documented competitive advantage of network brokers, people whose networks span the structural holes between groups (Burt 2005, 2021; Kwon et al. 2020). But the lack of trust predicted by the closure-trust association in bridge relations (compellingly tagged in Granovetter’s, 1973, iconic discussion as “weak ties”) is widely cited for making the advantage of brokers fragile (Krackhardt 1999; Centola and Macy 2007;

Buskens and van de Rijt 2008; Stovel, Golub, and Milgrom 2011; Quintane and Carnabuci 2016).

Relational embedding offers a solution to the problem of weak bridges: The positive history that generates guanxi can provide strong bridges. And the bridge relations that exist as guanxi turn out to be essential to the competitive advantage of network brokers. Further analysis of the Chinese entrepreneurs in Figure 1 shows the usual evidence of network brokers running more successful businesses. That association disappears if guanxi contacts are removed from an entrepreneur's network, and the association is concentrated in the networks of entrepreneurs with numerous bridge relations to both guanxi and routine business contacts (Burt and Oppen 2024: 27, 31; 2026: Chapter 4). Thus, guanxi -- and other such relationships defined by the relational embedding akin to the embedding responsible for guanxi -- are a special kind of relationship.

SPECIAL OR DERIVATIVE?

Here is the fly in the ointment: Are the strong bridges due to guanxi, or due to the kinds of relations in which guanxi develops? Guanxi is not an empirical connection. It is an interpretation of connection. The person we marry is defined by law to be our spouse. How we feel about that person— level of affection, level of trust, level of anger — is an interpretation. The person to whom we report at work is defined by corporate authority to be our supervisor. Our affection for, trust in, or anger toward that person — is an interpretation. If we feel our brother is guanxi, how much of the trust felt is because he is family? There are facts for when we first met (childhood friend, classmate), where we usually meet (at work, at the pub, in the neighborhood), how often we usually meet (daily, monthly, rarely). There are facts for rights and obligations enforced by contract and due legal process. Overlaid and mingled with the facts are our diverse interpretations. The facts and feelings associated with a relationship define its multiplexity. Some relations are uniplex, but most important relationships are multiplex, a combination of multiple facts and feelings.

In the absence of network data, researchers have distinguished guanxi using role relations associated with warmth, obligation, and trust — such as being family, or close friends from school (e.g., Farh et al. 1998). Such proxies are awkward because guanxi does not reduce to a particular role. Rather, it is more likely to develop in the context of certain roles, but it need not. Yang (1994: 111) cautions: “Friendship, kinship, classmates, and so forth are not coextensive with guanxi, but serve as bases or potential sites for guanxi practice.” Similarly, Jacobs (1979: 262) argued that shared identities (as family members, classmates, co-workers, neighbors, etc.) provide no more than a basis, at best a precondition, from which guanxi can develop.

We need to do two things to resolve the multiplexity issue: First, we need to determine the kinds of relations in which guanxi develops. Second, we need to determine whether the strong bridges associated with guanxi are derivative from the kinds of relationships in which guanxi develops.

IN WHAT RELATIONS DOES GUANXI DEVELOP?

Armed with rich network data and respondent distinctions between contacts who are and are not guanxi, we can make unprecedentedly clear statements about the kinds of relations and people believed to be guanxi. To create a summary image of the data, we coded each cited relationship for the presence or absence of 58 characteristics. From the 2018 survey — in which entrepreneurs were asked to distinguish guanxi among their contacts — we have a 2702 by 58 binary table in which cell (j,k) is a one if characteristic k is found in the relationship with named business contact j , and zero otherwise. The 58 characteristics are described in Burt and Opper (2024, 2026) and are listed in Figure 2 under a spatial map of co-occurrence.

———— Figure 2 About Here ————

Two characteristics are close together in the map to the extent that they occur together in the same relationships. Co-occurrences are well described by the map. The horizontal axis distinguishes negative relations to the left versus positive to the right. The vertical axis distinguishes personal relations at the top from other business

relations at the bottom. The horizontal axis is about four times as long as the vertical axis, reflecting the relative variance described. The two dimensions in Figure 2 are a pattern familiar in China (Burt and Oppen 2017) and the West (Burt 2005: 50-53), with the additional feature here of distinguishing relations with respect to guanxi.²

Three Clusters

We distinguish three broad clusters in Figure 2: Negative relations, positive relations, and guanxi. The most negative and least positive characteristics of relations are clustered to the left in the space. Here are the contacts with whom the respondent feels distant (#42), in whom he or she has low trust (#43), and with whom he or she would be least willing to collaborate on a project (#47). Here also are the contacts cited as most difficult (#5), and those that the respondent says are definitely “not guanxi” (#51).

The other three response categories on the guanxi question appear to the right in Figure 2. Differences between these define the secondary, vertical dimension in the space (see the solid squares). First, at the lower-right of Figure 2, we find the majority of cited business contacts. These contacts are neither negative nor guanxi. They are people with whom the respondent has a positive working relationship, but who are neither considered guanxi nor ruled out as guanxi (#52, “just business”) leaving them in the residual response category of the guanxi question. This category comprises 1,641 contacts, 61% of the total 2,702 cited contacts. Also here are contacts the respondent trusts (#45), but in whom he or she does not have the highest level of trust. Here are contacts to whom the respondent feels close (#40), but not especially close. As well, this region contains the respondent’s most valued employee (#6), contacts cited as currently valued (#4) and those valued for their help in events less than the most important event (#3).

Clustered to the upper-right of Figure 2 are the most positive, most personal relationships. Here are the contacts with whom the respondent feels he or she has the strongest guanxi (#54) and contacts with whom guanxi is almost as strong as the strongest (#53). Other characteristics in the upper-right quadrant illustrate the

warmth, obligation, and trust qualities often used in qualitative work to characterize guanxi (Yang 1994; Bian 2019). Here are contacts with whom the respondent feels especially close (#39), in whom he or she has the highest level of trust (#46), and with whom he or she would be most willing to collaborate on a project (#50). Included also are the contacts cited as most valued in founding the business (#1) and those most valued for helping with the business's most important event since its founding (#2). Nine out of ten guanxi contacts were named on the significant events cited in the interview. Here too are contacts known for a long time (#29, known for more than 20 years, and #28, known for 11 to 20 years). Of special note for research outside China are the relationships termed "strong bridges." These are relations of maximum trust and near-zero connection through mutual friends. Such relations are deep in the cluster around valued guanxi ties (#58, large dark square in Figure 2).

None of the thirteen role relations in Figure 2 are as closely associated with guanxi as the attributes discussed above. In fact, none of the roles past family (#9 to #21) co-occurs with strongest guanxi or other guanxi. This is partly because some roles are not often cited. The exceptional role is family (#8), which stands out at the top of Figure 2, close to strongest guanxi. Although family contacts are not cited often (less than 8% of all contacts), they tend to be guanxi when they are cited (84% of the 209 family contacts are cited as guanxi). Although family is close to strongest guanxi (#54), it is farther from feelings of especially close (#39) and highest trust (#46). In other words, guanxi formed through kinship sometimes lacks the emotional intensity of guanxi with non-kin ties (we return to family shortly).

Similarly, bridge relations are a mix of positive and negative emotions. Guanxi bridges (#56) are located at the top of the space, next to family. Bridges in general (#55, distinguished by structural embedding weaker than one especially close mutual contact), are located at the bottom-center of the map, away from the most positive personal ties and mid-way between positive and negative.

Predicting Guanxi

We are particularly interested in kinds of relations that stand out for their association with guanxi. We provide an overview of key predictors elsewhere (Burt and Oppen 2026). Across the 2,702 cited contacts, Table 1 shows the results of a logit regression predicting binary guanxi (yes for strongest guanxi or other guanxi, no for just business or explicitly not guanxi). Estimates are adjusted for respondent differences (respondent fixed effects) and presented with jackknife standard errors.

———— Table 1 About Here ————

At the top of Table 1, history is the strongest predictor of guanxi: History takes the form of years the respondent has known a contact, and the contact's help during significant events in the business's history, especially founding the business, and the most important event in its history (t-tests of 9.73 and 6.17 respectively, $P < .001$). Help on the second through fifth most important event also increases the odds of a contact being named as guanxi (respective test statistics of 3.97, 2.15, 4.00, 2.94 in the table), but the largest increases are for help in founding the business and during the most important event. This resonates well with trust research showing heightened trust when trustee and trustor experience a "critical test" in exchanging and receiving a unilateral favor.³

Kind of help is a marginal consideration. It adds nothing to the prediction of guanxi. Adding three dummy variables to distinguish the four kinds of help (resources, referrals, emotional support, other) does not significantly improve prediction ($0.41 F_{(3,276)}$, $P \sim .74$, for the subset of 1,794 contacts cited for help on any event). In the Figure 2, kinds of help are clustered close to one another to the right, among positive ties, but midway on the vertical axis between guanxi and other positive ties (#22, #23, #25). The one form of help that stands apart is emotional support (#24), which appears at the top-center of the map, clustered with family and strongest guanxi being a bridge. In short, the close association between guanxi and help during important events is less about the kind of help provided than it is about the respondent acknowledging help at a moment significant for the respondent.

After history, four kinds of relations stand out as places where guanxi develops: family (5.29 t-test), just friend (6.09 t-test), classmate (2.84 t-test), and number of communication channels used (3.95 t-test). We discuss these as “foundation” relations in that they are likely sites for guanxi. We are not asserting that a foundation relationship existed before guanxi. That would require reliable data on the formation of relationships. What we know is that foundation relationships tend to be present when guanxi is present.

It is not surprising to see family emerge as a foundation. Guanxi is often discussed as analogous to kinship (Bian 2019). A contact is family in Figure 2 and Table 1 if it is a parent, spouse, child or more distant relative. The association with guanxi does not imply guanxi-family isomorphism, or even that guanxi is concentrated in family. In fact, family is rarely cited as a business contact (7.7%), but when family is cited, that person is often cited as guanxi (84%).

Other roles — such as neighbor, colleague in current or past organizations, or current business contact — are independent of guanxi. In short, our data do not suggest that any roles beyond family (and classmate) are more or less successful in providing a basis for guanxi development. The key lies in examining the history of the interaction between the parties. As Jacob (1979:262) claimed in an early paper (brackets inserted), “no close *kuan-hsi* [guanxi] can develop without the expenditure of time in social interaction.” Jacob’s early claim finds empirical support here: Guanxi strongly predicted by the time and event variables at the top of Table 1 and closely clustered with long duration (#29) and shared events (#1 and #2) in Figure 2.

The role of “just friend” has no significant presence in guanxi research, but is common in network studies (e.g., Fischer 1982). If a contact was none of the eight roles listed in Figure 2 (#8 family to #15 past colleague), survey respondents were asked: “What is the person to you?” Six other roles are listed in Figure 2; beginning with #16 “other – investor” and ending with #21, “other – just friend.” The label “just friend” is given to contacts who have no role relation with the respondent, but are among the entrepreneur’s core business contacts. The majority of entrepreneurs did

not use the label (61%), but for those who did, “just friends” tend to also be cited as guanxi (59%).

Classmates are a less frequent, but statistically significant, foundation for guanxi. Half of the cited people who were classmates are also cited as guanxi (51%).

The bottom rows in Table 1 refer to how a relationship is used. The fourth foundation relationship, number of communication channels, turns out to be anchored on a distinction between people who text versus not. These are core business contacts for heads of small and medium size enterprises, so it is not surprising to learn that almost every contact has face-to-face or voice communication with the survey respondent (92%). In fact, nearly all of the communication channels are clustered in Figure 2 in the southeast of the map, among other positive ties. The one channel that appears elsewhere in the map is texting (#38), located in the northeast of the map next to other guanxi. Indicating a relationship open to constant communication, a third of text relationships are also cited as guanxi (36%).

The final three predictors in Table 1 are negligibly linked with guanxi. Days between communications distinguishes daily, weekly, monthly, and less frequent contact. The entrepreneurs turn out to communicate with guanxi contacts neither more nor less often than they communicate with other contacts (though it is unlikely that guanxi contacts are ignored for long periods of time). As is to be expected from Figure 1, level of structural embedding is also a negligible predictor. Guanxi are neither limited to, nor correlated with, closed networks. In short, guanxi are often strong bridges.

ARE THE STRONG BRIDGES DERIVATIVE?

Our second task is to determine whether the strong bridges associated with guanxi are derivative from the kinds of relationships in which guanxi develops. For each kind of foundation relation, Figure 3 presents a graph linking strong bridges to guanxi with and without the foundation relation. Statistical tests are presented in Burt and Oppen (2026). We here rely on the visual displays. Each graph corresponds to the graph in Figure 1. Additionally, Figure 3 separates guanxi relations into two categories:

Guanxi that occurs in foundation relationships (heavy solid line through solid triangles), and guanxi that occurs in other kinds of relationships (thin solid line through solid squares). For contrast, we also present the closure-trust association in relationships that did not develop into guanxi (dashed line through hollow triangles), and in all routine business contacts (from Figure 1, dashed line through hollow circles).

———— Figure 3 About Here ————

Family, in Figure 3A, is the quintessential foundation relationship. If a contact is family, trust is high regardless of structural embedding – the three lines at the top of Figure 3A are nearly flat across the horizontal axis. Family is its own form of guanxi. However, the thin solid line in Figure 3A is about as high, and just as flat, across the graph as the other two upper lines. In other words, trust in guanxi contacts beyond the family is just as strong as trust in family contacts – and, as pointed out above, nine out of ten cited contacts are beyond the family.

The graphs in Figure 3 illustrate three findings. First, for each kind of foundation relationship that is a bridge between groups (left side of each graph), trust is higher in foundation relations than it is in relations with routine business contacts (all lines higher than dashed line through hollow circles). Second, trust in guanxi relations is higher on average than trust in non-guanxi foundation relations (solid lines higher than dashed line through hollow triangles). Third, and most importantly, trust in guanxi bridge relations is similarly high regardless of whether the guanxi occurs in a foundation relationship or in some other kind of relationship (both solid lines are about the same height at the left in each graph). This third finding does not extend to structurally-embedded friendship relations, but it is clearly true of bridge friendships.⁴

In short, the strong bridges provided by guanxi do not depend on specific foundation relationships. The interpersonal history of time and events that generates guanxi seems to operate in all kinds of relationships.

CONCLUSION

The strong bridges provided by guanxi emerge from time and the receipt of help in resolving significant events. The process does not require structural support from shared ties to third parties, or any particular foundation relationship. Family comes closest to reproducing the strong bridges provided by guanxi, but guanxi provides just as strong a bridge with contacts beyond the family, which is where most contacts of our sample entrepreneurs are found. This conclusion strengthens our decision to separate relation strength from the location of a relationship (e.g., bridge versus structurally embedded) and highlights how strong guanxi bridges counter the oft-presumed weakness of brokerage ties. This should lessen confusion about how network brokers can enjoy stable, sustained advantage despite the fragility of brokerage (Burt 2005; Buskens and van de Rijt 2008; Quintane and Carnabuci 2016).

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ENDNOTES

¹This chapter is taken with permission from a recent article (Burt and Oppen 2024) and a forthcoming book (Burt and Oppen 2026). Further discussion of the results described here can be found in the two source works.

²We measured the extent to which each pair of characteristics co-occur using Jaccard coefficients. The coefficient for two characteristics that never co-occur is zero, which increases to one if they only occur together. We then ran a classical multidimensional scaling of the coefficients using Stata's MDS routine. This uses an eigenvalue decomposition as in a principal component analysis. The first dimension "describes" 71 percent of variance (ratio of first eigenvalue divided by the sum of all eigenvalues), and defines the horizontal axis in Figure 2. The second describes 20

percent. The third, and all subsequent eigenvalues, are much smaller than the second (three percent of variance), so they are discarded.

³The results in Table 1 are estimated with respondent fixed effects, which control for constant sampling strata differences between respondents. We were concerned that, relative to manufacturing, entrepreneurs in information technology operate smaller and more networked businesses. However, number of contacts named is independent of industry and log number of employees (respectively 0.65 and 0.51 z-score test statistics in a Poisson regression). Controlling for industry and firm size, and comparing estimating without fixed effects and with standard errors adjusted for autocorrelation between contacts cited by the same respondent, yields negligible coefficients on the two controls (0.30 and 1.35 respectively, $P > .18$), and a pattern of effects is similar to that in Table 1.

⁴Structurally embedded “just friends” have no role connection with the entrepreneur but they are attached to someone to whom the entrepreneur is attached, like a close friend’s lazy brother. Bridge “just friends,” in contrast, are not attached in the network by the entrepreneur’s choice. Fortunately, most “just friends” are bridge contacts (66% of just friends have one or no mutual contacts with the entrepreneur; 84% have two or fewer).

REFERENCES

- Bernstein, Lisa. 1992. "Opting out of the Legal System: Extralegal Contractual Relations in the Diamond Industry." *Journal of Legal Studies* 21 (1): 115-157.
- Bian, Yanjie. 2019. *Guanxi*. London: Polity Press.
- Burt, Ronald S. 2005. *Brokerage and Closure*. New York: Oxford University Press.
- Burt, Ronald S. 2021. "Structural Holes, Capstone, Cautions, and Enthusiasms." Pp. 384-416 in *Personal Networks*, edited by Mario L. Small, Brea L. Perry, Bernice A. Pescosolido, and Edward B. Smith. Cambridge, UK: Cambridge University Press.
- Burt, Ronald S., and Sonja Oppen. 2024. "Guanxi and structural holes: Strong bridges from relational embedding." *American Journal of Sociology* 130(1):1-43.
- Burt, Ronald S., and Sonja Oppen. 2026. *Strong Bridges: Trust beyond Structure*. New York: Oxford University Press.
- Buskens, Vincent, and Arnout van de Rijt. 2008. "Dynamics of Networks if Everyone Strives for Structural Holes." *American Journal of Sociology* 114 (2): 371-407.
- Cartwright, Dorwin, and Frank Harary. 1956. "Structural Balance: A Generalization of Heider's Theory." *Psychological Review* 63 (5): 277-293.
- Centola, Damon, and Michael Macy. 2007. "Complex Contagions and the Weakness of Long Ties." *American Journal of Sociology* 113 (3): 702-734.
- Coase, Ronald 1937. "The Nature of the Firm." *Economica* 4 (16) 386-405.
- Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94 (S), S95-S120.
- Ellickson, Robert C. 1991. *Order without Law*. Cambridge, MA: Harvard University Press.
- Farh, Jiing-Lih., Anne S. Tsui, Katherine Xin, and Bor-Shiuan Cheng. 1998. "The Influence of Relational Demography and *Guanxi*: the Chinese Case." *Organization Science* 9 (4): 471-488.
- Feld, Scott L. 1981. "The Focused Organization of Social Ties." *American Journal of Sociology* 86(5): 1015-1035.
- Festinger, Leon, Stanley Schachter, and Kurt Back. 1950. *Social Pressures in Informal Groups*. New York: Harper.
- Fischer, Claude S. 1982. "What do we mean by 'friend:' An inductive study." *Social Networks* 3:287-306.
- Granovetter, Mark. 1985. "Economic Action, Social Structure, and Embeddedness." *American Journal of Sociology* 91 (3): 481-510.
- Granovetter, Mark. 1992. "Problems of Explanation in Economic Sociology." Pp. 29-56 in *Networks and Organizations*: edited by Nitin Nohria, and Robert G. Eccles. Boston, MA: Harvard Business School Press.
- Greif, Avner. 1989. "Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders." *Journal of Economic History* 49 (4): 857-882.
- Hardin, Russell. 2002. *Trust and Trustworthiness*. New York: Russell Sage Foundation.
- Heider, Fritz. 1958. *The Psychology of Interpersonal Relations*. New York: John Wiley.
- Jacobs, J. Bruce. 1979. A preliminary model of particularistic ties in Chinese political alliances: Kan-ch'ing and Kuan-hsi in a rural Taiwanese township. *China Quarterly* 78(2): 237-273.

- Kollock, Peter. 1994. "The Emergence of Exchange Structures: An Experimental Study of Uncertainty, Commitment, and Trust." *American Journal of Sociology* 100 (2): 313–345.
- Krackhardt, David. 1999. "The Ties that Torture: Simmelian Tie Analysis in Organizations." *Research in the Sociology of Organizations* 16: 183-210.
- Laumann, Edward O. 1966. *Prestige and Association in an Urban Community*. New York: Bobbs-Merrill.
- Laumann, Edward O. 1973. *Bonds of Pluralism*. New York: Wiley-Interscience.
- Laumann, Edward O. and John P. Heinz. 1982. *Chicago Lawyers*. New York: Russell Sage Foundation.
- Laumann, Edward O., John P. Heinz, Robert Nelson, and Robert Salisbury. 1993. *The Hollow Core*. Cambridge, MA: Harvard University Press.
- Laumann, Edward O., and David Knoke. 1987. *The Organizational State*. Madison, WI: University of Wisconsin Press.
- Laumann, Edward O. and Franz U. Pappi. 1976. *Networks of Collective Action*. New York: Academic Press.
- Nee, Victor, and Sonja Opper. 2012. *Capitalism from Below*. Cambridge, MA: Harvard University Press.
- Putnam, Robert. 1993. *Making Democracy Work*. Princeton (NJ): Princeton University Press.
- Quintane, Eric, and Gianluca Carnabuci. 2016. "How Do Brokers Broker? Tertius Gaudens, Tertius lungen, and the Temporality of Structural Holes." *Organization Science* 27 (6): 1343-1360.
- Stinchcombe, Arthur L. 1965. "Social structure and organizations", Pp. 142-194 in *Handbook of Organizations*, edited by James G. March. Chicago, IL: Rand McNally.
- Stovel, Katherine, Benjamin Golub, and Eva M. Meyersson Milgrom. 2011. "Stabilizing Brokerage." *Proceedings of the National Academy of Sciences* 104: 21326-21332.
- Suchman, Mark. 1995. "Managing legitimacy: Strategic and institutional approaches." *Academy of Management Review* 20: 571-610.
- Xin, Katherine R., and Jone L. Pearce. 1996. "Guanxi: Connections as Substitutes for Formal Institutional Support." *Academy of Management Journal* 39 (6): 1641–1658.
- Yang, Mei-Hui. 1994. *Gifts, Favors, and Banquets*. Ithaca, NY: Cornell University Press.

Table 1
Which
Contacts
Are
***Guanxi*?**

NOTE — These are estimates for a logit model predicting that a contact is viewed as *guanxi* in the 2018 survey.

Pseudo R^2 is .60 with respondent fixed effects and robust standard errors (t-test statistics, Stata “jackknife” option).

Structural embedding is summed indirect connection between respondent and contact (log, as when predicting performance).

	Predictors	Mean	Coefficient	Standard Error	Test Statistic
History	Log Years Known	2.14	2.50	.30	8.42
	Cited for Help in Founding the Business	.14	2.24	.25	9.00
	Cited for Most Important Event (not founding)	.14	1.03	.19	5.54
	Cited for Second Most Important Event	.14	.66	.19	3.64
	Cited for Third Most Important Event	.14	.31	.20	1.56
	Cited for Fourth Most Important Event	.14	.72	.20	3.51
	Cited for Fifth Most Important Event	.08	.73	.28	2.67
	Contact is Member of Respondent's Family	.08	2.44	.46	5.29
Roles	Just Friend	.08	2.19	.36	6.09
	Neighbor	.08	.43	.39	1.10
	Member of the Party	.01	.36	1.18	.30
	Childhood Friend	.04	.50	.39	1.40
	Classmate	.12	.84	.30	2.84
	Military	.06	.79	.42	1.90
	Colleague in Current Organization	.47	.24	.30	.80
	Colleague in Former Organization	.10	-.65	.36	-1.78
Use	Investor	.03	.15	.55	.78
	Partner/Collaborator	.05	.75	.47	1.58
	Supplier/Competitor/Client	.09	-.99	.69	-1.44
	Some Other Role (29 of 2,702 contacts)	.01	-.36	11.90	-.03
	Number of Communication Channels Used	2.70	.59	.15	3.95
	Days Between Communication Contact	22.04	-.01	.005	-1.92
	Structural Embedding Around Relationship	.96	.44	.26	1.65

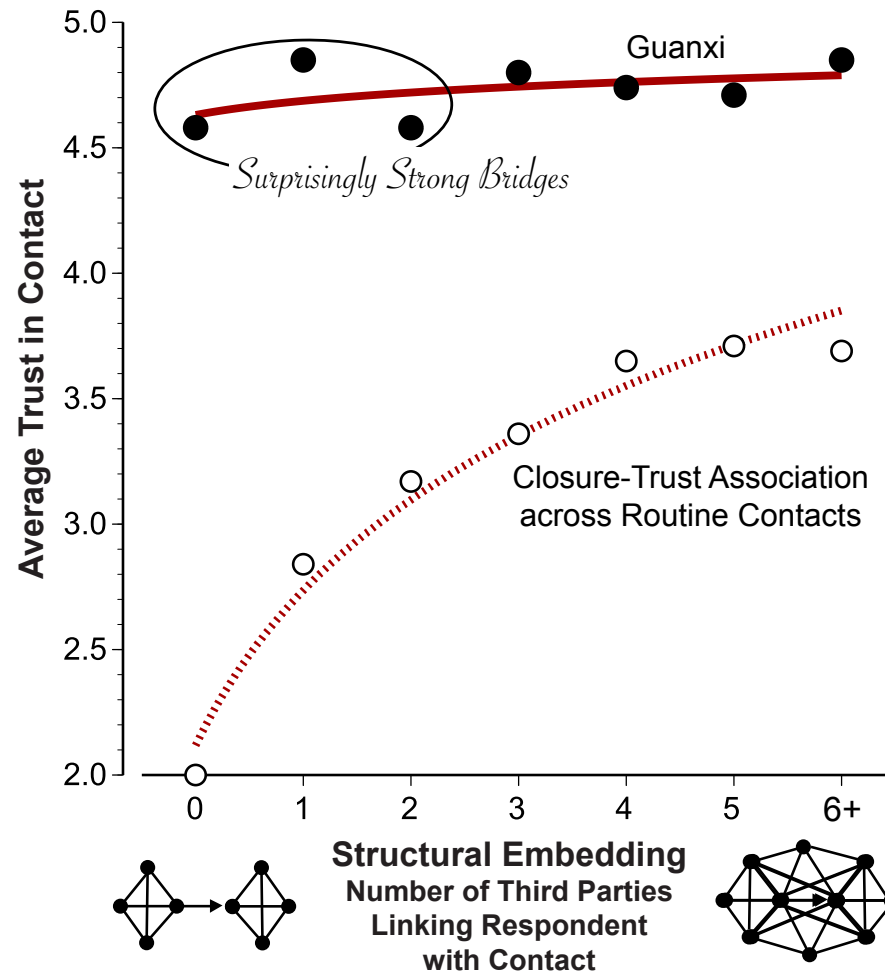


Figure 1. Guanxi Ties Are Special Relationships

NOTE: The data are relations with core business contacts cited by probability samples of Chinese entrepreneurs. There are 2,361 relations with routine contacts and 787 with guanxi contacts.

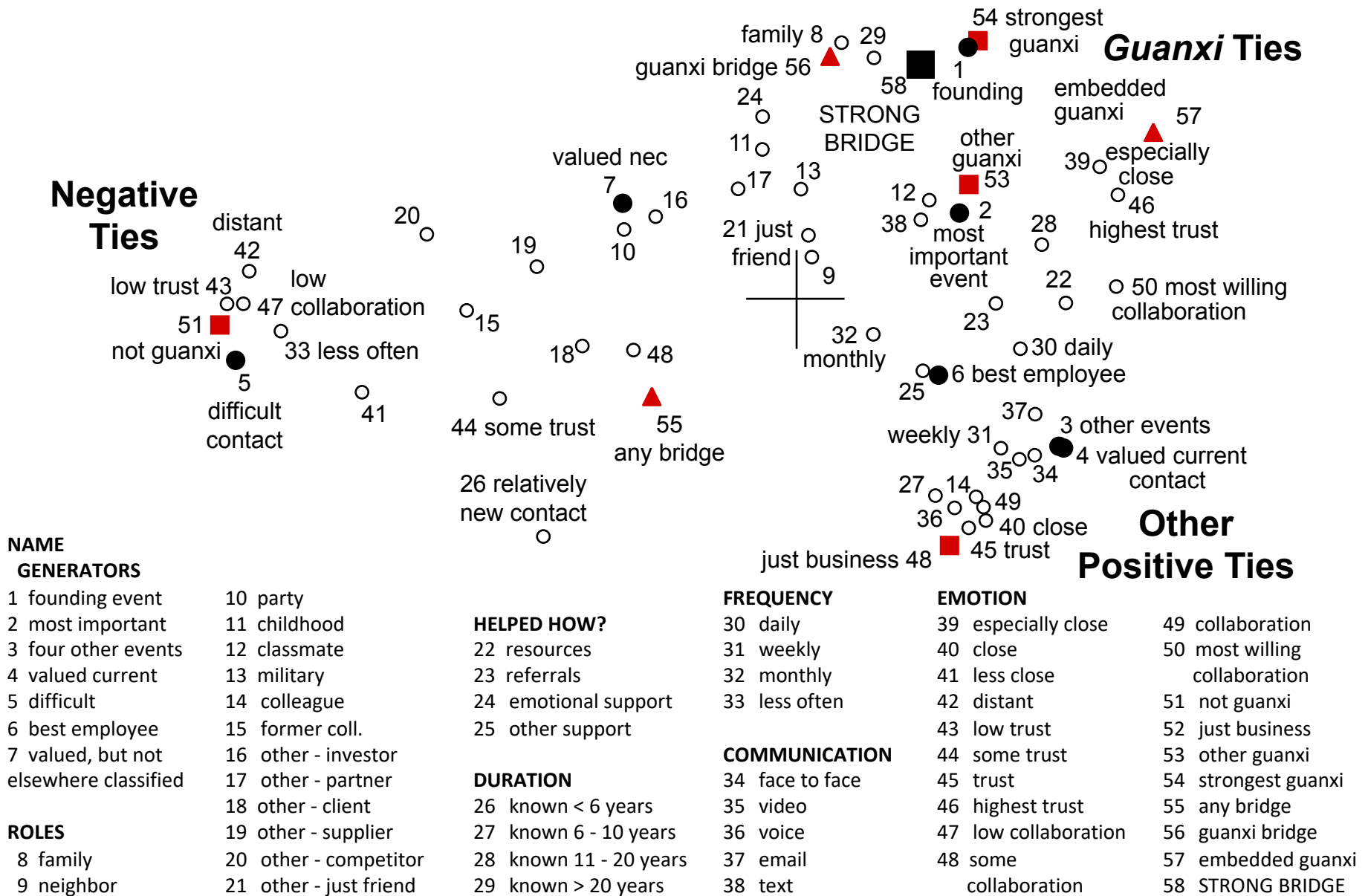


Figure 2. Guanxi Is Variably Present in Kinds of Relations

NOTE: Classical multidimensional scaling of Jaccard coefficients measuring co-occurrence of characteristics in same relations. Axes are proportional in length to eigenvalues defining them. Cross-hair marks (0,0) point on the axes.

Figure 3.

Are Guanxi Ties Special?

NOTE: These are the graph in Figure 1 reproduced to distinguish four kinds of relations in which guanxi tends to be found.

The closure-trust association from Figure 1 is reproduced as a baseline in each graph (dashed line through hollow circles).

Guanxi are separated into two categories: Relations mixed with the foundation relationship (heavy solid line through solid triangles) versus guanxi without the foundation (thin solid line through solid squares). Dashed line through hollow triangles describes trust in foundation relations that are not guanxi.

