More or less *guanxi*: Trust is 60% network context, 10% individual difference

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A B S T R A C T

The strong ties known in China as *guanxi* can be distinguished by a high level of trust relatively independent of the surrounding social structure. Using network data from a stratified probability sample of 700 entrepreneurs citing 4664 contacts, we study *guanxi* relative to other relations to learn how much individual differences such as well-being, business differences, political participation and demographic factors matter for the *guanxi* distinction. Two findings stand out: First, the connection between trust and social network is robust to most differences between individuals, especially business and political differences. Trust variance is 60% network context, and 10% individual differences. Trust increases within a relationship as network closure increases around the relationship, but some relationships mature into *guanxi* ties within which trust is high and relatively independent of the surrounding social structure. Second, when individual differences matter, they concern social isolation. *Guanxi* ties are more distinct in the networks around entrepreneurs with small, marginal families, and around those with small, closed networks. Both categories of entrepreneurs are likely to experience difficulties with respect to resource access and doing business with people beyond their network, which may explain why longstanding *guanxi* ties linked to important events are particularly distinct for these entrepreneurs.

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Introduction

A first rule of social capital is that closed networks facilitate trust. The gist of the rule's explanation is that evaluative stories about personal behavior reach everyone within a closed network such that reputational distinctions arise between admired and distained individuals, and to preserve one's own reputation, people in the network avoid individuals with negative reputations in preference for individuals with positive reputations. By creating a reputation cost for bad behavior, closed networks lower the odds of bad behavior between people in the network, so the risk of trusting others within the network goes down, and the probability of trusting others goes up. In short, closed networks facilitate trust and collaboration by creating reputation costs for bad behavior. Or, as Coleman (1988, p. 107–108) summarized: "Reputation cannot arise in an open structure, and collective sanctions that would

ensure trustworthiness cannot be applied." The high trust found in closed networks can enable predators (Yenkey, 2018), but there is abundant evidence in economics, political science, and sociology showing that trust is typically higher within relationships more embedded in a closed network (e.g., Coleman, 1988; Greif, 1989; Putnam, 1993; Uzzi, 1997, 1999; see Burt, 2005, Chps. 3–4, for review).

Evidence for the closure-trust association has been primarily from networks around North Americans and Europeans, but Burt and Burzynska (2017) use exceptional data on a large sample of Chinese entrepreneurs to show that trust and closure are associated in Chinese business networks as they are in the networks around Western managers. At the same time, trust is so strong in some cases that trust is relatively independent of the surrounding social structure. Burt and Bruzynska show that such ties can also be found in the West, where about one in ten relations corresponds to such ties for the Western business leaders, but they are more characteristic of the networks around the Chinese numbering two out of three contacts, so they refer to the ties by their colloquial Chinese label: *guanxi*. In Chinese literature, *guanxi* ties have three qualities: (1) familiarity, intimacy (2) trust, and (3) mutual obligation (Bian,

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1997, 2005; see Bian, 2018, for analytical review of the literature; see Luo et al., 2011, for meta-analysis; and Chen et al., 2013, for broader review; Lin, 2017, for the link with sentiment; Fei, 1948, for early roots in social science; Horak, 2014, for analogous concepts in Korea). In the absence of network data, researchers have distinguished *guanxi* ties by role relations associated with familiarity, trust, and obligation—role relations such as family, or close friends from school (e.g., Farh et al., 1998). Armed with network data, Burt and Opper (2017) show that the quality and nature of dyadic relationships that Burt and Burzynska term "*guanxi*" are less distinguished by distinct roles and structural homophily (such as joint education, military service, or co-membership in business or party organizations) than by instances of significant help in the history of a long-standing relationship—which, of course, can include relationships with members of one's family, or with close friends from school. The shift from roles to interpersonal history is well aligned with research on trust. Beneficiaries of pro-social or cooperative behavior are typically more inclined to trust the other than those who have not experienced such a critical test (Kollock, 1994). Experience of fair, and potentially advantageous behavior can solidify trust towards the other (Hardin, 1991, 2002). Such effects can be pronounced when help is in short supply and therefore most valuable. The early firm development, typically characterized by weak organizational legitimacy (Suchman, 1995), standard problems of the liability of newness (Stinchombe, 1965; Freeman et al., 1983), and – in the case of China – weak institutional support providing necessary access to key resources (Nee and Opper, 2012; Peng and Luo, 2000; Xin and Pearce, 1996), could therefore present a key stage of network formation.

The above results on Chinese networks need to be replicated using similar survey questions in North America and Europe before authoritative conclusions can be drawn about the relative prominence of *guanxi* in China versus the West. Still, knowing how certain kinds of people are more or less prone to *guanxi* could be a guide to strategic sampling for replication, and would be a contribution to better understanding the closure-trust association. To study the association free of respondent differences, effort is made in the above-cited evidence to hold respondent differences constant when describing differences between relationships. Control strategies include randomization, respondent fixed effects, and regression models holding constant select respondent characteristics.

Here we build on these prior studies focusing on the quality of the dyad (Burt and Burzynska, 2017; Burt and Opper, 2017) and—while using the same sample of entrepreneurs—change perspective to understand how the closure-trust association covaries with individual respondent differences: How do differences in the network context for trust covary with respondent differences such that what is *guanxi* to one kind of person need not be *guanxi* to another? For this work we use Chinese survey network data documenting the personal networks surrounding 700 randomly sampled entrepreneurs with a total of 4464 contacts that provide ample variation on relations that are more or less like *guanxi*. We study the usual suspects that are commonly assumed to explain the quality of relational ties and trust in China. These include attributes capturing an individual's well-being (Helliwell and Putnam, 2004), business experience (Luo et al., 2011, Peng and Luo, 2000) and political participation (Ma and Parish, 2006), as well as socio-demographic factors, reflecting the respondent's current and previous situation in life (for an overview of the literature, see Chen et al., 2013). Note that the same or similar attributes play a prominent role in survey-based cross-country research exploring individual level antecedents of interpersonal trust outside of China.

Baseline model and data

We begin with the baseline model that provides the frame of reference for our analysis. Fig. 1 is a diagram of the network definition of *guanxi* as ties with individuals who have provided significant help in the history of a long-standing relation proposed in Burt and Burzynska (2017). We should note that these event contacts qualify as *guanxi* regardless of when the contact was cited for an event, and regardless of the substance of the event(s) for which the contact was cited (Burt and Opper, 2017).[1] The unit of analysis is a relationship. The horizontal axis distinguishes relations by the extent to which they are embedded in a closed network (Granovetter's, 1992, "structural embedding"), here measured by the number of third parties (mutual contacts) surrounding a relationship. The vertical axis is a measure of trust in the relationship (measure discussed below). Trust within each relationship is regressed across log number of third parties embedding the relationship.

We turn to data in a moment, but the point in Fig. 1 is the two closure-trust associations: a nonlinear dashed line spanning a wide range of trust levels that increase with network closure (number of third parties to a relationship), and a solid line of high trust levels that do not covary much with network closure. The dashed line is often found in the networks around Western managers. When two people have no mutual friends, their relationship is a bridge between their respective groups, illustrated by the diagram below the zero point on the horizontal axis. The more mutual friends two people have, the more closed the network around their relationship, and the more likely the two people are members of the same group, illustrated by the diagram below the "6 or more" point on the horizontal axis. Trust increases quickly with the first few third parties, then less quickly with additional third parties (e.g., Burt, 2005, Chps. 3–4). This is also the closure-trust association on average across business relations in China (Burt and Burzynska, 2017, Fig. 4). *Guanxi* ties are a level and slope adjustment to the familiar (dashed-line) closure-trust association: the solid line in Fig. 1 shows a high level of trust across levels of network closure. These findings resonate well with trust research showing higher levels of trust when trustee and trustor experience a "critical test" in exchanging and receiving a unilateral favor (Kollock, 1994).

Network data

We have data on the social networks around 700 Chinese entrepreneurs operating manufacturing firms in three provinces surrounding the Yangtze River Delta: China's financial center, Shanghai, Jiangsu Province with the capital Nanjing to the north, and Zhejiang Province with the capital Hangzhou to the south. The three provinces account in 2013 for 20.2% of China's gross domestic product, and 31.9% of China's imports and exports. The sample is a 2012 continuation of samples surveyed in 2006 and 2009 (see Nee and Opper, 2012, p. 52–70, for details).

Network data were obtained with name generator and name interpreter items. Such items are, of course, routine in survey network research (Marsden, 2011), familiar in network surveys of management populations (Burt, 2010, p. 281ff), and have precedent in China (Ruan, 1998; the 2003 Chinese General Social Survey, Bian and Li, 2012; Xiao and Tsui, 2007; Batjargal et al., 2013). The survey instrument and interview materials are available in the original English (see acknowledgement note).

Our name generators asked for the people most valuable to the respondent's business this year (2357 people named), the most

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[1] Founding the business is an exception. Contacts cited as most valued in founding stand apart as extreme *guanxi* ties – higher in average trust than any other relationship, with trust least contingent on network closure (Burt and Opper, 2017).