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Motivation vs. Relevance:
Using Strong Ties to Find a Job in Urban China

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While the idea that contacts matter in finding a job is intuitively appealing, we still do not know—after decades of research—how and why strong ties benefit job seekers. To resolve this confusion, we need to theorize how specific characteristics of ties are related to the mechanisms that make job search through contacts effective. We have reasons to expect that, while a contact's motivation influences the likelihood that a job seeker receives an offer, her homophily with the job seeker on occupation and other job-relevant attributes influences the quality of the offer. The use of strong ties among university students to find jobs in China provides a unique opportunity to empirically isolate the relationship between contact characteristics and the mechanisms through which contacts benefit the job seeker. I tested my hypotheses with data on both the successful and unsuccessful job searches of 478 graduates of China's flagship universities, who, as first-time job seekers, primarily used strong ties. Survey results are consistent with my hypotheses: Job seekers who used strong ties to look for jobs had more offers—but not better offers—than those who used only formal methods.

Keywords: Social networks, job search, strength-of-strong-ties, within-individual methodology, China.

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1. INTRODUCTION

While the idea that contacts matter in finding a job is intuitively appealing and theoretically plausible and appears to be supported by a variety of sociological studies (for reviews, see Granovetter 1995; Lin 1999; Marsden and Gorman 2001), we still do not know—after decades of research—how and why tie strength affects job-search outcomes. Following Granovetter’s pioneering work on job search (Granovetter 1974), a variety of studies find that weak ties, such as acquaintances and casual friends, are not only more likely than strong ties, such as family and close friends, to lead to jobs but also more likely to lead to better jobs (e.g., Lin, Ensel, and Vaughn 1981; Green, Tiggers, and Browne 1995; Yakubovich 2005). However, other studies find that tie strength has no effect on labor-market outcomes (e.g., Marsden and Hurlbert 1988; Korpi 2001; Völker and Flap 1999). Even more puzzling, some studies find that, under certain conditions, it is actually strong ties that are not only more likely to lead to jobs but also more likely to lead to better jobs (e.g., Murray, Rankin, and Magill 1981; Bian 1994, 1997; for a review, see Lin 1999).

To make sense of these contradictory findings, we need to theorize how specific characteristics of ties are related to the mechanisms that make job search through contacts effective. The existing literature suggests that two characteristics of contacts—motivation and relevance—influence how contacts benefit a job seeker. We might expect that contacts who are motivated to help the job seeker should lead to better labor-market outcomes than search through formal methods (Bian 1994, 1997; Smith 2005). For example, the strength-of-strong-ties

argument implies that, because strong ties are motivated to help the job seeker, job seekers should benefit from searching through strong ties (e.g., Granovetter 1983: 209-213). However, we might also expect that contacts who are in the same occupation, industry, or geographic area, or those who are homophilous with the job seeker on work-relevant attributes, should lead to better job-market outcomes than formal methods (Granovetter 1974; Mouw 2003; Cingano and Rosolia 2008; Horvath 2011; McDonald 2011). While the literature implies that the distinction between a contact's motivation and his relevance is important, we lack a systematic model of how these characteristics of contacts relate to job-search outcomes.

To create such a model, we need to distinguish between two non-mutually-exclusive mechanisms by which contacts *could* help a job seeker: They could generate *more* offers than formal job-seeking methods do and/or they could generate *better* offers—ones which more closely match the job seeker's skills and aspirations and are therefore more likely to be accepted—than formal methods do. Because the degree of motivation influences how much of her time, effort, and social resources the contact is willing to invest in helping the job seeker, we might expect that a contact's motivation influences the likelihood that a job search leads to an offer. In contrast, the homophily between a job seeker and the contact on occupation or other work-relevant dimensions influences whether or not the contact is able to link the job seeker to an offer that matches her skills and aspirations. While we have compelling theoretical reasons to try to disentangle these two means by which contacts can help a job seeker, no previous study has done it.

A critical methodological problem kept previous research from analytically isolating how contacts' motivation and relevance influence mechanisms through which contacts benefit a job seeker. First-generation studies focused on the particular job-search attempt that led to a job,

ignoring all attempts that did not lead to a job. This selection on the dependent variable is likely to lead to misleading results (Montgomery 1992; Granovetter 1995; Fernandez and Weinberg 1997; Korpi 2001). To avoid the problem of selection on the dependent variable, the second generation of studies focused on the relationship between a job seeker's social networks and her labor-market outcomes. However, as Mouw (2003; see also Mouw 2006) argues, homophily in social networks might render the association between social networks and labor-market outcomes spurious, which limits the potential contribution of these studies to the ties-strength debate.

The use of strong ties among university students to find jobs provides a unique opportunity to empirically isolate the relationship between contact characteristics and the mechanisms through which contacts benefit the job seeker. First-time job seekers are more likely than other job seekers to rely on strong ties to look for jobs (Granovetter 1974; Murray et al. 1981; McDonald and Elder 2006; see also Granovetter 1983). Strong ties are often infused with an intense sense of obligation, commitment, and trust that makes them willing to spend their time, effort, and social resources in helping a job seeker find a job (Bian 1994, 1997; Smith 2005), increasing the likelihood that a job search results in an offer. However, unless occupation and other work-relevant characteristics are inherited, strong ties are also likely to be heterophilous on work-relevant dimensions. As a result, they might not lead the job seeker to jobs that match her skills or aspirations.

My research setting—job searches in the late 1990s by graduating students at Chinese flagship universities—presents other important advantages in collecting job-search data. Since the 1980s, China has dismantled the state assignment system that assigned graduating students to jobs, creating a labor market where job seekers are free to choose their own employers.

Graduating students are likely to engage in more job searches using a greater variety of methods than job seekers who are already employed, making this a rich source for job-search data.

Another advantage of studying graduating university students in China is that it is possible to collect data on both successful and unsuccessful job searchers. Because institutional restrictions in China at the time of my study limited a flagship university graduate's job search to six months, it was possible to choose a period of study during which (a) the vast majority of recent graduates had already found jobs and (b) the details of their job searches were still fresh in their minds, mitigating possible problems with inaccurate recall. To test my hypotheses, I collected job-search histories from 478 university graduates.

This paper begins by explaining how search through strong ties is likely to benefit the job seeker. I then discuss how within-individual comparison methodology addresses methodological problems that have plagued classic job-search studies. After discussing my setting, I explain my methodology and results. I conclude by outlining the implications of this study for the literature on tie strength and social networks.

2. THEORY

While we have theoretical reasons to expect that two characteristics of contacts—motivation and relevance—influence how a contact might benefit a job seeker, to date we have not been able to empirically isolate the relationships between contact characteristics and the mechanisms through which contacts benefit the job seeker. The first step toward resolving this confusion is to distinguish two potential ways by which contacts can benefit a job seeker. Drawing on Montgomery's (1992) work, I propose that search through social networks can benefit a job seeker in two non-mutually-exclusive ways—a) social networks might be more

likely to generate *more* offers than other methods do and b) social networks might be more likely to generate *better* offers than other methods do. Assuming that job seekers are more likely to accept better offers, an offer received through social networks is therefore more likely to be accepted than an offer received through some other method.

We have reasons to expect that a contact's motivation influences the likelihood that a job seeker receives an offer. We know that in helping the job seeker receive an offer she would not otherwise receive, the contact not only expends time and effort, but may also put her own reputation and social networks on the line (Smith 2005). The strong tie's sense of obligation to help the job seeker might be so strong that she will produce offers even if she knows that they are not good ones. A motivated contact is more likely to go out of her way to make sure that the job seeker learns about a new opportunity, to put in a good word with an employer, or even to influence the employer to hire the job seeker. Thus, search through contacts who are motivated to help the job seeker should improve the likelihood that a job search results in an offer.

In contrast, a contact's homophily with the job seeker on job-relevant attributes, particularly occupation, influences the quality of the offer. If the job seeker and her contacts are similar to each other on occupation or other work-related dimensions, the contacts are more likely to possess the kind of information and influence that can help the job seeker find a desirable job. For example, Mouw finds that same-occupation contacts rather than higher-status contacts might lead to high-prestige jobs (2003: 884). Similarly, Cingano and Rosolia (2008) report that the positive effects of searching through contacts are higher with contacts who are in the job seeker's geographic area or within the same industry than with contacts who are not. Thus, while search through contacts who are motivated to help the job seeker should improve the

likelihood that a job search results in an offer, search through contacts similar to the job seeker on work-related dimensions should be more likely to result in a good offer.

The distinction between motivation and relevance implies that the contacts most motivated to help the job seeker might not be the same contacts who are most able to link her to a job matching her skills and aspirations. Specifically, we might expect that strong ties, including family and close friends, are motivated to help the job seeker to search for a job. Frequently, however, they are not the most relevant contacts. Unless occupation and other work-relevant characteristics are likely to be inherited, family members or childhood friends are likely to be dissimilar to the job seeker on work-relevant dimensions. For example, we know that cohort differences produce considerable family heterophily with respect to education, occupation, and place of residence (Marsden 1987; McPherson, Smith-Lovin, and Cook 2001). As a result, while a search through strong ties might be more likely to lead to an offer, it might not necessarily lead to a good offer.

These considerations lead to my two hypotheses:

Hypothesis 1: A resume submitted through strong ties is more likely to result in an offer than a resume submitted through formal methods.

Hypothesis 2: An offer received through strong ties is no more likely to be accepted than an offer received through formal methods.

2.1. Within-individual comparison

Because existing methodological approaches are ill-suited to the task of specifying whether search through a contact is more likely to lead to an offer and/or is more likely to lead to an acceptable offer, it has been impossible to empirically isolate the roles of motivation and

relevance in job search. Following Granovetter's original research (1974), the first generation of job-search studies asked the respondent about the tie she used to find a job (for reviews, see Granovetter 1995; Lin 1999; Marsden and Gorman 2001; Mouw 2003). Then, the researcher examined the relationship between the tie actually used to find a job and labor-market outcomes such as income, socio-economic status, and job satisfaction. However, because these classic studies only examined job searches that actually resulted in a job, their results—and the results of other studies conducted in the same way—might be artifacts of selection on the dependent variable (Montgomery 1992; Granovetter 1995; Fernandez and Weinberg 1997).

One way to avoid the problem of selection on the dependent variable was to focus on the relationship between a job seeker's social networks and her labor-market outcomes. Intuitively, we expect a well-connected job seeker to be more selective than a poorly connected job seeker because she expects to benefit from her high-quality contacts (for reviews, see Granovetter 1995; Lin 1999; Marsden and Gorman 2001; Mouw 2003). As a result, a better-connected job seeker should have better labor-market outcomes. However, social-network studies suffer from an omitted-variable problem (Mouw 2003, 2006; for a more general statement of this problem, see Manski 1995). Specifically, an observed or unobserved characteristic of the job seeker, such as her education or temperament, might create a spurious correlation between her social capital and her labor-market outcomes. In fact, in a recent review of the social-network literature across a variety of areas, including job search, educational attainment, engaging in delinquency, and in migration, Mouw (2006) finds that taking network homophily into account leads to a substantial decline in the observed effects of contacts.

Because of these concerns, a new generation of studies has used within-individual comparison methodology to study the role of contacts in job search (e.g., Mouw 2002;

Yakubovich 2005; for a review, see Mouw 2006). Researchers begin by collecting information about multiple search attempts by the same respondent. This addresses the problem of selection on the dependent variable. Then, the researchers compare the effectiveness of search through contacts with the effectiveness of search through formal methods when used by the same person. This eliminates the possibility that observed or unobserved individual differences create a spurious correlation between social networks and labor-market outcomes. In the absence of random assignment of job seekers to job-search method, within-individual comparison using fixed-effects methodology provides the best alternative to models employing instrumental variables that require strong assumptions that an instrument and error term are independent (see Mouw 2006).

Two studies provide important evidence that within-individual comparisons provide results substantively different than those of studies using the earlier methodologies. In the first study, Mouw (2002) examines the relationship between search through contacts and labor-market outcomes for African American job seekers. Studies that select on the dependent variable find that African American job seekers suffer a penalty from finding a job through contacts. In contrast, using within-individual comparisons, Mouw shows that, for African-Americans, the use of contacts is, in fact, associated with higher wages. In the second study, Yakubovich (2005) examines the role of weak ties in job search in a local Russian labor market. Studies that select on the dependent variable disagree on whether weak or strong ties are more likely to lead to a job. Using within-individual comparisons, Yakubovich shows that, in this context, search through weak ties is, in fact, more likely to lead to jobs than search through strong ties.

One potential weakness of within-individual comparisons (and of all other ways to study job search that do not involve random assignment of job seekers to job-search methods) is the potential for method-choice endogeneity. Consider that job seekers are not randomly assigned their job-search methods—they choose them. We know that people who expect to benefit more from social networks are more likely to use contacts to search for jobs (Mouw 2002; cf. Mouw 2003). Because any within-individual comparison is based on those who used social networks, the estimates of how a job seeker benefits from social networks are influenced by the self-selection of our respondents into that method. For example, if those who have richer social capital are more likely to search through connections, we are seeing more of the effect of contacts for students who have rich social capital than of its effect for others. If a substantial proportion of job seekers does not use a particular search method, endogeneity of method choice might be one factor that influences how effective a particular job-search method appears to be. I explore how this issue might affect the interpretation of the results presented in the discussion section.

3. SETTING

Since the 1980s, Chinese economic liberalization policies have transformed the labor market from one characterized by central planning to one largely resembling the United States labor market. Before these reforms, under the state assignment system (*tongbao tongfen zhidu*), graduates could potentially be sent, regardless of their preferences, to any employer anywhere in the country. Under that system, job seekers relied extensively on contacts to go around the system and to secure a more desirable assignment (Bian 1994, 1997). In the late 1990s, the state assignment system was completely abandoned in favor of the “own responsibility for job search”

system (*zizhu zeye zhidu*) (Sun, Geng, and Zhu 1987; Zhang 1998). Although schools no longer assigned students to jobs, the default job-search method for many flagship-university students was still to search through their schools. At the same time, market institutions—including job fairs, employment centers, newspapers, and Internet sites—sprang up to link employers to job seekers. In addition to searching through schools and using these new market institutions, students also continued to use their social networks.

The job search undertaken by these graduates offers an opportunity to examine the importance of motivation and homophily for the likelihood of receiving an offer and of receiving an acceptable offer. First-time job seekers are more likely than other job seekers to rely on strong ties (Granovetter 1974; Murray et al. 1981; McDonald and Elder 2006; see also Granovetter 1983). For Chinese students, these strong ties include family and friends. Not all friends are strong ties, but for Chinese students, university-based friendships are likely to be relatively strong. When a student enrolls in a university, she is assigned to a class (a group of 30-40 students) with whom she completes most of her four years of course work. Further reinforcing these friendships, the student is assigned to a dorm room, typically shared by six classmates. In contrast, because opportunities for part-time jobs and internships were rare, students at Chinese flagship universities had few opportunities to build weak ties.

For empirical research on job searching, Chinese university graduates offer another advantage over job seekers in the general population or even university graduates in the U.S. Specifically, institutional restrictions limited a Chinese graduate's job search to six months. China's residential registration (*hukou*) system (Whyte and Parish 1984; Wu and Treiman 2005) forced students to decide on their jobs before graduation. The employer typically processed a student's residential registration for the city in which the student was expected to work. If a

student failed to find an employer before graduation, her residential registration reverted to her place of origin, where the local government could assign her to an undesirable job. As a result, graduating university students in China were under considerable pressure to limit their job search to the six months before graduation.¹ This meant that, by graduation, the vast majority of students had found jobs. Also, the relatively short search period mitigated potential problems with recalling the details of the job search.

This research setting has still other features that distinguish it from that of job seekers in the general population. We might expect the use of social networks for job search to be particularly low among graduates of flagship universities. Many employers target those graduates, who are therefore likely to have many desirable opportunities available through job-search methods other than their connections. In addition, graduating university students, unlike people who already have jobs, have fewer connections to draw on and should therefore be less likely to search through social networks. Finally, because of the social transformation underway in China, strong ties—particularly family members—do not necessarily lead to jobs that match a student's skills and aspirations, again leading us to expect that other means of seeking a job might be preferred over social networks.

4. METHOD

In the first phase of my study, in the summer of 1999, I conducted ethnographic fieldwork on emerging labor markets at China's flagship universities. To explore the implications of distinguishing between quantity and quality of offers in my empirical setting, I

¹ In the year of this study, universities prohibited employers from recruiting on campus before the winter vacation that coincides with Chinese New Year. This was done in order not to distract students from their studies.

completed 21 interviews with graduates at the Harbin Institute of Technology (HIT) about their job searches. HIT is one of the top science and technology universities in China, located in the industrial rust belt of northeastern Heilongjiang province. All interviews were conducted in Chinese and took between one and three hours. Over the 1999-2000 academic year, I supplemented these data with observations at job fairs and interviews with students, recent graduates, employers, and school administrators at universities in Beijing and Harbin.

In the second phase of my study, I collected quantitative data with which to test the two hypotheses developed during my fieldwork. In May and June of 2000, I conducted a survey of graduates at four of China's flagship universities: Beijing University, the top university in China, excelling in the humanities, social sciences, and natural sciences; Qinghua University, the top science and engineering university; Renmin University, one of the top humanities, social sciences, and management universities; and HIT. All but HIT are in Beijing. The completed sample included 478 students: 112 from Beijing University, 37 from Qinghua University, 152 from Renmin University, and 177 from HIT. Because a significant proportion of Qinghua's graduates pursue graduate study, it proved difficult to find job seekers there.

4.1. Sample

In order to get a representative sample, I recruited a diverse group of assistants at each university to distribute the questionnaire and asked them to target students in specific majors. The descriptive characteristics of the sample are presented in Table 1. A little over 40% of the students in my sample were studying engineering, about a quarter were management majors, one out of seven was a social science major, and the remainder were studying humanities or law. One-third of the students were female. The composition of the sample with respect to major is

consistent with national statistics reported in the *China Statistical Yearbook* (2002). Thus, with some caution due to the non-random nature of the sample, it is reasonable to generalize the results to graduates of flagship universities in northern China.

<TABLE 1 ABOUT HERE>

Table 2 suggest that schools were the most common method of finding a job; 60% of the students, or about two out of three, accepted an offer received through schools (Table 2, bottom row). This is comparable to figures reported in China's official statistics. For example, according to the *China Education Yearbook* (2000), among universities directly supervised by the Education Ministry, which are China's best universities, about 70% of the graduates found jobs through schools. In my study, markets were the second-most-common method of finding a job; nearly one out of four students found a job through markets. Finding a job through social networks was relatively rare; one out of 20 students found a job through family and only one out of 25 through a friend.

<TABLE 2 ABOUT HERE>

Schools were also the most popular method of search, used by 95% of the students (Table 2). On average, students who searched through schools distributed 5.8 resumes through this method. Students who received offers through schools received, on average, 2.0 offers. Among these students, 74% accepted one of these offers. Nearly two out of three students searched through markets. On average, they distributed about 4.2 resumes through this method. Students who received offers through markets received, on average, 1.74 offers. Sixty-two percent of these students accepted one of these offers. Almost one out of four students searched through contacts, on average distributing 2.1 resumes through this method. Students who received an

offer through contacts received, on average, 1.37 offers. Fifty-eight percent of these students accepted one of these offers.

4.2. Variables

The survey questionnaire had two parts: Background information and questions (arranged in two tables) about the job-search process. In the first table, for each type of job-search method, the student indicated the number of job offers she had received and whether or not she had accepted one of these offers. According to the findings in Table 3, the 478 job seekers in my sample distributed 4,371 resumes (Column 1a). 452 of these students received a total of 1,128 offers (Column 2a). Considering each resume as one job-search attempt, I begin by constructing two outcome variables: *offer received*, coded 1 if the student received an offer and 0 otherwise, and *offer accepted*, coded 1 if the student accepted the offer and 0 otherwise.

<TABLE 3 ABOUT HERE>

In the second table, a student indicated the number of resumes she had distributed through each of eleven job-search methods: school employment fair, school- or department-provided information, non-school employment fair, employment center, newspaper, Internet, parents, siblings, other relatives, friends and classmates, and direct application. To construct independent variables, I group the eleven job-search methods into three categories: “school job fair” and “school- or department-provided information” were coded as *schools*; “direct application,” “non-school employment fair,” “employment center,” “newspaper,” and “Internet” as *markets*; and “parents,” “siblings,” “other relatives,” and “friends and classmates” as *contacts*. In the analysis, *markets* is the omitted category; coefficients in the models should be interpreted relative to the baseline effects of searching through markets. I find that students distributed 61%

of their resumes through schools, 33% through markets, and only 6% through contacts. Of the offers the students received, 65% were received through schools, 27% through markets, and only 8% through contacts. Of the offers accepted, 65% were for jobs found through schools, 26% for jobs found through markets, and 9% for jobs found through contacts.

4.3. Model

To examine the mechanisms through which contacts help a job seeker, for each resume I use fixed-effects linear probability regression models. Individual fixed-effects models are an appropriate specification because both individual characteristics and an error term are likely to be correlated across resumes distributed by the same individual. For each resume, I estimate the likelihood that it results in an offer and, for each offer, the likelihood that it is accepted. In these models, the dummy variables for job-search methods (i.e., *schools*, *markets*, and *contacts*) should be interpreted as indicating how the likelihood of receiving an offer or of accepting an offer depends on the job-search method. For robustness, I also estimate conditional logit models and find that they produce essentially identical results. For ease of interpretation, here I present only the results of linear probability models.

I restrict my analysis to those students who had within-individual variation on the dependent or independent variable (Table 2). This means that for the *offer received* model, the analysis includes only students who made at least two search attempts that used different methods. Among the 478 students in my study, 408 met this criterion (Column 1b). For the 4,078 resumes these students distributed, I estimate the likelihood that a search attempt resulted in an offer. For the *offer accepted* regression, the model includes only students who received at least two offers through different methods. Among the 452 students who received offers, 269

met this criterion (Column 2b). For the 902 offers these students received, I estimate the likelihood that an offer was accepted.

5. RESULTS

I argued that the strength of strong ties comes from their motivation to help the job seeker rather than from their ability to connect her to desirable jobs. Specifically, because strong ties feel significant obligations to help the job seeker, Hypothesis 1 stated that a resume distributed through strong ties is more likely to lead to an offer than a resume distributed through formal methods. To test this hypothesis, I use a fixed-effects linear probability model with *offer received* as the dependent variable. Confirming Hypothesis 1, I find that a resume submitted through strong ties has a 0.16 higher probability of leading to an offer than a resume submitted through markets (Column 1a). While the coefficient for friends is smaller in magnitude than the coefficient for family (0.17 versus 0.13 in Column 2b), the difference is not statistically significant. I also find that search through schools is no more likely to lead to offers than search through markets (Columns 1a and 1b).

<TABLE 4 ABOUT HERE>

Because the job seeker and her strong ties, particularly family members, are likely to be heterophilous on work-related dimensions, Hypothesis 2 stated that, an offer received through strong ties is no more likely to be accepted than an offer received through formal methods. To test this hypothesis, I use a fixed-effects linear probability model with *offer accepted* as the dependent variable. Confirming Hypothesis 2, I find that an offer received through strong ties is no more likely to be accepted than an offer received through markets (Column 2a). As a

robustness check, I also performed this analysis only for those job seekers who received no more than one offer. The results remained substantively the same. This helps to reduce the possibility that the lack of significance on the coefficient for strong ties is simply due to the fact that, because some job seekers receive many offers from strong ties, they are less likely to accept any particular one.

As coefficients for both family and friends are not statistically different from zero, neither search through family nor search through friends appears to lead to offers that are more likely to be accepted (Column 2b). However, point estimates suggest that offers received through family are *less* likely to be accepted than offers received through friends (-0.06 versus 0.17), raising the possibility that at least some friends (possibly university classmates who are homophilous with the job seekers on job-relevant attributes, including future occupation) do lead to desirable jobs. Due to the small number of students who used friends to find jobs, we need to interpret these results with caution. Lastly, I find that an offer received through schools is slightly less likely to be accepted than an offer received through markets (Columns 2a and 2b).

5.1. Qualitative evidence

While students from flagship universities in China are well positioned for upward mobility, their family members are often unable to link them to jobs that match their aspirations. My interviews provided some qualitative evidence which helps explain why and illustrate the importance of a contract's relevance. First, I found that families often had difficulties in linking a student with a job that matched her occupation. This is not surprising, considering that most students I interviewed were the first family member to attend college. Also, while many students preferred jobs in the rapidly developing and prosperous coastal cities, which offered many

attractive options for young professionals (Hoffman 2001), their families had better connections in their inland hometowns. Finally, while many students preferred jobs in foreign firms and private domestic firms, which offered young professionals challenging and rewarding career opportunities (Hoffman 2001), their families had better connections in the state sector in which they were more likely to have worked themselves.

A few cases will illustrate: Zhou Aiguo² was offered a job with the local police, which had been arranged for him by his father. This was a secure job with a good salary, attractive benefits, and many perks, but Zhou Aiguo turned it down in order to accept work at Lianhua, making more than four times what the local police could offer and working in a prosperous southern city for one of the most dynamic private firms in China. Another student, Zhang Bo was introduced by his cousin to a factory in a provincial capital. The job was near the village of Zhang Bo's parents, but required only a three-year technical degree in mechanical engineering rather than his university diploma in electrical engineering. While this was not his best offer, he accepted a job to stay close to his family. Another student, student in mechanical engineering explained why she turned down the jobs her relatives found her: "I would like to use what I learned. Why waste four years of study?"

5.2. Extensions of analysis

In making inferences from the results, it is important to remember that they are based on a sample of students who chose to use contacts (roughly one out of four students). Results presented in Table 5 suggest that, aside from gender, other student characteristics (grades, party

² To protect interviewees' confidentiality, all names are pseudonyms.

membership, being a student-official,³ and having an urban official parent⁴) had no significant effects on the likelihood that a student searched through contacts and on the likelihood of searching through friends only. I also find that female students had a higher odds ratio of searching for jobs through contacts. One likely interpretation of this result is that, in China, female students use social networks to compensate for their disadvantage in using formal job-search methods.⁵

Amongst students who search through family, I find that, controlling for a student's gender and grades and whether or not he or she was at HIT (the only university outside of Beijing), those who have an urban official parent—and who we might therefore assume have better networks—have higher odds ratios of searching for a job through schools and through family. I also find that students who are the least advantaged in the labor market (those who are female, are not party members or student-officials, have below-average grades, or who went to a university in Harbin) and who have an urban official parent—in short, those who we would expect to be the most likely to search through contacts—have a 38-percent likelihood of searching through family (Table 6). In contrast, for students who have the most advantages in

³ Student-officials are students who volunteer as head of their class (*banzhang*) or as officials in social organizations (such as a student opera society or photography club)

⁴ Persons in positions of administrative and managerial authority were more likely to have access to social ties that might be used in job search (Lin and Bian 1991; Bian 1994). To proxy the family's social capital, I created an *urban official parent* dummy variable that was coded one if the student had an urban residential registration and at least one parent who was an official (*ganbu*). In China, *ganbu* is an administrative designation covering most college-educated white-collar workers with managerial or administrative responsibilities. However, if a student's parents were rural officials, it was not likely that they would have connections with employers in cities where their sons or daughters were likely to be searching for jobs. Thus, it is plausible that among all parents, urban officials were most likely to have social capital helpful in a graduate's job search.

⁵ For example, it is common for job advertisements to list gender requirement for the candidate. At an HIT job fair, one state shipbuilding enterprise advertised that it was looking for male students only (*zhiyao nanxing*). However, the representative told me that, while his organization did not recruit women at the job fair, women did get in through connections.

the labor market (those who are male, party members, or students-officials; have excellent grades; or went to a university in Beijing) and who do not have an urban official parent—in short, those who we would expect to be the least likely to search through contacts—the likelihood is only 8 percent.

These results imply that the usefulness of social networks is partially a reflection of who uses them. Those who have social networks are more likely to use them and as a result have access to offers that they might not have had otherwise. Inasmuch as any within-individual comparison is based on those who used social networks, the estimates of how a job seeker benefits from social networks are influenced by that self-selection. While self-selection is an important concern, it should have a similar effect on the likelihood of receiving an offer and the likelihood of receiving an acceptable offer, implying that it might affect the absolute magnitude of the effects for quantity and quality of offers but not the relative difference between them. Future studies using the appropriate experimental design or instrumental variables (IV) approaches are needed in order to verify this assertion.

6. DISCUSSION

To resolve the confusion about how and why strong ties benefit job seekers, I argued that it is important to theorize the relationships between a contact's characteristics and the ways a job seeker benefits from them. I examined this question in a research setting that provides a unique opportunity to empirically isolate the relationships between contact characteristics and the mechanisms through which contacts benefit the job seeker. Specifically, I argued that graduating university students who use strong ties to seek jobs have more offers—but not better offers—than those who use only formal methods. The results of my survey research are

consistent with my hypotheses: For students who used strong ties, a resume submitted through strong ties was more likely to result in an offer than a resume submitted through formal methods, but an offer received through strong ties was no more likely to be accepted than an offer received through formal methods.

My results emphasize that to accurately evaluate the value of contacts to a job seeker, it is critical to distinguish whether contacts help the job seeker by increasing the likelihood of an offer or by increasing the likelihood of a desirable offer (or both). Consider what happens if, for all the resumes included in my survey, I use a fixed-effects linear probability model ignoring the distinction between getting an offer and accepting an offer and instead predicting how a student found her job, using *getting a job* as the dependent variable for all students who searched for jobs. In this case, I find that a resume distributed through contacts has a 0.09 higher probability of leading to a job than one distributed through markets (Table 4, Column 3a). What this result hides is that the strong ties helped by generating more offers, but not by generating better offers, which obscures an important limitation of strong ties in job search.

While some of the reasons students gave for strong ties not leading to good jobs might seem unique to China, we have theoretical reasons to expect similar processes in other societies with intergenerational mobility. Even in societies that are not in the midst of a major social transformation, as is under way in China, intergenerational mobility results in intergenerational heterophily with respect to education, occupation, and place of residence, making family ties less helpful for job search (Marsden 1987; McPherson et al. 2001). However, in a context with high intergenerational homophily on work-relevant characteristics, family members might be relevant to a job seeker's search. Further research in other contexts is needed to establish how patterns of

intergenerational transfer of job-relevant attributes, including occupation and place of residence, influence the role of contacts in job search.

7. IMPLICATIONS

The results of this study have important implications for the literature on contacts in job search: It is important to theorize *how* a contact's characteristics influence the way he or she can benefit the job seeker. In particular, we need to go beyond the debates about strength of ties to consider how a contact's motivation and homophily on work-relevant attributes shape job-search outcomes. For example, it is plausible that one weakness of weak ties in job search might be their lack of motivation to help the job seeker. On the other hand, at least some weak ties might be very relevant to a job seeker's job search. Specifically, school and work create weak ties with homophily on dimensions that are relevant to future work, including occupation and place of residence (Kalmijn 1998; McPherson et al. 2001). We might expect these weak ties to be less likely to lead to offers—but more likely to lead to *better* offers—than formal methods. Thus, we would expect that weak ties are more likely to lead to acceptable offers than formal methods.

The theoretical framework introduced in this study is useful beyond job-search studies. I argued that, in order to make progress on understanding how tie characteristics shape job-search outcomes, it is important to distinguish the likelihood of receiving an offer from the likelihood of receiving an acceptable offer. This model is applicable to a wider set of situations in which people use social networks to access either information or other people. For example, a similar model can be used to study the search for information for an R&D project or the search for a romantic partner. In these contexts, we should also find that, while some relationships are more likely to lead to more information or more potential dates, other relationships lead to better

information or more suitable dates. In sum, across settings in which individuals use social networks, unless we make a distinction between the quantity and the quality of leads, we are likely to make false inferences about the relative importance of contacts.

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Table 1. Descriptive characteristics of students

	# students	Beijing University	Renmin University	Qinghua University	HIT	Total
All Students	478	23%	32%	8%	37%	100%
Majors						
Humanities	31	11%	13%	0	0	6%
Social Sciences	82	11%	40%	0	23%	17%
Engineering	204	26%	0	97%	41%	43%
Management	128	38%	38%	3%	37%	27%
Law	33	15%	11%	0	0	7%
Female	146	42%	33%	30%	22%	31%

Table 2. Descriptive statistics for four job-search methods

Job-Search Method	Schools	Markets	Contacts	Family Only	Friends Only	Any Method
<u>Students Who Distributed Resumes through Method</u>						
# of students	454	296	109	73	53	478
As % of all students	95%	62%	23%	15%	11%	100%
Mean number of resumes submitted	5.83	4.20	2.13	2.07	1.53	9.03
<u>Students Who Received Offers through Method</u>						
# of students	367	177	67	45	26	452
As % of all students who used method	81%	60%	61%	62%	49%	95%
Mean number of offers received	1.98	1.74	1.37	1.27	1.34	2.50
<u>Students Who Accepted Offers Received through Method</u>						
# of students	273	110	39	23	16	422
As % of students who received offers	74%	62%	58%	51%	62%	93%
As % of all students	60%	23%	8%	5%	3%	89%

Table 3. Distribution of job-search attempts and received offers by method of search for the original sample and within-individual sample

	Job Searches		Offers Received		Offers Accepted
	Original Sample ^a (1a)	w/in-Indiv Sample ^b (1b)	Original Sample ^a (2a)	w/in-Indiv Sample ^b (2b)	(3a)
Total # of Observations	4371	4087	1128	902	428
Observations by Method					
Schools	2663 61%	2491 61%	728 65%	570 63%	273 65%
Markets	1459 33%	1356 33%	308 27%	261 29%	110 26%
Contacts	249 6%	240 6%	92 8%	71 8%	39 9%
Family Only	156 4%	155 4%	57 5%	46 5%	23 5%
Friends Only	93 2%	85 2%	35 3%	25 3%	16 4%
<i>Total</i>	<i>4371</i>	<i>4087</i>	<i>1128</i>	<i>902</i>	<i>422</i>
# of Job Seekers	478	408	452	269	422

Notes:

^a The number of observation in column 1a includes all search attempts for all students. The sample in column 2a includes all offers that all students received.

^b The number of observation in column 1b includes all searches for students who made at least two search attempts that were not identical in method and/or in outcome (i.e., an offer received). The sample in column 2b includes all offers for students who received at least two offers not identical in method and/or outcome.

Table 4. The linear probability OLS regression of the likelihood of a resume leading to an offer (models 1a & 1b), an offer leading to an acceptance (models 2a & 2b), and a resume leading to getting a job (models 3a & 3b) by search method

Search Method	Receiving an Offer		Accepting an Offer		Getting a Job	
	(1a)	(1b)	(2a)	(2b)	(3a)	(3b)
School	0.015 (0.91)	0.015 (0.91)	-0.084+ (-1.67)	-0.084 (-1.66)	0.005+ (0.44)	0.005 (0.45)
Contacts	0.158** (4.84)	--- ---	0.0415 (0.47)	--- ---	0.087** (3.70)	--- ---
Family Only	--- ---	0.174** (4.37)	--- ---	-0.057 (-0.51)	--- ---	0.074* (2.54)
Friends Only	--- ---	0.131** (2.64)	--- ---	0.167 (1.35)	--- ---	0.110** (3.04)
Constant	0.240** (19.34)	0.240** (19.34)	0.425** (11.08)	0.426** (11.11)	0.090** (9.98)	0.090** (9.98)
Observations	4371	4371	1128	1128	4371	4371
R-squared	0.006	0.006	0.006	0.009	0.004	0.004
Number of Id	478	478	452	452	478	478

Two-tailed tests: ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$

Notes: Coefficients are the difference in the probability of an outcome for each method compared to markets; t-values in parentheses.

Table 5. The logit model of the odds ratios that a job seeker uses a job search method by student characteristics

Job-Search Method	Schools	Markets	Contacts	Family Only	Friends Only
HIT	1.323 (0.371)	0.580** (0.113)	1.382+ (0.251)	1.629 (0.507)	1.194 (0.154)
Male	1.383 (0.495)	1.132 (0.191)	0.580** (0.094)	0.565** (0.097)	0.549** (0.106)
Grades	1.135 (0.456)	0.650 (0.196)	1.200 (0.434)	1.450 (0.377)	1.086 (0.560)
Party member	1.482 (0.416)	0.803 (0.204)	0.932 (0.144)	0.874+ (0.067)	0.772 (0.163)
Student-official	2.308** (0.559)	1.105 (0.122)	0.860 (0.197)	0.785 (0.179)	0.857 (0.354)
Urban official parent	2.444* (1.027)	0.914 (0.247)	1.246 (0.607)	2.225+ (0.993)	0.628 (0.309)
Constant	6.703** (1.472)	2.477** (0.611)	0.352** (0.104)	0.160** (0.101)	0.214** (0.023)
Observations	478	478	478	478	478

Note:

A finite population correction with total population size set at 71 is used in the analysis. Coefficients are relative odds ratios; z-values are in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 6. Estimated probability that a student used a job search method for most and least advantaged students with and without urban official parents

Job-Search Method	Schools	Markets	Contacts	Family Only	Friends Only
<i>Least-advantaged student^a</i>					
W/out urban official parent	90%	59%	33%	21%	20%
With urban official parent	96%	57%	38%	37%	14%
<i>Most-advantaged student^b</i>					
W/out urban official parent	97%	62%	16%	8%	8%
With urban official parent	99%	60%	20%	17%	5%

Notes:

^a Evaluated for students who are female, not party members or student-officials, have below-average grades, and went to a university in Harbin.

^b Evaluated for students who are male, party members, student-officials, have excellent grades, and went to a university in Beijing.