# **Does Knowing People in Authority Protect or Hurt?**

## Authoritative Contacts and Depression in Urban China\*

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### Abstract

Does knowing people in authoritative positions protect or hurt health? This study examines two competing theories on the health effects of authoritative contacts using nationally representative data of working-age urban adults in China. Social capital theory expects authoritative contacts to protect health directly and indirectly through increasing financial satisfaction and the receipt of unsolicited job leads, but comparative reference group theory predicts the opposite. This study focuses on one mental health outcome, depression, and measures access to two types of authoritative contacts in the workplace: the leader of the work unit and the leader of the supervising work unit. Results from path analysis show no evidence for the direct effects but evidence for the indirect effects of knowing such leaders. Consistent with comparative reference group theory, knowing people in authority in the work context is positively associated with depression indirectly through increasing financial dissatisfaction and receipt of unsolicited job leads in urban China.

Keywords: authoritative contacts, social capital, comparative reference group, depression, China

# Does Knowing People in Authority Protect or Hurt? Authoritative Contacts and Depression in Urban China

Durkheim's study on suicide has stimulated a long research tradition on health impacts of social networks of personal relationships (Durkheim, 1951 [1897]; for recent reviews see Smith & Christakis, 2008; Song, Son, & Lin, 2011; Umberson & Montez, 2010). Among others, one structural attribute of personal networks—stratified positions of one's (ego's) network members (alters)—has been studied for its health consequences through the application of two competing theories: social capital and comparative reference group (Lin, 1982; Lin, 2001a; Merton & Kitt, 1950; Song, 2013a).<sup>1</sup> Prior health studies, however, focus on alters' stratified positions on the socioeconomic dimension (i.e., education, occupation, and income), and pay little attention to the dimension of authority.

Authority refers to "the probability that a command with a given specific content will be obeyed by a given group of persons" (Weber, 1978: 53). It has long been recognized as one crucial dimension to stratify people in contemporary society (Dahrendorf, 1959). This study aims to investigate whether authoritative contacts protect or hurt health directly and indirectly through increasing financial satisfaction and receipt of unsolicited job leads. It examines opposing hypotheses derived from the two competing theories—social capital and comparative reference group—using nationally representative data of working-age urban adults in China. It focuses on one mental health outcome, depression, and measures access to two types of authoritative contacts in the workplace: the leader of the work unit (*danwei*) and the leader of the supervising work unit.

#### Literature Review: Social Capital, Reference Group, Authoritative Contacts, and Health

Alters' stratified positions constitute the meso-level hierarchical context in which ego dwells in daily life. Their health effects have been examined through the application of two contradictory theories: social capital and comparative reference group. Social capital theory proposed by Lin (1982, 2001a) conceives of social capital as alters' resources, and operationalizes it as alters' stratified positions in the hierarchical structure. The theory assumes that alters' stratified positions indicate nonredundant valuable social resources beyond and above ego's personal resources, and can be accessed and mobilized to facilitate ego's purposive actions. The contribution of alters' stratified positions to status attainment on the job market has been verified for more than three decades (for a review, see Lin, 2001a). Recently, positive health consequences of alters' stratified positions are positively associated with self-reported health, health information search, smoking cessation, and inversely related to depression and being overweight (e.g., Christakis & Fowler, 2008; Moore, Daniel, Gauvin, & Dubé, 2009; Moore et al., 2011; Song, 2011a; Song & Chang, 2012; Song & Lin, 2009).

Contrary to social capital theory that emphasizes alters as one source of protective social resources, comparative reference group theory underscores alters as one origin of the frame of reference. Individuals tend to evaluate themselves by comparison to others, and these comparison targets constitute reference groups (Festinger, 1954; Hyman, 1942). As comparative reference group theory argues, the presence of reference groups, in particular better-off reference groups, can damage health through triggering deleterious social comparison (Merton & Kitt, 1950; Parker & Kleiner, 1966). Social comparison is often embedded within social networks, and alters constitute one major source of reference groups (Gartrell, 2002; Merton & Kitt, 1950).

Therefore, alters' stratified positions are expected to harm health as destructive comparison standards. Comparative reference group theory is demonstrated in a few studies. One study shows that alters' occupational positions are positively associated with depression to a greater degree in urban China than in the United States (Song, 2011b). A few studies find that adults with lower perceived socioeconomic positions relative to alters report more mental illness, worse self-reported health, more disease burden, and higher risks of cardiovascular morbidity (Mangyo & Park, 2011; Parker & Kleiner, 1966; Pham-Kanter, 2009).

In summary, prior work on health consequences of alters' stratified positions find relatively more evidence for social capital theory than for comparative reference group theory. Prior work, however, centers on alters' socioeconomic positions and ignores alters' authoritative positions. Authority is "a legitimate relation of domination and subjection" (Dahrendorf, 1959: 166). Authoritative positions are relatively stable and permanent positions that are endowed with the exercise of authority and enjoy the privilege of control over scarce resources and occupants of dominated positions. Authority is a particularly important component of social structure in state socialist societies such as China (Walder, 1986; Whyte & Parish 1984). In China, it is through decisive functions of authoritative positions that the Communist Party central government instead of market forces determines and controls resource distribution and redistribution. One recent exceptional study demonstrates the contribution of alters' authoritative positions to status attainment and mobility in urban China (Lin, Ao, & Song 2009). But health consequences of knowing people in authority remain unanswered.

The purpose of this study is to examine whether social connection with authoritative contacts protect or hurt health directly and indirectly through increasing financial satisfaction and receipt of unsolicited job leads using nationally representative data of working-age adults in

urban China. This study derives opposing hypotheses from social capital theory and comparative reference group theory. The unique data allow the measurement of depression and access to two types of authoritative contacts in the work context: the leader of the work unit and the leader of the supervising work unit.

## Hypotheses

Before proposing hypotheses, it is necessary to introduce the centrality of work, work organizations, and their leaders in China. China as a state socialist country since 1949, organizes and controls its urban population through a rigid hierarchical structure of work organizations, or work units, based on their property-rights relationship to the state and bureaucratic levels (Bian, 1994). Work units control the allocation of necessary resources including wages, housing, various services (e.g., health, food, and funeral expenses), pensions, and benefits for family members such as nurseries, schools and employment (Walder, 1986; Whyte & Parish, 1984). They are managed by supervising work units at certain bureaucratic levels of the government administration. Even decades after the market-oriented reform in 1978, work units still affect people's life chances (Wu, 2002; Zhou, 2004). Leaders of work units and supervising work units exercise substantive administrative authority, and constitute the bureaucratic class at the very top of the status hierarchy in China (Zhou, 2004). People respect and tend to associate with such leaders with the expectation for various instrumental returns (Bian, 2001; Walder, 1986).

This study derives six hypotheses on the health impacts of authoritative contacts from two contradictory theories (see Figures 1-2): the positive direct health effect (path a in Figure 1: H1a) and the positive indirect health effect through increasing financial satisfaction (paths b and c in Figure 1: H1b) and receipt of unsolicited job leads (paths d and e in Figure 1: H1c)

according to social capital theory, and the negative direct health effect (path a in Figure 2: H2a) and the negative indirect health effect through decreasing financial satisfaction (paths b and c in Figure 2: H2b) and receipt of unsolicited job leads (paths d and e in Figure 2: H2c) in accordance with comparative reference group theory.

## Insert Figure 1 Here

#### Insert Figure 2 Here

According to social capital theory, social connection with people in authority indicates authoritative social capital. Authoritative social capital can give ego access to valuable resources, and help protect health through multiple possible pathways, such as boosting life satisfaction, providing social support, advancing social status, enhancing healthy norms, facilitating medical help seeking, acting as social credentials, decreasing stress exposure, and reinforcing psychological resources (Christakis & Fowler, 2008; Lin, 2001a; Lin & Ao, 2008; Moore, Daniel, Paquet, Dubé, & Gauvin, 2009; Song, 2011a; Song & Chang, 2012; Song & Lin, 2009). Available data allow the test of the first two pathways: receipt of unsolicited job leads (as one form of unsolicited social support) and financial satisfaction, one major aspect of life satisfaction. Therefore the social capital hypothesis argues that knowing the leaders of the work unit and the supervising work unit protects health (H1a), and part of that salubrious effect is indirect through increasing financial satisfaction (H1b) and receipt of unsolicited job leads (H1c).

In accordance with comparative reference group theory, social contacts in authority act as comparative reference groups. The distance in authority between alters and ego can trigger ego's

deleterious social comparison and further damage ego's health. Diverse mechanisms are possible, such as threatening self-esteem, eliciting various stressful psychological reactions (e.g., goal-striving stress, relative deprivation, frustration, injustice, anger, dissatisfaction, pessimism, and sense of failure), and diminishing social cohesion (Merton & Kitt, 1950; Moore, Daniel, Gauvin, & Dubé, 2009; Parker & Kleiner, 1966; Song, 2013c; Wilkinson & Pickett, 2010). Comparative reference group theory also expects receipt of unsolicited support such as unsolicited job leads to be detrimental to health through leading recipients to compare themselves upward with possibly better-off support providers (Song, 2014; Song & Chen, 2014). Therefore the comparative reference group hypothesis argues that knowing the leaders of the work unit and the supervising work unit hurts health (H2a), and part of that deleterious effect is indirect through increasing financial dissatisfaction (H2b) and receipt of unsolicited job leads (H2c).

## **Data and Methods**

## Data

Unique data were drawn from the research project "Social Capital: Its Origins and Consequences" (Lin et al., 2009). A face-to-face personal interview survey was conducted by professional interviewers from November 2004 to March 2005 using a national representative sample of working-age adults registered or residing in urban China, aged twenty-one to sixtyfour, currently or previously employed. The sample consisted of 3,500 respondents with a response rate of 40 percent, which is similar to those of other recent national personal interview surveys in urban China (Bian and Li, 2012). In comparison with the one-percent Population Survey of China 2005, the sample is representative in terms of five key variables (i.e., age, gender, marital status, work unit, and income) with one exception (Lin et al., 2009; Song, 2014). The sample is more educated. Since this research project targeted adults currently or previously employed, an elevation of education should be expected. To guard against possible sample biases, the present study incorporated critical control variables in all analyses. The analysis sample included 3,314 respondents. Table 1 shows sample characteristics.

#### Insert Table 1 Here

#### **Dependent Variables**

Depression during the past week was measured by thirteen items from the Center for Epidemiologic Studies Depression (CES-D) scale that proves applicable among Chinese adults (Lin, 1989; Radloff, 1977). These items were rated on a four-point scale (0= rarely or none of the time: less than one day in the past week; 1=some or little of the time: one to two days in the past week; 2=occasionally or moderate amount of time: three to four days in the past week; 3=most or all of the time: five to seven days in the past week). The summed total score ranged from 0 to 39, with higher values indicating higher levels of depression. Its distribution was rightly skewed. A logarithmic transformation was applied to normalize this variable. The reliability test of this 13-item CES-D scale produced an alpha coefficient of .89, indicating high internal consistency.

Financial satisfaction was measured as an ordinal variable. Respondents evaluated their dissatisfaction with financial situation on a four-point scale (1=very satisfied, 2= moderately satisfied, 3=a little dissatisfied, and 4=very dissatisfied).

Receipt of unsolicited job leads in the past twelve months is a dummy variable (1=receipt of unsolicited job leads, 0=no receipt of unsolicited job leads). Its measurement was based on

respondents' response to the following question: "Now I would like you to think of the last 12 months, did someone mention job possibilities, openings or opportunities to you, without your asking, in casual conversations? (This may include face-to-face, telephone, email, fax, etc.)" About 17.5 percent of respondents answered "Yes."

# Independent Variables

The key explanatory variable—authoritative contacts—was captured using the position generator (Lin et al., 2001). Each respondent was asked, "Next, I am going to ask some general questions about jobs some people you know may **now** have. These people include your relatives, friends, and acquaintances (acquaintances are people who know each other by face and name). If there are several people you know who have that kind of job, please tell me the one that occurs to you first." This study measures ego's access to two types of authoritative contacts in the workplace using two dummy variables: knowing the leader of the work unit (1= yes, 0=no), and knowing the leader of the supervising work unit (1=yes, 0=no).

All analyses controlled for three demographic factors, employment status, three socioeconomic indicators, and three unique social stratifiers in China. Three demographic factors included age, gender (1=female, 0= male), and marital status (1=married, 0=unmarried). Employment status was a dummy variable (1=full-time employed, 0=not full-time employed). Three socioeconomic indicators included education (1=middle school or lower, 2=high school diploma, 3=associate college degree, 4= college degree or higher), occupational socioeconomic status of current or last job coded through the International Socioeconomic Index (ISEI) scores (Ganzeboom, De Graaf, & Treiman, 1992), and annual family income. A dummy variable for

each category of education was created with middle school or lower as the reference group. Annual family income had twenty seven ordinal ranges. A logarithmic transformation of medians of all the ranges was applied for a normal distribution of income. Three unique social stratifiers in China included location of current or last job (1=municipalities/provincial capital cities, 0=other cities), political capital (1=communist party member, 0=non-communist party member), and work units of current or last job (1=state, 2=collective, 3=shareholding, 4=private, 5=other). A dummy variable for each category of work units was created with state work units as the reference group.

# Analytic Strategy

The direct and indirect-effect hypotheses were examined simultaneously through one path analysis model using the Mplus program (Muthén & Muthén, 1998-2012). The model included three equations respectively for the three dependent variables (see Equations 1-3): financial satisfaction (Y<sub>1</sub>), receipt of unsolicited job leads (Y<sub>2</sub>), and depression (Y<sub>3</sub>). The first equation was an ordinal logistic regression of financial satisfaction on authoritative contacts (X<sub>1</sub>) and control variables (X<sub>2</sub>). The second equation was a logistic regression of receipt of unsolicited job leads on authoritative contacts and control variables. The third equation was an OLS regression of depression on financial satisfaction, receipt of unsolicited job leads, authoritative contacts and control variables. The Sobel test was employed to test the hypothesized indirect effects of authoritative contacts on depression through increasing financial satisfaction and receipt of unsolicited job leads (Sobel, 1982).

$$Y_1 = f(X_1 + X_2) \tag{1}$$

$$Y_2 = f(X_1 + X_2) \tag{2}$$

$$Y_3 = f(Y_1 + Y_2 + X_1 + X_2)$$
(3)

#### Results

#### **Direct Effects**

A path analysis model was estimated to simultaneously examine the direct- and indirect-effect hypotheses. Table 2 reports the raw parameter estimates. Knowing the leader of the work unit or the supervising work unit was negatively associated with depression (see the fourth column in Table 2). Although their directions were consistent with the social capital hypothesis (H1a), those two associations were not significant. Four control variables had significant effects on depression. Consistent with prior work, women (.196) and recipients of unsolicited job leads in the past twelve months (.085) had more depressive symptoms than men and non-recipients. Adults who work for shareholding work units in their current or last job (-.142) and adults with more financial satisfaction (-.152) reported lower levels of depression than those who work in state-owned work units and those with less satisfaction with financial situation. Additionally, four control variables exerted marginally significant effects. Older adults had more depressive symptoms than younger ones (.004). The married (-.085), adults who work for other types of work units (-.123), and adults with higher occupational socioeconomic status (-.002) felt more depressed than the unmarried, those who work in state work units, and those with lower occupational status.

### Insert Table 2 Here

## Indirect Effects

Net of control variables, knowing the leader of the work unit was negatively associated with financial satisfaction (-.184), which in turn was negatively associated with depression (-.152). Results from the Sobel test in Mplus showed a significant positive indirect effect of knowing the leader of the work unit on depression through financial satisfaction (.028, p<.001). Adults who know the leader of the work unit reported less financial satisfaction, and those with less financial satisfaction had more depressive symptoms.

Knowing the leader of the work unit was positively associated with receipt of unsolicited job leads (.177), which in turn was positively associated with depression (.085). Results from the Sobel test in Mplus showed a significant positive indirect effect of knowing the leader of the work unit on depression through receipt of unsolicited job leads (.015, p<.05). Adults who know the leader of the work unit were more likely to receive unsolicited information about job opportunities, and recipients of such information reported higher degrees of depression.

Knowing the leader of the supervising work unit was positively associated with financial satisfaction at a marginal significance level (.084), which was negatively associated with depression (-.152). Results from the Sobel test in Mplus showed a negative indirect effect of knowing the leader of the supervising work unit on depression through financial satisfaction at a marginally significance level (-.013, p<.10). Adults who know the leader of the supervising work unit expressed more financial satisfaction, and those with more financial satisfaction had lower levels of depression.

Knowing the leader of the supervising work unit was positively associated with receipt of unsolicited job leads (.178), which in turn was positively associated with depression (.085). Results from the Sobel test in Mplus showed a significant positive indirect effect of knowing the leader of the supervising work unit on depression through receipt of unsolicited job leads (.015, p<.05). Adults who know the leader of the supervising work unit had a higher chance of receiving unsolicited job leads, and recipients of such job leads showed more depression.

### **Conclusion and Discussion**

This study examines the direct and indirect effects of authoritative contacts—knowing the leader of the work unit and the supervising work unit—on depression using nationally representative data of working-age adults in urban China. It finds no significant evidence for the direct effects. Rather, it finds significant evidence for the indirect effects. Knowing the leader of the work unit is positively associated with depression indirectly through increasing financial dissatisfaction and receipt of unsolicited job leads. Knowing the leader of the supervising work unit is positively related to depression indirectly through increasing receipt of unsolicited job leads.

This study represents the first effort to systematically examine health consequences of knowing people in authority. It extends the relative literature in three important ways. First, this study demonstrates negative indirect health impacts of alters' authoritative positions, and refines the theory of social capital as network resources (Lin, 2001a). Social capital theory is originally developed to explain the contribution of alters' stratified positions to status attainment, and has received consistent supportive evidence across societies (for a review see Lin, 2001a). The theory is later extended to different health outcomes and demonstrated in different societies (for a review see Song, 2013a). This present study, however, adds to three exceptional studies and illustrates the underexamined "dark side" of social capital (Moore, Daniel, Gauvin, & Dubé, 2009; Song, 2011b; Song, 2013c). Moore and colleagues (2009) find that alters' occupational positions are negatively associated with sense of mastery for the less-educated. Song reports that

alters' occupational positions are positively related to depression and financial dissatisfaction (2011b, 2013c).

These results imply that the social resource assumption in social capital theory may be more applicable to instrumental outcomes than health and well-being outcomes, and add to our understanding that network attributes (e.g., alters' status, tie strength, and social support) serving one type of purpose (e.g., instrumental) may be less useful or even detrimental for other purposes (e.g., expressive) (Granovetter, 1973; Lin, 2001a; Lin & Ao, 2008; Song and Chen, 2014; Wellman, 1981). The presence of higher-status or higher-authority alters may facilitate status attainment and mobility on the job market, but damage mental health through triggering negative social comparison and provoking negative psychological reactions. This implication as well as the varying validity of the social resource assumption deserves future research. Researchers should be alert when applying theories established in the social stratification literature into the social dynamics of health stratification. Psychosocial mechanisms involved in these two forms of stratification can be different or even operate in opposite directions.

Second, this study adds to our knowledge of comparative reference group theory. Prior health studies apply that theory only to alters' occupational positions or income levels. This study extends that theory to alters' authoritative positions, and find indirect supportive evidence. These findings illustrate the embeddedness of comparative reference groups in social networks (Gartrell, 2002; Merton & Kitt, 1950). They indicate the important role of the meso-level network hierarchy on the dimension of authority, where ego and alters may occupy different authoritative positions, in the social production of reference groups and deleterious social comparison.

Note that knowing the leader of the work unit plays an indirect depressing role through increasing both financial dissatisfaction and receipt of unsolicited job leads, but knowing the leader of the supervising work unit does so only through increasing receipt of unsolicited job leads. This finding is consistent with the strong-tie social comparison argument (Gartrell, 2002). People interact with the leader of the work unit more frequently, and are more likely to use that leader as a reference group. Also note that leaders of work units play a central role in resource distribution and redistribution in urban China (Walder, 1986; Zhou, 2004). Authoritative contacts may trigger negative social comparison to a smaller degree in societies where work organizations are less influential on people' life chances. Furthermore, available data have no information on the distance in authority between ego and alters. Whether alters' authoritative positions relative to ego exert deleterious health effects as comparative reference group theory expects remains one important question for future research. To address these speculations and achieve more comprehensive understanding of comparative reference group theory, future work should devote more efforts to collect data on personal networks across societies, in particular on ego's and alters' authoritative positions.

Finally, beyond the above contributions to the two competing theories (social capital and comparative reference group), results in this study have theoretical implications from an institutional perspective. Health effects of meso-level network properties can be contingent on macro-level institutional arraignments. Findings here contradict the institutional argument of relational culture but favor that of inequality structure. The relational culture explanation states that collectivistic (versus individualistic) culture promotes instrumental connections and harmonious interdependence between individuals, and individuals in such culture are more likely to mobilize and benefit from alters' assets (Lin, 2001a; Song, 2013b). Embedded in the

collectivistic culture of *guanxi*, Chinese are committed to cultivate and use their social connections for various purposes (Bian, 2001; Lin, 2001b; Lin & Ao, 2008). Thus the relational culture argument expects social capital theory rather than comparative reference group theory to be more applicable to urban China.

The inequality structure argument, however, predicts the opposite (Wilkinson & Pickett, 2010). According to this argument, societies with more unequal structures manifest more distinctive class divisions and more intensified status competition, and make individuals more aware of class distance from social contacts and more inclined for detrimental social comparison. Post-socialist China has become increasingly more unequal with the fastest rate of widening inequality worldwide (Wang, 2008). Despite the fact of China as the world's fastest-growing economy, Chinese happiness and quality of life have declined considerably with negative social comparison as one major reason (Brockmann, et al. 2009; Knight & Gunatilaka, 2011). This study is limited to urban China. Future larger-scale comparative data across society are necessary for a fuller examination of these institutional arguments.

This study represents only a starting point for examining health effects of alters' authoritative positions. Its findings should be interpreted with caution due to two data limitations. First, the data are from a national sample of working-age adults. The depressing effect of knowing the leader of the work unit or the supervising work unit through increasing financial dissatisfaction and receipt of unsolicited job leads may be weaker for elderly adults. The elderly are less likely to be employed, and may be less likely to use those leaders as comparative reference groups. Future studies need to collect data from respondents of all ages to examine that speculation. Second, this study analyzes cross-sectional data. The positive effects of authoritative contacts on depression through increasing financial dissatisfaction and receipt of unsolicited job

leads may be spurious due to social selection. Depression may trigger spontaneous offer of job leads from authoritative contacts. Adults who are depressed or dissatisfied with financial situation may reach out to authoritative contacts for aids. Longitudinal data are needed for the purpose of stronger causal inference.

Despite its data limitations, this present study is the first to conjointly investigate two competing theories—social capital and comparative reference group—on health consequences of access to authoritative contacts (Lin, 1982; Lin, 2001a; Merton & Kitt, 1950). This study contributes to a more complete framework for the role of one upstream network attribute— alters' stratified positions—in the social production of health, and extends our growing knowledge of the dark side of network properties (Song, 2013a; Umberson and Montez, 2010).

# Notes

1. There are diverse theoretical approaches to social capital (for a review, see Song 2013a). It is Lin's network-based approach to social capital that is applicable to health consequences of alters' stratified positions. Also, reference groups have two functions: the standard of comparison in comparers' self-evaluation and the source of norms for comparers' behaviors and attitudes (Kelley, 1952). Comparative reference group theory, but not normative reference group theory, is the focus in this study.

## References

- Bian, Y. (1994). Work and Inequality in Urban China. Albany: State University of New York Press.
- Bian, Y. (2001). Guanxi capital and social eating in Chinese cities: Theoretical models and empirical analyses. In N. Lin, K. Cook, & R. S. Burt (Ed.), *Social Capital: Theory and Research* (pp. 275-95). New York: Aldine de Gruyter.
- Bian, Y., & Li, L. (2012). The Chinese General Social Survey 2003-8: Sample designs and data evaluation. *Chinese Sociological Review*, 45, 70-97.
- Brockmann, H., Delhey, J., Welzel, C., & Yuan, H. (2009). The China puzzle: Falling happiness in a rising economy. *Journal of Happiness Studies*, 10, 387-405.
- Christakis, N. A., & Fowler, J. H. (2008). The collective dynamics of smoking in a large social network. *The New England Journal of Medicine*, 358, 2249-58.
- Durkheim, E. (1951 [1897]). *Suicide: A Study in Sociology*, translated by J. Spaulding & G. Simpson. New York: Free Press.
- Dahrendorf, R. (1959). *Class and Class Conflict in Industrial Society*. Stanford, CA: Stanford University Press.
- Festinger, L. (1954). A theory of social comparison processes. Human Relations, 7, 117-40.
- Ganzeboom, H. B. G., De Graaf, P. M., & Treiman, D. J. (1992). A standard international socioeconomic index of occupational status. *Social Science Research*, 21, 1-52.

 Gartrell, C. D. (2002). The embeddedness of social comparison. In I. Walker & H. J. Smith, *Relative Deprivation: Specification, Development, and Integration* (pp.164-84).
 Cambridge, UK: Cambridge University Press.

Granovetter, M. (1973). The strength of weak ties. American Journal of Sociology, 78, 1360-80.

Hyman, H. H. (1942). The psychology of status. Archives of Psychology No. 269.

- Kelley, H. H. (1952). Two functions of reference groups. In G. E. Swanson, T. Newcomb, & E.L. Hartley (Ed.), *Readings in Social Psychology* (pp. 410-14). New York: Holt.
- Knight, J., & Gunatilaka, R. (2011). Does economic growth raise happiness in china? Oxford Development Studies, 39, 1-24.
- Lin, N. 1982. Social resources and instrumental action. In P. V. Marsden & N. Lin (Ed.), Social Structure and Network Analysis Beverly Hills (pp. 131–45), CA: Sage.
- Lin, N. (1989). Measuring depressive symptomatology in China. *The Journal of Nervous and Mental Disease*, 177(3), 121-31.
- Lin, N. (2001a). *Social Capital: A Theory of Social Structure and Action*. Cambridge: Cambridge University Press.
- Lin, N. (2001b). Guanxi: A conceptual analysis. In A. Y. So, N. Lin, & D. Poston, *The Chinese Triangle of Mainland China, Taiwan, and Hong Kong* (pp. 153-66), Westport, CT: Greenwood Press.
- Lin, N., & Ao, D. (2008). The invisible hand of social capital: An exploratory study. In N. Lin &
  B. Erickson, *Social Capital: An International Research Program* (pp. 107-32). New York: Oxford University Press.
- Lin, N., Ao, D., & Song, L. (2009). Production and returns of social capital: Evidence from urban China. In R. Hsung, N. Lin, & R. Breiger, *Contexts of Social Capital: Social Networks in Communities, Markets and Organizations* (pp.107-32). New York: Rutledge.
- Lin, N., Fu, Y., & Hsung, R. (2001). The position generator: A measurement technique for investigations of social capital. In N. Lin, K. Cook, & R. S. Burt, *Social Capital: Theory and Research* (pp. 57–81). New York: Aldine de Gruyter.

- Mangyo, E., & Park, A. (2011). Relative deprivation and health. *Journal of Human Resources*, 46, 459-481.
- Merton, R. K., & Kitt, A. S. (1950) Contributions to the theory of reference group behavior. In R.
  K. Merton & P. F. Lazarsfeld, *Continuities in Social Research: Studies in the Scope and Method of "The American Soldier"* (pp. 40-105). Glencoe, IL: The Free Press.
- Moore, S., Daniel, M., Paquet, C., Dubé, L., & Gauvin, L. (2009). Association of individual network social capital with abdominal adiposity, overweight and obesity. *Journal of Public Health*, 31, 175-83.
- Moore, S., Daniel, M., Gauvin, L., & Dubé, L. (2009). Not all social capital is good capital." *Health & Place*, 15(4), 1071-77.
- Moore, S., Bockenholt, U., Daniel, M., Frohlich, K., Kestens, Y., & Richard, L. (2011). Social capital and core network ties: A validation study of individual-level social capital measures and their association with extra- and intra-neighborhood ties, and self-rated health. *Health & Place*, 17(2), 536-44.
- Muthén, L. K., & Muthén, B. O. (1998-2012). *Mplus User's Guide*. Seventh Edition. Los Angeles, CA: Muthén & Muthén.
- Parker, S., & Kleiner, R.G. (1966). Mental Illness in the Urban Negro Community. New York: The Free Press.
- Pham-Kanter, G. (2009). Social comparisons and health: Can having richer friends and neighbors make you sick? *Social Science & Medicine*, 69(3), 335-44.
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385–401.

- Smith, K. P., & Christakis, N. A. (2008). Social networks and health. Annual Review of Sociology, 34, 405–29.
- Sobel, M. E. (1982). Asymptotic intervals for indirect effects in structural equations models. In S. Leinhart, *Sociological methodology* (pp.290-312). San Francisco, CA: Jossey-Bass.
- Song, L. (2011a). Social capital and psychological distress. *Journal of Health and Social Behavior*, 52(4), 478-492.
- Song, L. (2011b). Is whom you know in the structural hierarchy a resource or stressor: The floor and ceiling of social capital and health in urban China and the United States. The 106th Annual Meeting of American Sociological Association, Las Vegas, ND.
- Song, L. (2013a). Social capital and health. In W. C. Cockerham, Medical Sociology on the Move: New Directions in Theory (pp.233-57). Dordrecht, the Netherlands: Springer.
- Song, L. (2013b). Institutional embeddedness of network embeddedness in the workplace: Social integration at work and employee's health across three societies. In S. McDonald, *Research in the Sociology of Work 24: Networks, Employment and Inequality* (pp.323-56). Bingley, UK: Emerald Press.
- Song, L. (2013c). Bright and dark sides of who you know in the evaluation of well-being: Social capital and life satisfaction across three societies. In N. Lin, Y. Fu, & C. Chen, Social Capital and Its Institutional Contingency: A Study of the United States, Taiwan and China (pp.259-78). London: Routledge.
- Song, Lijun. (2014). Is unsolicited support protective or destructive in collectivistic culture?
   Receipt of unsolicited job leads and depression in urban china. *Society and Mental Health*, 4(3), 325-54.

- Song, L., & Chang, T. (2012). Do resources of network members help in help seeking? Social capital and health information search. *Social Networks*, 34, 658-69.
- Song, L., & Chen, W. (2014). Does receiving unsolicited support help or hurt? Receipt of unsolicited job leads and depression. *Journal of Health and Social Behavior*, 55, 144-60.
- Song, L., & Lin, N. (2009). Social capital and health inequality: Evidence from Taiwan. *Journal of Health and Social Behavior*, 50(2), 149-63.
- Song, L., Son, J., & Lin, N. (2011). Social support. In J. Scott & P. J. Carrington, Handbook of Social Network Analyses (pp.116-28). SAGE.
- Umberson, D., & Montez, J. K. (2010). Social relationships and health: A flashpoint for health policy. *Journal of Health and Social Behavior*, 51, S54-S66.
- Walder, A. G. (1986). Communist Neo-Traditionalism: Work and Authority in Chinese Industry. Berkeley: University of California Press.
- Wang, F. (2008). Boundaries and Categories: Rising Inequality in Post-Socialist Urban China.Stanford, CA: Stanford University Press.
- Weber, M. (1978). Economy and Society. Berkeley: University of California Press.
- Wellman, B. (1981). Applying network analysis to the study of support. In B. H. Gottlieb, Social Networks and Social Support (Pp. 171-200). Beverly Hills: Sage.
- Whyte, M. K., & Parish, W. (1984). Urban Life in Contemporary China. Chicago: University of Chicago Press.
- Wilkinson, R. G., & Pickett, K. E. (2010). The Spirit Level: Why Greater Equality Makes Societies Stronger. New York: Bloomsbury Press.
- Wu, X. (2002). Work units and income inequality: The effect of market transition in urban china. Social Forces, 80, 1069-1099.

Zhou, X. (2004). The State and Life Chances in Urban China: Redistribution and Stratification, 1949-1994. Cambridge: Cambridge University Press.

	Mean/ Percent	SD
Dependent Variables		
Depression (CES-D Scale) in the Past Week	5.59	5.92
Financial Satisfaction		
Very Dissatisfied	9.72%	
A Little Dissatisfied	32.83%	
Moderately Satisfied	48.31%	
Very Satisfied	9.14%	
Receipt of Unsolicited Job Leads in the Past Twelve Months	17.44%	
Independent Variables		
Authoritative Contacts		
The Leader of the Work Unit	66.66%	
The Leader of the Supervising Work Unit	33.13%	
Age	39.47	10.35
Gender (1=Female)	50.27%	
Marital Status (1=Married)	83.22%	
Education	14.59	3.58
Middle School or Lower	29.27%	
High School Diploma	25.29%	
Associate College Degree	26.77%	
College Degree or Higher	18.68%	
Political Capital (1=Communist Party Member)	21.97%	
Full-Time Employment (1=Full-Time Employed)	77.10%	
Work Location (1=Municipalities/Provincial Capital Cities)	18.68%	
Work Units (Current/Last Job)		
State	53.23%	
Collective	8.63%	
Shareholding	11.53%	
Private	18.14%	
Other	8.48%	
Occupational Socioeconomic Status (ISEI) (Current/Last Job)	47.33	14.68
Annual Family Income (Median Range) (Chinese Yuan)	25,000-29,999	

Table 1. Summary of Sample Characteristics (N=3,314)

*Note*: ISEI= the International Socioeconomic Index (Ganzeboom et al., 1992).

	Dependent Variables			
Independent Variables	Financial	Receipt of Unsolicited	Depression	
Age	Satisfaction 011***	Job Leads - 014***	004*	
1.50	(002)	( 004)	(002)	
Gender (1=Female)	(.002) 144***	- 129*	196***	
	( 030)	(054)	(035)	
Married	203***	- 21/**	(.033) - 085 <del>*</del>	
Warned	.205	214	( 049)	
Education (Deformance Middle School or Lower)	(.037)	(.070)	(.049)	
Lick School Dislams	0.42	010	016	
High School Diploma	.042	.019	016	
	(.054)	(.075)	(.049)	
Associate College Degree	.122†	.046	.031	
	(.064)	(.085)	(.054)	
College Degree or Higher	.124	.100	.034	
	(.076)	(.099)	(.066)	
Political Capital (1=Communist Party Member)	.077	103	010	
	(.051)	(.071)	(.044)	
Full-Time Employment	029	125	055	
	(.053)	(.077)	(.048)	
Work Locations (1=Municipalities/Provincial	148**	.178**	.069	
Capital Cities)	(.051)	(.066)	(.045)	
Work Units (Reference: State)				
Collective	106	.265**	100	
Shareholding	(.075) 055	(.103) .380***	(.067) 142*	
Private	(.064) .083	(.083) .410***	(.057) .023	
Other	(.059) 024	(.076) .343***	(.052) 123†	
	(.078)	(.102)	(.065)	
Occupational Socioeconomic Status (ISEI)	.002	.001	002†	

Table 2. Parameter Estimates of the Path Analysis Model of Depression, Financial Satisfaction, Receipt of Unsolicited Job Leads, Authoritative Social Capita, and Control Variables (N=3,314)

(Current/Last Job)	(.002)	(.002)	(.001)
Annual Family Income (log)	.505***	.113**	031
	(.028)	(.037)	(.026)
Authoritative Contacts			
The Leader of the Work Unit	184***	.177**	003
	(.046)	(.064)	(.041)
The Leader of the Supervising Work Unit	.084†	.178**	014
	(.048)	(.064)	(.041)
Financial Satisfaction			152***
			(.018)
Receipt of Unsolicited Job Leads			.085***
			(.026)
Intercept		1.623***	2.566***
		(.385)	(.254)
Cut1	4.284***		
	(.285)		
Cut2	5.507***		
	(.288)		
Cut3	7.153***		
	(.294)		
Adjusted R-Squared/Pseudo R-Squared	.158	.102	.059

*Notes*: ISEI= the International Socioeconomic Index (Ganzeboom et al., 1992); standard errors in parentheses;  $\dagger p \le .10$ ;  $* p \le .05$ ;  $** p \le .01$ ;  $*** p \le .001$  (two-tailed test)

Figure 1. The Conceptual Path Analysis Model of Health, Financial Satisfaction, Receipt of Unsolicited Job Leads, and Authoritative Contacts: Social Capital Theory



Figure 2. The Conceptual Path Analysis Model of Health, Financial Satisfaction, Receipt of Unsolicited Job Leads, and Authoritative Contacts: Comparative Reference Group Theory



# **Biographical Sketch**

Lijun Song is an assistant professor in the Department of Sociology and Center for Medicine, Health, and Society at Vanderbilt University. Her major research interests include social networks, medical sociology, and social stratification. Her publications have appeared in journals such as *Social Forces, Journal of Health and Social Behavior, Social Networks, Society and Mental Health, and Research in the Sociology of Work.*