

The Effects of Social Networks on Wellbeing in China

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<https://doi.org/10.15017/1500471>

出版情報：九州大学, 2014, 博士（比較社会文化）, 課程博士
バージョン：
権利関係：全文ファイル公表済

The Effects of Social Networks on Wellbeing in China

(中国において社会ネットワークが幸福に及ぼす影響)

Graduate School of Social and Cultural Studies

KYUSHU UNIVERSITY

January 23, 2015

SHUANGLONG LI

Declaration

I certify that the dissertation I have presented for examination for the Ph.D. degree of the Graduate School of Social and Cultural Studies at Kyushu University is solely my own work. The copyright of this dissertation rests with the author. Quotation from it is permitted, provided that full acknowledgement is made. This dissertation may not be reproduced without the prior written consent of the author. I warrant that this authorization does not, to the best of my belief, infringe the rights of any third party.

Shuanglong Li Fukuoka, January 2015

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Acknowledgements

I was born in 1988 in a small village nearby a beautiful river in Huan county, Gansu Province, China. Given the huge urban-rural disparities in my country, most parents in rural areas firmly believe that education is the most feasible and fastest way to climb the social ladder, and my parents, are no exception. Fortunately, they encouraged me rather than forced me to learn new things, which consequently had positive effects on my attitudes toward life and studying in the long run. With the completion of my dissertation, I wish to thank my father, Gang Li, for his love, and my mother, Huie Yin, for having given me a safe, warm harbor in love and affection, for their investment in my education, and for supporting my ambitions. They are the most important people in my life.

This dissertation would not have come to a successful completion without the support from many people and several organizations.

First of all, I would like to gratefully and sincerely thank my supervisor, Prof. Kazuto Misumi, for his close academic supervision, careful personal support, and generous financial support over the past four and a half years. His insightful suggestions, valuable guidance, and consistent encouragement made my journey of pursuing a PhD less stressful and more enjoyable and fruitful. He trained me to be a theory-driven empirical-analytical researcher by showing me the way of raising meaningful research questions, formulating testable research hypotheses, and using quantitative methods to test them. Moreover, he is open-minded and encouraged me to go abroad to advance my research skills.

I am also indebted to my committee members, Prof. Kazuto Misumi (Kyushu University), Prof. Hiroshi Ishida (The University of Tokyo), Prof. Yoshimichi Sato (Tohoku University), Prof. Andrew Reed Hall (Kyushu University), and Prof. Chiyoko Nagatani (Kyushu University) for their valuable suggestions and concise comments. My research has been stimulated by intelligent support from scholars of diverse academic grounds: three leading sociologists (Dr. Ishida, Dr. Misumi, and Dr. Sato), a culture anthropologist (Dr. Nagatani), and a historian (Dr. Hall). In addition, Dr. Hall provided excellent editing assistance.

I would also like to extend my thanks to the following academic institutions for providing me with the visiting fellowships: The Department of Sociology and the Interuniversity Center for Social Science Theory and Methodology (ICS) at Utrecht University, the Netherlands; The Universities Center for China Studies of the Chinese University of Hong Kong; and The Research Center for Humanities and Social Sciences (RCHSS), Academia Sinica, Taiwan.

Between September 2013 and August 2014, I worked as a visiting fellow at the Department of Sociology, Utrecht University. Studying in the Netherlands was a very inspiring experience for me for several reasons. First, academically, I was very productive—I completed seven papers in one year. I also actively participated in several leading international conferences where I received many constructive comments on my work. Second, I have made a lot of new good friends by joining some wonderful parties and by doing collaborative research. Third, Utrecht, as the only inner-city in the world to have wharfs, is charming and attractive to foreigners. I was also fascinated by the beauty of Utrecht University, since nearby the De Uithof Campus where my office was located there is quite a large forest where I did a lot of readings and wrote the main content of my dissertation. The wind whispered through the leaves and made me feel close to nature. I breathed in deeply and was almost overwhelmed by the fresh air when standing nearby the lakes.

To say that doing my PhD was fun or without frustration would be a lie. I still remember how exhausting it sometimes was to follow the micro-economic course. Loads of coursework to be done on weekdays was my daily routine there. Eventually I learned how to find the right balance between the pressure to do everything on time and the desire to enjoy life beside my academic work. I have to thank my colleagues at the Department of Sociology at Utrecht University, such as David Macro, Nigel Kragten, Lukas Norbutas, Marcus HK, and Jannes ten Berge for their warm-hearted friendship when I was missing my family and Asian food. My host Professor, Vincent Buskens, a renowned social network researcher, provided me with many helpful suggestions on my dissertation with regard to statistical methods and the interpretation of the empirical findings. David Macro provided me with excellent assistance in data analysis. I really learned a lot and improved my research skills by following the following courses in

Utrecht: Integration of Theory and Methods in the Field of Stratification and Households (by Prof. Ineke Maas, Prof. Frank van Tubergen, and Prof. Marco van Leeuwen); Methods and Statistics (by Prof. Jeroen Weesie), Theory Construction and Model Building (by Prof. Werner Raub and Prof. Vincent Buskens), Stratification and Households (by Tanja van der Lippe and Prof. Frank van Tubergen), and Networks and Social Capital (by Prof. Frank van Tubergen and Prof. Beate Volker).

In December 2013, Prof. Marco van Leeuwen and Prof. Ineke Maas offered me the opportunity to conduct a collaborative research on intergenerational social mobility in colonial Taiwan. I very much appreciated their financial support for my research visit to Academia Sinica, Taiwan from January 10th to February 21th, 2014. I benefited a lot from personal discussions with the following scholars at Academia Sinica, such as the renowned Taiwanese anthropologist Prof. Ying-Zhang Zhuang, leading demographer, Prof. Wenshan Yang, and three sociologists, Dr. Thunghong Lin, Dr. Zong-Rong Li, and Dr. Chih-Jou Jay Chen.

Finally, I am also eternally grateful for the following scholarship organizations for providing me generous financial support for my advanced study, a four-year state scholarship for Ph.D. Study from 2010 to 2014, provided by The China Scholarship Council; a full scholarship offered by International Sociological Association to attend the ISA XIIth International Laboratory for Ph.D. Students in Sociology, held at The University of Sydney, Australia (July, 2013); A One-year scholarship granted by the European Institute in Japan-Kyushu to study in the Netherlands (September 2013 to August 2014); and ERC-Advanced Investigators Research Grant from European Research Council to support my research in Taiwan (January to February, 2014).

The love and support from my older brother, Xinglong Li, and my girlfriend, as well as the friendship from my peers meant a lot to me and gave me the strength to complete my studies successfully. Friends such as Prof. Jun Zhang, Dr. Wentao Li, Drs. Weidong Zhang, Drs. Hao Dong, Mr. Akira Igarashi, Ms. Yan Li, Mr. Xinan Li, and Mr. Scott Zhu, provided me with great assistance in overcoming personal challenges I faced because of the unusual food and unpredictable weather when I was in the Netherlands. They encouraged me through various wonderful parties with delicious food and drinks. Drs. Yanjun Ren, a PhD candidate in economics at Kiel University, Germany, invited me to take the first Christmas vacation with him, flying from Amsterdam to the very

south of Germany—Munich, and then to the very north—Hamburg, and Kiel. We began the 2014 New Year with a wonderful New Year's celebration with amazing Chinese friends in Kiel.

I also benefited a lot from personal communications with the following scholars and friends: Dr. Yanjie Bian (Professor of Sociology, The University of Minnesota and Xi'an Jiaotong University), Dr. Shaoping Fu (Professor of Sociology, Northwest A&F University), Dr. Yuxiao Wu (Professor of Sociology, Nanjing University), Dr. Yucheng Liang (Professor of Sociology, Sun Yat-sen University), Donald Treiman (Distinguished Professor of Sociology Emeritus at the University of California, Los Angeles), Dr. Xiaogang Wu (Professor, Division of Social Science, The Hong Kong University of Science and Technology), Dr. Yaojun Li (Professor of Sociology, The University of Manchester), Dr. Huai Li (my uncle, Professor of Sociology, Northwest Normal University), Dr. Shun Zhang (Xi'an Jiaotong University, XIJU, hereafter), Dr. Liming Li (XJTU), Dr. Kyoko Tominaga (The University of Tokyo), Dr. Han Zhang (Post-doctoral Researcher at Tsinghua University), Dr. Yong-gen Liu (Assistant Professor at East China University of Political Science and Law), Drs. Yuan-yuan Su (Nanjing University), Drs. Mingsong Hao (XJTU), and Drs. Ming Lei (XJTU).

This dissertation is dedicated to the memory of my beloved grandfather, Mr. Yuting Li who deceased March 1, 1999, in the 59 year of his life.

Shuanglong Li
Fukuoka, January 2015

Abstract

In this dissertation, using data from the 2009 Job-Search Net Survey in Urban China and the 2008 Chinese General Social Survey, I empirically examine the potential effects of social networks on subjective wellbeing (SWB, hereafter) and material wellbeing (MWB, hereafter) in China. The findings reported in this study extend the research line focusing on the effects of social networks on wellbeing theoretically and methodologically in three important ways.

First, this dissertation makes original contribution by simultaneously assessing the impact of social networks on both MWB (i.e., income attainment) and SWB (job and overall life satisfaction). Since SWB and MWB are highly correlated with each other, not accounting for such dependencies may lead to biased estimations, yet most studies have only investigated one of them.

Second, I made a new measurement of strong and weak ties: the proportion of strong and weak tie used. Instead of the usual practice of treating strong or weak ties as dichotomous variables, I coded them as continuous variables. Respondents were asked: "What role relations did you have that provided you useful help in your process of finding the first job?" The response categories were as follows: (1) family members; (2) kin and affine; (3) intimate friends; (4) general friends; (5) people from the same hometown; (6) alumni; (7) friends in military training; (8) neighbours; (9) teacher-student relationship; (10) master-apprentice relationship; (11) colleagues; (12) business partners, and (13) indirect ties. There are three kinds of strong ties, including (1), (2), and (3), and ten kinds of weak ties, including items from (4) to (13). If a respondent used 2 out of 3 kinds of strong ties, the proportion of strong tie used equals $2/3$; if a respondent used 3 out of 10 kinds of weak ties, the proportion of weak ties used is $3/10$. This is a brand-new measurement of social ties, since I believe the differences are not only qualitative, distinguishing between strong or weak ties, but also quantitative, the actual number of categories of weak or strong ties used.

Third, by making a clear distinction between strong and weak social ties, I have shown the comparative effects of strong versus weak ties in affecting various outcomes. Their similarities are four-folded.

First, neither strong nor weak ties have any significant effects on one form of formal

screening methods in the hiring process: paper-based tests. Selection based on paper tests is a typical form of meritocratic selection. The result suggests that social ties can hardly exert any influence on rigid meritocratic selection criteria.

Second, when predicting the probability of having alternative jobs, both weak and strong ties increase the probability of having alternative jobs, though the effects of weak ties are much stronger than that of strong ties. This implies that social ties are effective channels to secure more job offers.

Third, both social and weak ties positively contribute to increase network resources measured by the International Socio-Economic Index (ISEI) of members within their networks. Previous studies have shown the advantageous of weak ties in linking people of lower socioeconomic standings to people of higher ones in Western societies. Contributing to this research line, my study also shows the usefulness of strong ties in doing so in Chinese society.

Fourth, both strong ties and weak ties have positive and significant effects on MWB i.e., income, suggesting that both two types of ties are useful in achieving instrumental goals.

Their differences are also noteworthy.

First, when predicting the probability of being interviewed in the hiring process, strong ties are negatively associated with the probability of having to do an interview, yet weak ties positively contribute to the probability of having to do so. This implies that strong ties could guarantee more trust to employers, which in turn decreases the necessity of conducting an interview with job seekers. In contrast, weak ties are incapable of doing so.

Second, in terms of their effects on short-term MWB, i.e., starting wage, the effects of strong ties on income attainment declined after economic reforms in 1980, whereas the effects of weak ties on income attainment increased since the post-reform era.

Third, regarding their effects on long-term job dissatisfaction, the effects of strong ties are statistically insignificant, while the effects of weak ties are significant and positive, suggesting weak ties provide less valuable information, which in turn, lead to poor person-job match and consequently have negative effects on job satisfaction over time. It reveals that the beneficial effects of weak ties do not persist over time.

Fourth, in terms of their effects on SWB, strong ties are positively related to SWB,

while the effects of weak ties on SWB are insignificant. Strong ties have direct effects on SWB by providing larger amounts and a greater variety of social support such as emotional aid, babysitting, elderly care, emergency care, and companionship, which in turn impact individuals' overall life satisfaction. Strong ties also have indirect effects on SWB via reaching higher network resources, that is, connecting with the upper class. To put it simply, having some powerful contacts in one's networks could enhance one's own sense of dignity or prestige in social contexts, which in turn, improves SWB. In contrast, weak ties only have indirect effects on SWB via network resources. In other words, the association between weak ties and SWB is fully mediated by network resources.

The beneficial effects of strong ties may be explained by a relational Chinese culture of *guanxi* that values strong connections much more than weak ones. The idea that being connected with powerful contacts could improve one's prestige is also a common phenomenon within Chinese face (*mianzi*) culture.

I believe *guanxi* is a key to understanding the social and economic behaviours and the unique network effects on social stratification and wellbeing in the Chinese cultural context. The frequency of using social networks in finding a job increased over time, even after China's entry into the World Trade Organization (WTO) in 2002. In line with the great social changes in the past five decades, market channels became the dominant mechanism of matching jobs with job seekers since 1993, and the importance of hierarchy channels declined over time. This suggests that 1) the market and formal institutions are still imperfect in replacing informal job search channels; 2) *guanxi* is deeply rooted in Chinese society and is a kind of social norm guiding individuals' actions. It has been shown that those who only rely on *guanxi* to find jobs are from the lower class, suggesting that *guanxi* works as a safety net for the disadvantaged. After controlling for social status (measured by years of schooling), the results show that both strong and weak ties have positive effects on improving both subjective and material wellbeing. This suggests the beneficial effects of social networks on wellbeing not only for the lower class, but also for the upper and middle class. Chinese labour market is a formal-informal dual-structured one where social networks i.e., *guanxi* work as a lubricant to the functioning of formal market-oriented and legal systems.

Table of Contents

Chapter 1 Introduction	1
Chapter 2 <i>Guanxi</i>: A New Approach to Study Social Stratification and Wellbeing .	4
1. Introduction	4
2. The Literature Review on <i>Guanxi</i>	5
2.1 The definitions of <i>guanxi</i>	5
2.2 The relationship between <i>guanxi</i> and Chinese culture.	6
3. The Use of <i>Guanxi</i> in Chinese Society	11
3.2 How <i>guanxi</i> works?	12
3.3 Why <i>guanxi</i> works?	13
3.4 The effects of <i>guanxi</i>	14
4. <i>Guanxi</i> Network, Social Stratification and Wellbeing	16
5. Conclusion	19
Chapter 3 Network Effects on Formal Screening Procedures	21
1. Introduction	21
2. Theories and Hypotheses	22
3. Methods	24
3.1 Sample and data	24
3.2 Measurements	25
3.3 Models	28
4. Results	28
5. Conclusion	32
Chapter 4 Network Effects on Short-Term Material Wellbeing	34
1. Introduction	34
2. The Co-evolution of China's Economy and Social Networks	36
3. Data and Methods	40
3.1 Data	40
3.2 Measurements of key variables	40
3.3 Models	41
3.4 Results	42
4. Summaries and Discussions	46

Chapter 5 Network Effects on Long-Term Subjective Wellbeing	48
1. Introduction	48
2. Theory and Research Hypotheses.....	49
3. Methods	50
3.1 Sample and data.....	50
3.2. Measurements.....	51
3.3 Models	53
4. Results	53
5. Conclusions and Discussions	56
Chapter 6 Pathways to Material and Subjective Wellbeing	57
1. Introduction	57
2. Theories and Hypotheses.....	59
3. Methods	61
3.1 Sample and data.....	61
3.2. Measures.....	61
4. Results	64
4.1 Model selection	64
4.2 Path model	65
5. Findings and Conclusion	65
Chapter 7 Conclusion	69
1. Answering the Research Questions	69
2. The Merits and Limitations of the Study.....	71
3. Suggestions for Future Research	74
References	76

List of Tables

Tables		Page
2-1	Findings in Urban and Rural Areas	7
2-2	A Summary of Studies and Findings on The Specific Ways <i>Guanxi</i> Function Across Different Social Settings	14
3-1	Descriptive Statistics on Key Variables Used in the Analysis, N=3,722	27
3-2	OLS-Regression Models Predicting Strong and Weak Tie Usage in the Search Process	29
3-3	Coefficients for Multiple Logistic Regression Analyses on Selection Procedures	31
4-1	The Trajectory of the Chinese Urban Economy, 1956-2009	36
4-2	Percentage, Mean, and Standard Deviation for Variables Used in the Analysis, 2009 JSNET Survey, N=5,447	42
4-3	Job Search Channels by Period: Network Users Increasing Over Time	43
4-4	Comparative Effect of Social Networks on Income in Different Economic Periods in China's Urban Labor Market	44
4-5	Predicted Odds Ratios of Entering Three Types of Work Units	45
5-1	Descriptive Statistics on Key Variables Used in the Analysis	52
5-2	Coefficients for a Binomial Logistic Regression Model of Job-Alternative Availability, N=4,981	54
5-3	Binomial Logistic Regression Models of Long-Term Job Dissatisfaction	55
6-1	Descriptive Statistics on Key Variables Used in the Analysis, CGSS2008, N=3,001	63
6-2	Model Fit of Candidate Models	64
6-3a	Predictors for Years of Education	68
6-3b	Predictors for the Number of Strong Ties	68
6-3c	Predictors for the Number of Weak Ties	68
6-3d	Predictors for Highest Social Status Attained by Someone in Social Networks	68
6-3e	Total Social Statuses Excluding Highest in Social Networks	68
6-3f	Predictors for Subjective Wellbeing	68
6-3h	Predictors for Material Wellbeing	68

List of Figures

Figure		Page
4-1	Trends in Job Search Methods in Chinese Urban Labor Market	43

Chapter 1 Introduction

The potential effects of social networks on labour market outcomes have been well documented (e.g., see Lin 1999 and Mouw 2003; 2006 for an excellent review). In the process of matching a person to a job, as suggested by human capital theory (Becker 1964; Mincer 1974), educational credential and working experience explain most of the inequality in individual outcomes. A model called the status attainment model (Blau and Duncan 1974) has been improved by scholars of social networks, who argued that social networks play a significant role in affecting individual life chances as well (Granovetter 1973, 1995). Yet, the underlying mechanisms under which social networks contribute to individual wellbeing, both material and subjective, were largely neglected.

Given the prevalence of social networks (e.g., *guanxi*) usage, China has attracted much interest from the general public as well as the scholarly community to empirically examine the effects of social networks on individual outcomes. However, most of the previous studies centered on material wellbeing. In this dissertation, I take both material and subjective wellbeing into consideration. Material wellbeing (MWB) is measured by monthly earnings; subjective wellbeing (SWB) is measured by job and overall life satisfaction.

This dissertation makes an attempt to answer the following questions empirically: 1) What are the predictors of network usage? 2) In the process of job searching, what are the main functions of social networks? 3) How have the beneficial effects of social networks on material wellbeing i.e., income, changed over China's four economic periods since 1956? 4) Are positive effects of social networks on subjective wellbeing (e.g., job satisfaction) persisting over time, especially for weak-tie users? and (5) What are the underlying mechanisms of achieving higher degrees of material and subjective wellbeing in contemporary China?

These research questions were examined using two secondary datasets, 2009 Job Search Net Survey (JSNET 2009, hereafter) and 2008 General Social Survey in China (CGSS 2008, hereafter).

JSNET 2009 comprises a multi-stage stratified probability sample of 7,102 adults,

aged 18 to 69, from China's eight largest cities, including Changchun, Tianjin, Jinan, Lanzhou, Xi'an, Shanghai, Xiamen, and Guangzhou. The JSNET 2009 is a within-city probability sample. First, each city had 30-50 residential committee level units (PSU) selected through probability-proportional-to-size sampling (PPS). Within each chosen PSU, a street mapping method was used to obtain a sampling frame of all households of which 20 households were sampled. Finally, in each selected household, one adult aged 18 was selected if his/her birthday was closest to July 1 to take the survey. The survey collected extensive information about respondents' job search processes, core discussion network, New Year greeting networks, social eating networks, and post-hire outcomes. The survey is one-shot, collecting information on the job search and the labor market outcomes at the same time in 2009. The limitations of this data set are two-folded. First, it only surveyed the urban residents, making impossible to perform statistical analysis of rural residents. Second, the survey did not ask questions about the jobs that respondents applied to but did not get, but only about the jobs that respondents successfully obtained. In this dissertation, I restrict the sample to those who had full-time non-agricultural first jobs.

The CGSS is an annual or biannual cross-sectional survey of a nationally representative sample of urban and rural households to explore the association between social structural and life quality in contemporary China, which has been initiated by Survey Research Centre at Hong Kong University of Science and Technology and the Department of Sociology at the People's University of China since 2003. Using multi-stage stratified sampling design, the CGSS 2008 interviewed respondents face-to-face. Primary Sampling Units (PSU) were sampled from 100 county-level units, Secondary Sampling Units (SSU) from 300 township-level units and Tertiary Sampling Units (TSU) from 600 neighborhood-level units. Street mapping was employed to sample households in the community. CGSS 2008 collected detailed information on family, education, occupation history, personality and attitudes, social networks and job-hunting, and social inequality. The CGSS 2008 has a response rate of 47.77% with an original sample size of 6,300, out of which 60% were from cities or towns and 40% from villages. The reason why I chose CGSS 2008 is that it is the only one that has special module on respondents' overall material and subjective wellbeing and several dimensions of social networks, such as Chinese New Year Greeting Networks, core

discussion networks, and network usage in job search processes. Unlike CGSS2003, It also includes both urban and rural residents, making the data more representative.

The dissertation is composed of seven chapters. Chapter 1 is the introduction. In Chapter 2, I review the theoretical arguments and empirical evidence on social network studies in the Chinese labor market and propose some new research directions guiding my following chapters. In person-job match studies, it has been shown that those who are disadvantaged in the labor market are more likely to mobilize social networks (Lin 1999; Wu 2011), but what are the potential uses of social networks in job search processes? Using multiple logistic regressions, in Chapter 3, I examine that whether people mobilize social networks to circumvent formal selection procedures such as interviews and paper-based tests. Since paper-based tests are typical means of meritocratic selection, Chapter 3 also strives to answer the hot-debated question on whether social networks undermine meritocratic selection. In Chapter 4, using ordinary least-squares regression, I examine how changes in the China labor market impact the usefulness and payoffs of network usage in the urban labor market. Previous research mainly focused on exploring the possible effects of social networks on short-term labor market outcomes, such as salary, job satisfaction, and job rank. Additionally, given tie strength is a very important dimension of social networks, in Chapter 5, I also examine the potential role of strong versus weak ties in affecting another important dimension of subjective wellbeing: long-term job satisfaction. My analysis in Chapter 5 is among the first to explore the long-term effects of social networks on subjective wellbeing. With regard to the determinant factors of achieving higher levels of self-reported income and overall life satisfaction, by including the two correlated outcomes, material wellbeing (income) and subjective wellbeing (life satisfaction) in Structural Equation Modeling, I empirically examine 1) the underlying mechanisms of the potential partial mediation effects of social networks on the association between individual characteristics and family backgrounds and wellbeing, and 2) the differential effects of strong and weak ties in affecting wellbeing outcomes. Chapter 7 concludes this dissertation. I present a summary of the main findings, the merits and limitations of the study, as well as suggestions for future research.

Chapter 2 *Guanxi*: A New Approach to Study Social Stratification and Wellbeing

Abstract

Previous studies on stratification in urban China emphasized the importance of formal institutional environment. This article stresses the significant role of informal networks of interpersonal connections: *guanxi*. *Guanxi* is a Chinese concept widely used as a kind of social norm guiding individuals' actions. It is in the core of Confucian ethics that dominates in the Chinese-speaking world overall, particularly in the PRC. It is a key concept in understanding social and economic behaviors in Chinese cultural context, and as such has attracted fruitful attention and debate in academic circles. I discuss the dynamic process and main functions of *guanxi*. I criticize the dualist approach to understanding *guanxi*; either as a social phenomenon influenced by traditional Chinese culture, or as a product of special institutional and historical conditions. The role of *guanxi* in China should take both these factors into consideration. Based on these discussions, I examine the debate on the importance of *guanxi* and how and why *guanxi* works so well in Chinese society. I argue that in a *guanxi* society, the prevailing use of *guanxi* can cause significant structures of inequality in occupational attainment, such as the job-hopping and job searching process, thus, causing greater social stratification through eroding social mobility. Finally, I propose some new research questions, which await further empirical studies. This chapter only provides a tentative exploration into social stratification and wellbeing research. As a new research method, more work should be done, both theoretically and methodologically.

1. Introduction

Guanxi is a Chinese concept widely used as a kind of social norm guiding individuals' actions. It is in the core of Confucian ethics that dominates in the Chinese-speaking world overall, particularly in the PRC. It is a key concept in understanding social and economic behaviors in Chinese cultural context, and as such has attracted fruitful attention and debate in academic circles. Many research studies also have been carried out on social stratification and social mobility. But few of them

have discussed the relationship between *guanxi*, social stratification and wellbeing.

The present chapter begins with a literature review on established knowledge on *guanxi* studies and the development of theories and analysis of network. Then I will consider *guanxi* as a research and analytical tool, which can provide a new approach to social stratification and wellbeing research enterprises. This will be followed by how and why *guanxi* works in Chinese society. Finally, some unresolved and new challenges in *guanxi* studies will be discussed.

2. The Literature Review on *Guanxi*

2.1 The definitions of *guanxi*.

Some scholars try to interpret *guanxi* as connections, particular ties, social relationships, etc. But they do not emphasize the culture embedded in Chinese social behaviors.

Chinese scholars regard *guanxi* as a sentimental tie, which derives from the Chinese clan system and person-to-person relationships. They focus on the traditional Confucian culture rooted in the clan system where obligations and duties are required. Liang (1949), Fei (1992) and Hwang (1987) stand on different ground, discussing the concept from cultural, structural and social psychological viewpoints respectively. From a cultural perspective, Liang (1949) asserts that there are three characteristics of *guanxi*: ethical-based, boundless and cross-class. While Fei, as a structural-functional theorist, depicts features of Chinese society with his theory of differential order (*chaxugeju*).

According to Fei's vivid description, everyone is situated at the center of his or her own egocentric network. Each person applies different attitudes and actions towards others by defining the positions within his or her egocentric network. The closer the position, the better *guanxi* exists between them. He describes the order as, "ripples formed from a stone thrown into a lake, each circle spreading out from the center becomes more distant and at the same time more insignificant" (Fei 1992:65).

On the basis of exchange theory, and by integrating the concepts like *renqing* (favor), *mianzi* (face), and *bao* (repay), Hwang (1987) treats *guanxi* as interpersonal connections that facilitate favors and exchanges on a dyadic basis.

Recently *guanxi* scholars have examined the meaning and the relative importance of *guanxi* in empirical, rather than theoretical, terms. "*Guanxi* is an informal, unofficial

relationship utilized to get things done, from simple tasks to major life choices” (Gold 1985:661). It can also refer to “interpersonal relationships that are commodified, political, or friendly, that are between men and women or cross gendered, and that are based on love, hate, business transactions, mutual hobbies, or kinship” (Kipnis 1996:287). *Guanxi* is most commonly defined as reciprocal obligation and indebtedness (Gold, Doug, and Wank 2002:7; Yang 1994:6). Distinctively, based on in-depth interviews conducted among Chinese officials and industrial managers, Guthrie sees *guanxi* as “an institutionally defined system—i.e. a system that depends on the institutional structure rather than on culture—that is changing in stride with the institutional changes of the reform era” (Guthrie 1998:255).

2.2 The relationship between *guanxi* and Chinese culture.

Influenced by a long tradition of Confucian culture, which is an official orthodoxy as well as an ethical system, keeping a harmonious interpersonal relationship is socialized and internalized as a part of China’s national character.

“That the Chinese are preoccupied with *kuan-his* building has indeed a built-in cultural imperative behind it” (King 1985:68). During the long feudal era, Confucianism remained the guiding ideology, of which the most obvious feature is ethic centrality.

“The Confucian tradition of defining individuals in terms of face, obligation, loyalty and favors has bound the Chinese in a web of social relationships on a personal level” (Bian 1995). Hwang stated, “[S]ocial interaction should begin with an assessment of the role relationship between oneself and others along two social dimensions: intimacy/distance and superiority/inferiority....According to the Confucian perspective, it is righteous to decide who has the power of decision making by the principle of respecting the superior; it is also righteous for the resource allocator to distribute resources by the principle of favoring the intimate.” (Hwang 1999:166-167). This latter principle, favoring the intimate, it is the very reason people spare no efforts to meet the desires and needs of their kin and relatives with whom they have a deeper and better *guanxi*.

Before the introduction of a market economy in China, there was a shortage economy (Kornai 1989). During that time, it was difficult for individuals to get goods and services, so people tried to ask for help from their intimates. This is because China

has a long tradition of strong family ties, and especially those based on kin. During the planned economy era where there was frequent shortage of goods and services in individuals' daily life, people had to rely heavily on *guanxi* to acquire a good or service or achieve a goal (Riley 1994).

Guanxi, then, has a long history in China, so that is not surprising to see its use continue into the modern era. In contemporary China, social conditions have had a major impact on the centrality of *guanxi*. Between 1949 and 1965, China was a relatively equal society so people used less *guanxi* to get things done. During the ten-year Cultural Revolution (1966-1976), however, individuals faced potential political risks daily, the weak economy could not meet the needs of people's daily life, and the amount of consumption was constrained by the socialist state bureaucracies. As a result of this, people relied on their various *guanxi* networks to get necessities or to ask for political protection. Typically, the kin-based networks are the main route of entrance into the economy for families. In the absence of kinship ties, birthplace or other substitute relationships that approximates kinship are employed (Fei 1992:32).

2.3 The characteristics of *guanxi*. Bian (1997:369) claims there are mainly three characteristics of *guanxi*. First is familiarity or intimacy. *Guanxi* is not only a relationship but also a channel through which material and sentimental resources are exchanged between the two parties in a strong dyadic relationship. Second is trustworthiness. The importance of the trustworthiness lies in that *guanxi*, as an informal connection, is not formally or legally institutionalized. Third is reciprocal obligation, which is not limited to family and kinship but extend to non-kin ties. Up to now, one of *guanxi*'s characteristics, instrumental or sentimental, has been a controversial issue.

Table 2-1 Findings in Urban and Rural Areas

	Rural	Urban
More Instrumental	Yan (primary form, 1992); Vogel (1965)	Jacobs (1979); Gold (1985); Walder (1986); Bian (1997); Yang (1994); Vogel (1965)
More Sentimental	Yan (extended form, 1996a); Kipnis (1997)	

Vogel (1965) marked a switch of scholarly interest from this normative perspective to a view which stresses on the practice of *guanxi* as a means of pursuing interests. Jacobs (1979) and Walder (1986) also regard *guanxi* as particularistic ties. Gold (1985:666) asserts that there is a popular perception that even friendship is mingled with instrumental considerations: “making friends out of self-interest, disbanding when the benefit is exhausted (*yilixiangjiao, lijinjaosan*).”

Here, two seminal pieces of fieldwork done by Kipnis and Yan in rural settings deserve attention. Kipnis (1997:23), in his in-depth ethnographic research conducted in Fengjia village, Shandong Province, contends that “in *guanxi*, feelings and instrumentality are a totality”. Compared with the portraits of urban gift giving and *guanxi* mentioned earlier, practices in Fengjia seem less instrumental. He shows the kind of less instrumentalized, less commodified *renqing* gift exchange which takes place in rural society, and analyses how specific gift-giving actions communicate information within and about particular relationships. Rather than giving a specific definition of *guanxi* per se, Kipnis tries to find the actual setting where *guanxi* works well.

Yan (1996a) clarifies the distinction between the primary and extended form of *guanxi*, which he believes may help us to understand the differences between the two perspectives that emerge from previous studies of *guanxi* and *renqing*. The first has regarded *guanxi* as an element in a unique Chinese normative social order, and the second treats *guanxi* as a practical means for advancing specific personal interests. When dealing with the primary form (familial, kinship and communal relationships) of *guanxi*, it is natural that one tends to focus on the normative role of *guanxi* and *renqing* in social life; similarly, when one studies mainly the extended form (relationships with people from the outside world) of *guanxi*, the means-end feature of such an instrumental web of personal connections becomes the dominant theme. In other words, the distinction between the primary and extended forms of *guanxi*, while recognizing the different practices between villagers and urbanites, takes into consideration all possible links between rural and urban, between old and new and between past and present. Villagers refer to their networks as *guanxi*; yet they perceive their *guanxi* networks as the very foundation of the society in which they live, rather than merely as instrumental webs of particularistic ties (Yan 1996b). By so doing, it provides us with a better

understanding of the current *guanxi/renqing* complex in both urban and rural areas.

Yan (*The Gift Economy*) and Kipnis (*Producing Guanxi*) offer extensive analyses of China's gift economy. However, these analyses were conducted in rural China, which is likely to vary significantly from the situation in urban China. Through more than ten year's extensive ethnographic research in urban China, Yang asserts, "friendship, kinship, class-mates, and so forth are not coextensive with *guanxi*, but serve as bases or potential sites for *guanxi* practice" (Yang 1994:111). Yang describes the practice named *guanxixue* which involves "the exchange of gifts, favors, and banquets; the cultivation of personal relationships and networks of mutual dependence; and the manufacturing of obligation and indebtedness" (Yang 1994:6). What informs these practices and their native descriptions, argues Yang, "is the conception of the primacy and binding power of personal relationships and their importance in meeting the needs and desires of everyday life" (Yang 1994:6). Therefore she also believes that *guanxi* is instrument-oriented. As Guthrie (1998) indicates in his methodological considerations about the study of *guanxi*, when a job seeker attempts to *laguanxi* (seeking *guanxi*) to get a job, he might perceive that *guanxi* is instrumental in attaining the job.

Guanxi is a dynamic process, from the establishing of seeking *guanxi*, enhancing *guanxi*, restoring *guanxi*, and making use of *guanxi*. On a dyadic base, *guanxi* between two individuals is changing across the time, sometimes they are on good terms, whereas sometimes their *guanxi* turns bad. In addition, *guanxi* is something that cannot be transferable. One can utilize a friend's *guanxi* to facilitate instrumental actions, but this kind of *guanxi* remains an asset of the friend's.

Another question is whether *guanxi* is an essential part of Chinese culture (Pye 1968; King 1985; Fei 1992; Yang 1994; Bian 1994), or whether it is a result of specific institutional and historical conditions that exists in other societies (Walder 1986; Oi 1989; Guthrie 1998; Wank 1995).

2.4 The classifications of *guanxi*. A variety of ways to classify *guanxi* exist, for example, one can speak of mother-in-law/daughter-in-law (*poxi*) *guanxi*, comrade-to-comrade (*tongzhi*) *guanxi*, classmate (*tongxue*) *guanxi*, and scores of other varieties (Kipnis 1996:287).

Hwang (1987) classified *guanxi* into three categories by a theoretical model of face

and favor in Chinese society: the expressive tie, the instrumental tie, and the mixed tie.

In conclusion, after reviewing the established knowledge on three dimensions of *guanxi* definition, characteristics and classifications, I will give my own opinions on these central issues.

First and foremost, I criticize most existing studies because of their pure theoretical discussions or empirical analysis in *guanxi* studies since these two ways do not contribute to enriching knowledge of *guanxi*. Theories that can be empirically tested are more scientific, and yet there needs to be some theoretical framework. I think *guanxi* studies should be conducted in more integrated way, that is, the combination of an empirical analysis and a theoretical discussion. I argue that the definition of *guanxi* per se should be on the macro and micro levels. At the micro level, *guanxi* refers to a dyadic-based relationship where one can exert influence on others and get information from others so as to access to one's desired resources. On a macro level, *guanxi* could be inter-organizational and even international, because social groups are connected through *guanxi* between affiliated members of each organization.

Secondly, as for the characteristics of *guanxi*, in my view, *guanxi* is a combination of both sentiment involved and instrument-oriented relationships. As a sentiment involved relationship, it can offer one a sense of belonging rather than social isolation, and as an instrumental tie, one can pursue desired resources through one's *guanxi* network. I think it may be problematic to regard *guanxi* only as a product of special social institutions, because this de-culturalism cannot explain the comparative study conducted by Bian and Ang (1997). They compare Singapore, where an advanced labor market exists, and China, where no-labor market existed in 1988, Most of the respondents from Singapore (76%) and China (50%) used *guanxi* in the job hopping process. I disagree with the dichotomy that either *guanxi* is a kind of cultural practice rooted in China, or it is a product of specific institutional structure and historical conditions. I propose we should approach *guanxi* in a more integrated way: it is a conceptualization which is both rooted in traditional Chinese culture and a phenomenon that is influenced by social institutions (see also Gold et al. 2002:17). Every society has social connections, in this sense, *guanxi* is no exception, but what is unique about *guanxi* in the Chinese context is that it has been so pervasive and dominant in the entire society, throughout much of its historical, political and economic contexts (Lin 2001a).

Thirdly, I argue the former classifications of *guanxi* failed to capture the effects of *guanxi* in the process and the outcome of status attainment.

3. The Use of *Guanxi* in Chinese Society

The following section shifts the focus from *guanxi* per se to the functions and effects of *guanxi*. The starting assumption is that *guanxi* causes inequality in opportunity structures, and thus it could be a variable that can partly explain the accelerating social stratification in contemporary China. It begins with a discussion of the importance of *guanxi* in China. Next it examines the effects of *guanxi*, both positive and negative. The third section discusses how and why *guanxi* works. I conclude with a theoretical discussion on the relationship between *guanxi* and social stratification and wellbeing.

3.1 The debate on the importance of *guanxi* in China. Some scholars (Bian 1994, 1997, 1999; Bian and Ang 1997; Potter 2002; Keister 1998) insist that *guanxi* still exerts a persistent and important influence, and such influence may be on the rise because of the institutional holes created by the abandonment of the old state mechanisms, as well as the immaturity of new market and legal mechanisms. Potter regards *guanxi* as acting in “a complementarity rather than conflict” relationship with the legal system in China (Potter 2002: 194).

On the contrary, Guthrie (1998) argues this may not be true with respect to the urban industrial economy. He finds the state has systematically constructed a rational legal system to govern the decisions and practices of economic actors, and the rules of exchange have become more clearly defined and routinized, so there should be a declining significance and a diminishing role of *guanxi*. Similarly, Hanser, in his field study on the job searching process of young urbanites, supports Guthrie’s position, arguing that *guanxi* does not play a major role in the job searches, especially for young people who had never worked before and did not yet have networks of work-related ties (Hanser 2002:137-161).

I believe, however, that Guthrie’s analysis is problematic, in that the data he used only describes China’s urban industrial economy, and therefore it is improper to make inference to the whole sphere of Chinese society. Although Guthrie maintain the view that *guanxi* is a product of the institutional structure of society, this position does not

discount the possibility that *guanxi* plays a significant role in some parts of the economy. Next, I will shift my attention from whether the significance of *guanxi* is increasing or declining to the different effects of *guanxi*: positive and negative.

3.2 How *guanxi* works?

Building *guanxi*. People need to expand his or her *guanxi* network more broadly in order to achieve his or her various expectations. Now we will shed light on how to establish or seek *guanxi* with others. Of course one may establish *guanxi* with the other directly. But normally, an intermediary or a third-party to whom both parties are strongly connected is necessary to break the ice between two parties (Bian 1997; Yang 1994). In a word, all the related actions to establishing *guanxi* and improving *guanxi* with the certain person are based on cost-benefit calculations.

The reason for an introduction of a third-party is that both sides will know they are sharing a common friend and then will trust each other and become strongly connected to the extent to which each of them trust the third-party. One might merely seek an intermediary's recommendations that the other side is competent, honest, knowledgeable, and trustworthy. Established scholarship has determined that "the advantaged position is that of the person who can 'pull strings', that is, extract favors from the more fortunate partner" (Pye 1992:207-208). In the way, one will weave his/her own *guanxi* network gradually according to his/her various purposes.

Enhancing and restoring *guanxi*. Of critical importance is the work to enhance established *guanxi*. This will be implemented by gifts giving, favor exchanges, invitations to banquets, frequent communication, and so on. *Guanxi* is always a dynamic process of social connections, when two parties get along very well with each other, the intermediary does not need to be there. However, *guanxi* can also be destroyed, bringing negative or even destructive consequences to the parties involved. *Guanxi* dissolution is an integrated part of *guanxi* culture. The duality of *guanxi* suggests that the working of *guanxi* may have its boundaries, with which reciprocity is maintained to produce mutual benefit but outside of which opportunism may be introduced to turn closely connected persons into enemies (Li 2004). Here, a peacemaker (an intermediary or other who enjoys high prestige and command universal respect) is expected to encourage both parties to make concessions. This fits with

Chinese culture's emphasis on a harmonious society and the appropriate arrangement of interpersonal relationships (Abbott 1970).

Making use of *guanxi*. Utilization is the ultimate goal of *guanxi* in China, especially in the extended group where *guanxi* is more instrument-oriented. Effective use of *guanxi* can provide face (*mianzi*), namely, prestige and status (Gold et al. 2002:9). Some scholars call it the *guanxi*-mediated favor exchange (Lin 2002:57). For example, Lin notes, "Public recognition of favors rendered by a giver is the payoff for the giver. For the giver, being recognized in the social networks for one's ability to render favors increases one's standing or reputation in the community...While for the favor seeker, obtaining a successful favor indicates his/her capability in vertical and upward access to valued resources in the society, and, thus, the strength of his/her *guanxi*" (Lin 2001a:157). Thus both parties benefit from the offering and seeking favor process.

3.3 Why *guanxi* works?

Firstly and most importantly, one trusts others because they regard each other as someone reliable and as their relationship as a long-term rather than a short-term one.

The reason Chinese obey the reciprocal obligation consciously may be explained by two internal and external aspects, first is the successful socialization of the individual, by which every Chinese internalizes the concept that reciprocal obligation is one of the basic social norms and principles. Second is external pressure. One relevant example is Coleman's Diamond Merchants study. Coleman stated, "The wholesale diamond market in New York City, for example, is Jewish, with a high degree of intermarriage, living in the same community in Brooklyn, and going to the same synagogues . . . these close ties, through family, community, and religious affiliation, provide the insurance that is necessary to facilitate the transactions in the market. If any member of this community defected through substituting other stones or through stealing stones in his temporary possession, he would lose family, religious, and community ties"(Coleman 1988:S99). Coleman regards this kind of trust as a specific form of social capital.

The influences of Confucian culture. Liang asserts that "Chinese society is neither *ko-jen pen-wei* [*gerenbenwei*] (individual-based) nor *she-hui pen-wei* [*shehuibenwei*] (society-based), but *kuan-hsi pen-wei* [*guanxibenwei*] (relation-based)." Thus, Chinese pay great attention towards keeping good relations with people surrounding them. The

Chinese society focuses on the particular nature of the relations between individuals who interact with each other rather than particular individuals per se (King 1985:63).

The imperfection of a market system with insufficient laws and regulations. In the Mao-era, personal networks pervaded these practices and had been strengthened by the lawlessness of the Culture Revolution decade (Gold et al. 2002:9). In post-Mao era, the transforming Chinese economy is faced with the lack of formal and rigorous systems to regulate individual's actions after abandoning the old ones. When there is little chance for people to go through the "front door", then surely it strengthens "back door" practices. *Guanxi* "provides a powerful resource for reducing the transaction costs and potential risks of capitalist investment in a society like China where the social and legal infrastructure for capitalist production is still inadequate and subject to unpredictable risks of arbitrary bureaucratic intervention" (Smart 1993:404). Also the imperfection of the market system (e.g., asymmetrical information) leaves much space for the use of *guanxi* to gather valued information and to exert influence.

3.4 The effects of *guanxi*

**Table 2-2 A Summary of Studies and Findings on the Specific Ways
Guanxi Functions Across Different Social Settings**

Study	Where and how <i>guanxi</i> works
Pye 1992; Solomon 1999	in the Chinese negotiating style in diplomacy and business
Smart 1993; Bian 1997	in lower search and other transaction costs and potential risks
Yang 1994; Gold 1985	to obtain and reallocate hierarchically distributed resources: such as jobs, food, clothing, housing, medicines, residence permits or train tickets, etc. in the strict bureaucratic rules after 1949
Bian 1994	to obtain influence from powerful cadres to initiate an assignment or grant a labor quota, to press favorable decisions from leaders of hiring organizations on jobs, to locate a work unit to which one wanted to be transferred, and to influence the current employer to allow one to leave the work unit or job
Gold et al. 2002	to provide usable resources, and increase interpersonal pleasure and a sense of connectedness
Wank 1996	to get permits or licenses in a society in which state power and patron-client relationships are still prevalent when seeking entries into a target market
Keister 1998	in the emergence of firm-to-firm lending and trade relations in the early stage of reform; reformers encouraged firms to become members of business groups

To sum up, *guanxi* plays significant roles in organizational levels: doing business among different companies (Keister 1998), the clientelism between companies and the state (Wank 1996) or even the diplomatic relations between countries (Pye 1992; Solomon 1999). It is also of great importance in giving people a sense of identity and belonging, and it also can be used for individuals' purposes like getting daily life necessities (Yang 1994; Gold 1985; Bian 1994), reducing external uncertainties and risks (Smart 1993; Bian 1997), or realizing job searching or hopping(Bian and Ang 1997; Bian 1997).

Negative effects of *guanxi*. *Guanxi* can cause nepotism and cronyism. In a market economy, one may find a job based mainly on his/her own human capital, but in a *guanxi* society one may need *guanxi* to find a job, whether or not one is qualified for a certain position. Bian (1994) proposes use of *guanxi* as a strong predictor of changing work units and moving upwardly in a work-unit hierarchy. Thus, opportunities for job mobility were available to people if channeled through their *guanxi*. But data employed by Bian was gathered in the year 1988, I deem that with the implementation of the market economy, private enterprises whose aim is to make profits are inclined to employ applicants who are qualified for a certain position. For the state-owned enterprises, *guanxi* is still important in the job hiring process, as they do not have to be responsible for their profits and losses.

Guanxi enhances corruption and bribery through "back door practices (*zouhou men*).” It hinders the implementation of formal institutions. If person A wants to gain his/her desired resources from B, A has to give material benefits (e.g., money and gifts) to B by himself/herself or through a intermediary (*zhongjianren*) in order to show he/she wants to make a good *guanxi* with B. By doing so, if B accepts gifts from A, B will be willing to offer a favor to A (giving some useful information and favors). In a word, if you want to go through the back door, you need to first pull strings. During an economic transition and system-switching period, *guanxi* plays a major role because of institutional holes (Bian 2002a). The serious bribery phenomenon in China can be partially explained by the overflow of *guanxi*. Cadres and the Party members are the leading actors in these kinds of *guanxi* practices and power games. Taking cadre corruption for example, Gold (1985:661-662) argues that it ranges from the pervasive going through the back door to accomplish a minor task, to demanding gifts and bribes,

to abuse of office, such as converting public goods like an automobile for private use, or gathering the best benefits such as housing for one's own family, to actual commission of a crime, such as smuggling. Bian (1994) gives three convincing arguments explaining how cadres use their *guanxi* when the action is against party rules prohibiting any back-door practices: first is the imperfection of the system, in which opportunities are created for power to serve cadre's self-interests, including the interests of a cadre's spouse, children and relatives. Second is maintaining friendship for mutual benefits, both for short-term and especially for long-term rewards. Last is providing help for acquaintances or even strangers in exchange for money, goods, and various services.

Lastly, I believe *guanxi* causes stratified opportunity structures in the society. Commonly, if you ask a Chinese why his competitor gets a job rather than him, he is likely to complain that "He has stronger *guanxi* than me." Apart from taking human capital and political capital into consideration, *guanxi* does play a significant role in job finding and job mobility process.

4. *Guanxi* Network, Social Stratification and Wellbeing

"Central to past studies are assessments of institutional changes accompanying the transition from a state socialist command (or redistributive) economy to a market economy and implications of these changes for mechanisms of social stratification" (Zhou, Tuma and Moen 1997). However, few scholars have put enough emphasis on the importance of social networks in wellbeing and social stratification studies. As China is shifting from a state redistributive economy to a market economy, it leaves a great space where *guanxi* still functions well. If this transition involves changes in the mode of allocating and distributing resources, it will probably change the stratification order (Nee 1989). My research stresses the significant role of social networks in the processes of status attainment and class formation, which in turn, affects inequalities in subjective and material wellbeing. My purpose is to demonstrate the importance of social networks in studying stratification mechanisms and process affecting occupational processes.

As Bian (2002) concludes, "Status attainment models and career mobility models attribute person's opportunities for upward mobility to their positional power and qualifications. A network perspective differs; it considers mobility opportunities as a function of information and influence that are embedded in and mobilized from one's

social networks. This network perspective fits well a relational Chinese culture of *guanxi*” (p. 107). Generally, social mobility could be divided into geographical mobility and occupational mobility.

“Microlevel mobility research argues that job changes depend on the job seeker’s social network and social ties. Job seekers find better jobs by contacting persons with superior knowledge and influence” (Wegener 1991). Thus, *guanxi*, as Chinese social network, does play a major role in the process of occupational mobility.

A multitude of research has shown that a large number of job changers in both Tianjin (50%) and Singapore (75%) use *guanxi* to change jobs (Bian and Ang 1997). “Well-connected parents and social ties can enhance the opportunities for individuals to obtain better education, training, and skill and knowledge credentials” (Lin 1999: 484). Therefore, the parents help their children in many dimensions. *Guanxi* could also be used to reducing the risks of downward mobility. During the years of depressed economy many companies began to implement policies of personnel reduction. Employees who do not want to be laid off try to use their *guanxi* network to exert influence on the decision-maker.

Since the loosening of rural-urban labor mobility control policy in 1984, more and more Chinese farmers began to work in cities. They are called “peasant workers” (both a farmer and a worker), they are both institutionally distinctive and diverse in their job searches, and they often do not have official permanent resident status in the cities of China (Borjas 1987; Rozelle et al. 1997; Lovett, Simmons, and Kali 1999; Zhao 2000; Zhao 2003). When they begin to search for a job in an urban area, they always rely on their hometown fellows network. We may call this phenomenon “*guanxi*-driven geographical mobility”. Even with the help of their hometown fellows, they are “confined to a secondary labor market of heavy-duty, poorly paid and temporary jobs, living in conditions of direst hardship” (Bian et al. 2005:1447).

Drawing from our discussion on *guanxi* network based geographical mobility, we can conclude that people at the lower social strata tend to rely heavily on *guanxi* networks to get jobs. The reason is lower class people are lacking in human capital, they have no choice but to rely on social networks. *Guanxi* could provide emotional and material support when people are in difficult times. *Guanxi* networks work as a safety net for them to cope with uncertainties and risks.

I roughly theorize that those with higher social status have better *guanxi*, and those with lower social status have less. The better *guanxi* one has, the more opportunities one owns. *Guanxi* facilitates their instrumental actions by offering more opportunities and diverse information and influence in the process of status attainment and wellbeing achievements. This stratified opportunities structure is caused by the different possession of *guanxi*.

Classic social stratification theories define social stratification as resources unevenly distributed among different social groups. Social networks, as a kind of useful and practical resource, are unevenly distributed among different social positions and individuals. In order to capture the great social changes in China since 1978, we may address the Chinese social network research from the following viewpoints.

a. *Network effects before getting a job*

Since the central question in network studies is whether social networks support or undermine formal screening procedures such as interviews and paper-based tests, it is of great importance to explore the main functions of mobilizing social networks on the probability of being confronted with various formal screening procedures. On the one hand, since job information is not fully diffused in the labor market, it is difficult for job applicants and employers to meet and know each other more efficiently. Social networks transmit information about jobs, applicants, and employers, making the person-job match more efficiently with lower transaction costs. On the other hand, employers might be more likely to hire those who are refereed or recommended by a third-party, or an intermediary. Hiring decisions are made in terms of relationships with the prospective employers rather than in terms of meritocratic standards such as productive skills and working experience. It is reasonable to speculate that job seekers mobilize social networks to circumvent from formal screening selections such as interviews or paper-based tests. Whether this argument is true will be tested in the third Chapter.

b. *Network effects on short-term post-hire material wellbeing*

It is a common practice to examine the relative advantageous or disadvantageous effects of using social networks on short-term material wellbeing, e.g., income. Some scholars have found positive associations between social networks and job outcomes (e.g., Coverdill 1998; Bian 1994). Others, however, have revealed negative or spurious

effects (e.g., see Lin 1999 and Mouw 2003; 2006 for excellent reviews). Paying attention to the evolution of Chinese labor market since 1956, it is useful to examine the comparative and changing effects of social networks on income across four economic periods in China. With the state allocation system already gone, the channels through which *guanxi* functions need further examinations. This analysis will be presented in Chapter 4.

c. *Network effects on long-term subjective wellbeing*

Previous studies have mainly focused on the beneficial effects of social ties on short-term labor market outcomes as job satisfaction, starting wage, and occupational status (e.g., Wegener 1991; Bridges and Villemez 1986; Lin, Ensel, and Vaughn 1981b; Marsden and Hurbert 1988). Weak ties are advantageous in transmitting non-redundant information and thus increase the likelihood of getting a job (Granovetter 1973), but its beneficial effects on one dimension of subjective wellbeing, i.e., job satisfaction, remained largely unexplored. Chapter 5 of this dissertation aims to bridge this gap.

d. *Network effects on material and subjective wellbeing*

Individual outcomes such as material and subjective wellbeing can be predicted from individual characteristics and family backgrounds. Apart from the direct path from these two kinds of factors, social network could be an additional determinant of wellbeing. Access to social ties and social resources embedded in social networks is influenced by individual initial positions. These factors in turn impact on individual wellbeing through affecting various opportunities. My research questions are 1) What is the relation between initial socioeconomic status, material wellbeing, and subjective wellbeing (degree of life happiness)? 2) Who will have more access to which network resources? 3) Which network resources will lead to higher attainments? Under what conditions? These questions will be explored in Chapter 6.

5. Conclusion

In this chapter, after reviewing the various aspects of *guanxi*, I criticized the dualist approach to understanding *guanxi*; either as a social phenomenon influenced by traditional Chinese culture, or as a product of special institutional and historical conditions. The role of *guanxi* in China should take both these factors into consideration. Based on these discussions, I examined the debate on the importance of *guanxi* and how

and why *guanxi* works so well in Chinese society.

Finally I propose the prevailing use of *guanxi* in contemporary China widens social stratification through its influences on person-job match. I expect the study of *guanxi* will help form a new way to examine stratified wellbeing in Chinese society. *Guanxi* causes inequality of opportunity structures. The extent to which people rely on *guanxi* networks is different according to their social-economic status. The importance of *guanxi* differs in different organizational types, such as state-, collective-, and private-sectors. With the great social changes that have taken place since 1978, we may expect to find changes in the structures and characteristics of Chinese networks.

This chapter only provides a tentative exploration into wellbeing and stratification research from a social network perspective. As a new research method, more work should be done, both theoretically and methodologically. In the following chapters, I will show how *guanxi* contributes to stratification and wellbeing research.

Chapter 3 Network Effects on Formal Screening Procedures

Abstract

Social networks may be beneficial for the individual, but whether networks promote optimal outcomes at the collective level is unclear. I will investigate whether social networks support formal selection procedures in labor markets. Using retrospective information on 7,102 employees in eight major Chinese cities in 2009, I investigated the antecedents and consequents of social networks usage in the selection phase of the hiring process. Results showed that job seekers were more likely to mobilize their social networks if they were disadvantaged in the labor market, the job-seeking process was competitive, and the target job had formal requirements such as professional skills and working experience. Results furthermore showed that the use of weak ties in the search process increased the likelihood of being confronted with one form of formal screening methods, interview. By contrast, the use of strong ties decreased this likelihood. In addition, neither strong nor weak ties exert significant influences on being asked to take paper-based tests. Moreover, network users were less likely to be tested. These results suggest that individuals use their social ties to circumvent formal selection procedures.

1. Introduction

What is good for the individuals need not be good for all. It is well known that social networks can provide individual benefits (e.g., Granovetter 1973; Lin and Dumin 1986; Lin 1999; Burt 1992), but do social networks also promote beneficial collective outcomes? This study investigates the effects of networks at the collective level, specifically, do mobilized social networks support or undermine formal screening procedures in the hiring process? Meritocracy exists when hiring decisions are based on achievement, rather than ascription: “what you can or know” should outweigh “who you are” or “who you know”. Employers face the challenge of assessing the qualities of applicants. Transaction cost theory (Williamson 1979) learns that employers try to maximize the quality of information on job candidates, and minimize screening costs. For efficiency, the hiring process generally involves an extensive search phase, in which plausible candidates are recruited and screened via criteria that can be assessed at low costs, and an intensive selection phase, where a smaller number of candidates are

subjected to more thorough screening procedures (Marsden 1994).

Labour market studies have, for example, found that adequate usage of social networks may increase an individual's labour market chances: weak-tie usage may increase the likelihood of getting a job (e.g., Granovetter 1973); brokerage-positions can be capitalized upon to facilitate innovation (Burt 2004), and being embedded in social networks with closure and strong ties can provide individuals the trust to overcome cooperation problems (Coleman 1988).

This chapter is organized as follows. Section 2 reviews the theoretical arguments behind the mechanisms producing positive or negative effect of social networks on meritocratic selection. Section 3 develops research questions and formulates several specific hypotheses. Section 4 introduces the data and methods. Finally, Section 5 presents results and conclusions.

2. Theories and Hypotheses

Societal solutions to the problem of stratification range from pure meritocratic selection, based on achievements, to matching based on ascription. Social policies often aim to reduce the effect of ascription, but it is commonly found that initial ascribed inequalities persist during the life course, and even across generations (McLanahan 1985). Under some other conditions, individuals can easily 'overcome' initial inequalities, for example via their education, but under other conditions, ascribed status remains important. This study investigates the relation between social network usage and formal screening methods in person-job match processes.

First, I investigate what factors predict social network usage by prospective employees in the extensive search phase of the recruitment process. Second, I investigate whether network usage in the recruitment phase predicts the usage of formal screening methods in the intensive selection phase. To derive at specific hypotheses, I make two non-problematic assumptions on the preferences of the actors involved in the hiring process: (1) employers are assumed to prefer an efficient hiring process, minimizing the costs of intensive selection procedures, while maximizing the quality of information gained via this procedure; (2) job candidates are assumed to prefer jobs with maximum expected returns in terms of monetary payoffs, long-term job security, and job-satisfaction.

The above suggests that the interests of employers and candidates are opposed, at least to some degree. Candidates may try to get jobs for which they do not meet official requirements; thus, candidates may overstate their capacities in the selection phase, but not unlimited: I expect that candidates weigh the expected benefits of getting the better job against the expected losses associated with being under-qualified (in terms of job-security and –satisfaction). Thus candidates will generally overstate their capacities only the (moderate) degree to which they expect to be able to get away with it. Knowing this, employers want to gain qualitatively sound information about the true qualities of job candidates.

The general conjecture of this study is that employers use social networks to the degree that it yields qualitatively sound information on the true qualities of candidates, and that candidates use social networks to the degree that it helps them signal to employers that they match job requirements. In the following, I will derive specific hypotheses on the workings of these mechanisms. It has been evidenced that those who are the disadvantaged, such as females, younger people, non-Party members, and less educated workers show a greater tendency to only use social networks to obtain their jobs (Lin 1999; Wu 2011). However, Wu (2011) only focused on the demographic characteristics in explaining the likelihood of network mobilization, overlooking the characteristics of job itself, such as formal job requirements and job competitiveness. This chapter aims to bridge this gap.

When the job requirements are higher, job seekers, especially for those who are under-qualified, may be reliant on social networks to get the job. When ego considers the desired job as very competitive, he/she might utilize social networks to secure his/her opportunity. Based on the above-mentioned arguments, I thus formulate hypotheses on the predictors of network usage by candidates in the extensive search phase of the hiring process:

H1a The higher the job requirements, the more a job-seeker uses social networks in the extensive-search process.

H1b The more competitive the job-search process, the more a job seeker uses social networks in the extensive-search process.

East Asian societies, such as China and Japan, place greater emphasis on strong ties than on weak ties (Granovetter 1995). People generally place more trust on people with whom they are strongly- rather than weakly-tied. Given job seekers A and B, A relies on strong tie C as the intermediary to approach his/her prospective employer D. In contrast, B relies on weak tie E as the intermediary to do so. Since A and C are strong tie characterized by high trust, frequent daily communications, and reciprocal obligations, C knows A much better than E knows B and thus could transmit his/her detailed information such as qualifications, accumulated skills, and personalities to employer D. In addition, C is much more motivated to help A than E to help B because of the expected long-term reciprocal obligations. Following this rationale, employer D is more likely to hire A without placing formal screening methods, such as interviews and paper-based tests. But D considers formal meritocratic selection to be necessary to judge the qualifications of B. Thus, I propose two hypotheses on the consequences of network usage in the extensive search phase for the usage of formal screening methods in the intensive-search phase of the hiring process.

H2a The extent to which a job-seeker used weak-ties in the extensive search phase of the hiring process is positively related to the likelihood of encountering formal screening methods in the intensive selection phase.

H2b The extent to which a job-seeker used strong-ties in the extensive search phase of the hiring process is negatively related to the likelihood of encountering formal screening methods in the intensive selection phase.

3. Methods

3.1 Sample and data

Hypotheses are tested against the 2009 Job Search Net Survey¹. This survey comprises a multi-stage stratified probability sample of 7,102 adults, aged 18 to 69,

¹ Job Search Net Survey was carried out by Xi'an Jiaotong University, Jilin University, Nankai University, Shandong University, Lanzhou University, Shanghai Academy of Social Sciences, Xiamen University, and Sun Yat-sen University in 2009. The principal investigator is Dr. Yanjie Bian. The author appreciates the assistance in providing data by the institutes and individuals aforementioned. The views expressed herein are the author's own.

from eight largest cities in China. The survey gathered extensive information about respondents' job histories and post-hire outcomes. In this chapter, I restrict the sample to those who had full-time non-agricultural first jobs. After excluding cases with missing data on key variables, the resulting sample consists of 3,722 respondents.

3.2 Measurements

3.2.1 Dependent Variables

3.2.1.1 *Job Search Methods Used in Search Process*

There are three kinds of job search channels, namely, hierarchy, networks, and market across all institutional settings (Granovetter 1995; Bian 2002a). Hierarchy channel refers to jobs assigned via state allocation, especially during the planned economy era in state-socialist countries (Bian 1997). Networks refer to jobs obtained via mobilizing interpersonal relationships. Market refers to jobs allocated via attending job fairs, direct application, responding to help wanted advertisements, and online application, to name but a few. There are 11 channels securing jobs in the original questionnaire: (1) continue parents' job; (2) continue relatives' job; (3) internal labour market recruitment; (4) state allocation; (5) introduced by job agencies; (6) introduced by others; (7) individual application; (8) internet; (9) job fair; (10) self-employed/employer. Since I am interested in external labour market and job search methods used by employees not employers, thus options 3 and 10 were excluded from our analysis. Respondents who selected options 6 were assigned 1 on the network usage variable, while the remaining ones were assigned 0. Respondents who selected options such as 1, 2, and 4 were assigned 1 on the hierarchy usage variable, while the remaining ones were assigned 0. Respondents who selected options such as 5, 7, 8, and 9 were assigned 1 on the market usage variable, while the remaining ones were assigned 0.

3.2.1.2 *Interviews or paper-based tests*

The two dependent variables are binary dichotomous variable indicating whether the formal selection procedures (paper-based tests or face-to-face-interviews) were implemented before getting the desired job, coded as 1 if so and 0 otherwise. If jobs do require formal credentials, but employers did not use any formal screening methods, then how did they judge the capacities/qualifications of the applicants? I would expect

that making hiring decisions without interviews/paper-based tests on a job, which requires certain academic credentials, is a sign of trust guaranteed by social networks.

3.2.2. Independent Variables

3.2.2.1 *Tie strength (strong vs. weak)*

Respondents were asked: “What role relations did you have which provided you useful help in your process of finding the first job?” The response categories were as follows: (1) family members; (2) kin and affine; (3) intimate friends; (4) general friends; (5) people from the same hometown; (6) alumni; (7) friends in military training; (8) neighbors; (9) teacher-student relationship; (10) master-apprentice relationship; (11) colleagues; (12) business partners; (13) indirect ties. There are three kinds of strong ties, including (1), (2), and (3), and ten kinds of weak ties, including items from (4) to (13). If a respondent used 2 out of 3 kinds of strong ties, the proportion of strong tie used equals to 2/3; if a respondent used 3 out of 10 kinds of weak ties, the proportion of weak tie used is 3/10. In other words, we treat the proportion of weak/strong tie used as continuous variables. This is a brand-new measurement of social ties, since I believe what really matters are not only strong or weak ties, but also the actual number of categories of weak- or strong ties used.

3.2.2.2 *Formal job requirements and degree of job competitiveness*

Required professional skills and working experience were coded as dummy variables with 1 indicates having skills or experience, and 0 otherwise. I reversed the original scale of degree of job competitiveness, ranging from 1 “not competitive at all” to 5 “very competitive”. Then I make it as a dummy variable, indicating if a job was competitive or not.

3.2.3 Controls

Control variables considered in my study are demographic variables, including gender, age, educational level, CCP membership, immigrant status and a set of city dummies. Gender is also coded as a dummy, with male scored 1 and female scored 0. Chinese Communist Party (CCP) membership is coded as 1 if so and 0 otherwise. Working aged individuals are defined as those aged 18 to 60. Educational credential is measured in several categories (1=primary school or less; 2=junior middle school;

3=senior middle school; 4=three-year college; 5=four-year college or more). The same logic applies to father's education and father's CCP membership. Work unit type is coded as a dummy, with state sector scored 1 and private sector scored 0.

Table 3-1 Descriptive Statistics on Key Variables Used in the Analysis, N=3,722

Variables	Percent	
<i>Dichotomous Variables</i>		
Formal Screening Methods		
<i>Interview</i>	.55	
<i>Paper-based Test</i>	.28	
Job Search Methods Used in Search Process		
<i>Network</i>	.26	
<i>Market</i>	.40	
<i>Hierarchy</i>	.43	
Gender (Male= 1)	.46	
Education		
<i>Primary and Below</i>	.30	
<i>Junior High</i>	.22	
<i>Senior High</i>	.36	
<i>Junior College</i>	.17	
<i>College and Above</i>	.22	
Party Member (Yes = 1)	.08	
Immigrant (Yes = 1)	.17	
Sector (State = 1)	.67	
Father's Education		
<i>Primary School and Below</i>	.43	
<i>Junior High</i>	.23	
<i>Senior High</i>	.22	
<i>Junior College</i>	.05	
<i>College and Above</i>	.07	
Father's Party Membership (Yes = 1)	.29	
Professional Skills Required for the Job	.41	
Working Experience Required for the Job	.32	
Search Process Competitiveness (Yes = 1)	.36	
Economic Periods		
<i>Period 1</i>	.21	
<i>Period 2</i>	.23	
<i>Period 3</i>	.15	
<i>Period 4</i>	.41	
<i>Continuous Variables</i>		
Age (Centered)	-.60	8.33
Proportion of Weak-ties Used	.04	.09
Proportion of Strong-ties Used	.19	.29

China's urban economy has experienced four periods²: a state redistributive era (1956-1979), a mixed economy era (1980-1992), a market transition era (1993-2001), and a full-scale marketization era (Bian, Zhang, and Cheng 2012). In order to control for the institutional changes, I include economic periods as a control variable, with the first period being the reference category. Cities were included as a dummy in the model to control for regional variations, with Tianjin being the baseline category. Table 3-1 presents information about the sample. Most of the respondents were interviewed (55%). Only 28% took paper-based tests. Males and females constitute 46% and 54% of the sample respectively. The sample distinguishes five educational groups: senior high graduates make up 36% of the sample, with elementary graduates, junior high graduates, three-year-college graduates, and university and above graduates making up 3%, 22%, 17%, and 22% respectively. Of the respondents, only 8% are communist party members, suggesting a high selectivity of joining the CCP. Of the 3,722 respondents, 26% mobilized social networks in job search process, while 40% and 43% relied on market and hierarchy channel to find the job. This is consistent with the existing literature. Previous studies have shown that the percentage of network users ranges from 25% to 45% in China (Lin and Bian 1991; Bian 1997), 35% in Japan (Watanabe 1987), 40% in East Germany (Volker and Flap 2001), 35% to 50% in the Netherlands (DeGraaf and Flap 1988). Note that these three categories are not exclusive since some respondents might utilized a combination of these three methods.

3.3 Models

I use Multiple Binary Logistic Regression to test my hypotheses.

4. Results

4.1 *The usage of social networks in the extensive-search phase of the recruitment process*

Logistic Regression was used to predict network usage by candidates in the extensive search phase, with individual- and job characteristics as predictors. Results showed that individual- and contextual factors significantly predicted both weak-tie usage, $R^2 = .19$, $\text{adj-}R^2 = .17$, $F(25, 3696) = 31.16$, $p < .001$, and strong-tie usage, $R^2 = .22$, $\text{adj-}R^2 = .21$,

² For detailed information on the evolution of China's economic development since 1956, please refer to pp. 36 – 37.

$F(25, 3696) = 39.29, p < .001$. Including job-search-specific factors increased model fit significantly for strong-tie usage, $\chi^2(3) = 42.23, p < .001$, as well as weak-tie usage, $\chi^2(3) = 17.82, p < .001$.

Table 3-2 OLS-Regression Models Predicting Strong and Weak Tie Usage in the Search Process

	<i>M1: Weak Tie Usage</i>		<i>M2: Strong Tie Usage</i>	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Job Search Methods				
<i>Network (Ref.=Non-network)</i>	0.03***	0.00	0.16***	0.01
<i>Market (Ref.=Non-market)</i>	0.01**	0.00	0.02	0.01
<i>Hierarchy (Ref.=Non-hierarchy)</i>	0.00	0.00	-0.03*	0.01
Gender (Male= 1)	-0.00	0.00	0.00	0.01
Education (Ref.= Primary School and Below)				
<i>Junior High</i>	0.01	0.01	0.01	0.03
<i>Senior High</i>	0.01	0.01	-0.00	0.03
<i>Junior College</i>	0.01	0.01	-0.00	0.03
<i>College and Above</i>	0.03**	0.01	0.01	0.03
Party member (Yes = 1)	0.00	0.01	-0.04*	0.02
Immigrant (Yes = 1)	-0.00	0.00	-0.02	0.01
Sector (State = 1)	-0.01	0.00	0.02	0.01
Father's Education (Ref.= Primary School and Below)				
<i>Junior High</i>	0.00	0.00	0.00	0.01
<i>Senior High</i>	0.01	0.00	0.03*	0.01
<i>Junior College</i>	0.00	0.01	0.06**	0.02
<i>College and Above</i>	-0.00	0.01	-0.00	0.02
Father Party Member (Yes = 1)	-0.00	0.00	-0.02	0.01
Areas (Ref. = Taijin)				
<i>Guangzhou</i>	0.00	0.00	-0.02	0.01
<i>Jinan</i>	-0.01	0.00	-0.00	0.01
<i>Shanghai</i>	-0.02***	0.00	-0.09***	0.01
<i>Xiamen</i>	-0.02***	0.01	-0.04**	0.01
<i>Xi'an</i>	0.04***	0.01	0.10***	0.02
Age	-0.00	0.00	-0.00*	0.00
Professional Skills Required for the Job (Yes = 1)	0.01***	0.00	0.02*	0.01
Working Experience Required (Yes = 1)	0.01***	0.00	0.00	0.01
Search Process Competitiveness (Yes = 1)	0.00	0.00	0.03**	0.01
Period (Ref. = Period 1)				
<i>Period 2</i>	0.00	0.00	0.06***	0.01
<i>Period 3</i>	0.00	0.01	0.10***	0.02
<i>Period 4</i>	0.02***	0.01	0.13***	0.02
Intercept	0.00	0.01	0.05	0.03
<i>N</i>	3,722			
<i>Pseudo R</i> ²	0.188		0.218	

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3-2 summarizes the full models. The results showed that, controlling for

individual and contextual factors, the level of professional skills required in a job are positively associated with both strong and weak tie usage. Working experience required for jobs, however, is positively related to only weak ties, but not with strong ties. Therefore, Hypothesis 1a has been proved. In addition, search process competitiveness is positively associated with only strong- but not with weak ties, supporting Hypothesis 1b. In addition, compared to non-network users, network users tend to use more strong ties more than to use weak ties. This could be explained by *guanxi* culture in China that values and trusts strong ties more than weak ties. Surprisingly, the result does not report significant effects on weak or strong tie usage of gender, education, with the exception of college education's positive effect on weak ties and the negative effects of age on strong ties. One possible explanation of these insignificant results has to do with the differences in classifications of dependent variables and modeling strategies. Wu (2011) identified three types of job seekers based on the job search channels used in securing the first jobs: 1) job seekers who used formal channels (either market or hierarchy) only; 2) job seekers who used both formal and network channels; and 3) job seekers who used social network channel only. By using multinomial logistic regressions, he found that these three groups differ substantially in terms of their socioeconomic standings, network resources, and labor market experiences. The upper class is more likely to use both formal and networks to find jobs, the middle class is more likely to use only formal channels, and the lower class is more likely to use only networks. The lower class consists of people who are females, younger, less educated, and non-Party members, and having a rural *hukou* (household registration type)³.

Making a distinction between strong and weak ties, another study in Germany found that though people of both high- and low- socioeconomic standings use social networks to secure job chances, they use different types of ties, with the upper class use weak ties more often and lower class use strong ties more often (Wegener 1991).

4.2 The usage of formal selection methods in the intensive-search phase of the recruitment process

³ Using logistic regression, I predicted network useage from a variety of demographic factors. The result is consistent with findings of Wu (2001). The table is available upon request.

Table 3-3 Coefficients for Multiple Logistic Regression Analyses on Selection Procedures

	<i>M1: Interviews</i>		<i>M2: Paper Tests</i>	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Job Search Methods				
<i>Network (Ref.=Non-network)</i>	-0.18	0.13	-0.40***	0.12
<i>Market (Ref.=Non-market)</i>	0.84***	0.12	0.56***	0.12
<i>Hierarchy (Ref.=Non-hierarchy)</i>	-0.43**	0.14	-0.23	0.15
Tie Strength				
<i>Strong Ties Used</i>	-0.40*	0.18	-0.15	0.16
<i>Weak Ties Used</i>	1.35*	0.64	0.78	0.51
Gender (Male = 1)	-0.23**	0.09	-0.16	0.08
Education (Ref.= Primary School and Below)				
<i>Junior High</i>	0.21	0.26	1.13**	0.43
<i>Senior High</i>	0.34	0.26	1.30**	0.42
<i>Junior College</i>	0.58*	0.28	1.37**	0.43
<i>College and Above</i>	0.72*	0.28	1.63***	0.43
Party Member (Yes = 1)	0.27	0.18	-0.03	0.16
Immigrant (Yes = 1)	-0.38**	0.14	-0.07	0.12
Sector State = 1	-0.14	0.12	0.12	0.11
Father's Education Ref.= Primary School and Below				
<i>Junior High</i>	-0.10	0.12	-0.15	0.12
<i>Senior High</i>	0.03	0.12	-0.04	0.12
<i>Junior College</i>	0.64**	0.22	0.13	0.19
<i>College and Above</i>	-0.01	0.18	-0.00	0.17
Father Party Member (Yes = 1)	-0.26**	0.10	0.20*	0.09
Areas (Ref. =Tianjin)				
<i>Guangzhou</i>	0.29*	0.14	0.01	0.14
<i>Jinan</i>	0.69***	0.15	-0.22	0.15
<i>Shanghai</i>	0.21	0.14	-0.13	0.15
<i>Xiamen</i>	0.22	0.14	-0.13	0.14
<i>Xi'an</i>	0.41*	0.19	-0.06	0.16
Age Centered	-0.05***	0.01	-0.04***	0.01
Professional Skills Required for the Job (Yes = 1)	0.36***	0.10	0.25**	0.10
Working Experience Required for the Job (Yes = 1)	0.65***	0.11	-0.02	0.10
Search Process Competitiveness (Yes = 1)	0.97***	0.10	1.21***	0.09
Period (Ref. = Period 1)				
<i>Period 2</i>	0.44**	0.13	0.75***	0.16
<i>Period 3</i>	1.29***	0.17	0.82***	0.19
<i>Period 4</i>	1.92***	0.19	1.10***	0.20
Intercept	-1.95***	0.31	-3.78***	0.46
<i>N</i>	3,722			
<i>Pseudo R²</i>	0.328		0.189	

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Several findings could be drawn from Table 3-3. First, as expected, network usage in search processes decreases the likelihood of receiving a paper-based test. Moreover, the results from Model 1 clearly show that weak ties sharply increase the odds of having an interview, net of other factors, thus lending support to Hypothesis 2a. It is worth noting that strong ties have no significant effects on the likelihood of encountering a formal interview, thus Hypothesis 2b is not supported by the data. Second, required

professional skills significantly contribute to the likelihood of being selected formally: receiving interviews and/or paper-based tests. In addition, relative to non-working-experience required jobs, jobs that required working experience have highly significant and positive effects on being interviewed. Third, older people are less likely than younger people to be interviewed, suggesting they may be considered as experienced workers. Fourth, consistent with my expectation, job competitiveness is a stronger predictor of being interviewed and being tested.

5. Conclusion

The present chapter contributes to the ongoing debate on the central questions in studies in economic sociology, whether social networks support or undermine formal screening procedures. In terms of the positive effects of social networks, there exists the so-called information asymmetry between job seekers and prospective employers. Social networks work well in distributing information and thus help employers to reach a larger pool of applicants as well as help applicants to reach more useful information on their desired jobs. But it is also true that underqualified applicants utilize social networks to circumvent formal procedures, the negative effect of social networks in person-job match.

In this chapter, first, I investigate what factors predict social network usage by prospective employees in the extensive search phase of the recruitment process. Paying attention to the effects of several job characteristics, namely, formal requirements and perceived degree of competitiveness, I found 1) compared to non-professional skills required, professional skills required for a job is positively associated with both weak and strong tie usage; 2) working experiences required for a job positively contribute to weak tie usage; and 3) The higher the degree of perceived job competitiveness, the more the job seeker uses strong ties more often. These results suggest that when predicting the probability of using social networks, both demographic factors and job characteristics should be taken into consideration.

Second, I investigate whether network usage in the recruitment phase predicts the usage of formal screening methods in the intensive selection phase. To the best of my knowledge, this is among the first attempts to examine the differential effects of tie strength on the likelihood of encountering formal screening procedures. Though weak

ties bring more novel information than strong ties, their advantageous effects are constrained on specific phases of job search in Chinese labor market, such as formal screening procedures. Weak ties increase the probability of having to do an interview, suggesting the negative effects of using weak ties in Chinese urban labor market.

Third, selection based on paper tests can be said to be meritocratic selection, while interview screening does not necessarily imply meritocracy because being asked to do an interview may simply indicate how well the applicant is connected and the questions asked in interviews may not always be related to meritocratic criteria. Since network users are less likely to be tested, implying that social networks do undermine meritocratic selection.

Chapter 4 Network Effects on Short-Term Material Wellbeing

Abstract

This chapter analyzes the changing effects of social networks on individual material status attainment in urban China across four different economic periods and among different institutional settings. Results based on urban survey data show that first, social networks; compared to the market channels, have a positive effect on obtaining jobs within the state and collective sectors rather than within private sectors. Third, social networks are negatively related to income attainment since China's entry into the WTO. In my analyses, I pay particular attention to explore the comparative changing impacts of social networks on status attainment within the changing market economy in China.

1. Introduction

There are two main traditions in research on labor market processes. One is the positional approach, and the other is the network approach. The positional approach consists of three research lines, namely, human capital theory (Becker 1964), status attainment models (Blau and Duncan 1974), and labor market segmentation theory (Fields 2009), whereas the so-called network approach suggests that social networks are frequently mobilized by both potential employees and employers. In the searching processes, job seekers utilize social networks to get access to information or to exert influence from authorities on the person in charge for a desirable job position. In the recruitment processes, the employer/organization uses social networks to minimize advertisement costs or to reach a larger pool of potential workers through referrals. Previous studies consistently found that individuals receive better jobs through applying with referrals than individuals applying without referrals (Fernandez, Castilla, and Moore 2000; Petersen, Saporta, and Seidel 2000; Yakubovich and Lup 2006).

This chapter concentrates on the supply side of the labor market, that is, from the job seeker's perspective. In this chapter, I examine the changing effect of social networks on job-search outcomes, i.e., work unit types and monthly salary, between 1956 and 2009, with a recently collected dataset from eight Chinese cities in 2009. The

results of this study contribute to our understanding of the role of social networks in labor market outcomes within a transforming society in at least two ways.

First, in the theoretical literature, there are contrasting views about the centrality and importance of social networks in contemporary Chinese society. According to “institutional holes” theory, social networks (e.g., *guanxi*) impose significant and substantial effects on income and status attained (Bian 1997; 2002a). Others cast doubt on this proposition and argue its importance declines over time (Guthrie 1998; Hanser 2002). Based on her field study on the job searching process of young urbanites, Hanser and Guthrie agree that social networks are not that important in job searches, especially for young job searchers in urban cities. However, Hanser’s conclusion was drawn from inappropriate data. Out of 22 informants, 3 had graduated from technical high school, and 19 from two-year technical colleges and above. Thus, since 86% of the sample consisted of highly educated young urbanities, her conclusion could not be generalized to the whole labor market, but rather should only be limited to those who are well-educated young urban job seekers. However, with only one exception (Bian, Zhang, and Cheng 2012), these studies failed to show how and why social networks’ influence on labor market processes and outcomes have changed over time, and fail to examine the comparative effect of social networks when entering different types of work units. The role of social networks should change in line with the great social and economic changes and vary when entering into different types of work units.

Second, apart from empirically examining social network users’ demographical characteristics, this study provides further analyses on the changing effects on material wellbeing, i.e., income gain, across different economic periods and on entering three work sectors, namely, state-, private-, and collective-sectors. Due to China’s modernization and marketization, I would expect the prevalence of social networks and their beneficial effects to decline, but for certain groups of job seekers, especially for lower-class people, the positive effects of social networks still remain. For these people, social networks either function as a safety net or as a means of getting jobs. My research questions are: a) How does the trend of social network usage change in line with the economic transformation in China? b) How do the beneficial effects of social networks on income co-evolve with the great social change in the past five decades? and c) In what social domains do social networks still function?

The remainder of this chapter is structured as follows. Section 2 briefly introduces four economic periods that China has recently experienced and formulates a set of testable hypotheses. Section 3 presents data and methods, followed by the presentation of results and conclusions in Section 4.

2. The Co-evolution of China's Economy and Social Networks

From a historical perspective, China's urban economy has evolved through four periods (Bian, Zhang, and Cheng 2012; Bian and Zhang 2001), namely, a state redistributive era (1956-1979), a mixed economy era (1980-1992), a market transition era (1993-2001), and a full-scale marketization era (2002-2009). Table 4-1 summarizes the main features of four economic periods.

Table 4-1 The Trajectory of the Chinese Urban Economy, 1956-2009

Economic Periods	Time Range	Features
The State Redistributive Era (The Maoist Version Of The Centrally Planned Economy)	1956-1979	All resources were allocated by the central and local governments; Consumer or producer sovereignty was denied; The production plan and the price of the goods and services was set by the government not by the market; Profit was not the main objective; The lifetime tenure of most jobs and the firm control of job allocation and mobility was employed.
The Mixed Economy Era (The Early Reform Period)	1980-1992	Reform of the economic system was initiated in 1978 but actually came into play since 1980; Foreign investment, market principles, de-collectivization, and the household responsibility system were initiated; The lifetime tenure system was gradually abandoned; Labour contracts were adopted from local to national; The private economy was considered as a complementary part to the state socialist economy.
The Market Transition Era (The Further Reform Period)	1993-2002	The 14th National Communist Party Congress in 1992 stated that China's main task in the 1990s was to create a "socialist market economy"; Labour contracts became mandatory with the enactment of the 1994 Labour law; Redundant workers were fired or laid off; Massive numbers of rural residents migrated to urban areas; The private economy was considered as an important component of the national economy.
The Full-Scale Marketization Era (The post-WTO Period)	2002-2009	China joined the World Trade Organization (WTO) in 2002; Foreign investments were accelerated, leading to a very competitive environment; Market forces have taken the dominant role in the national economy.

The socialist transformation of the ownership of the means of production took place

during 1953-1956 in the People's Republic of China. It included the socialist transformation of agriculture, handicraft, and capitalist industry and commerce, all of which are collectively referred to as the "three great transformations". Its aim was to change the nature of relations of production. By the end of 1956, the "three great transformations" had been largely completed, and the Chinese government believed that the Chinese society had stepped into the initial phase of socialism, and the socialist institution, in economic terms, was established. In the state redistributive era, resources were highly controlled and allocated by the central and local governments. The state used a job-assignment system during this period. Upon graduation, jobs were allocated through a hierarchy of work units, from the central level to the local one, and job-hopping was strictly prohibited. People enjoyed little freedom to choose jobs or to change jobs. The national economic order stagnated due to the Great Leap Forward from 1958 to 1961 and the Cultural Revolution between 1966 and 1976. The Chinese economy was weak in comparison with other East Asian countries at that time, such as Japan and South Korea. Within these strict bureaucratic rules, social networks were employed to gain scarce goods and services (Yang 1994; Gold 1985) and to find and change jobs (Bian 1997).

The Third Plenary Session of the 11th CPC Central Committee, which marked the beginning of the "Reform and Opening Up" policy, was held in Beijing, China, from December 18 to December 22, 1978. Since then, Deng Xiaoping, the core of the second generation leaders, pointed out that the "four modernizations" of industry, agriculture, national defense and science-technology were the Party's key tasks, rather than the focus on class struggle which dominated the Chairman Mao era. Capitalist market principles, de-collectivization, the household-responsibility system, foreign investment, and private business began to be introduced to increase the national wealth. However, the government retained control over major parts of the economy, while allowing private enterprises to coexist with state sectors. In other words, the private sector, at most, was considered as a complementary part of state socialist economy.

In the spring of 1992 Deng Xiaoping delivered several speeches and reasserted his economic philosophy during his famous southern tour to the three coastal areas. He once again stressed the importance of economic reform, and criticized those who were against further reforms. Since then, the role of market has increased dramatically. Most

of the resources were allocated and distributed via market mechanisms rather than via state redistributive system. Consequently, in the mid-1990s the private sector surpassed the state sector in share of GDP for the first time, which forced the Chinese government to begin to consider the private economy as an “important component” of the total economy in 1999, rather than only as a “complement” to the state sector, as it was in 1988. More and more jobs were allocated through mutual choice employment among employers and employees. Workers began to enjoy the freedom of job mobility and try multiple methods of job searching.

Since 2002, when China entered the World Trade Organization (WTO), the market forces have taken the dominant role in the labor markets. In this period, many foreign companies, joint-venture companies, and multinational companies have entered into Chinese labor market, leading to a very competitive environment and the construction of human capital based resource allocation system.

Researchers should be aware of diverse social domains where social networks function. In some spheres, social networks may be of less importance, but in other spheres, they may still work rather well. In order to empirically examine previous findings by Hanser (2002) and Guthrie (1998), I examine the frequency of social networks users in different economic periods in China’s labor market. Given the new introduction of market mechanisms starting from 1980, Chinese people face more and more institutional uncertainties and risk. I would expect social networks could be employed to lower these kinds of potential risks. However, with joining the WTO, the improvement of market conditions and transparency of the policies and regulations, and the prevalence of the idea of an education-based meritocracy, it is expected that there should be a decline in the use of social networks. Following this rationale, it is logical to speculate that income is more determined by human capital as compared to social networks. In other words, the positive effect of social networks on monthly income should decline or even become negative. Bian, Zhang, and Cheng (2012) examined the effects of strong and weak ties on material wellbeing in Chinese urban labor market, suggesting that the effect of weak ties on income are increasing in post-reform era, while the effects of strong ties on income are decreasing since 1980. By making a distinction between two kinds of network resources: information and influence, they found that before the pre-reform era, the positive effect of influence on starting wage

was much stronger than that of information, but after China became a member of the WTO the former association was suppressed whereas the latter one was strengthened. In contrast to their research, I directly compare beneficial effects of social networks among network users and non-network users over time. These arguments lead to the following two hypotheses:

H1: The frequency of social networks increased after China's economic reform, while declined after China's entry into the WTO.

H2: The effects of social networks on income attainment decline over time.

The association between marketization and earnings inequality is mediated by the types of work units, which is called *danwei* in Chinese society. Previous studies showed the significant role of work units in generating social inequality in China, economically, socially, and politically (Walder 1986; Whyte and Parish 1984; Wu 2002; Xie and Wu 2008; Xie, Lai, and Wu 2009). There are three types of work units in China: state-, collective-, and private-sectors. Researchers have shown that the work unit “continues to be an agent of social stratification in contemporary urban China” (Xie, Lai, and Wu 2009). Generally speaking, employees in the state sector enjoy higher privileges and get better access to more social welfare benefits than the other market sector counterparts. Thus, getting into advantageous work units is crucial for every job seeker. Previous studies have shown the positive effect of social networks on entering into state sectors (e.g., Huang 2008), overlooking another type of work-units: the collective sector. The present chapter is expected to bridge this gap.

Further, as suggested by Li (2013), market firms whose principal aims are making profits are more inclined to employ applicants who are professionally qualified for a certain position. On the contrary, state and collective enterprises continuously receive financial support from central and local governments regardless of their profits and losses. The marketization level of these are less developed, thus I expect social networks could still be useful in the job searching process within state and collective sectors.

H3: Social networks, compared to market channels, have a positive

effect on entering jobs within the state and collective sectors rather than the private sector.

3. Data and Methods

3.1 Data

In this analysis, I use data from the 2009 Job Search Net Survey, a multi-stage stratified probability sample of 7,102 adults aged 18 to 69 from eight Chinese major cities. The survey gathered extensive information about respondents' job mobility histories. After excluding cases with missing data on key variables, the resulting sample consists of 5,477 respondents.

3.2 Measurements of key variables

3.2.1 Dependent variables

3.2.1.1 *Material Wellbeing Measured by Monthly Income*

In order to test the second hypothesis, the monthly salary of respondents' current jobs is the dependent variable, measured in RMB yuan (1 yuan= 0.1605 USD). I use the logarithm of monthly salary as the dependent variable in the analyses.

3.2.1.2 *Three Types of Work Units*

Following definitions by Zhou, Tuma, and Moen (1997: 347), the state sector includes three categories, namely, government agencies, public organizations, and state-owned firms. Collective sectors refer to "firms not directly administrated by central planners, though often sponsored by a local government". Private sectors are "owned solely by individuals or partners in private organizations". There are 9 categories of work units in the original questionnaire: (1) government agencies; (2) state-owned firms; (3) public organizations; (4) collective firms; (5) self-employed; (6) private firms; (7) foreign-owned firms/joint-venture firms; (8) joint-equity firms; (9) others. The ninth category was coded as missing. I defined the first three categories as work units within state sectors, the fourth one as collective work units, while the remaining ones as private work units.

3.2.2 Key Independent Variable: Job Search Methods

There are 11 channels securing jobs in the original questionnaire: (1) continue parents' job; (2) continue relatives' job; (3) internal labor market recruitment; (4) state allocation; (5) introduced by job agencies; (6) introduced by others; (7) individual application; (8) internet; (9) job fair; (10) self-employed/employer. Since we are interested in external labor market and job search methods used by employees not employers, options 3 and 10 were excluded from our analysis. Respondents who selected options 6 were assigned 1 on the network usage variable, while the remaining ones were assigned 0. Respondents who selected options such as 1, 2, and 4 were assigned 1 on the hierarchy usage variable, while the remaining ones were assigned 0. Respondents who selected options such as 5, 7, 8, and 9 were assigned 1 on the market usage variable, while the remaining ones were assigned 0.

3.2.3 Controls

Controlled variables considered in this study are demographic variables, including gender, age, educational level, Communist Party membership, household registration type (urban or rural), father's party membership, father's education, and city dummies. Gender is also coded as a dummy, with male scored 1 and female scored 0. Since previous studies show a positive effect of being a Chinese Communist Party (CCP) member on socioeconomic attainment, a dummy variable for Party membership is included. Working aged individuals are defined as those aged 18 to 60. Education is measured using a five-category measure that reflects the important thresholds in the Chinese education system (1=primary school or less; 2=junior middle school; 3=senior middle school; 4=three-year college; 4=four-year college or more).

3.3 Models

In order to assess the net effect of different job search methods on occupational attainment (H2), I employ an OLS regression model. To investigate the periodical variations, the sample is coded into four labor cohorts based on the year of job entry: 1956-1979, 1980-1992, 1993-2002, and 2002-2009. Given striking institutional differences between each period, I propose that regression models should examine the possible influence of social network on income attainment separately in terms of four

economic eras. City dummies are also included to control for regional variations.

Multinomial logistic regression is employed when testing the third hypothesis, where the dependent variable is three types of work units: state-, collective- and private-sectors, regarding the private one as the reference category.

3.4 Results

Table 4-2 Percentage, Mean, and Standard Deviation for Variables Used in the Analysis, 2009
JSNET Survey, N=5,447

Independent Variables	Percent/Mean	SD
Monthly Salary (Logged)	6.12	1.92
Age	25.97	8.41
Three Types of Work Units		
<i>State</i>	58.40	
<i>Collective</i>	6.00	
<i>Private</i>	35.60	
Job Search Methods		
<i>Networks (Ref.= Non-Networks)</i>	23.63	
<i>Market (Ref. =Non-Market)</i>	35.45	
<i>Hierarchy (Ref.=Non-Hierarchy)</i>	36.77	
Gender		
<i>Male</i>	47.18	
<i>Female</i>	52.82	
Education		
<i>Primary and Below</i>	4.44	
<i>Junior High</i>	22.16	
<i>Senior High</i>	37.05	
<i>Junior College</i>	16.52	
<i>College and Above</i>	19.83	
Party Membership	7.40	
Hukou Origin (Urban=1)	83.04	
Father's Party Membership (Yes=1)	30.31	
Cities		
<i>Changchun</i>	9.40	
<i>Guangzhou</i>	14.04	
<i>Jinan</i>	11.13	
<i>Lanzhou</i>	15.79	
<i>Shanghai</i>	13.40	
<i>Tianjin</i>	14.96	
<i>Xiamen</i>	7.89	
<i>Xi'an</i>	13.38	
Economic Periods		
<i>Period 1</i>	22.01	
<i>Period 2</i>	21.63	
<i>Period 3</i>	15.79	
<i>Period 4</i>	40.57	

Table 4-2 presents a summary of statistics for variables included in the analysis. As

the table shows, there are five educational groups: primary and below (4.44%), junior high (22.16%), senior high (37.05%), junior college (16.52%), and college and above (19.83%). Across all the four economic periods, hierarchy allocated 36.77% percent of all the jobs, while market and social networks took the proportion of 35.45% and 23.63% respectively. The proportion for respondents who got current jobs in the four economic periods was 22.01%, 21.63%, 15.79%, and 40.57%, respectively. The sample distinguishes three types of work units: state sectors make up 58.49 % of the sample, with collective and private sectors making up 6% and 35.60% respectively. Age ranges from 18 to 69, with a mean of 25.97 and a standard deviation of 8.41. The gender composition is fairly even, with 47.18% males and 52.82% females. *Hukou* status is a simple dummy variable, contrasting the major urban *hukou* holders (83.04%) with rural *hukou* minorities (16.96%).

Table 4-3 Job Search Channels by Period: Network Users Increasing Over Time

		Periods			
	Total	1956-1979	1980-1992	1993-2001	2002-2009
Total N	5447	1199	1178	860	2210
Search Channel (%)					
<i>Networks</i>	23.63	6.76	18.34	24.88	35.11
<i>Market</i>	35.45	11.59	19.44	35.81	56.79
<i>Hierarchy</i>	36.77	78.65	57.89	28.37	6.06

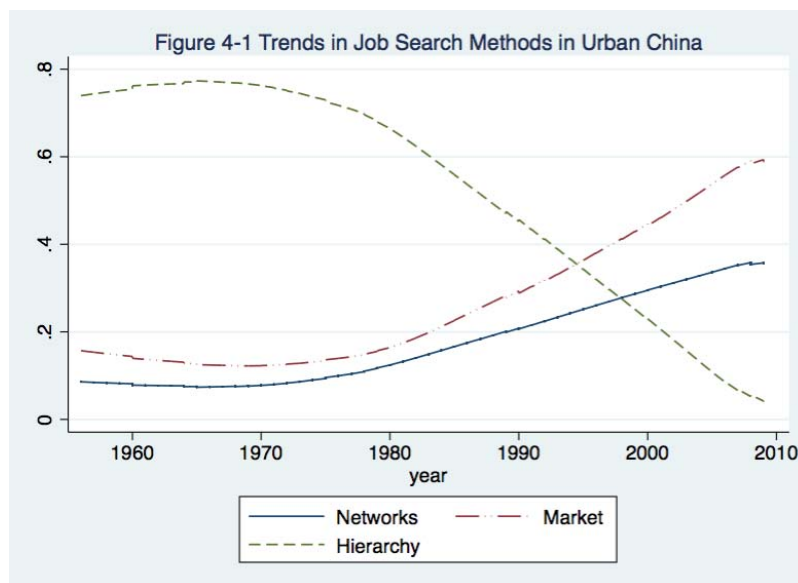


Table 4-3 and Figure 4-1 show the job search methods employed over time in China's urban labor market. It shows that the proportion of social networks users has increased dramatically from 6.76% in state redistributive period to 35.11% in post-WTO era. Surprisingly, the proportion of network users did not decrease after China's entry into the WTO. Consistent with my expectation, the frequency of market channels users increased steadily whereas that of hierarchy channels decreased sharply over time. Guthrie (1988) proposes that the prevalence of social network usage is only a by-product of particular socio-economic arrangements rather than a part of Chinese culture. If so, the centrality of social networks should be in decline as the market develops. I deem the wide use of social networks is part of Chinese relational culture and is also influenced by socio-economic policies. Hypothesis 1 is partially confirmed.

Table 4-4 Comparative Effects of Social Networks on Material Wellbeing Across Four Economic Periods in China's Urban Labor Market, N=5,447

Independent Variables	Dependent Variable: Material Wellbeing Measured by Monthly Income							
	1956-1979		1980-1991		1992-2001		2002-2009	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Network Used	0.189	0.150	0.086	0.114	-0.041	0.077	-0.069*	0.029
Age	0.041***	0.009	0.031***	0.007	-0.006	0.004	-0.002	0.002
Gender (Male=1)	0.068	0.075	0.113	0.088	0.264***	0.066	0.201***	0.027
Education (Ref. =Primary and Below)								
<i>Junior High</i>	0.027	0.134	0.451	0.255	-0.016	0.199	0.016	0.091
<i>Senior High</i>	0.250	0.136	0.488*	0.248	0.117	0.196	0.192*	0.089
<i>Junior College</i>	0.717***	0.199	1.207***	0.274	0.308	0.206	0.401***	0.092
<i>College and Above</i>	0.843***	0.202	1.428***	0.276	0.556**	0.211	0.802***	0.092
Party Membership	-0.260	0.226	0.006	0.188	0.436***	0.118	0.137**	0.049
Urban Hukou	-0.192	0.197	0.070	0.209	-0.179	0.098	-0.025	0.033
Work Unit Types (Ref.=State Sector)								
<i>Collective Sector</i>	-0.155	0.116	-0.279	0.155	-0.044	0.155	0.067	0.114
<i>Private Sector</i>	1.120***	0.274	1.192***	0.151	0.577***	0.073	0.179***	0.030
Father's Party Membership	0.091	0.091	0.050	0.096	0.095	0.072	0.043	0.032
Areas (Ref.=Changchun)								
<i>Guangzhou</i>	1.063***	0.175	1.685***	0.183	1.136***	0.135	0.590***	0.061
<i>Jinan</i>	0.126	0.156	0.355	0.190	0.427**	0.137	0.209**	0.066
<i>Lanzhou</i>	0.149	0.153	0.042	0.164	-0.228	0.128	0.015	0.062
<i>Shanghai</i>	0.316*	0.146	1.109***	0.178	1.042***	0.140	0.644***	0.064
<i>Tianjin</i>	0.755***	0.144	0.824***	0.155	0.466***	0.139	0.243***	0.066
<i>Xiamen</i>	0.824**	0.256	1.361***	0.248	0.941***	0.144	0.703***	0.065
<i>Xi'an</i>	1.157***	0.157	1.081***	0.166	0.500***	0.135	0.325***	0.063
Constant	2.431***	0.312	2.637***	0.392	6.028***	0.260	6.568***	0.121
<i>N</i>	1,199		1,178		860		2,210	
<i>R</i> ²	0.152		0.222		0.291		0.341	

Note: **p* < 0.05, ***p* < 0.01, ****p* < 0.001

Table 4-4 reports the ordinary least squares (OLS) regression estimating the comparative effect of social networks on monthly income in different economic periods in China's urban labor market, where whether a respondent used social networks or not served as the main predictors and others such as education, CCP membership, gender, and labor cohorts served as controlled covariates. The coefficient for social networks in Table 4-3 is insignificant in the first three economic periods, while its effects became negative in the fourth economic periods, net of other factors. This reveals that social network users have lower monthly salary compared to their non-network counterparts in the post-WTO era. This finding lends partial support to Hypothesis 2.

Table 4-5 Predicted Odds Ratios of Entering Three Types of Work Units

Independent Variables	State VS. Private		Collective Vs. Private	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Job Search Methods				
<i>Networks (Ref.= Non-Networks)</i>	0.327***	0.093	0.718***	0.177
<i>Market (Ref. =Non-Market)</i>	0.345***	0.095	0.261	0.179
<i>Hierarchy (Ref.=Non-Hierarchy)</i>	2.189***	0.141	1.965***	0.203
Age	0.000	0.005	0.011	0.009
Gender (Male=1)	-0.013	0.078	-0.206	0.139
Education (Ref. =Primary and Below)				
<i>Junior High</i>	0.072	0.242	-0.011	0.305
<i>Senior High</i>	0.444	0.237	-0.206	0.306
<i>Junior College</i>	0.549*	0.249	-0.483	0.366
<i>College and Above</i>	1.107***	0.252	-1.215**	0.465
Party Membership	0.593***	0.147	0.101	0.357
Hukou Origin (Urban=1)	1.029***	0.106	1.028***	0.254
Father's Party Membership (Yes=1)	0.291***	0.086	0.032	0.164
Areas (Ref.=Changchun)				
<i>Guangzhou</i>	-0.857***	0.171	-0.616*	0.287
<i>Jinan</i>	-0.590**	0.180	-0.107	0.283
<i>Lanzhou</i>	-0.271	0.170	-1.341***	0.322
<i>Shanghai</i>	-0.538**	0.177	-1.382***	0.322
<i>Tianjin</i>	-0.744***	0.183	-0.781**	0.287
<i>Xiamen</i>	-1.102***	0.194	-0.704*	0.356
<i>Xi'an</i>	-0.493**	0.170	-0.437	0.279
Economic Periods (Ref.=1956-1979)				
<i>Period 2</i>	-1.470***	0.249	-1.534***	0.282
<i>Period 3</i>	-3.168***	0.248	-3.179***	0.320
<i>Period 4</i>	-3.754***	0.249	-4.495***	0.348
Constant	1.641***	0.342	0.547	0.497
<i>Pseudo R²</i>	0.330		0.330	
<i>Total N</i>	5,447		5,447	

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The multinomial logistic regression result is shown in Table 4-5, from which we can see that, holding other factors constant, the relative odds of getting jobs within state and

collective sectors rather than within private sectors is 38% ($=e^{0.327}-1$) and 105% ($e^{0.718}-1$) higher for those who utilized networks than for those who did not mobilize social networks, respectively. This finding lends support to Hypothesis 3. Not surprisingly, compared to social network users, those who relied on hierarchical methods enjoy 9 ($e^{2.189}$) and 7.13 ($e^{1.965}$) times the odds of entering into state and collective sectors rather than private sectors. In addition, Party members enjoy nearly twice the odds ($e^{0.593}$) than non-party members of entering into state enterprises. People with urban *hukou* origin have higher odds of not being accepted into state and collective sectors as compared to private sectors.

4. Summaries and Discussions

This chapter is part of a larger effort at understanding the great social changes that have taken place in China since the founding of the People's Republic of China in 1949 from social network perspectives, paying particular attention to the urban labor market.

The main question asked on social networks is whether the prevalence of social networks has changed markedly. My results show that the relative frequency of social network usage has increased between 1956 and 2009. Additionally, the proportion of people who relied on market channels to find jobs increased steadily over time, whereas those who utilized hierarchy channels declined sharply. Since 1993, market channels became the primary mechanisms through which jobs were obtained. Thus, the market-oriented reforms have had strong impact on individuals' choices in terms of choosing potential job search methods. Apparently, Guthrie (1998) is correct in his formulation of an increasing rationality in China's urban economy. Jobs are allocated more based on meritocratic criteria rather than on ascriptive factors, in other words, "what you know" comes to matter more than "whom you know", especially in urban industrial and private economies. However, social networks are still widely used even after China's entry into the WTO. One theoretic explanation is the so-called institutional holes theory proposed by Bian (2002a). Based on 100 interviews in 6 Chinese cities, Bian (2002a) offered an institutional explanation to the increasing importance of social networks in China's emergent labor markets. He stated that Chinese labor market is full of "institutional holes" created by the abandonment of the old state redistributive system, and the immaturity and imperfection of new market and legal mechanisms to flow

information, bridge trust and bind obligation.

Additionally, it is remarkable that using social networks is negatively associated with income for those who entered the labor market since 2002, which is consistent with Hypothesis 2. Since people from lower classes show a greater tendency to utilize social networks (Wu 2011; Lin 1999), it is reasonable to speculate that relying on social networks is their last resort. Social networks can hardly guarantee highly paid jobs. Social networks, in this sense, work as a safety net for them.

In sum, the originality and significance of the present chapter derive from two features. First, this study fills the gap by bridging the often-deplored link between social networks and systematic institutional change. In the study of Chinese social stratification, Bian, Zhang, and Cheng (2012) stressed the importance of four economic periods in understanding Chinese social stratification, while Wu (2002) stated the importance of different types of work units in generating social inequalities among urban residents. I made a combination of both of their points in this chapter, offering a more systematic viewpoint. On the one hand, I examined the comparative and changing network effects on material wellbeing, i.e., income attainment across four economic periods since 1956 in China. Moreover, in order to answer the question that why social networks are still used, I found one possible explanation—social networks still remain powerful in obtaining jobs within the state and collective sectors as compared to private firms.

The generalization of the research findings in this chapter is limited by the coverage of the data source. Since it did not survey rural residents, it is impossible to compare the role of social networks in rural settings with those in urban ones. I would expect that in rural areas social networks are more of expressive functions rather than instrumental ones. I consider market transition as a gradual process; three kinds of job allocation mechanisms have coexisted and will coexist before market forces replace the other two methods.

Chapter 5 Network Effects on Long-Term Subjective Wellbeing

Abstract

That weak ties increase the probability of getting a job is a common finding in labor market studies, but whether these positive effects persist over time remains unclear. I study how social ties translate to short- and long-term labor market outcomes, using data from the Job Search Net Survey (JSNET, $N = 7,102$). Using binary logistic regression analyses, I predicted two labor market outcomes, having alternative jobs and long-term job dissatisfaction, from network characteristics, controlling for individual and contextual factors. Results showed that weak ties translate more to initial positive labor market outcomes than strong ties. Surprisingly, the usage of weak-ties in the search process was negatively associated with long-term subjective wellbeing: job satisfaction. Apparently, the short-term benefits of weak ties do not persist over time. This warrants further research.

1. Introduction

That social networks influences job-related outcomes is a common finding in labor and organizational studies (Montgomery 1991). Many studies have investigated the beneficial effects of social networks, often making the distinction between strong and weak ties. Granovetter (1973) postulated that weak-ties lead to intransitive relations, while strong ties lead to network closure; from this, he showed that weak ties are better at providing non-redundant information. Indeed, labor market studies found that novel job-information is more likely to reach individuals via weak than strong ties. A similar argument was made by Burt (1992): in a series of studies he showed that network advantages lie not in dense, but in sparse areas of social networks. In these areas, an individual can serve as a broker between two otherwise disconnected parts of the network; thus, there is a strategic advantage associated with structural holes. Others have focused on the advantages of strong ties. Coleman (1988) for example stressed that strong ties form network closure and hence facilitate trust and promote solidarity.

Some other empirical studies in East Asian societies have, for example, shown the advantages of strong ties over weak ties in facilitating job change (Bian 1997; Watanabe

1987). In communist countries such as the former GDR (Volker 1995:71) and pre-reform China (Bian 1997), weak ties could be a liability, thus people rely heavily on strong ties to get things done. In this sense, it is clear that the relative usefulness of strong or weak ties depends on institutional arrangements and political context. However, previous studies failed to address the following two questions: 1) Do strong ties also have any effects on short-term labor market outcomes, e.g., having alternative jobs when they found the current one? 2) Do the beneficial effects of weak ties persist over time? The present chapter aims to fill in these gaps.

This chapter proceeds as follows. In Section 2, I critically review the previous relevant studies as well as formulate four testable hypotheses. I briefly describe data, methods, and results in Section 3 and present discussions and conclusions in Section 4.

2. Theory and Research Hypotheses

Three dimensions normally measure tie strength: the frequency of interactions, emotional intensity, and reciprocity between parties (Granovetter 1995). Strong ties differ from weak ties in several dimensions. First, compared to weak ties, strong ties feature more strong mutual obligations, trust, loyalty, and long-term asymmetric reciprocity (Lin et al. 1981b; Lin 1999). In addition, people generally transfer valuable and higher quality information to those with whom they are strongly-tied relative to those with whom they are weakly-tied (Bartus 2001:24). Thus, I posit the first hypothesis.

H1: Strong ties increase the likelihood of having alternative jobs.

Granovetter's (1973) original argument was that social networks increase the likelihood of receiving a job via non-redundant information provided by weak ties. Social resources theory furthermore predicts that weak ties link people with low status with those of high status (Lin 1982; 1990). Thus, job seekers could reach a larger pool of jobs available via weak ties. Consistent with the previous findings, I therefore formulate the second hypothesis.

H2: Weak ties increase the likelihood of having alternative jobs.

Previous studies have mainly focused on the beneficial effects of social ties on short-term labor market outcomes such as job satisfaction, starting wage, and occupational status (e.g., Wegener 1991; Beidges and Villemez 1986; Lin, Ensel, and Vaughn 1981b, Marsden and Hurbert 1988), but whether these benefits persist over time has remained largely unexplored. Since the data used in my study contains extensive retrospective information on an individual's job history and network usage, my analysis allows for a comprehensive study of the short- and long-term labor market outcomes of social ties.

If a job seeker found the jobs via strong ties, since it could provide high quality and specific information on the working environments, company cultures, and the demanded skills, to name but a few, it could improve the person-job match. It takes shorter time to make friends with coworkers, to be better accustomed to the working space, and to receive earlier promotion, thus, leading to higher job satisfaction over time.

H3: Strong ties are negatively correlated with long-term job dissatisfaction.

On the contrary, if job seekers find their jobs via weak ties, though it could help job seekers to be accessible to a broad range of job information, it is of low quality. It provides little information on company- and coworker-related information. Over time, these people might experience no/late promotion, less bonuses, and less friendships with coworkers. This poorer person-job match might have negative impact on long-term job satisfaction. People might be satisfied when starting their jobs, but in the long-term, their level of job satisfaction will decline over time.

H4: Weak ties are positively correlated with long-term job dissatisfaction.

3. Methods

3.1 Sample and data

Data from the 2009 Job Search Net Survey were used to test the hypotheses. The data comprise a multi-stage stratified probability sample of 7,102 adults aged 18 to 69

from eight cities in China. The survey gathered extensive information about respondents' job mobility histories and post-hire outcomes. In addition, respondents were asked to report their social network usage. After excluding cases with missing data on key variables, the resulting sample consists of 4,981 respondents. The descriptive table is shown in Table 5-1.

3.2. Measurements

3.2.1 Dependent Variables

3.2.1.1 *The availability of alternative jobs*

Respondents were asked to report if he/she had alternative jobs when they found the current one, coded as 1 if so, 0 otherwise.

3.2.1.2 *Long-term job dissatisfaction*

Self-reported job satisfaction was used as one of the job outcome variables, which was measured on a 5-point scale (1=very dissatisfied, 5= very satisfied). Respondents were asked to rate the extent to which they were satisfied with their jobs at the time of getting the job (t_0) and at the time of the survey (t_1). A dummy variable was constructed indicating whether the job-satisfaction had declined over time; this variable was coded as 1 if the ordinal value of the job-satisfaction at t_1 was smaller than the satisfaction at t_0 , and 0 otherwise. This variable was treated as an indicator of long-term job dissatisfaction.

3.2.2. Independent Variables

Key independent variables are the proportion of strong and weak ties used and three kinds of job search methods. For detailed explanation, please refer to section 3.2.2 in Chapter 3.

3.2.3 Controls

Control variables considered in my study are demographic variables, including gender, age, educational level, CCP membership, immigrant status and a set of city dummies. Gender is also coded as a dummy variable, with male scored 1 and female

Table 5-1. Descriptive Statistics on Key Variables Used in the Analysis

Variables	Percent	
<i>Dichotomous Variables</i>		
Long-term Job Dissatisfaction (Yes = 1)	22.87	
Have Alternative Jobs (Yes = 1)	27.87	
Job Search Methods		
<i>Network (Used = 1)</i>	25.42	
<i>Market (Used = 1)</i>	38.12	
<i>Hierarchy (Used = 1)</i>	38.65	
Gender (Male = 1)	45.95	
CCP Membership	7.81	
Immigrant Status (Yes = 1)	15.68	
Work Units (State = 1)	68.14	
Father's CCP Membership	30.72	
Education		
<i>Primary and Below</i>	4.10	
<i>Junior High</i>	21.40	
<i>Senior High</i>	36.98	
<i>Junior College</i>	16.76	
<i>Collage and Above</i>	20.76	
Father's Education		
<i>Primary and Below</i>	42.38	
<i>Junior High</i>	22.53	
<i>Senior High</i>	22.28	
<i>Junior College</i>	5.28	
<i>Collage and Above</i>	7.53	
Cities		
<i>Changchun</i>	9.32	
<i>Guangzhou</i>	13.63	
<i>Jinan</i>	11.26	
<i>Lanzhou</i>	15.88	
<i>Shanghai</i>	13.63	
<i>Tianjin</i>	15.32	
<i>Xiamen</i>	8.05	
<i>Xi'an</i>	12.91	
<i>Continuous Variables</i>		
Years Elapsed Since 1956	Mean	SD
Age	36.44	14.29
Proportion of Weak-ties Used	25.75	8.32
Proportion of Strong-ties Used	.04	.09
	.19	.29

scored 0. Chinese Communist Party (CCP) membership is coded as 1 if so and 0 otherwise. Working aged individuals are defined as those aged 18 to 60. Educational credential is measured in five categories (1=primary school or less; 2=junior middle

school; 3=senior middle school; 4=three-year college; 5=four-year college or more). The same logic applies to father's education and father's CCP membership. Work unit type is coded as a dummy, with state sector scored 1 and private sector scored 0. I also include years elapsed since 1956 and city dummies to control for the institutional variations and regional differences. Table 5-1 presents the descriptive statistics for both categorical and continuous variables used in my analysis.

3.3 Models

I use multiple binary logistic regressions to test my hypotheses.

4. Results

Model 1 in Table 5-2 estimates the odds ratios of the presence of alternative jobs or not as a function of the key covariates including two types of variables, job search methods (network, hierarchy, and market) and tie strength (strong and weak ties). Model 2 adds the controls: age, gender, immigrant status, work unit types, city dummies, CCP membership, and educational level of respondent and his/her father.

First, as expected, the results from Model 1 and Model 2 are consistent in showing that weak ties sharply increase the odds of having alternative jobs, net of other factors. And its effect is much stronger than that of strong ties on the likelihood of obtaining alternative jobs. Thus, Hypotheses 1 and 2 are strongly supported. Second, people found their current jobs via hierarchy and via market enjoy higher likelihood of getting alternative jobs as compared to non-hierarchy and non-market channels, respectively. In addition, the effect of network usage in Model 1 is insignificant, but after controlling for relevant variables, its effect is positive and significant. Third, a distinction is made between higher educated and lower educated. For those who are college-educated and above, the odds of having optional jobs are 1.7 times higher the odds than that for those who only received no more than primary-level education. To recapitulate, Model 1 and 2 are consistent in showing that net of individual characteristics and family backgrounds; both strong and weak ties could increase the odds of having alternative jobs.

Table 5-2. Coefficients for a Binomial Logistic Regression Model of Job-Alternative Availability, N=4,981

	Model 1		Model 2	
	e^b	SE	e^b	SE
Search Methods				
<i>Network</i>	0.851	0.074	0.774**	0.076
<i>Hierarchy</i>	0.221***	0.024	0.513***	0.068
<i>Market</i>	2.979***	0.239	2.343***	0.230
Tie Strength				
<i>Weak Ties</i>	154.0***	70.494	45.15***	21.533
<i>Strong Ties</i>	3.292***	0.436	2.794***	0.386
Age of Getting The Job	-	-	0.993	0.005
Gender (Male = 1)	-	-	1.151	0.089
Education (Primary and Below = 1)				
<i>Junior High</i>	-	-	0.981	0.255
<i>Senior High</i>	-	-	1.174	0.298
<i>Junior College</i>	-	-	1.728*	0.455
<i>College and Above</i>	-	-	1.756*	0.467
Party Member	-	-	0.805	0.117
Year of Getting The Job (1956= 0)	-	-	1.056***	0.006
Immigrant	-	-	1.028	0.108
Sector (1 = State)	-	-	0.680***	0.062
Father's Education (Primary and Below= 1)				
<i>Junior High</i>	-	-	0.965	0.104
<i>Senior High</i>	-	-	1.089	0.120
<i>Junior College</i>	-	-	1.181	0.204
<i>College and Above</i>	-	-	0.884	0.146
Father's Party Membership (Yes = 1)	-	-	0.962	0.084
Area (Lanzhou = 1)				
<i>Changchun</i>	-	-	1.415	0.256
<i>Guangzhou</i>	-	-	1.351*	0.188
<i>Jinan</i>	-	-	1.223	0.190
<i>Shanghai</i>	-	-	1.145	0.176
<i>Tianjin</i>	-	-	1.158	0.174
<i>Xiamen</i>	-	-	0.984	0.156
<i>Xi'an</i>	-	-	1.443*	0.213
<i>Pseudo R</i> ²	0.229		0.290	

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5-3 presents the odds for a binomial logistic regression model of long-term job dissatisfaction. Model 1 estimates the odds of experiencing long-term job dissatisfaction as a function of job search methods and tie strength. Model 2 adds some controls: age, gender, education, Party membership, job entry year, father's education

and Party membership, and city dummies. First, in Model 1, neither strong nor weak ties increase the odds of experiencing long-term job dissatisfaction. In Model 2, after

Table 5-3. Binomial Logistic Regression Models of Long-Term Job Dissatisfaction

	Model 1		Model 2	
	<i>e^b</i>	<i>SE</i>	<i>e^b</i>	<i>SE</i>
Search Methods				
<i>Network</i>	0.954	0.084	1.036	0.098
<i>Hierarchy</i>	0.956	0.082	0.871	0.092
<i>Market</i>	0.785**	0.066	0.890	0.082
Tie Strength				
<i>Weak Ties</i>	2.074	0.921	3.084*	1.408
<i>Strong Ties</i>	0.865	0.121	0.852	0.122
Alternatives Available	0.862	0.077	0.969	0.091
Age of Getting the Job	-	-	0.990*	0.005
Gender (Male = 1)	-	-	1.095	0.076
Education (Primary and Below = 1)				
<i>Junior High</i>	-	-	1.352	0.253
<i>Senior High</i>	-	-	1.259	0.234
<i>Junior College</i>	-	-	1.218	0.248
<i>College and Above</i>	-	-	0.941	0.196
Party Member	-	-	0.946	0.137
Year of Getting the Job (1956= 0)	-	-	0.990*	0.004
Immigrant	-	-	0.767*	0.087
Sector (1 = State)	-	-	0.951	0.093
Father's Education (Primary and Below= 1)				
<i>Junior High</i>	-	-	1.040	0.098
<i>Senior High</i>	-	-	0.993	0.100
<i>Junior College</i>	-	-	1.131	0.190
<i>College and Above</i>	-	-	0.967	0.143
Father's Party Membership	-	-	0.952	0.075
Area (Lanzhou = 1)				
<i>Changchun</i>	-	-	0.985	0.148
<i>Guangzhou</i>	-	-	0.808	0.104
<i>Ji'nan</i>	-	-	0.870	0.114
<i>Shanghai</i>	-	-	0.496***	0.069
<i>Tianjin</i>	-	-	0.873	0.104
<i>Xiamen</i>	-	-	0.720*	0.114
<i>Xi'an</i>	-	-	0.907	0.113
<i>N</i>	4981		4981	
<i>Pseudo R²</i>	0.004		0.021	

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

adding the controls, a clear distinction is made between strong- and weak-tie users, with only the latter positively associated with the presence of long-term job dissatisfaction. This finding lends strong support to Hypothesis 4. Strong ties, though its coefficient is positive, it is not statistically significant. Therefore, Hypothesis 3 is not supported by the data.

5. Conclusions and Discussions

Social networks predict a variety of immediate outcomes in the hiring process (Granovetter 1983; Lin, Vaughn, and Ensel 1981a; Seibert, Kraimer, and Liden 2001). Since Granovetter's (1973; 1995) influential studies a key proposition of Social Resources Theory has become that weak ties outperform strong ties in the mobilization of social resources (Lin, Vaughn, and Ensel 1981a; Lin and Dumin 1986; Lin 1999). Weak ties, more than strong ties, provide individuals with non-redundant information such as the availability of job opportunities. Whether the advantage of weak ties over strong ties holds for long-term labor market outcomes such as job satisfaction has been less thoroughly investigated. This research aims to fill this gap by jointly investigating the effect of tie strength on a variety of short and long-term labor market outcomes. I propose and test an alternative theory that (1) acknowledges the initial informational advantage provided by weak ties, while (2) deemphasizing the role of weak ties on long term labor market outcomes. Central to this theory is the proposition that although weak ties provide a larger volume of non-redundant information, strong ties provide more qualitatively rich information. In the hiring process, I argue, strong ties rather than weak ties provide high quality information on working environments, company cultures, and the tacit knowledge and skills to perform the job. I thus hypothesize that strong ties facilitate a better long-term person-job match, improving long-term job satisfaction.

In accordance with Social Resource Theory the results show that weak ties increase the probability of alternatives available in the hiring process, more than strong ties do. Thus weak ties appear to facilitate information flow. In addition, the usage of weak-ties increases, rather than decreases the probability of long-term job dissatisfaction. The effects of strong ties on the dependent variable are non-significant. In general, these results indicate that the initial advantage of weak ties over strong ties might turn out to be detrimental in the long run. This warrants further research.

Chapter 6 Pathways to Material and Subjective Wellbeing: The Mediating Role of Social Networks

Abstract

That social networks influences individual outcomes is not surprising, but the actual mechanisms have not been studied extensively. Using cross-sectional data from 3,001 respondents from the Chinese General Social Survey (2008), I studied how social networks mediate the relation between individual/family characteristics and wellbeing. Inspired by Social Resources Theory, specific hypotheses on the differential mediating role of various network characters were formulated. Improving on previous studies, a number of social networks measures (network resources and tie strength) were used to capture access to social networks and explore its mediating role on the effect of background variables on individual wellbeing. Results showed that 1) social networks partially mediated the relation between initial ascribed qualities and achieved outcomes; 2) the highest available resources concentrated within one social relation are a stronger predictor of subjective wellbeing than the total available resources. This shows that distinct aspects of social resources have different effects on different individual outcomes. This suggests that SRT is not universal, but contingent on the specific resources available; 3) only strong ties have direct effects on subjective wellbeing; and 4) both strong ties and weak ties have positive and significant effects on material wellbeing, suggesting that both two types of ties are useful in achieving instrumental goals.

1. Introduction

What is the relation between initial socioeconomic status, material wellbeing, and subjective wellbeing? This question has been the subject of much sociological inquiry. For a long time, scholars have focused on the mediating role of social networks, but the precise mechanisms remained a matter of intense scientific debate. First, the research field is troubled by numerous different definitions of key concepts such as ‘social relations’ and ‘social networks’, which hinders clear investigation (Adler and Kwon

2002; Bjørnskov 2006; Portes 2000; Schuller, Baron, and Field 2000; Woolcock and Narayan 2000). Second, the field is troubled by theories and empirical studies that focused on distinct aspects of social networks, such as weak ties (Friedkin 1980; Granovetter 1973), and network closure (Coleman 1988).

Social Resource Theory (SRT, hereafter) was formulated to clarify much of the controversy; its core assumption is that social networks only provide value to the extent that individuals are able to mobilize the resources provided by these relations (Lin and Dumin 1986; Lin, Vaughn, and Ensel 1981a). The SRT-approach provides parsimoniously formulated propositions for how social resources facilitate goal-directed activities such as educational attainment and job searching. SRT appears applicable to a variety of contexts and outcome measures, but the general formulation of the SRT propositions disguise which individuals will have more access to which network resources, or which network resources will in turn lead to which outcomes, for whom, and under what conditions. Studies departing from the social resources paradigm have been applied mostly to explain educational or labor market outcomes. In particular, this line of research has provided valuable insights into the role of social networks in affecting individual wellbeing.

In addition to the commonly studied effects of social relations on material measures of wellbeing such as wealth, I consider subjective measures of non-material wellbeing. Following Diener et al. (1999:277), I define subjective wellbeing as “people’s emotional responses, domain satisfactions, and global judgments of life satisfaction.” Although the well-known folk wisdom states that “money doesn’t buy you happiness”, the empirical evidence is quite consistent: only few studies find a negative association between income and happiness, and usually among specific tribal societies, such as the Tibetans (Webb 2009), the Kenyan Maasai (Biswas-Diener, Vittersø, and Diener 2005) and the Mayans (Guardiola et al. 2013). The majority of studies find a positive association between material and non-material wellbeing (Diener, Harter, and Arora 2010; Easterlin 1974; Graham 2011). Since the direction of causality is not easily determined; this study will treat material and non-material wellbeing as a set of presumably positively correlated dependent variables. Not accounting for such dependencies between dependent variables risks Type-I errors, yet most studies have only investigated one particular outcome measure.

Second, empirical studies have documented the beneficial effects of higher-status contacts on job searching (Lin 1999), self-reported life satisfaction (Acock and Hurlbert 1993), and reducing depression (Song and Lin 2009). These studies have not made a distinction between the highest contact status individual and others in a hierarchical social system. I propose that not only the contact with highest status matters, but that the remaining others matter as well. The aim of this study is to investigate how social networks translate an individual's initial positions to outcomes.

A general critique in the field of social network studies is that concepts such as social resources and social networks are too broadly defined, which leads to vague predictions and makes theories untestable (Adam and Rončević 2003; Adler and Kwon 2002; Bjørnskov 2006; Portes 2000). The second contribution of my study is that I consider a number of analytically distinct aspects of social networks. Qualitatively, social networks can involve strategic advantages such as information, material advantages, and social status via others. Quantitatively, the question of interest is how resources are concentrated within the network. My research questions are 1) What is the relation between initial socioeconomic status, material wellbeing, and subjective wellbeing (overall life satisfaction)? 2) What individuals will have more access to which network resources? and 3) Which network resources will lead to higher attainments? Under what conditions?

This article is structured in the following way. First, I review the existing literature on the potential associations among the predictors, mediators, and outcomes. Second, I describe the sample used in my analyses. Third, I perform estimations by employing structural equation models. Finally, I present the findings and conclusions.

2. Theories and Hypotheses

In explaining how individual dispositions translate to wellbeing, Social Resource Theory (Lin 1982; 1990) provides a general theoretical framework. Its core principles are that: (1) social resources influence individual outcomes, (2) individual position affects social resources, and (3) social resources are affected by weak ties rather than by strong ties. To arrive at testable hypotheses, I will 'flesh out' these concepts in more detail in the following sections.

Network size (number of strong ties and weak ties) is a proxy measurement of

network quantity (Acock and Hurlbert 1993; Burt 1992; Campbell, Marsden, and Hurlbert 1986; Lin 2001b), while the contact status, measured by the highest and the sum of other contacts' International Socio-Economic Index (ISEI) that could be reached within their networks, is a valid indicator of network quality/resources.

Weak ties are connections of low intimacy and less interaction, such as a tie with acquaintances (Granovetter 1973). Serving as network bridges, weak ties link people from different social circles and are more likely than strong ties to transfer non-redundant information to individuals. Strong ties, on the other hand, are characterized by strong levels of trust, obligation, and reciprocity (Bian 1997). Second, many contemporary scholars agree that one should analytically separate social relations from the resources that are embedded therein. Evidently, without resources, social ties provide no advantage.

Previous studies have shown that strong ties have a positive effect on jobs acquired in China (Bian 1997) and Japan (Watanabe 1987). People are more likely to pass scarce job information to people with whom they are strongly-tied rather than weakly-tied (Bartus 2001:24). Following this rationale, I conjecture that jobs with better quality are secured via strong ties not via weak ones. Better jobs always mean that they are better paid. Non-redundant labor market information transferred via weak ties increase a job seeker's likelihood of obtaining a new job by linking them to other social circles and transferring novel job information (Granovetter 1973; 1995). Weak ties facilitate instrumental actions via accessing people of higher social positions vertically (Lin 1982, 1990). I test the following hypotheses:

H1: Social networks mediate the relationship between individual/family characteristics and wellbeing.

Converting social resources to material outcomes involves a transfer of valuable goods (information, services, money, etc.). One high status contact does not, per se, guarantee that resources will be mobilized.

H2: The total available status of contacts predicts material wellbeing more than the highest available status contact in the network.

Subjective wellbeing (i.e.: life satisfaction) involves a process of social recognition.

Since one high-status contact is sufficient for this, I hypothesize:

H3: The highest available status contact predicts subjective wellbeing more than the total available status of contacts.

3. Methods

3.1 Sample and data

Hypotheses were tested against micro data from the Chinese General Social Survey in 2008⁴ (CGSS2008, hereafter). In addition to relevant demographic characteristics, the CGSS contains a number of relevant questions related to several dimensions of social networks such as tie strength and upper reachability, income and subjective wellbeing. A multi-stage stratified random sampling method was used to generate a nationally representative sample of the adult population. Respondents were contacted for face-to-face interviews. The original sample size (response rate) was 6,300 (47.77%). After excluding cases with missing data on key variables, the resulting sample consists of 3,001 respondents, with 1,438 (47.77%) males and 1,572 (52.23%) females.

3.2. Measures

3.2.1 Wellbeing

Material wellbeing was measured by the respondent's household income. Respondents were asked to provide their income in the local currency, RMB. Answers were group-mean standardized with respect to the mean income.

Subjective wellbeing was measured by a 5-point ordinal scale reflecting the respondent's self-reported overall happiness. In the SEM model, this ordinal scale is treated as an interval-level variable.

3.2.2 Social Networks

⁴ Data analyzed in this chapter were collected by the research project 'China General Social Survey (CGSS)' sponsored by the China Social Science Foundation. This research project was carried out by Department of Sociology, Renmin University of China & Social Science Division, Hong Kong Science and Technology University, and directed by Dr. Lulu Li and Dr. Yanjie Bian. The author appreciates the assistance in providing data by the institutes and individuals aforementioned. The views expressed herein are the author's own.

Social networks were conceived as network size and network quality. Respondents were asked to respond to the following questions: 1) During the last Chinese New Year celebration, with how many people other than family members or relatives did you exchange holiday greetings through telephone, mails, internet, home visits, or gatherings? 2) During the last Chinese New Year celebration, with how many family members or relatives, excluding those who live with you, did you exchange holiday greetings through telephone, mails, internet, home visits, or gatherings? We measure network size from two dimensions: 1) number of weak ties refer to the total number of people other than family members or relatives in one's New Year Greetings Network, and 2) number of strong ties refer to number of family members or relatives in one's New Year Greetings Network. As compared to a core discussion network, New Year Greetings Network is a better technique to measure network social capital among Chinese (Wang 2009).

I measure network quality by the highest accessible status and sum of all ISEI available in a network (excluding the highest one). Previous literatures define "upper reachability" as the position of the network contacts in a hierarchical social structure, and can determine the quality of resources network contacts potentially provide (Lin 2001b). Researchers have measured it using contacts' average or maximum educational level, social economic status, occupational prestige, or position in an organizational hierarchy. It is argued that contacts occupying higher positions may possess more valuable information and resources, which not only is beneficial for instrumental action such as finding a job, but also may improve life satisfaction (Acock and Hurlbert 1993) and reduce depression (Song and Lin 2009). In this study, I conceptualize upper reachability as the highest International Socio-Economic Index (ISEI) of the occupation that could be reached.

Employing a position generator approach, respondents were asked to check those occupations in which some of their contacts work. Based on Ganzeboom and Treiman (1996), I assign the International Socio-Economic Index of occupational status to each of these occupations: legislators, senior officials (55); managers (55); professionals (70); technicians or associate professionals (54); clerical support workers (45); service or sales workers (40); skilled agricultural, forestry or fishery workers (23); craft or related trade workers (34); plant or machine operators or assemblers (31); and

elementary occupations (20). I construct two variables from these items, the ISEI of the highest occupation that could be reached and that of the sum of the rest of the occupations in one's network.

3.2.3 Predictors

Family characteristics. I measured family characteristics by higher years of schooling between fathers and mothers. If only one parent's information is available, then we select it as the indicator of family background.

Individual demographic characteristics. Gender was entered as a dummy variable, labeled 1 (male) and 0 (female). Age was measured in years as a continuous variable. Marital status was operationalized as respondents who were married or living together with a partner, coded 1; others were coded 0. Education was measured using years of schooling. Table 6-1 presents the basic statistics of the valid sample.

Variables	Mean	SD
<i>Continuous Variables</i>		
Wellbeing		
<i>Material Wellbeing (Standardized)</i>	-.00	.97
<i>Subjective Wellbeing</i>	3.71	.98
Network Resources		
<i>Highest Accessible Resources</i>	52.77	21.76
<i>Total Accessible Resources</i>	119.25	106.71
Network Size		
<i>Number of Strong Ties</i>	16.40	15.43
<i>Number of Weak Ties</i>	8.68	12.56
Age (Centered)	-3.05	14.09
Education Years	8.56	4.39
Parental Education	4.90	4.14
<i>Dichotomous variables</i>		
Gender (1 = Male)	.48	
Married or Cohabited	.84	

3.2.4 Modeling strategy

Hypotheses were tested using Structural Equation Models (SEMs), estimated via Maximum Likelihood. SEM has multiple advantages over simpler analytical procedures, such as regression analytical strategies. First, the proposed causal model involves two

dependent variables that may be correlated; hence a modeling procedure that accounts for this dependency was needed. With SEMs, one can account for correlated dependent variables and estimate the magnitude of dependency. Second, the proposed model contains a number of mediation effects. Using SEMs, one can test these mediation paths jointly. SEMs were performed in Stata 13 using Maximum Likelihood estimation.

4. Results

4.1 Model selection

There are three competing models: (1) No mediation of social networks: material wellbeing (hereafter, MWB) and subjective wellbeing (hereafter, SWB) predicted directly from individual characteristics; no effects from social networks on MWB and SWB; (2) Full mediation of social networks: relation between individual characteristics and MWB and SWB fully mediated by social networks; (3) Partial mediation of social networks: relation between individual characteristics and MWB and SWB partially mediated by social networks. Table 6-2 summarizes the fit statistics for the three candidate structural models.

Table 6-2 Model Fit of Candidate Models

Model Description	$\chi^2(df)$	CFI	TLI	RMSEA	SRMR
1 MWB and SWB predicted directly from individual characteristics; no effects from social networks on MWB and SWB.	291.78 (19) $p < .001$.	.975	.904	.059	.032
2 Relation between individual characteristics and MWB and SWB fully mediated by social network characteristics.	149.85 (12) $p < .05$	0.949	.869	.069	.050
3 Relation between individual characteristics and MWB and SWB partially mediated by social network characteristics.	7.733 (5) $p = .17$	0.999	0.995	0.013	.005

For the first and second model, the χ^2 of the model against the saturated model is significant, indicating that the saturated model fits the data significantly better than the proposed models. For the third model, this test is non-significant, indicating that the saturated model fits the data not substantially better than the third model. Furthermore,

likelihood ratio-tests suggest that the third model fits the data significantly better than the first model, χ^2 (14, N = 3002) = 142.11, $p < .001$, as well as the second model χ^2 (14, N = 3002) = 284.05, $p < .001$. Stata reports several standard model fit indices to evaluate to which extent the model fits the data: Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). If CFI and TLI are greater than 0.90 (Hair et al., 2006), RMSEA is smaller than 0.05, and SRMR is smaller than 0.08 (Hu and Bentler 1999), a Model is regarded as a fitted one. Based on these criteria, the fit indices of Model 3 suggest that it fit the data well (CFI= 0.999; TLI= 0.995; RMSEA= 0.013; SRMR=0.005). Overall, these results suggest that social networks partially mediate the relation between individual characteristics and wellbeing, lending support to Hypothesis 1.

4.2 Path model

Tables from 6-3a to 6-3h present standardized path coefficients. In support of Hypothesis 2, as shown in Table 6-2f, the highest available resources had a significant positive relation with SWB (0.005, $p < 0.001$), while total available resources (excluding the highest) had no effect on SWB. Consistent with Hypothesis 3, total available resources were directly related to MWB (0.001, $p < 0.001$). The direct path from highest available resources to MWB, however, was not statistically significant.

There are some additional findings that are noteworthy. Contrary to SRT's third propositions (Lin 1982, 1990), as shown in Table 6-2d and Table 6-2e, I find that social resources are affected by the use of both weaker and stronger ties. Previous studies have shown the advantage of weak ties in linking people of lower socioeconomic standings to people of higher ones in Western societies. Contributing to this research line, my study also shows the usefulness of strong ties in doing so in Chinese society (see Table 6-3d, and 6-3e). In addition, both strong ties and weak ties have positive and significant effects on MWB i.e., income (see Table 6-3h), suggesting that both two types of ties are useful in achieving instrumental goals.

5. Findings and Conclusion

In the present study, I trace the entire pathway from individual characteristics and

family backgrounds to wellbeing via social networks. In doing so, the findings in this chapter contribute to the existing literature in at least three ways.

First, this study is among the first to include two correlated outcomes, SWB and MWB, in one path model, instead of analyzing each outcome separately. Results show that there is a positive association between SWB and MWB.

In addition, the second original contribution is to empirically examine the often posited, but rarely tested, underlying mechanisms through which social networks partially translate the individual characteristics and family backgrounds into wellbeing, both subjective and material. Using SEMs, I found social networks partially mediated the relation between initial characteristics and wellbeing (H1).

Third, by addressing how tie strength and network resources are associated with SWB and MWB, the present study proposed a new research question, “How do social networks matter in affecting individual wellbeing?” I found, on the one hand, the total available social resources are a stronger predictor for material wellbeing than the highest available resources concentrated within one’s social networks. On the other hand, the highest available resources concentrated within one’s social networks are a stronger predictor of subjective wellbeing than the total available resources, showing that distinct aspects of social resources have different effects on different individual outcomes. This suggests that SRT is not universal, but contingent on the specific resources available.

Fourth, in terms of their effects on SWB, strong ties are positively related to SWB, while the effects of weak ties on SWB are insignificant. Strong ties have direct effects on SWB by providing larger amounts and a greater variety of social support such as emotional aid, babysitting, elderly care, emergency care, and companionship, which in turn impact on individual’s overall life satisfaction. Strong ties also have indirect effects on SWB by enabling them to reach better network resources, that is, connecting them with the upper class (see Table 6-3d and 6-3f). To put it simply, having some powerful contacts in one’s networks could enhance one’s own sense of dignity or prestige in social contexts, which in turn, improves SWB. In contrast, weak ties only have indirect effects on SWB via network resources. In other words, the association between weak ties and SWB is fully mediated by network resources. The beneficial effects of strong ties may be explained by a relational Chinese culture of *guanxi* that value strong

connections much more than weak ones. Being connected with powerful contacts so as to improve one's prestige is also a common practice within Chinese face (*mianzi*) culture.

Table 6-3a Predictors for Years of Education

<i>B</i>	<i>SE</i>
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Gender (Male=1)	1.493***	0.132
Age (Centered)	-0.060***	0.005
Parental Education	0.445***	0.018
Intercept	5.480***	0.123

Table 6-3b. Predictors for the Number of Strong Ties

	<i>B</i>	<i>SE</i>
Education (Years)	0.131	0.071
Gender (Male=1)	0.477	0.574
Age (Centered)	-0.035	0.023
Household Size	2.818***	0.798
Intercept	12.587***	0.985

Table 6-3c. Predictors for the Number of Weak Ties

	<i>B</i>	<i>SE</i>
Education (Years)	0.485***	0.057
Gender (Male=1)	1.152*	0.461
Age (Centered)	0.005	0.018
Household Size	1.260*	0.641
Intercept	2.938***	0.791

Table 6-3d. Predictors for Highest Social Status Attained by Someone in Social Network

	<i>B</i>	<i>SE</i>
Education (Years)	1.909***	0.096
Strong Ties	0.174***	0.024
Weak Ties	0.273***	0.030
Gender (Male=1)	-0.164	0.702
Age (Centered)	0.065*	0.029
Parental Education	0.441***	0.104
Intercept	29.330***	0.888

Table 6-3e. Total Social Status Excluding Highest in Social Network

	<i>B</i>	<i>SE</i>
Education (Years)	9.196***	0.455
Strong Ties	0.839***	0.115
Weak Ties	1.966***	0.144
Gender (Male=1)	6.923*	3.342
Age (Centered)	0.422**	0.136
Parental Education	2.184***	0.496
Intercept	-2.979	4.225

Table 6-3f. Predictors for Subjective Wellbeing

	<i>B</i>	<i>SE</i>
Education Years	0.026***	0.005
Strong Ties	0.005***	0.001
Weak Ties	0.002	0.002
Highest Accessible Resources	0.005***	0.001
Total Accessible Resources	0.000	0.000
Gender (Male=1)	-0.114**	0.036
Age (Centered)	0.004**	0.001
Parental Education	0.014*	0.005
Household Size	0.109*	0.050
Intercept	3.022***	0.073

	<i>B</i>	<i>SE</i>
Education Years	0.030***	0.005
Strong Ties	0.002*	0.001
Weak Ties	0.004*	0.002
Highest Accessible Resources	-0.000	0.001
Total Accessible Resources	0.001***	0.000
Gender (Male=1)	0.007	0.035
Age (Centered)	0.001	0.001
Parental Education	0.010	0.005
Household Size	-0.029	0.049
Intercept	-0.491***	0.072

Table 6-3h. Predictors for Material Wellbeing

Chapter 7 Conclusion

1. Answering the Research Questions

Over the past several decades the effect of social networks on individual outcomes has been a hot research topic among stratification sociologists and social network analysts. This line of research has revealed that social inequalities are not only affected by family background and human capital, but also by resources accessed and mobilized via one's various social networks. Yet, the underlying mechanisms under which social networks contribute to individual wellbeing, both material and subjective, were largely unexplored.

This dissertation made an attempt to answer the following questions empirically: (1) What are the predictors of network usage? (2) In the process of job searching, what are the main functions of social networks? (3) How have the beneficial effects of social networks on material wellbeing i.e., income, changed over China's four economic periods since 1956? (4) Are positive effects of social networks on subjective wellbeing (e.g., job satisfaction) persisting over time, especially for weak-tie users? and (5) What are the underlying mechanisms of achieving higher degrees of material and subjective wellbeing in contemporary China?

These research questions were examined using JSNET 2009 and CGSS 2008 data.

JSNET 2009 contains rich information on job search methods, short-term (starting salary), and long-term (changes in the extent to which respondents are satisfied with their current job) labour market outcomes. Focusing on the instrumental side of network usage, the data enable me to explore the potential benefits of network usage in the Chinese urban labour market across four economic periods. CGSS 2008 collected rich information on the Chinese New Year Greetings Network, subjective wellbeing (self-reported life satisfaction), and material wellbeing (income level), allowing me to use SEM to explore the conditions under which networks affect wellbeing.

First, in reply to the first question, I found there are two main sets of predictors of network usage. One is job seekers' demographic characteristics; the other is characteristics of a job per se. I found, as shown in Wu (2011), those who are disadvantaged such as younger, lower educated, non-Party members, and females are

more likely to mobilising social networks in job search process. For them, social networks work as a safety net. In addition, Table 3-2 shows that jobs that require professional skills and work experience are positively associated with using weak ties, and jobs that require professional skills and job competitiveness predict strong-tie usage.

Second, addressing the second research question, my analysis in Chapter 3 (Table 3-3) reveals that people mobilize social networks to circumvent the formal screening methods in the Chinese labour market. Interestingly, neither weak ties nor strong ties have any significant effects on paper-based tests. The lack of effects of weak and strong ties is a crucial finding. This suggests that paper-based tests are implemented no matter how many proportions of strong or weak ties are used.

Third, I argue that the effects of social networks cannot be discussed without reference to the evolution of Chinese economic history, from a state redistributive era (1956-1979), a mixed economy era (1980-1992), a market transition era (1993-2001), to a full-scale marketization era (2002-2009). In Chapter 4, using OLS regression, I found the effects of social networks on material wellbeing (income) became negative since China's entry into the WTO. This suggests the relative usefulness of social networks is constrained by the full-scale marketization in the labour market where informal job search methods become negatively associated with material wellbeing, i.e., income attainment.

Fourth, consistent with the strength of weak ties theory (Granovetter 1973), I reconfirmed that weak ties exert stronger effects on the probability of having more than one job offer than do strong ties (see Table 5-2). However, in predicting long-term declines in subjective wellbeing (job satisfaction), the advantages of using weak ties as compared to strong ties disappeared, suggesting that the information transmitted via weak ties may be of lower quality than that transmitted via strong ties. This could be explained by the *guanxi* culture in Chinese society where people tend to share less valuable information with their weak connections.

Fifth, previous studies often treat material wellbeing and subjective wellbeing in separate analyses. Since these two factors are highly correlated, their estimated results may be biased. I include them as outcome variables in Structural Equation Modeling, and found that different forms of network resources are associated with different wellbeing outcomes. More specifically, having a very high social status person within

one's network is positively associated with subjective wellbeing, while total available resources significantly contribute to material wellbeing.

2. The Merits and Limitations of the Study

The findings reported in this study extend the research line focusing on the effects of social networks on wellbeing theoretically and methodologically in three important ways.

First, this dissertation makes original contribution by simultaneously assessing the impact of social networks on both MWB (i.e., income attainment) and SWB (job and overall life satisfaction). Since SWB and MWB are highly correlated with each other, not accounting for such dependencies may lead to biased estimations, yet most studies have only investigated one of them.

Second, I made a new measurement of strong and weak ties: the proportion of strong and weak tie used. Instead of the usual practice of treating strong or weak ties as dichotomous variables, I coded them as continuous variables. Respondents were asked: "What role relations did you have that provided you useful help in your process of finding the first job?" The response categories were as follows: (1) family members; (2) kin and affine; (3) intimate friends; (4) general friends; (5) people from the same hometown; (6) alumni; (7) friends in military training; (8) neighbours; (9) teacher-student relationship; (10) master-apprentice relationship; (11) colleagues; (12) business partners, and (13) indirect ties. There are three kinds of strong ties, including (1), (2), and (3), and ten kinds of weak ties, including items from (4) to (13). If a respondent used 2 out of 3 kinds of strong ties, the proportion of strong tie used equals $2/3$; if a respondent used 3 out of 10 kinds of weak ties, the proportion of weak ties used is $3/10$. This is a brand-new measurement of social ties, since I believe the differences are not only qualitative, distinguishing between strong or weak ties, but also quantitative, the actual number of categories of weak or strong ties used.

Third, by making a clear distinction between strong and weak social ties, I have shown the comparative effects of strong versus weak ties in affecting various outcomes. Their similarities are four-folded.

First, neither strong nor weak ties have any significant effects on one form of formal

screening methods in the hiring process: paper-based tests. Selection based on paper tests is a typical form of meritocratic selection. The result suggests that social ties can hardly exert any influence on rigid meritocratic selection criteria.

Second, when predicting the probability of having alternative jobs, both weak and strong ties increase the probability of having alternative jobs, though the effects of weak ties are much stronger than that of strong ties. This implies that social ties are effective channels to secure more job offers.

Third, both social and weak ties positively contribute to increase network resources measured by the International Socio-Economic Index (ISEI) of members within their networks. Previous studies have shown the advantageous of weak ties in linking people of lower socioeconomic standings to people of higher ones in Western societies. Contributing to this research line, my study also shows the usefulness of strong ties in doing so in Chinese society (see Table 6-3d, and 6-3e).

Fourth, both strong ties and weak ties have positive and significant effects on MWB i.e., income (see Table 6-3h), suggesting that both two types of ties are useful in achieving instrumental goals.

Their differences are also noteworthy.

First, when predicting the probability of being interviewed in the hiring process, strong ties are negatively associated with the probability of having to do an interview, yet weak ties positively contribute to the probability of having to do so. This implies that strong ties could guarantee more trust to employers, which in turn decreases the necessity of conducting an interview with job seekers. In contrast, weak ties are incapable of doing so.

Second, in terms of their effects on short-term MWB, i.e., starting wage, the effects of strong ties on income attainment declined after economic reforms in 1980, whereas the effects of weak ties on income attainment increased since the post-reform era.

Third, regarding their effects on long-term job dissatisfaction, the effects of strong ties are statistically insignificant, while the effects of weak ties are significant and positive, suggesting weak ties provide less valuable information, which in turn, lead to poor person-job match and consequently have negative effects on job satisfaction over time. It reveals that the beneficial effects of weak ties do not persist over time.

Fourth, in terms of their effects on SWB, strong ties are positively related to SWB,

while the effects of weak ties on SWB are insignificant. Strong ties have direct effects on SWB by providing larger amounts and a greater variety of social support such as emotional aid, babysitting, elderly care, emergency care, and companionship, which in turn impact individuals' overall life satisfaction. Strong ties also have indirect effects on SWB via reaching higher network resources, that is, connecting with the upper class (see Table 6-3d and 6-3f). To put it simply, having some powerful contacts in one's networks could enhance one's own sense of dignity or prestige in social contexts, which in turn, improves SWB. In contrast, weak ties only have indirect effects on SWB via network resources. In other words, the association between weak ties and SWB is fully mediated by network resources.

The beneficial effects of strong ties may be explained by a relational Chinese culture of *guanxi* that values strong connections much more than weak ones. The idea that being connected with powerful contacts could improve one's prestige is also a common phenomenon within Chinese face (*mianzi*) culture.

I believe *guanxi* is a key to understanding the social and economic behaviours and the unique network effects on social stratification and wellbeing in the Chinese cultural context. The frequency of using social networks in finding a job increased over time, even after China's entry into the World Trade Organization (WTO) in 2002. In line with the great social changes in the past five decades, market channels became the dominant mechanism of matching jobs with job seekers since 1993, and the importance of hierarchy channels declined over time. This suggests that 1) the market and formal institutions are still imperfect in replacing informal job search channels; 2) *guanxi* is deeply rooted in Chinese society and is a kind of social norm guiding individuals' actions. It has been shown that those who only rely on *guanxi* to find jobs are from the lower class, suggesting that *guanxi* works as a safety net for the disadvantaged. After controlling for social status (measured by years of schooling), the results show that both strong and weak ties have positive effects on improving both subjective and material wellbeing. This suggests the beneficial effects of social networks on wellbeing not only for the lower class, but also for the upper and middle class. Chinese labour market is a formal-informal dual-structured one where social networks i.e., *guanxi* work as a lubricant to the functioning of formal market-oriented and legal systems.

It is also important to acknowledge several limitations in my study.

First, this study is limited by its cross-sectional nature. Since the data are all cross-sectional, this precludes my ability to solve the endogeneity problem of using social contacts, raised by Mouw (2003; 2006). Future longitudinal research design is expected to make more reliable causal inferences based on longitudinal data.

Second, JSNET 2009 contains rich information on job searchers; however, it lacks information on the decision making process of the demand-side: employers and organizations. Some prior studies in the US collected detailed information on single firms, but this line of research suffers from data representativeness. Research has shown that *guanxi* plays a significant role in raising money and improving business performances for business owners (Bian 2006) and the self-employed (Wang and Zhao 2012). There are also some exemplary studies on comparing the social capital differential between the self-employed and the employed (e.g., Zou and Ao 2011).

Third, JSNET 2009 only surveyed those who successfully found their jobs via multiple job-finding methods and excluded those who failed to find their jobs from the sample. This makes it impossible for me to compare the relative importance of weak-versus strong ties in increasing the likelihood of getting a job.

3. Suggestions for Future Research

In order to deepen our knowledge of potential network effects on wellbeing, the following research directions may be of interest for future investigators.

One important direction is related to data collection. As commonly recognized, there are two central threats to valid causal inference: unmeasured confounding variables and reverse causation with which cross-sectional data could not deal. In this sense, longitudinal data, especially panel data, are of great importance to make reliable statistical causal inferences.

Second, most of the previous empirical studies centred on instrumental ties rather than on expressive ones. This may be caused by the difficulty in measuring the expressive ties that could enhance personal belonging, give emotional support, facilitate trust, or improve solidarity. I expect to see future empirical studies that predict wellbeing from both expressive and instrumental ties.

Third, comparative studies are needed to determine whether or not the present study

is applicable to other cultures and societies. Since network effects on wellbeing are conditioned on the societal culture, level of marketization, and degree of democratization, including the same core items in international surveys would be a promising way to achieve this goal.

Finally, since the vast majority of research in this area has focused on the supply-side, little has systematically examined the network effects on the demand-side.

As Guthrie (2002) pointed out, the traditional individual-level cross-sectional survey is incapable of studying the hiring-decision-making process within organizations. More research is needed to examine the network effects in a dual-sided employment process.

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