Social Capital and Its Institutional Contingency

A Study of the United States, China and Taiwan

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Social capital has become a significant and global research enterprise in social science. Many theoretical and empirical approaches have sustained its growth and development (Lin 1999b). One particular paradigm is based on the understanding that social capital consists of resources embedded in social relations and social networks (Lin 1982, 2001a, 2001c). A theory of social capital therefore focuses on the access to and mobilization of resources embedded in social relations and social networks. Research has explored factors affecting such access and mobilization, the development of standardized measurements for access and mobilization and their differential consequences. This paradigm, with its insistence on synchronization of theory, measurement and research, has accumulated considerable and consistent knowledge over the past two decades (Lin, Cook and Burt 2001; Lin, Fu and Hsung 2001; Lin and Erickson 2008).

This volume presents some research efforts associated with the research program that was launched in 2004–2005 with funding from the Academia Sinica, Taiwan, and entailed collaborative efforts of scholars at Academia Sinica, Duke University and other institutions in the United States, Taiwan and China. The distinctive feature of the research program is its comparative perspective. It employed standardized measurements based on the theory of social capital and conducted representative sample surveys in three societies: the United States, Taiwan and urban China. The advantage of a comparative approach is that it affords an opportunity to explore macroinstitutional dynamics affecting the access and mobilization of resources embedded in social networks and social relations. The three societies selected for study allow the examination of, for example, how political-economic regimes (command versus market) and cultural factors (family centrality versus diverse social ties) affect the characteristics of social ties and social networks from which resources are accessed and mobilized. A comparison of the patterns from the three societies offers clues as to which factors (the political-economic regime or cultural factors) may be more significant in conditioning various social ties and social networks. When data estimates align the United States and Taiwan on the one hand and China on the other, it may suggest that the political-economic regime is a significant

explanatory macroinstitution. However, when the estimates align Taiwan and China on the one hand and the United States on the other, they suggest that culture may be the more important macroinstitution. Further, when the estimates follow a certain order—from strong to weak or vice versa (e.g., the United States, Taiwan and China), one can speculate that a process of transformation may be developing.

These analyses were added to by another design feature of the research program, a panel design. A follow-up survey for each society was conducted approximately two years later, 2006–2007. It thus became possible in some studies to further explore the transformational process in microdetails. Panel data also allow some preliminary analysis of causal sequences postulated. Because of the short time lag and varying response rates (see sampling discussion that follows), findings must be interpreted with caution. Nonetheless, the research program has secured one of the first comparative over-time data set at the societal level in social capital research.

RESEARCH DESIGN AND SAMPLING

The research program began in 2003. Efforts were made to achieve uniformity and standardization of the instruments, sampling plans and interview requirements in the three study societies. Because of different practical considerations, variations were inevitable. For example, whereas face-to-face interviews were carried out in China and Taiwan, cost considerations made it necessary to conduct telephone interviews in the United States.

National representative sampling was designed for the United States and Taiwan, whereas only urban areas were sampled in China. This was necessary because the urban–rural differences in China resulted in considerable variation in education participation and occupational and income diversity. Also, the cost of conducting representative sampling in rural communities would be prohibitive. One implication of the urban-only sample in China may be that the distribution of variables and the processes uncovered for China may be closer to the Taiwan and U.S. data than a national sample would have been. Therefore, the different patterns, if found, between the Chinese respondents and those from Taiwan and the United States should be considered as conservative estimates of actual differences.

The difference between face-to-face interviews in China and Taiwan and telephone interviews in the United States is harder to estimate. Research literature conducted in the United States suggests that telephone interviews may yield more truncated distributions (e.g., missing the top and lowest levels of socioeconomic strata) compared to a truly random representative face-to-face interview survey. However, given the fact that most face-to-face surveys make compromises in reaching the very top and bottom of the socioeconomic strata, it is not surprising that available comparisons

between face-to-face and telephone surveys yield approximately similar general patterns of relationships among variables.

The U.S. (English version) questionnaire for the 2004–2005 survey appears in Appendix I. Questionnaires for the other surveys, nearly identical to the U.S. questionnaire, are available upon request.

The Sampling

The 2004–2005 U.S. Social Capital Survey

We conducted the first-wave survey of social capital from November 2004 to April 2005 in the United States. The sample consisted of adults aged twenty-one to sixty-four, who were employed at the time of the survey or had been previously employed. The U.S. national survey of social capital was conducted by the random-digit dialing (RDD) method using a Florida-based survey company, National Opinion Research Services. The objective was to obtain three thousand respondents. As we approached the two-thirds point of survey completion, we found that whites and females were overrepresented in view of the census standard. Thus we asked the firm to employ quota sampling of the underrepresented groups. As a result, the sample distribution shows an almost perfect match to the U.S. population structure. The variable "quota (0 = nonquota sampling; 1 = quota sampling)" was used by the researchers to sort out the effect of the quota sampling.

The number of respondents is exactly three thousand after 6,915 interview attempts. Thus the response rate of the survey is 43 percent.

The Wave 2 Survey

Approximately two years later, the second-wave survey was administered from January to July 2007, yielding 941 respondents who participated in both waves (a retention rate of 31.4 percent). The average lengths of the interviews were 34.1 minutes and 30.2 minutes in the first and second waves, respectively.

The 2008 U.S. Social Capital Survey

Because of the relatively low response rate in the Wave 2 survey and the need to further expand the overall sample size for the U.S. survey for some analyses, a separate national telephone survey consisting of adults aged twenty-one to sixty-four, who were employed at the time of the survey or had been previously employed, was conducted in 2008 by the same survey company with the same methodology and the same 2004–2005 questionnaire. The objective was to obtain over twelve hundred respondents. The final tally was a sample of 1,407, a response rate of

39.4 percent. This survey is called the 2008 U.S. Social Capital Survey. It thus became possible to create a synthesized sample that combined the 2004–2005 survey and the 2008 survey data, for a total of 4,407 respondents. When the combined sample is used in analysis, a dummy variable identifies the 2008 "cohort."

The Taiwan Surveys

The sampling scheme of Wave 1 in Taiwan followed the well-established procedures used by the Taiwan Social Change Survey (TSCS), a survey series that has accumulated the largest number of successful interviews among any general social surveys in the world (Smith et al. 2006; Chang and Fu 2004). We first divided Taiwan's 358 towns and cities into ten strata based on factor analyses of the township-level data on socio-demographics and various commercial, public facilities, financial and geographical factors, mostly extracted from census, household registration and archival data. To allow sufficient variations for data analysis, we aimed at collecting 3,004 successful cases. With this goal in mind, we followed the rule of "probability proportionate to size" (PPS) to decide the number of our targeted respondents in each of these ten strata. The PPS principle helps to ensure that the numbers of respondents in all strata are in proportion to the subpopulations.

Using this sampling framework as the guideline, we applied systematic sampling in each of the following three stages to generate the final list of targeted respondents. First, we selected thirty-three towns and cities grouped into ten strata; we then picked one to five villages/precincts from each sampled town/city; and, last, in each of the 104 villages/precincts we randomly selected fifty-nine to eight-nine residents directly from the lists (skipping the household sampling), depending on the target numbers we had set earlier.

Sampling procedures and field interviews were carried out by the Center for Survey Research with the assistance of the Institute of Sociology, both at the Academia Sinica. To achieve the goal in the third stage, the Center for Survey Research sent a formal request to the Ministry of the Interior for a computer file that contained all individuals aged twenty-one to sixty-four and listed in the Household and Population Register (with names, gender, birth dates and addresses) in each of the 104 targeted villages/precincts. As regulated by the law, we only used the personal information from this sample list to locate and identify our targeted respondents and destroyed the name list after the interviews.

Following the strict survey standards, we used no substitute samples. As a result, we sampled 8,134 residents as our targeted respondents. These targets ranged from 2.26 to 3.26 times the expected successful sample size in each village/precinct, varying among different towns and cities while taking into account the average response rates from various surveys over the

past five years. We also inflated the number of targets because we set a clear threshold for respondents' qualifications. Using the 2003 Household and Population Register as the criterion, a test of goodness of fit showed that our targeted sample matched Taiwan's total population closely in terms of both gender and age distributions.

All field interviews of Wave 1 were carried out as in-person household surveys, from September 2004 to January 2005. A total of 116 interviewers worked for the survey, with twenty-six field supervisors. When an interviewer first contacted a listed target, she started with a screening question about job history to decide whether to continue the interview. Only those who worked or had ever worked were eligible for the subsequent interview. If the interviewers could not reach the targeted respondents, they were instructed to go back to each address at least four more times (at different times and on different days of the week) before they were allowed to give up the target.

By the end of the fieldwork, we had completed 3,278 successful interviews. The response rate was about 49.5 percent, after excluding ineligible cases such as wrong addresses, being physically and mentally unable to communicate and so on.[1] Such results are in line with the response rates accomplished by the TSCS and other large-scale surveys in Taiwan in recent years (Chang and Fu 2004; Fu and Chu 2008).

Wave 2 was conducted about two years later, from November 2006 to April 2007. Using the list of Wave 1 respondents as the targets, the interviewers relied on all possible means to reach the respondents. In the case that a respondent had moved to another region or city, the interviewer who was the closest at that time took responsibility for contacting and interviewing that respondent. After nearly six months of follow-ups, our interviewers were able to locate the original respondents and completed 2,704 Wave 2 interviews, resulting in a retrieval rate of 82.5 percent.

The China Surveys

For the Wave 1 survey in China, all households were organized by city to constitute the population. Systematic sampling was carried out to reach a target of three thousand households. Initially, clusters of sixteen households were identified in 172 cities. We had initially hoped to use clusters of eight households, but it proved to include too many cities for practical implementation by the survey teams. In each city random procedures were used to find the cluster(s). In order to reach the target sample of three thousand, subsequent households in the sampled neighborhoods were approached. In the end, 9,062 households were approached to yield the final sample of 3,529, a response rate of 39 percent. Personal interviews were conducted. The Wave 2 survey was conducted approximately two years after Wave 1 with the same Wave 1 respondents. A total of 2,249 respondents completed the survey, a follow-up response rate of 63.7 percent.

Several additional sections were developed for the Wave II questionnaire:

1. For network and social capital measures, we added items from a name generator. With both the name generator and position generator data, we hoped to make a comparative analysis of the relative advantages and disadvantages of each methodology in the study of social capital. Comparative analysis across the three societies was an additional feature. These data and comparisons make a unique contribution to the literature on social networks and social capital. We believe this is one of only a few surveys where both the position generator and the name generator have appeared for multiple societies.
2. We inquired about major life changes of the respondents over the period of the two waves, about two years. Items regarding changes in work, marriage, family, residence and education during this period allowed estimations of life changes as added independent variables affecting quality and quantity of social capital, as well as quality of life and social mobility.
3. For social network and social capital, we added a spatial measurement—the actual distance (travel) between each respondent and their social ties. In conjunction with social measurements (relations between each respondent and their social ties), we enriched general measurements of social networks and social capital. Our intention was to estimate patterns of relationships between each respondent's demographic, social, economic and other assets; the spatial configurations of their social networks and social capital; and how such configurations affected their quality of life and social mobility.
4. For the mental health measure (depressive symptoms), instead of a sample of items from the existing scale (CESD scale) we incorporated all items of the scale so that results could be compared with numerous studies conducted around the world.
5. Additional items were added to various measures to reflect current trends in the societies studied. For example, for voluntary organizations we added a homeowner association item to capture the growing trend in mainland China. Hopefully these additions will provide better indications about the development of civil society in these societies.

Comparisons between Wave 1 and Wave 2 identified attrition patterns in the United States and China. In both cases, attrition was more significant among the younger, male, less educated and unmarried. Also, in the U.S. sample, we lost more Latinos in Wave 2 as compared with Wave 1. These patterns are consistent with all panel studies around the world. Persons with these demographic characteristics are less stable in work, family and economic resources and tend to be more mobile. We are developing selectivity and weighing procedures for the panel data so that errors due to

patterned attritions in Wave 2 can be estimated and taken into account in the analysis of the panel data.

INTRODUCTION TO CHAPTERS AND THEMES

This volume is a collection of original research papers based on the three society surveys. All chapters are based on a comparative approach, involving two or three societies. Exceptions were made in the case of two chapters that focus on a single society—the United States. Lin, Lee and Ao (Chapter 2) address the issue of validating a critical measure of social capital, contact status. This concentration on the United States allows the chapter to focus on issues and challenges that have appeared in the past decade and reaffirms its validity through data and methods parallel to the critical analyses. This work is essential so that other works on contact status may proceed with its assured validity. Son (Chapter 10) examines the significance of racial and gender diversity in networks and contacts in the construction of social capital. Since racial diversity uniquely resides as a core issue only in the United States among the three studied societies, this piece is seen as a critical component in social capital research.

Each author exercised his/her research initiative in the selection of research questions and issues, research design and analytic methods. We also chose to preserve the integrity of each chapter as a research paper—with its full theoretical and substantive discussions, design and measurement choices, analyses and findings and conclusions. This allows each chapter to show cohesion in its own right and allows them to be read independently of the other chapters.

The chapters are organized under four major themes: (1) measurement of social capital, (2) endogeneity of social capital, (3) accessing and mobilizing social capital, (4) social capital and well-being.

Measurement of Social Capital

The first theme addresses some critical issues in regard to the measurement of social capital—mobilized social capital (contact status) and accessed social capital (the position generator). Lin, Lee and Ao attempt to validate and extend our understanding of the effect of contact status on finding a job. Using U.S. data and correcting the measure of homophily (similarity of occupations between respondent's prior job and contact's job rather than similarity of occupations between contact's job and respondent's current job), the data strongly confirm the effects of contact status. The effect holds for both males and females and for whites and Latinos. However, blacks do not benefit from contact status. Exploratory investigations suggest such deficits for blacks may result from this group being unable to reach higher-status contacts, especially among middle-class blacks, and their reliance on

stronger rather than weaker social ties and non-white-male ties. Further analyses show that homophilous ties benefit both females and Latinos in addition to the benefits of reaching better-status ties. This suggests that for both these groups, homophilous ties supplement better ties in providing benefits, an added value.

Ao further explores the issue of homophily and heterophily as contained in the position generator, a measure of accessed social capital. In a comparative analysis, she focuses on ethnic homophily/heterophily in the U.S. data and class homophily/heterophily in the China data. She finds confirmation in the U.S. data of previous findings of strong ethnic/racial homophily tendencies. Paralleling ethnic/racial groupings in the United States and class groupings in China, she shows that disadvantaged groups (blacks and Latinos in the United States and lower-class occupants in China) are highly inbred and constrained in the formation of social ties.

Su and Lin examine the recall errors in the use of the position generator as a measure of social capital over time. Using the Wave 1 and Wave 2 data from the United States and Taiwan, they construct a recall error measure for cases in which a respondent does not mention knowing someone in a certain position in Wave 1 but reports knowing someone in that position for more than three years in Wave 2. The chapter finds systematic recall error that depends on the socioeconomic status of the respondent (the higher the status, the less likely that recall error occurs). For Taiwanese respondents specific ties (e.g., school ties, friends) are negatively associated with recall errors. For U.S. respondents these ties are positively associated with recall errors, but indirect ties are negatively associated with recall errors. Thus weaker ties seem more meaningful for U.S. respondents, but not for Taiwanese respondents. They also find that status disparity is negatively associated with recall errors; that is, the higher the status of ego relative to a tie, the alter, the more likely ego will remember the tie. The authors speculate that self-awareness and awareness of ties are heightened as one's status becomes higher than that of an alter.

Endogeneity of Social Capital

The second part presents studies on the dynamics of social capital: how various institutional, network and external factors may affect patterns of social capital, as exhibited in the position generator.

Hsung and Breiger study the relationships that define access to positions in the position generator. The measurement consists of twenty-one positions and twenty-eight relationships. A contingency table of rows (positions) and columns (relationships) can thus be constructed for each of the three societies. Using the log-multiplicative layer effect model, Hsung and Breiger examine the strength of the associations between positions and relationships across the three societies. They find that the association was stronger for respondents in Taiwan and China as compared with that for

U.S. respondents. A more detailed microlevel analysis factors the relationships into eight clusters. From this analysis they show that Taiwan and China respondents tend to rely on school, compatriots, neighbors and work relations to access most positions, whereas American respondents rely more on primary familial ties (children and spouse) and friends. These patterns reveal differential network ties for Taiwan and China compared with the United States.

Fu and Hsung explore how social capital (represented by the position generator data) is affected by work conditions (institutional and organizational factors) and contact patterns (interactions with people inside and outside the firm). Controlling for prior social capital (extensity and upper reachability), they find that work conditions and contact patterns tend to affect changes in social capital for Chinese and Taiwanese respondents, whereas the social capital of the American respondents is moderately affected by their contacts outside the work environment and not so much by contacts inside the work environment. These findings suggest that the workplace plays a more central role in the development of social capital for respondents in China and Taiwan since interactions within the work context may overlap with outside contacts. For Americans, changes in social capital tend to be associated with nonwork contacts.

Yu and Chiu analyze the effects of another institutional feature, occupational sex composition, on social capital in the United States and Taiwan. Occupational sex composition is indicated by the percentage of women in the respondent's current or last occupation. Social capital is represented by indexes from the position generator data and discussion partners from the name generator. The work finds that effects of occupational sex composition on social capital vary across gender and societal contexts. In the United States the percentage of female representation in an occupation increases men's access (upper reachability) to social resources, whereas in Taiwan it decreases men's access (extensity and range). It has no significant effects for women in either the United States or Taiwan. These effects were more transparent when social capital was measured with the position generator measures, and not as apparent in the name generator measures. The authors conclude that in the more traditional society, Taiwan, men in more female-dominant occupations are hampered in accessing social capital. In the more developed society, the United States, men in more female-dominant occupations gain advantages in accessing social capital.

Wenhong Chen explores the potential effect of another source—the emergence of the use of the Internet. Using U.S. 2004–2005 and 2007 panel data, she examines possible effects of Internet usage at Wave 1 on changes in social capital (the extensity index from the position generator measurement) between Waves 1 and 2. Over a two-year span, she did not find any discernible effects of heavy or moderate Internet usage on subsequent social capital or changes in social capital. Chen also focuses on uncovering whether access to positions through strong ties versus

weak ties at Wave 1 incurred any changes in the use of strong or weak ties in accessing social capital at Wave 2. She finds that strong-tie access at Wave 2 was affected by strong-tie access at Wave 1, but weak-tie access at Wave 2 was affected by both strong-tie and weak-tie access at Wave 1. Thus the two-year lag was not sufficiently large to detect any Internet usage effects. However, strength of ties in accessing social capital does show differential effects on patterns of social ties in subsequent accessing of social capital.

Accessing and Mobilizing Social Capital: Networking and Associational Influence

The third part of the volume presents chapters on the linkage between network features and accessing or mobilizing social capital and attainment outcomes. Chih-jou Jay Chen conducts an in-depth investigation on the chain of contacts in the job search. Following up on previous literature on uncovering one or more nodes in the contact chain (chain length) as well as characteristics of the nodes in the chain, Chen compares patterns between respondents' use of contacts in the job search in the United States, Taiwan and China. He finds that there is a greater tendency for Chinese respondents to use multiple nodes in the search chain. Also, U.S. respondents show less reliance on strong or close ties compared with Taiwanese and Chinese respondents. Gender similarity (homophily) also differed among the three societies. For attained status (being an executive), tie characteristics and contact status also had differential effects. For the U.S. sample, kin ties had a negative effect, as did contact status. For the Taiwan sample, kin ties had no effect, but contact status remained significant. For the China sample, contact status had a positive effect for males but not for females. Instead, females needed higher education to obtain executive positions.

These findings have major implications for theories about the use of ties in the job search. The effect of weaker ties holds for all societies, but methods of finding weaker ties differs in the three societies. Whereas U.S. respondents mainly found a weaker tie in a single step in the search chain, respondents in Taiwan and China used longer job search chains to extend beyond strong ties and gender homophily (for females) to find weaker and male ties in their job searches. Further, contact status benefit does not extend to Chinese females; they need to rely on higher education to attain executive jobs, whereas in the United States and Taiwan, females can attain executive positions through higher-status contacts without requiring higher education.

Son employs the U.S. data to examine how network (access) and contact diversity in race and gender can affect status attainment. For network diversity he computes the proportion of occupations accessed in the position generator that were of different race or gender. For contact diversity he identifies respondents who used cross-group (race, gender) contacts in their job searches. He hypothesizes that diversity affects not only females and

minorities, but also males and whites. Using the panel data, he finds that network diversity effects on contact diversity are significant for racial diversity but not for gender diversity. These effects only benefited whites, Latinos and both genders, but not blacks. Contact diversity had effects on contact status, but only on racial diversity, not gender diversity. Also, these effects worked for males and Latinos, but not females or blacks. Finally, contact status affected attained status for all groups except blacks. Two important findings from Son's study are, first, that racial diversity and cross-group contacts had effects but gender diversity did not; and, second, that blacks received no benefits from racial diversity (whites in networks or as contacts). Blacks did not benefit from contact status, whereas all other groups did, reinforcing the findings from the Lin, Hang and Ao chapter (Part I).

The research program contains another important feature of social life—participation in voluntary associations (see Appendix I). Whereas the literature confuses this with social capital, it is an indication of civil society. The three-society data may shed light on different types of civil networks. Zhang and Lee compare the three societies in their network patterns of such participation. Employing the three-society data and two sets of data from Taiwan (1997 and 2007), they find that the participation rates varied from 73 percent among U.S. respondents, 46 percent and 50.9 percent for Taiwanese respondents (1997 and 2007, respectively), to 35 percent among Chinese respondents. Further, associations with top levels of participation also varied, from religious groups and charities in the United States to alumni and party associations in China. Taiwan showed a transition from 1997 (unions and party) to 2007 (religious, unions and party). Network patterns of participation also showed differences. U.S. participation overlapped highly and was concentrated around religious groups and charities, whereas participation in Taiwan and China was loosely connected across associations. In Taiwan there is a core in the loosely structured network: unions and religious, party and community groups. In China the more salient associations (alumni and party) along with other associations were more distant from one another.

The authors argue that these patterns reflect a pluralistic and highly overlapping network of voluntary association participation in the United States with religious associations as the core. Taiwan reflects a decentralized network in which religious associations are gaining prominence and the influence of political associations has declined. China, on the other hand, shows a loose network structure with party associations retaining their prominence. These patterns, they argue, may reflect points of a continuum from a politically dominated network to a nonpolitical, democratic, civil-society network.

Social Capital and Well-Being

Although social capital has been well documented for its impact on the labor market and status attainment—its instrumental returns—evidence

remains sketchy on its expressive returns. Two chapters explore this issue in this volume.

McDonald, Chen and Crowley postulate that social capital may mediate the work environment and health of workers. They employ multiple broadly conceived indicators of social capital: accessed occupations from the position generator, work-related contacts, voluntary association participation and generalized trust. The dependent variable used was health disruptions in the past twelve months. The work environment is indicated by six empirically induced factors of job quality: autonomy, authority, creativity, complexity, work integration and monetary rewards. They find that social capital (occupational connections and work contacts) mediates between job quality and health disruptions only in the China sample. For the Chinese and Taiwanese samples, participation in voluntary organizations had negative effects. For the U.S. sample, no significant mediating effects were found for any of the social capital indicators. The authors conclude that the health measure (daily life disruptions) was not a meaningful or sensitive measure for U.S. respondents.

Lijun Song examines the relationships between social capital and another indicator of well-being—life satisfaction. She constructs six domains from life satisfaction items: marriage life (for married or cohabiting respondents only), relationship with children (for respondents with children only), relationship with neighbors, relationship with boss or colleagues (for currently employed respondents), financial situation and current job (for currently employed respondents only). She formulates three theoretically plausible hypotheses: that the social resources hypothesis will predict positive associations between social capital and life satisfaction; that the relational cultural hypothesis will predict an ordered effect—from high (China) to moderate (Taiwan) to low (the United States); that the inequality structure hypothesis will predict low association for the U.S. data and high associations for the China and Taiwan data.

She finds evidence of both positive and negative effects of social capital, contingent on life domain and society. In life domains concerning close relations (marital, children, neighbors in China and Taiwan), social capital tends to be positively associated with life satisfaction. In domains concerning work and finance, social capital tends to be negatively associated with life satisfaction (in China and the United States). These effects are not universal; rather, they are contingent on different societies. In general, these effects were moderate to weak.

THE COMPARATIVE APPROACH: INSTITUTIONAL CONTINGENCY OF SOCIAL CAPITAL

The comparative approach as deployed in the present research program takes advantage of a triangulation design—three societies—to explore the effects of certain macroinstitutions on social capital. Three points of

measures meet the minimal requirement for examining epistemic association between empirical and theoretical concepts (Lin 1976). The present research program focuses on two major types of institutions: socioeconomic institutions and cultural institutions.[2] Socioeconomic institutions include social class/status, work and occupational structures. Cultural institutions are reflected in family and kin structures and gender. The three studied societies—the United States, Taiwan and China—can be aligned along these institutional continua.

For socioeconomic institutions, we assume that the societies range from a dense structure in the case of China, where these institutions substantially overlap in individuals' social space, to a diffused structure in the case of the United States, where these institutions tend to form more independent axes in people's social space. In a dense structure individuals who find themselves in a high position in one institution (e.g., status/class) also find themselves in a high position in another institution (work or occupational structure). In a diffused structure individuals with high positions in one institution may or may not find themselves in a high position in another. We assume Taiwan lies somewhere between dense and diffused institutional structures, probably closer to a diffused structure because of its position in socioeconomic development, which is closer to the United States than to China.

Thus, empirically, we should find that the United States and Taiwan exhibit more similar patterns in the structural bases for the formation of relational and network ties and resources as compared with those in China. Social capital should be more unidimensional in China (e.g., when one holds a high position in certain socioeconomic dimensions, one should be advantaged in social capital and its return). Social capital should be more diffused and complex in the United States and Taiwan (e.g., when one holds a high position in certain socioeconomic dimensions, one may not be advantaged in social capital and its returns since other dimensions may offer advantages).

In regard to cultural institutions, with kin and gender structures as the focus, we assume that the institutions range from a centralized structural pattern in two of the three studied societies—Taiwan and China—to a diffused structural pattern in the United States. Where family and kin are core structures, we expect to find that family and kin provide the foundation for the formation and operation of social relations and networks. Where family and kin are of multiple cores, as in the case of the United States, formation and operation of social relations and networks are based on multiple dimensions, ranging from family to general friendship. In societies such as China and Taiwan, where family and kin are the core structures, strong ties occupy a central position in networks. Weak ties are less likely to be directly evoked and must be accessed through chains of strong ties.

Gender and ethnicity/race are also considered cultural; their effects vary across societies. Gender differentials should be more prominent in societies

where family and kin ties are core—China and, to a lesser extent, Taiwan. Gender effects across societies should provide some clues as to its role in conditioning social capital. We therefore expect that gender difference plays a more significant role in conditioning social capital in China and Taiwan than in the United States. Since ethnicity/race is only prominent in one of the three societies studied (the United States), it is impossible to examine its variation across societies. But within-society variation in ethnicity/race (white, blacks and Latinos) offers some clues. In principle, we can expect minority group members to benefit less from social capital. However, more detailed categorization among minority groups will clarify their differential effects on social capital.

Thus, empirically, we expect that China and Taiwan will exhibit similar patterns on family and kin being at the core of relational and network ties, in contrast to those in the United States. Gender variation should likewise exhibit similar effects on social capital in China and Taiwan rather than the United States. Social capital and its returns should be strongly aligned with family, kin and male ties in China and Taiwan and not as strongly in the United States.

These two major institutions—socioeconomic and cultural—form the basis for examining and interpreting empirical associations. If socioeconomic institutions are significant, we expect the United States and Taiwan to align closely in contrast to China. If cultural institutions are significant, we expect China and Taiwan to align closely in contrast to the United States. One may weigh the relative significance of different institutions as contingencies for the formation and effects of social capital. Such analyses do not rule out possible alternative interpretations since the epistemic correspondence between theory and empirical world is inevitably incomplete and uncertain (Lin 1976); however, they form theoretical expectations that should always guide empirical research. It should be noted that such institutional arguments rule out at least one alternative theory—the centrality of ideology—in the case of the studied societies. If ideology were a core, then China, as a Socialist and Communist state, should exhibit tendencies of a communal socioeconomic structure—diffused and equal standing of socioeconomic institutions and noncore positions of family and kin in society. In the empirical data seen in Appendix II, such association is absent.

The findings from the chapters presented in the present volume collectively and synthetically highlight the contingency of social capital on the two types of institutions. The significance of socioeconomic institutions as a contingent factor in the formation and effects of social capital can be gleaned from several studies. Ao (Chapter 3) finds that class is an important basis of homophily in networks in China, and not as much in the United States. Su and Lin (Chapter 4) find school ties and friends in networks reduce recall errors of accessed positions in the position generator in Taiwan, but not as much in the United States. Similarly, Hsung and Breiger (Chapter 5) show that particular institutions (i.e., school, compatriots,

neighbors and work relations) constitute the basis of network relations (i.e., the position generator) in China and Taiwan, but not in the United States. Fu, Hsung, and Lee (Chapter 6) reinforce this pattern as well: they find that work conditions affect changes in network ties and social capital in China and Taiwan, but not in the United States. McDonald, Chen and Crowley (Chapter 12) also find a moderate mediating effect of social capital between job conditions and health disruptions in China, but not in the United States.

Cultural institutions also demonstrate their effects on the formation and functioning of social capital. Hsung and Breiger point out that in the United States, only kin ties and friends are discernible in the formation of network ties, but not as much in China or Taiwan. Chih-jou Chen (Chapter 9) finds that the job search chain is longer in China than in the United States because the search process tends to emanate from strong and family ties in China. Perhaps because of the tight correspondence of strong ties and institutional ties in networks in China, participation in voluntary associations tends to be unidimensional and dense in China, whereas participation patterns tend to be diffused in Taiwan and the United States (Zhang and Lee, Chapter 11)? Song (Chapter13) adds to this complexity of relationships by showing that social capital has positive effects on quality of life in life domains concerning social relations, whereas it has negative effects on life domains concerning work and finance. Su and Lin (Chapter 4) also find that the extent of weaker and indirect ties in networks reduces recall errors for respondents in the United States, but not for those in Taiwan.

Ethnicity/race is an important institution, even if it is only present in the United States. Lin, Lee and Ao (Chapter 2) find that blacks do not benefit from contact status in the job search. Ao (Chapter 3) offers one possible factor for this deficiency for blacks: blacks' social ties tend to be strongly inbred and constrained in homophily. Blacks also do not benefit from cross-group ties (ties with white and Latinos) as other groups do (Chapter 10). These studies paint a consistent picture: blacks in the United States, in part because of highly homophilous ties to other blacks, suffer from a lack of returns to social capital.

Gender effects also vary across societies. Chih-jou Chen (Chapter 9) finds that females do not benefit from contact status in China, whereas they do, as do males, in the United States and Taiwan. Yu and Chiu (Chapter 7) find that males are disadvantaged in female-dominated occupations in Taiwan, but not in the United States.

These brief summaries do not reflect the complexity of interactions among the institutions as contingent factors, as discussed in the various chapters. Family and kin ties interpenetrate into ties in socioeconomic institutions to a greater extent in China and Taiwan than in the United States. Race/ethnicity is a dominant factor in socioeconomic institutions in the United States, where gender differential seems to be on the wane. Thus

their interactive effects on the formation and effects of networks and social capital also vary.

Social capital research is an ongoing enterprise. Hopefully this collection of studies in a comparative perspective contributes to advances in its theory, measurement and research. The volume also aims at unveiling limitations in current research, stimulating further theoretical deliberations and empirical work.

NOTES

1. The response rates are calculated by international standards; see *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*, The World (and American) Association for Public Opinion Research, 2011. http://wapor.unl.edu/wp-content/uploads/2011/02/StandardDefinitions2011.pdf.
2. For a summary of institutional theories and how they constitute constraints in the operations of social capital, see Son (2012).