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Roles of scholars in environmental community conflict resolution
A case study in contemporary China

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Abstract

Purpose – This study aims to investigate scholars' roles in resolving environmental community conflict, as environmental community conflict is becoming an increasingly serious problem in contemporary China, and it explored the underlying factors and mechanisms that influence successful conflict resolution.

Design/methodology/approach – Based on a combination of three types of sources – interviews, participant observation and existing literature, the study compared and contrasted 35 cases through a two-stage study project with 25 environmental community conflict cases in the first stage and ten non-environmental cases in the second.

Findings – Results indicate that scholars serve seven roles in community conflict resolution: identification persons for potential sources of community conflict and supporters for the people who evaluate conflict problems before attempting to solve them; advisers for conflict protagonists; leaders of many knowledge-related activities; organizers of entrepreneurial activities for other community members; information brokers between community members and other stakeholders; representatives of the government, firms, community members and other stakeholders; and self-interested participants. While scholars' participation is important for resolving community conflict, their actions are often not effective. Successful community conflict resolution involving scholars must satisfy eight underlying factors: local scholars' sustained participation; high capacity; improvement on the organizational level of community members; emphasis on high efficiency knowledge and information transmission;

effective finding and use of the community's social capital; continual optimization on their action strategies; obtainability of some benefits; and non-local scholars' sustained external support through social capital. The more closely these rules are followed, the more successful scholars' participation in community conflict resolution will be.

Originality/value – The findings have practical implications for improving the effectiveness of scholars' participation in community conflict resolution in contemporary China and even in other countries.

Keywords Conflict management, Experts, Environmental conflict, Participation mechanisms, Working rules

Paper type Research paper

Introduction

China's rapid, ongoing industrialization and urbanization has produced not only economic growth and development but also many social problems, leading to various conflicts, particularly environmental, among different social groups in many provinces, counties, cities, districts, townships and villages across China (Bernstein and Lü, 2003; Bianco, 2001; Fu and Cullen, 2009; Guo, 2001; Ho, 2005; O'Brien, 2002; Ru et al., 2006). These conflicts typically occur between the government officials who promote change and reform on behalf of governmental policies and the citizens who fight together to defend their properties and interests. Similarly, these conflicts also frequently occur between firms, which pursue their own economic interests and the same groups of citizens with whom the government clashes. Often, a third party (Pruitt and Kim, 2004) will help by facilitating communication, negotiation and – eventually – conflict resolutions between the respective parties.

As key issues challenging local, regional, national and global governance and sustainable development, an ambiguous body of literature has emerged on the topic of environmental conflicts since 1980s (Bingham, 1986; Emerson et al., 2009; Hagmann, 2005; O'Leary and Bingham, 2003). Many researchers have stressed the important roles of government agencies or resource managers (Mix and Shriver, 2007; Villanueva, 1996), the affected locals or residents (Correia, 2007; Mix and Shriver, 2007; Peuhkuri, 2002), the public (Bojórquez-Tapia et al., 2004; Hurley and Shogren, 1997), firms (Hurley and Shogren, 1997), environmentalists (Correia, 2007) and even environmental scientists or specialists (Villanueva, 1996) and knowledge (Bojórquez-Tapia et al., 2004; Peuhkuri, 2002) in environmental community conflict resolution. Although environmental conflict resolution was often characterized as "third-party-assisted deliberations over environmental issues among affected parties" (Emerson et al., 2009, p. 28), the functions of scholars as an independent group and a third-party have received little attention in the mainstream discourse concerning environmental conflict resolution. This paper is an effort to study the role of the scholars, as the third-party, in environmental community conflict resolution (Daniels and Walker, 1995) and the conditions and factors leading to the successful results of conflict resolution with scholar participation (Emerson et al., 2009).

"Scholars" in this study refers to those individuals who have a comparative advantage in expert knowledge over other social actors, such as citizens, government officials, businessmen, clans, religious groups and various non-governmental organizations (Yang, 2009; Yang and Wu, 2009, 2010; Yang and Lan, 2010). These scholarly individuals compose a unique social group in China. The best explanation of a

scholar is found in the ancient Chinese word "*shi*", meaning an educated gentleman, who is different from a farmer, a craftsman and a merchant. Together, these four occupations were called "*simin*" in ancient China. The concept of "Scholars", however, is actually a broader concept than that of "experts", which refers to those individuals who have "a special skill or special knowledge of a subject, gained from training or experience" (Longman Dictionary of Contemporary English, 2009a), especially technical persons. Scholars, however, do not necessarily possess the high level of skill or the depth of knowledge that is usually expected of experts. In the Longman Dictionary of Contemporary English (2009b), a scholar is also defined as "someone who knows a lot about a particular subject, especially one that is not a science subject". Furthermore, scholars are not necessarily specialists. In ancient China, scholars (shi) were broadly defined as those who had more knowledge than other people and were often generalists rather than specialists in a limited field. Compared to intellectuals who allegedly possess "bourgeois" attributes (Eddy, 2009) and are "politically, morally and professionally suspicious" (Eddy, 2009, p. 100), according to the Chinese Government after 1949, the term "scholars", as an older phrase, is not only relatively neutral, non-political and stable, but is also currently popular and acceptable. Therefore, in this study, we use the term "scholars" to include all of the types of knowledgeable people previously mentioned above; indeed, the term encompasses not only professors, researchers, experts, technicians and intellectual elites but also school teachers, journalists, lawyers and other stakeholders who possess learned knowledge. Furthermore, different from modern studies of Chinese intellectuals, which mainly focus on the work and lives of the educated elite such as professors, researchers, writers and other professionals involved in political and social change (Eddy, 2009; Li and Schwarcz, 1983-1984), the study of scholars places emphasis on scholars' roles in local communities.

Anecdotes about how Chinese *shi* (scholars) help to solve local problems and conflicts as the third party are plentiful. For example, *Mu-Ling-Shu*, a handbook for magistrates in ancient China taught magistrates how to appropriately treat and make use of local scholars to help them govern (Chang, 1955). Researchers have also highlighted the important role of school teachers, former soldiers with organizational and communication skills derived from their stint in the People's Liberation Army, journalists, better-educated people and *weiquan* (rights-protection) lawyers in community conflict resolution in modern rural China, all of whom can be deemed as scholars in our study (Bernstein and Lü, 2003; Bianco, 2001; Fu and Cullen, 2009; Gilley, 2001; Li and O'Brien, 2008; Perry, 2001; Tsai, 2002). Furthermore, researchers have found that scholars can help the government and farmers resolve the environmental collective action dilemma either as information providers, leaders, and organizers of farmers, agents of governments or – under certain conditions – self-interested participants (that is, the scholars would have their own interests in certain disputes) (Yang, 2007a, 2007b, 2009; Yang and Wu, 2009). However, this claim has yet to be tested in an empirical study, especially in terms of how – and through which mechanisms – a scholar's influence in environmental conflict resolution is exercised. In particular, the existing literature argues that allies of the elites at protests are commonly among "the bureaucratic elite" rather than among society at large", and that the instigators of the protests often receive "at least implicit high-level encouragement" (Perry, 2001). Michelson (2008), however, argues that local, village-level solutions are far more desirable and effective than non-local, higher-level solutions. This paper is thus also an

effort to examine how scholars, as a group of independent social actors, rather than tacitly identified elites at protests, facilitate local environmental conflict resolution in contemporary China.

Data and methods

Case selection

We conducted a two-stage case study project. In the first stage, to address the internal validity (Yin, 1994), we controlled the influence of non-research variables (such as time span, geographic locations and the types of community conflict) on conflict resolution and the differences between urban and rural communities, through choosing 25 different environmental community conflict cases, with 19 located in urban areas and 6 in urban ones (Table I). To test the causal generalization and address the external validity and reliability (Yin, 1994), we also chose ten non-environmental conflict cases with controlled time spans and geographic locations in the second stage. Of that set, six are in urban and four are in rural areas. Overall, the study includes 35 cases, of which 25 are in urban settings and 10 are in rural ones (Figure 1). During case selection, we also considered the possibility of obtaining research data, typicality, similarities and differences in conflict resolution and their regional distribution in different parts of China. Furthermore, cases in all developed (e.g. Beijing and Shanghai), developing (e.g. Inner Mongolia) and underdeveloped (e.g. Gansu, Guizhou) areas in China were also considered (Figure 1).

Data collection

Our study's data are a combination of three types of sources: interviews, participant observation and existing literature. First, we conducted face-to-face and telephone interviews, along with participant observations, when necessary and possible. We interviewed over 50 people in 10 cases and conducted participant observations over 10 times in 5 cases (Table I). For each case, we interviewed about three to ten people including community members, government officials, and scholars who directly participated in the conflict resolution as well as some who had expert opinions on the conflict but were involved in it. Furthermore, for each case, we conducted participant observations about one to three times, and each time was about 2 hours to several weeks. For example, because we could not find enough literature on the Gaolaiwang Village Land-Use Conflict case, with the exception of some archival data (e.g. unpublished reports), we conducted a series of face-to-face and telephone interviews with five villagers, three government officials and two scholars from February 15 to March 1, 2007. Throughout the resolution of the conflict, one of our authors directly participated as a scholar to arbitrate between the villagers and government officials. Although this overt participant observation might have reduced the objectivity of our observation data compared with the role of an outside observer, it also allowed us to interact directly with other scholars and parties involved in the conflict and to obtain more systematic, in-depth and authentic information. Second, for all 35 cases, various resources from newspapers, research reports, journal articles, books (He, 2010; Piao, 2009; Zeng, 2008), electronic documents, government documents, historical memoirs, biographies and personal memos were extensively collected for case description and meta-analysis. Finally, controlled-comparison, process-tracing (Evera, 1997; George and Bennett, 2005) and life-story analyses (Plummer, 2001) were used to clarify the relationship between

Table I.
Distribution, seven roles, eight underlying factors and conflict resolution results of the 35 cases

Cases	Level	Time	Location	Seven roles							Eight factors								Results
				R1	R2	R3	R4	R5	R6	R7	F1	F2	F3	F4	F5	F6	F7	F8	
A. The 25 environmental conflict cases																			
The Liulitun Waste Incineration Plant Conflict	U	2006-2008	Haidian Dist., Beijing	H	H	H	H	H	H	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The Asuwei Waste Incineration Plant Conflict**	U	2009-2010	Changping Dist., Beijing	H	H	H	H	H	H	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The Yueliangwan Waste Incineration Plant Conflict	U	2002	Nanshan Dist., Shenzhen	H	H	H	H	H	H	M	Y	Y	Y	ND	Y	Y	Y	Y	S
The Panyu Waste Incineration Plant Conflict*	U	2009-2010	Panyu Dist., Guangzhou	M	M	M	H	H	M	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The Shen-Gang Western Corridor Conflict	U	2003-2005	Nanshan Dist., Shenzhen	H	H	H	H	H	H	L	Y	Y	Y	Y	Y	Y	ND	Y	S
The Tianhua Community Construction Safety Conflict	U	2000-2004	Donghai City, Jiangsu	M	M	M	M	M	M	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The Tianhong Community Wall-Protection Conflict	U	2000-2004	Donghai City, Jiangsu	M	H	L	H	L	H	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The Baihe Community Construction Conflict	U	2000	Jinhua City, Zhejiang	M	H	M	H	H	M	M	Y	Y	Y	Y	Y	Y	Y	Y	S
The Lujiexincun Greenbelt-Protection Conflict	U	1993-2003	N Dist., Shanghai	H	H	H	H	H	H	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The Baiwangjiayuan High Voltage Lines Conflict	U	2004-2005	Haidian Dist., Beijing	M	H	H	H	M	M	M	Y	Y	Y	Y	Y	Y	Y	Y	S
The Magnetically Elevated Levitated Train Conflict*	U	2006-2009	Shanghai	M	M	M	M	L	M	L	Y	Y	Y	Y	Y	Y	ND	Y	S
The KC Community Road Construction Conflict	U	2005-2008	Guangzhou	M	H	M	H	H	M	M	Y	Y	Y	Y	Y	Y	Y	Y	S
The Kangcheng Greenbelt-Protection Conflict	U	2009	Minxing Dist., Shanghai	M	H	M	H	M	H	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The Yingshuishangzhuang Water Safety Conflict	U	1999-2003	Baoan Dist., Shenzhen	M	H	M	H	H	H	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The P-Xylene Program Conflict	U	2004-2007	Canghai Dist., Xiamen	H	H	H	H	H	H	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The Nanmigou Transformer Substation Conflict	U	2004-2006	Chaoyang Dist., Beijing	L	N	N	N	N	N	L	N	ND	ND	Y	N	N	N	N	F
The Changfujie Transformer Substation Conflict*	U	2006-2009	Baixia Dist., Nanjing	L	L	L	L	L	N	M	N	N	Y	Y	N	N	N	Y	F
The Wanqing Transformer Substation Conflict	U	2007-2008	Chaoyang Dist., Beijing	L	L	M	L	L	M	H	Y	ND	Y	Y	Y	N	N	Y	F
The Dingtaifenghua Environmental Conflict	U	2004	Nanshan Dist., Shenzhen	N	L	M	M	N	L	L	Y	Y	Y	N	Y	Y	ND	N	F
The Ganyugou Water Pollution Conflict*	U	2005-2010	Guzhi Dist., Tangshan	H	H	H	H	H	H	L	Y	Y	Y	N	Y	Y	N	Y	S
The Guanqian Village Division Canal Conflict	R	2009	Sinan County, Guizhou	M	H	M	H	M	H	L	Y	N	N	N	Y	Y	ND	Y	S
The Qianyu Village Water Pollution Conflict	R	2001-2005	Pingnan County, Fujian	H	H	H	H	M	H	M	Y	N	N	N	N	N	N	N	S
The Huashui Township Water Pollution Conflict	R	2005	Dongyang City, Zhejiang	N	L	L	L	L	N	L	N	N	N	N	N	N	N	N	F
The Huangni Village Water Pollution Conflict	R	2005	Xinchang County, Zhejiang	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	F
The Changqin Township Blood Lead Conflict	R	2003-2006	Fengxiang County, Shaanxi	L	N	N	N	L	N	N	N	ND	N	N	N	N	N	N	F

(continued)

Cases	Level	Time	Location	Seven roles							Eight factors								Results
				R1	R2	R3	R4	R5	R6	R7	F1	F2	F3	F4	F5	F6	F7	F8	
B. The 10 non-environmental conflict cases																			
The Household Relocation Conflict	U	1995-2000	Beijing	H	H	M	H	M	H	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The Housing Distribution Conflict	U	2005	Changchun	M	H	L	H	M	H	H	Y	Y	Y	Y	Y	Y	Y	N	S
The S Community Property Management Conflict	U	1998-2003	Shenzhen	M	H	H	H	H	H	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The JD Community Property Management Conflict	U	2003	Guangzhou	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	F
The XYL Property Management Conflict**	U	2006-2010	Haidian Dist., Beijing	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	F
The YXY Property Management Conflict**	U	2008-2010	Haidian Dist., Beijing	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	F
The Gaolaiwang Village Land-Use Conflict**	R	2003-2004	Minqin County, Gansu	H	H	H	H	H	H	L	Y	Y	Y	Y	Y	Y	Y	Y	S
The Fushan Township Arbitrary Charges Conflict	R	1999-2009	Shangcheng County, Henan	L	L	H	L	N	M	L	Y	Y	N	N	N	N	N	N	F
The Taishi Village Land-Use Conflict*	R	2005-2006	Panyu Dist., Guangzhou	M	M	H	M	L	L	H	Y	Y	Y	N	N	Y	N	N	F
The Fifth Production Team Land-Use Conflict**	R	2004	Minqin County, Gansu	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	F

Notes: * Refers to with the interview data and ** refers to with both the interview and participant observation data; U = Urban; R = Rural; "R1" to "R7" refer to Roles 1 to 7; H = High; M = Medium; Low = Low; N = No; ND = No data; Y = Yes; N = No; "F1" to "F8" refer to Factors 1 to 8; S = Successful; F = Failure
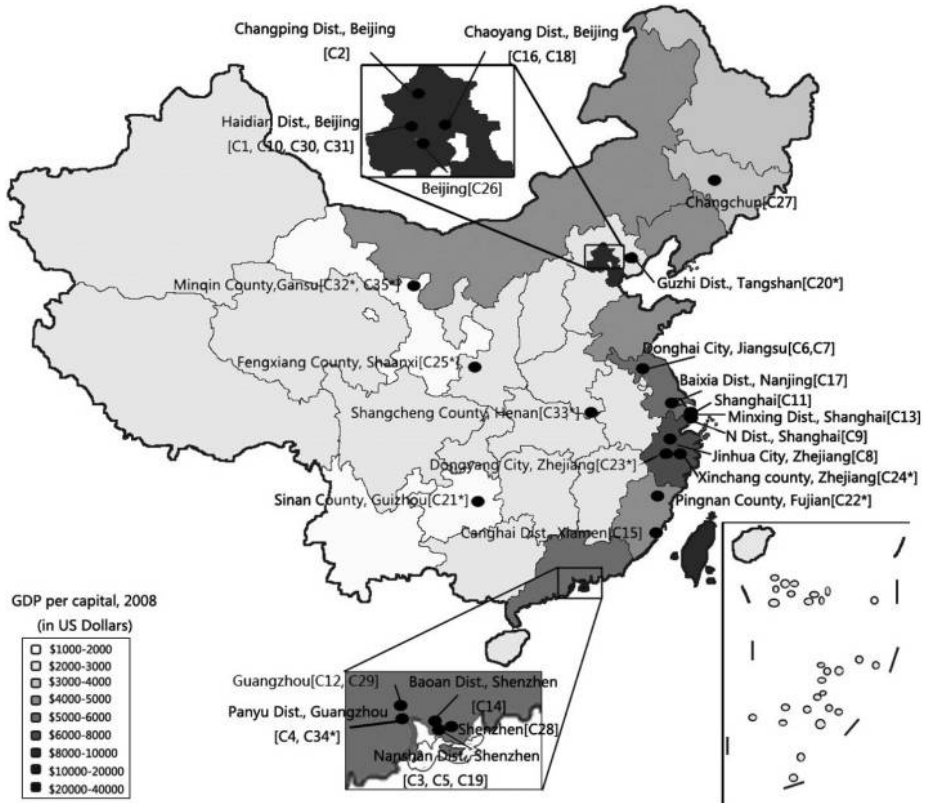
Table I.

Figure 1.
The geographical
distribution of
selected cases

Notes: (1) C1-C35 refer to Cases 1 to 35; (2) *means rural cases
Sources: The data of GDP per capital in 2008 were collected from National Bureau of Statistics
of China; China Statistic Year Book 2009 (2009); China Statistics Press, Beijing; available at:
www.stats.gov.cn/tjsj/ndsj/2009/indexch.htm (accessed 30 December 2010)

scholars' participation and the result of conflict resolution, as well as to explore the
resolution's underlying factors and mechanisms.

Analytical framework
Parties' types, resources and interactions with the other conflict parties influence the
results of conflict resolution (Correia, 2007; Emerson *et al.*, 2009; Lan, 1997; Peuhkuri,
2002). Thus, in each case study, we focused on three aspects (Alberts *et al.*, 2005; Yang,
2007b, 2009; Yang and Lan, 2010):

(1) the type of scholars and their resources;

(2) the interactions between the scholars and the other conflict parties; and

(3) the influence of the scholars' participation and their interactions with the other
conflict parties on conflict resolution.

For the type of scholar, we highlighted the differences between local and non-local scholars. We distinguished four forms of capital (resources): physical, financial, human and social capital. Specifically, "Physical capital is made up of tools, machinery, raw materials and other productive equipments"; "financial capital comprised monetary wealth"; "human capital refers to people with knowledge and skills" (Yang and Lan, 2010, p. 432); and social capital often refers to connections between individuals and social networks (Avgar, 2010; Putnam, 2000). For scholars' interactions with other conflict parties, we directed much of our attention toward how the scholars' participation influenced the other parties' preferences and identification, action strategies, organization levels, information transmission and the scholars' benefits, which are the major variables of environmental management conflicts (Bowonder, 1983). For the influence of scholars' participation on conflict resolution, we mainly considered two problems:

(1) whether scholars' participation helped the parties resolve their conflict fairly and reasonably; and

(2) the social effects of conflict resolution.

If the scholars improved community development, their effects were positive; if they caused the situation in the community to deteriorate, their effects were negative. This framework is presented in Figure 2.

Measurement
Based on the combination of various data, the above analytical framework, and other current theoretical findings (Correia, 2007; Emerson *et al.*, 2009; Lan, 1997; Peuhkuri, 2002), we coded scholar roles, results of community conflict resolution and underlying factors influencing the resolution results respectively. One of the authors of this study first coded the variables independently, and then another author verified all of the codings. For the cases with different results, the authors organized a meeting to have the data recoded by two research assistants. If their results were different than that of the authors, then both groups met again to code them together (Figure 3).

Figure 2.
The framework for
analyzing scholars'
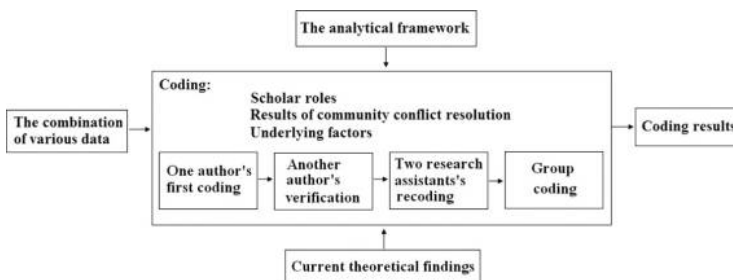participation in
community conflict
resolution

Figure 3.
The framework for
coding variables

Scholar roles. Based on analyzing functions of scholars and interactions among scholars and other parties in community conflicts, we first recorded scholar roles in each case and then identified seven most important roles – identification persons and supporters, advisers, leaders, organizers, information brokers, representatives and self-interested participants – through comparing the recorded scholar roles in all the cases. We then used these seven roles to reanalyze all the cases. For each case, we indicated which of the seven roles were highly played, which played at a medium level, which played at a low level and which clearly did not play (Table I).

Results of community conflict resolution. We characterized the results of community conflict resolution into two classes: successful and failure. When the conflict was resolved relatively fairly and reasonably with positive social effects or when scholar participation significantly improved the possibility to reach such an outcome, the result of conflict resolution with scholar participation was deemed to be "successful"; when this description was not the case, it was deemed "failure". Conflict resolution and the resolution of problems inducing the conflict are two different topics; sometimes, they may be consistent with each other, but sometimes, they may not. In our definition, however, "successful conflict resolution" also means that the problems inducing the conflict were at least partially resolved and that citizens' interests and rights were relatively protected. If a conflict was simply stymied, we did not deem its resolution as "success". Furthermore, conflict resolution is a very complex process. Exacerbating conflict may sometimes be deemed as a "rational, productive and successful" strategy for resolving the problems inducing the conflict because simply easing or suppressing them in the short term may allow them to appear again in the long term. Thus, the resolution of a conflict that does not resolve the problems inducing the conflict and leaves a "bad emotional residue" may serve as "a temporary stop gap for a new cycle of conflict to begin in the future" (Jeong, 2008). In general, an entire cycle of conflict includes a series of recognizable stages: initiation, escalation, de-escalation and cessation (Kriesberg, 1998; Mitchell, 1981; Pruitt and Kim, 2004). Thus, based on identifying a certain group of scholars, we studied the influence of their participation on an entire recognizable cycle of a conflict. However, it is also worthy to point out that our criteria for "success" were relative and temporal. Therefore, even in so-called "successful" cases, some problems inducing the conflict might not be completely resolved, and the citizens' reasonable interests and rights might not be protected especially well. All of these might be the origins of a new cycle of conflict in the future. The primary purpose of stratifying the influence of scholars' participation on the results of conflict resolution was to make a comparative analysis of different cases. Considering that we could not find another better word to replace "success", we chose to use this term by clearly defining its meaning in our study.

Underlying factors. Because high scholar participation in conflict resolution did not always translate to a high rate of fairly and reasonably resolved conflicts with highly positive social effects, we went to find the underlying factors influencing scholar participation in conflict resolution and its results based on analyzing factors identified by the analytical framework and current theoretical findings (Correia, 2007; Emerson *et al.*, 2009; Lan, 1997; Peuhkuri, 2002). The meta-analysis of the 25 environmental conflict cases indicated eight underlying factors (Table 2, Eight factors), which differentiated scholar participation in conflict resolution and could be used to explain different results of conflict resolution. We then used these factors to characterize all 35

Seven roles and eight factors	Chi-square values	Asymptotic significances
Seven roles		
R1. Identification persons	20.544	0.000
R2. Advisers	62.649	0.000
R3. Leaders	13.246	0.004
R4. Organizers	62.930	0.000
R5. Information brokers	14.649	0.002
R6. Representatives	26.719	0.000
R7. Self-interested participants	53.667	0.000
Eight factors		
Characteristics of local scholars		
F1. Sustained participation of local scholars	26.684	0.000
F2. High capacity of local scholars	29.630	0.000
F3. Local scholars can improve the organization level of communities	20.643	0.000
F4. Local scholars lay emphasis on high efficiency of knowledge and information transmission	15.291	0.000
F5. Local scholar can find and use community resources effectively	21.491	0.000
F6. Local scholars can continually optimize their action strategies	16.860	0.000
F7. Local scholars can get certain benefits	9.680	0.002
For situations with non-local scholars		
F8. Sustained external support from non-local scholars with social capital	10.965	0.001

Notes: R1-R7 refer to Roles 1-7; F1-F8 refer to Factors 1-8

Table II.
Seven roles and eight underlying factors illustrated by successful conflict resolution with scholar participation

cases in the research (Table I). For each case, we indicated which eight factors were satisfied and which were not.

Results and discussion
The seven roles of scholars
The relationship between the seven roles and the results of conflict resolution. Table I shows that the more the seven roles were played, the more successfully the conflict was resolved. We also conducted a chi-square test to evaluate whether these roles made differences of the results of conflict resolution. The SPSS results showed that their chi-square values were all high (from 13.246 to 62.930) and their asymptotic significances were all approximately 0 (Table 2, seven roles). This indicates that at the 0.05 significance level, these roles did influence the results of conflict resolution. However, the higher chi-square values of Roles 1, 4 and 7 show that these particular roles are more important to scholars' participation in community conflict resolution than the other roles.

Further explanation of the seven roles.

(1) Scholars could discover potential community conflict or, sometimes, even if they did not discover it, they could participate in conflict problem identification (Role 1). This indicated the importance of problem formulation in environmental conflict resolution as emphasized by the existing literature (Emerson *et al.*, 2009; Persson, 2006). For example, in the case of the environmental conflict in Ganyugou

Village, Shuming Zhang was the first person to become aware of the severity of the water pollution and of its relationship to the Douhe Power Plant.

(2) Scholars could provide information and knowledge including so-called expert and scientific knowledge as stressed by many studies (Bojórquez-Tapia *et al.*, 2004; Peuhkuri, 2002) to or act as advisors for environmental conflict protagonists (Daniels and Walker, 1995; Nan, 2010; Yang and Lan, 2009) (Role 2). But their advice might focus on how to control the conflict process, how to negotiate with other conflict parties, how to choose strategies and how to make decisions. They could also provide information and knowledge to community members, government officials or other stakeholders. For instance, during the Taishi Village Land-Use Conflict case, some scholars (such as Yan Guo and Jingling Tang) were law consultants for the villagers, while other scholars provided information for government officials. In particular, when Professor Xiaoming Ai wrote a letter to Premier Jiabao Wen, the professor became an information provider for the central government (Nan, 2010; Yang and Lan, 2009).

(3) Scholars were leaders of many knowledge-related activities (Role 3), such as writing letters of complaint and letters of requests (Ying and Jin, 2000) and organizing forums for promulgating related laws (Yang and Lan, 2009), as in the Tashi Village case.

(4) Scholars could organize entrepreneurial activities for other community members (Role 4). For example, in the Liulitun waste incineration plant case, Zhong was an excellent organizer for community members, who even established a core team for the protection of rights to help community members make decisions and plans.

(5) Scholars were information brokers between community members and other stakeholders (Role 4). For instance, in the Gaolaiwang Village case, scholars were information providers for both the government and the villagers, and thus promoted information communication between these two parties throughout the conflict.

(6) Scholars were representatives of the government, firms, community members, and other stakeholders (Role 6); therefore, scholars could help build trust between different conflict parties when it appeared that the scholars' information and knowledge were more likely to be trusted by the parties than their opposition. For example, in the Gaolaiwang Village case, the scholars could make promises to the farmers on behalf of the officials and convey the officials' ideas to the farmers after talking with the government officials in Beijing.

(7) Scholars could also act as self-interested pursuers (Role 7). For instance, the reporters in the Taishi Village Land-Use Conflict case pursued their private interests by writing sensational stories for their employers, and other scholars might also want to pursue some personal prestige through attending the event. Third-party roles are often documented as different types such as mediators, intermediaries, advisory arbitrators, peacekeepers, relationship therapists and conflict management trainers (Pruitt and Kim, 2004).

The study of the seven aforementioned roles of scholars not only reflected similar roles of third parties in general (for example, Role 2 reflected the role as advisory arbitrators, Roles 3 and 4 included the role as conflict management trainers, and Roles 5 and 6 reflected the roles as intermediaries and relationship therapists) from a different

perspective but also suggested more concrete and specific roles of scholars in community conflict resolution. Furthermore, it emphasized the roles of scholars as problem identification persons (Role 1) and self-interested participants (Role 7); this shines a light on the study of third party roles in conflict resolution.

The different roles of local and non-local scholars. The study found that local and non-local scholars often had different resources and played different roles in community conflict resolution. Local scholars were mainly community members who had a comparative advantage in knowledge over others and knowledgeable activists in community conflict (such as the aforementioned school teachers, former soldiers, better-educated people and former community leaders). These scholars often lived or worked in the community for many years and had more local knowledge (human capital) and social capital (good relationships) with other community members than non-local scholars. Thus, local scholars often became representatives of the community members by their own choice or after being asked by the people themselves (Yang and Lan, 2009), the representatives of community members to communicate with other conflict parties and non-local scholars and the transmitters who could transmit knowledge and information from other conflict parties and non-local scholars to other community members. Non-local scholars were often professors, researchers, experts in related fields, deputies to the People's Congress and the People's Political Consultative Conference, journalists or lawyers. Because they did not live or work in the community, they often had less local knowledge and less social capital with community members than the local scholars; however, they often had more expertise, professional knowledge and social capital with high-level government officials and other conflict parties than the local scholars did. They were often information and knowledge providers for local community members and other conflict parties. If they had social capital with several conflict parties, they could also act as representatives of these parties and thereby transmit information and broker trust between the parties. The study also found that although physical and financial capital (such as Zhang's computer in the Qianyu Village Rights-Protection Case and the scholars' expenditures in the JD Community Rights-Protection Conflict Case) were useful for scholars' participation, these were less important than knowledge and social capital. Similarly, there were no significant differences between local and non-local scholars.

Eight underlying factors for successful scholar participation
The relationship between the eight factors and the results of conflict resolution. Table I shows that the more the eight underlying factors were satisfied, the more successfully the conflict was resolved. We also conducted a chi-square test to evaluate whether these factors made differences of the results of conflict resolution. The SPSS results showed that their chi-square values were all high (from 9.680 to 29.630) and their asymptotic significances were all approximately zero (Table 2, eight factors). This indicates that at the 0.05 significance level, these factors did influence the results of conflict resolution. However, the lower chi-square values of F4, F7 and F8 show that these particular factors are less important to scholars' participation than the other factors. Furthermore, as shown in Table I, sometimes even when these factors are not satisfied, scholars' participation may still be successful.

Factor 1: sustained participation of local scholars. Sustained participation is the precondition for local scholars' to play effective roles in community conflict resolution.

Local scholars often have the same interest orientation with community members, can stand on the same side to organize them to resolve community conflict and can be their scholar entrepreneurs or leaders. In contrast, local scholars' abandonment may lead to failure or the end of the community's collective action. Thus, successful conflict resolution with scholar participation requires deep participation by local scholars, which means that the participation is essential and must be sustained and continuous (Yang, 2009; Yang and Wu, 2010). Furthermore, deep participation guarantees effective engagement of local scholars, as appropriate parties engaged (Emerson *et al.*, 2009), and mutual understanding between them and other conflict parties as argued by many former studies (Daniels and Walker, 2001; Emerson *et al.*, 2009; Innes and Booher, 1999; Leach *et al.*, 2002). For example, sustained participation by local scholars during the Qianyu Village Water Pollution Event was the major reason for the successful conflict resolution. In particular, Changjian Zhang, as a doctor and former leader of the village, first realized the severity of the problem and organized a series of rights-protection activities. Even after many villagers withdrew their support because of high time and financial commitments, Zhang worked for 10 years until the problem was resolved fairly.

Factor 2: high capacity of local scholars. Participants' capacity to engage is a key factor influencing environmental conflict resolution results (Emerson *et al.*, 2009). Local scholars' capacity for conflict resolution seems to be determined by four sub-factors:

(1) adequate and readily understandable hands-on knowledge, along with certain professional knowledge and expertise;

(2) high social responsibility, a spirit of utter devotion, enthusiasm and bravery in action;

(3) capacities for leadership (organizational and learning); and

(4) good social relationships (high social capital).

Because the origins of conflict are diverse, not all types of conflict resolution need scholars' professional knowledge and expertise, and sometimes the readily understandable hands-on knowledge of the scholars is more important than scholars' professional knowledge (Yang and Lan, 2009). Still, no matter what types of scholar they are, all effective scholars should have a high social responsibility, a spirit of utter devotion, enthusiasm and bravery in action; these traits are not only the reason why these scholars are respected by other community members and can be their scholar-entrepreneurs, but are also the preconditions for scholars to be willing to participate in conflict; to serve as organizers, supporters or leaders of the community's collective action; and to act even under pressure (Shen, 2007). While local scholars' strong leadership, high organizational and leaning capacity and various social relationships can help them organize collective action more efficiently and effectively and resolve community conflict more successfully, these goals are not necessarily satisfied simultaneously. Some effective scholars may only have parts of these capacities and resources. For instance, Mr Gu, a correspondent in the KC Community Road Construction Conflict, not only had comparative advantages in scientific knowledge, some experience with human-rights-protection activities, high social responsibility and a high spirit of utter devotion, but also had high leadership, organizational and learning capacity and social capital. He was the organizer and leader

of the community's collective actions. Even if many community members never saw him, they still praised him highly, trusted him and wanted to become friends with him (Zeng, 2008).

Factor 3: local scholars improve the organizational level of community members. The higher the organization level of the community members is, the more rational their actions in conflict become (Yu, 2008). Otherwise, community conflict is prone to be violent. Local scholars can improve the organizational level of community members in three ways:

(1) improve their collective identity (McAdam, 1999);
(2) establish the community members' own organizations; and
(3) establish goals and rules.

Collective identity refers to individuals' sense of belonging to a particular group, its collective interests, its opportunities and the limits of their collective action under certain situations. Collective identity can improve the trust among community members and significantly reduce the difficulties for scholars' efforts to organize collective action. The organizational structure functions as the determinant of movement recruitment patterns (Snow *et al.*, 1980). Organizations also contribute to the development of social capital within the community, due to their supplied opportunities of face-to-face-communications for community members (Putnam, 1993). Thus, the level of collective action and its results are often determined by the organizational level of community members. There are two types of community organizations: formal and informal. Formal organizations, such as residents', villagers' and owners' committees, are the legal forms of mass associations at the neighborhood level in contemporary China, while informal organizations are often temporarily formed for some particular purpose. Although collective action accomplished in association with formal organizations has higher legitimacy than with informal ones, informal organizations are often important and useful when formal organizations do not adequately protect community members' rights and interests. Organizational goals may be conceptual or concrete, but successful collective action must have practical and feasible goals that can be used as tools to realize the collective's conceptual and abstract goals. Rules indicate what attitudes and actions might be expected, required, prohibited or permitted in particular social situations and contexts (Crawford and Ostrom, 1995). For example, during the Baihe Community Construction Conflict, local scholars immediately realized the importance of organization after analyzing the reasons for low citizen participation at several events, and subsequently, responded by organizing a property-owners meeting to mobilize all of the supporters to discuss their shared strategies. This significantly improved the community's participation rate and expanded its rights-protection teams.

Factor 4: local scholars emphasize high efficiency knowledge and information transmission. Rational individuals make decisions based on their knowledge and information (Ostrom, 2005). In general, the more knowledge and information they possess, the more precise their calculations and the more rational their decisions will be (Zeng, 2008). The availability or lack of information and knowledge shapes the evolution and the resolution of environmental management conflicts (Bowonder, 1983; Emerson *et al.*, 2009; Leach, 2006). Furthermore, the resolution of environmental community

conflicts requires not only sufficient knowledge and information within the community but also adequate exchanges of inner and outer knowledge and information. Modern knowledge and information communication tools such as the Internet, telephones and mobile phones have indeed elicited new hope for the efficiency of knowledge and information transmission. Researchers have found that the Internet has successfully reduced resource differences between regular citizens and policy experts, put more public opinion pressure on government, reduced the access threshold of social democracy and widened public participation by making access to knowledge and information easier and cheaper (Li, 2009; Mao, 2009; Yang and Lan, 2010). For instance, during the P-Xylene Program Conflict, Internet and mobile phones also improved the efficiency of knowledge and information transmission. In particular, a topic posted on an Internet forum had over 10,000 individual responses during the first day. A mobile phone text message opposing the P-Xylene program also circulated among citizens in Xiamen City in May of 2007. Both of these messages significantly influenced public opinion on the P-Xylene Program.

Factor 5: local scholars find and use the community's social capital effectively. Social capital, which can take the form of shared values (including trustworthiness), social norms or rules (formal or informal) and social networks, can engender collective action (Cohen and Prusak, 2001). A number of studies employing the third-party method indicated the importance of the third-party's social capital in conflict resolution, although they often used words such as "ongoing relationship", "informal procedures", "trust", "high status" and "the same identity" to refer to social capital (Bercovitch, 2002; Botes, 2003; Kressel and Pruitt, 1989; Pruitt and Kim, 2004). Many studies on environmental conflict resolution have also indicated the importance of "relationship building" or "relationship improvements" (Dukes, 2004; Emerson *et al.*, 2009; O'Leary and Bingham, 2003; O'Leary and Raines, 2001) and "mutual trust reestablishing" (Frame *et al.*, 2004; Innes and Booher, 1999, 2004) among parties. Yang and Lan (2009) even directly found that scholars with high social capital were more effective in facilitating environmental conflict resolution than those without it. However, to resolve conflict more efficiently and effectively, local scholars must find and use additional social capital not only for members within their primary community but also for those outside of it. That is, scholars should also learn to take advantage of the social capital of other community members, in the hopes that the more it is used, the more external support they will obtain. For example, during the Baihe Community Construction Conflict, one community member's social capital with a lawyer helped their rights-protection activities obtain certain legal assistance, while another member's social capital with a government official helped them acquire the formal planning map of the Baihe Community, which provided them with evidence for the property community's illegal behaviors (Piao, 2009).

Factor 6: local scholars continually optimize their action strategies. Strategies of collective action often have an important influence on community conflict resolution (Elbanna *et al.*, 2011; Pruitt and Kim, 2004), and mediators' skills and practices are key conditions and factors leading to high environmental conflict resolution performance (Emerson *et al.*, 2009). Good strategies not only reduce scholars' and other community members' risk in the conflict but also help them increase the success of their actions (Lan, 1997; Yang and Lan, 2009). Thus, when local scholars participate in community conflict resolution, they should focus more on creative problem solving and strategy

optimization, which can often be obtained through extensive and effective interactions concerning other community members' interests, ideas, suggestions and knowledge. The methods for community conflict resolution in contemporary China mainly include reconciliation, complaints and reports, administrative mediation, lawsuits, petition letters, and appeals to the higher authorities for help. Although different community conflicts require different conflict resolution strategies, our case study found that one widely accepted rights-protection rule in contemporary China is that people should first use reconciliation (Xu, 1994), complaints and reports and administrative mediation to resolve conflict as far as possible and should allow conflict parties to save face (Miles, 2010; Tjosvold and Sun, 2001, 2010). Only after all three of these methods have failed should they use the lawsuit method, which requires people to collect and keep related evidence and to obtain legal assistance from professional lawyers or legal parishioners in order to reduce lawsuit risks and costs. For instance, during the Yinshuishangzhuang Water Safety Event, local scholars and community members first chose the strategy of complaints and reports rather than lawsuits. They directly wrote letters to the Guangdong Provincial Party Secretary, Shenzhen Municipal Party and mayor of Shenzhen to report the water safety problem. When community members wanted to recall the owners' committee for colluding with the property management company, they chose to file a lawsuit based on their collective discussion, the use of the community's social capital and some necessary legal assistance.

Factor 7: local scholars obtain some benefits. What factors motivated scholars to get involved in a conflict? Former studies (Army, 1987; Emerson *et al.*, 2009) indicated that parties' determination to engage in conflicts is based on their assessing whether they can benefit from environmental conflict resolution. Our study found that local scholars' benefits could be material as well as spiritual (Yang, 2009; Yang and Wu, 2010), no matter what motivated them to be involved in the conflict (protecting their own welfare or favorite people, following cultural norms, or paying debts of friendship) (Bercovitch, 2002; Pruitt and Kim, 2004; Touval and Zartman, 1985; Wall *et al.*, 2001). In formal organizations, both material and spiritual incentives exist, but, in informal organizations, incentives are mainly spiritual. Although respect and appreciation are non-material rewards, they can satisfy individuals' needs for recognition. Thus, certain material and spiritual benefits are important for local scholars' active participation in community conflict resolution and can improve the success rate of community conflict resolution (He, 2010; Yang, 2009; Yang and Wu, 2009, 2010). For example, during the KC Community Road Construction Conflict, Mr Gu, a local scholar, obtained strong spiritual support from his neighbors. Some residents posted topics on the Web site, such as:

- he is the most trusted person in the community;
- he is busy every day; and
- the community is fortunate to have him.

Often, after the community's collective meeting, the community members would surround him and thank him (Zeng, 2008). Thus, although Mr Gu also spent much of his time and money on protecting the community members' human rights, he never regretted his efforts and even participated more actively as a result of the many praises and thanks he received from other community members (He, 2010). In addition to his

own high enthusiasm and social responsibility (Yang, 2009; Yang and Wu, 2010), his active participation was also supported by the spiritual benefit that the community members supplied for him.

Factor 8: non-local scholars provide sustained external support through social capital. Increasingly, in contemporary China, the complexity of social organizations and conflicts often calls for varied support in community conflict resolution. Different fields of professional knowledge and information, which local scholars and community members possess, are often needed; this, in turn, reduces their capacity for conflict resolution. Instead, non-local scholars' knowledge and information assistance is necessary for both local scholars and community members. For example, full-time and professional lawyers can provide legal assistance, which can help ensure that the community's rights-protection efforts are effective and legal (Zhao and Zhang, 2006), while knowledgeable correspondents and their media outlets can be the tools for publicizing information and interest claims (Meng, 2005). Furthermore, non-local scholars' social capital can help local scholars and community members obtain more support when necessary. However, for these non-local scholars' participation to work and making them as appropriate participants in environmental conflict resolution (Dukes, 2004; Emerson *et al.*, 2009), they need social capital with local scholars or other community members (Yang and Lan, 2009). Non-local scholars often serve as information providers for community members and communication brokers between different conflict parties. The effectiveness of non-local scholars' participation often depends on the extent of their participation and their interactions with local scholars. For instance, during the Qianyu Village Water Pollution Conflict, local scholars obtained help from non-local scholars, including correspondents, professors and lawyers. Professor Wang, for example, told the local scholars to protect their rights by filing a class action lawsuit, and also contacted members of the media and lawyers to help with the lawsuit. Similarly, local scholar Changjian Zhang applied for funds from Global Greengrants Funds to support their rights-protection efforts with the help of the GreenWild Union at Xiamen University. Without that assistance, the villagers' would not have won the lawsuit.

Relationship between the seven roles of scholars and the eight underlying factors
The correlation analysis indicated that the eight underlying factors had significant correlation with the seven roles at the 0.05 confidence level, expect for Factor 4 with Role 3 as well as Factors 6, 7, and 8 with Role 7. In particular, Roles 1, 2, 4, 5, and 6 were correlated with all the eight factors (Table III). Thus, we could conclude that the underlying factors did influence the roles of scholars in community conflict resolution. But the results of the correlation analysis also showed that the most correlated underlying factors for each of the roles were different. For instance, the most correlated factors with Role 1 were Factors 6, 8, and 7, while the most correlated factors with Role 2 were Factors 6, 7 and 5. Although the average coefficients of the eight factors indicated that the most three important factors correlated with the seven roles were Factors 1, 3 and 6, Factor 6 was deemed as the most important correlated factor to six types of the roles of scholars (Roles 1, 2, 4, 5, 6). That is, on average, local scholars' sustained participation (Factor 1), improvement on the organizational level of community members (Factor 3) and continual optimization on their action strategies (Factor 6) were the three most

Seven roles	Eight factors F1 Coe.	Sig.	F2 Coe.	Sig.	F3 Coe.	Sig.	F4 Coe.	Sig.	F5 Coe.	Sig.	F6 Coe.	Sig.	F7 Coe.	Sig.	F8 Coe.	Sig.	Average 2 Coe.	Sig.
R1. Identification persons	0.742** [4]	0.000	0.730** [6]	0.000	0.729** [7]	0.000	0.440** [8]	0.009	0.740** [5]	0.000	**0.840** [1]**	0.000	**0.748** [3]**	0.000	**0.771** [2]**	0.000	0.718 [5]	0.000
R2. Advisers	0.836** [5]	0.000	0.819** [6]	0.000	0.768** [7]	0.000	0.573** [8]	0.000	**0.865** [3]**	0.000	**0.930** [1]**	0.000	**0.882** [2]**	0.000	0.846** [4]	0.000	**0.815 [1]**	0.000
R3. Leaders	**0.764** [1]**	0.000	**0.724** [2]**	0.000	0.622** [5]	0.000	0.268** [8]	0.125	0.579** [6]	0.000	0.633** [4]	0.000	0.547** [7]	0.001	**0.697** [3]**	0.001	0.623 [6]	0.000
R4. Organizers	0.839** [4]	0.000	0.824** [6]	0.000	0.775** [7]	0.000	0.584** [8]	0.000	**0.875** [3]**	0.000	**0.923** [1]**	0.000	**0.882** [2]**	0.000	0.839** [4]	0.000	**0.808 [2]**	0.000
R5. Information brokers	0.710** [6]	0.000	0.695** [7]	0.000	0.722** [5]	0.000	0.538** [8]	0.001	0.780** [4]	0.000	**0.857** [1]**	0.000	**0.790** [3]**	0.000	**0.839** [2]**	0.000	**0.754 [3]**	0.000
R6. Representatives	**0.800** [3]**	0.000	0.762** [5]	0.000	0.669** [7]	0.000	0.503** [8]	0.002	**0.811** [2]**	0.000	**0.835** [1]**	0.000	0.769** [4]	0.000	0.759** [6]	0.000	0.747 [4]	0.000
R7. Self-interested participants	**0.566** [1]**	0.000	**0.539** [3]**	0.000	**0.560** [2]**	0.001	0.427** [5]	0.012	0.429** [4]	0.010	0.312 [8]	0.068	0.330 [6]	0.070	0.315 [7]	0.066	0.487 [7]	0.009
Average 1	**0.773 [1]**	0.000	0.728 [4]	0.000	**0.765 [2]**	0.000	0.476 [8]	0.021	0.726 [5]	0.000	**0.761 [3]**	0.000	0.707 [7]	0.010	0.724 [6]	0.009		

Notes: R1-R7 Refer to Roles 1-7; F1-F8 refer to Factors 1-8; Coe. = Correlation coefficients; Sig. = Significances; **indicate that the coefficients are significant at the 0.01 confidence level (two-tailed); *indicate that the coefficients are significant at the 0.05 confidence level (two-tailed); average 1 = the average correlation coefficients of the eight factors on the seven roles; average 2 = the average correlation coefficients of the seven roles with the eight factors; [1] to [7] refer to the rank; and the bold values refer to the top three

important factors influencing the roles of scholars, but local scholars' continual optimization on their action strategies (Factor 6) had the most influence on the roles of scholars as identification persons for potential sources of community conflict and supporters for the people who evaluate conflict problems before attempting to solve them (Role 1), advisers for conflict protagonists (Role 2), organizers of entrepreneurial activities for other community members (Role 4), information brokers between community members and other stakeholders (Role 5) and representatives of the government, firms, community members and other stakeholders (Role 6). These results provided concrete instructions for conflict parties to improve the roles of scholars in community conflict resolution. For example, if local scholars want to be effective leaders of many knowledge-related activities (Role 3) in community conflict resolution, they should pay more attention to improve their sustained participation (Factor 1), capability (Factor 2) and social capital with non-local scholars (Factor 8). This is consistent with the previous findings on the role of local scholars' participation in conflict resolution and local governance (Avgar, 2010; Yang, 2009; Yang and Lan, 2010; Yang and Wu, 2010). If scholars want to improve the overall level of their roles, they should first improve their sustained participation, while if scholars want to improve their roles as identification persons, advisers, organizers, information brokers and representatives (that is, Roles 1, 2, 4, 5, and 6) simultaneously, they should first consider to optimize their action strategies in community conflict resolution continually. For example, the local scholars' sustained participation in the Gaolaiwang Village Lan-Use Conflict case improved the effective roles of the scholars in conflict resolution and guaranteed the success result of the conflict resolution (Yang and Lan, 2009), while, in the Yinshuishangzhuang Water Safety Event, the local scholars' continual optimization on their action strategies did improve their roles as the identification persons, advisers, organizers, information brokers and representatives (He, 2010).

The average correlation coefficients of the seven roles with the eight factors indicated that the three most influenced roles by the eight factors were Roles 2 (as advisers), 4 (organizers), and 5 (information brokers) (Table III), and the three least influenced roles were Roles 7 (self-interested participants), 3 (leaders) and 1 (identification person). This suggested that when conflict parties, policymakers or other stakeholders want to make an impact on the roles of scholars through changing the eight factors, they might have more influence on the roles of scholars as advisers, organizers and information brokers, but less influence on the roles as self-interested participants, leaders and identification persons. The less influences on self-interested participants and leaders might be related to the rigidity of selfish motives (Bowonder, 1983; Margolis, 1984; Rand, 1964) and high enthusiasm and social responsibility of the leaders (Yang, 2009; Yang and Wu, 2010), as suggested by previous studies. But the less influences on identification persons might be related to the nature of conflicts. In general, technically oriented conflicts (e.g. the P-Xylene Program conflict in Xiamen and the Qianyu Village Water Pollution Conflict in Fujian) often require scholars with professional expertise to play an important role in conflict problem identification, while the conflict problems in many non-technically oriented conflicts (e.g. the Tianhong Community Wall-Protection Conflict in Jiangsu and the Kangcheng Greenbelt-Protection Conflict in Shanghai) could be identified easily by

community members, based on their common sense or non-expertise (He, 2010; Yang and Lan, 2010).

Conclusion

Although scholars play an important role in community conflict resolution in contemporary China because of the impact of culture (Avruch, 1998; Cohen, 1991; Faure and Rubin, 1993; Jia, 2002; Tinsley and Brett, 2001), few studies in the mainstream conflict resolution literature have explored their roles and mechanisms. By comparing and contrasting 35 cases, this study found that scholars serve seven roles in community conflict resolution and that successful scholar participation in both environmental and non-environmental conflict resolution is influenced by eight underlying factors. These roles and the underlying factors of scholars' participation embody essential elements that help to provide evidence that stronger proactive participation by scholars is urgently needed for tackling urgent problems of various community conflicts, to explain the success of scholars' participation in community conflict resolution and to provide some concrete instructions to promote scholar participation in community conflict resolution in contemporary China. Although these roles and factors may not cover all aspects or elements of successful community conflict resolution involving scholars, they are nonetheless essential and can be used as concrete instructions to improve environmental conflict resolution performance, to transform unsuccessful or semi-successful environmental conflict resolution to more successful resolution and to design new institutions for scholars' engagements in environmental conflict resolution in practices.

Our case study here is not without flaws. Despite our efforts to cover various cases on this topic, many valuable cases have been missed. Moreover, because of the versatility of the studies in terms of fields (mainly environmental cases), the level of analysis, the time and the locations and whether these findings can be replicated in other places besides the cases covered in this study should be further tested in the future. Nevertheless, our study has value, in that it has covered a truly versatile and representative case sample on this important social issue. Furthermore, because scholars' participation in conflict resolution is an informal conflict resolution method and its results depend heavily on the behaviors of scholars themselves (as showed by the seven roles and eight underlying factors), although it might be readily accepted by community members, it can also lead to counter-productive effects (particularly when officials and community members are able to move toward settlement by themselves) (Hiltrop, 1985; Lim and Carnevale, 1990; Pruitt and Kim, 2004; Zubek *et al.*, 1992), and its legitimacy and necessity are often challenged by officials or formal legal systems. Thus, how to avoid its counter-productive effects, improve its legitimacy, reduce its friction with formal legal systems and strengthen its link with formal systems should also be further studied in the future.

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Further reading

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