



Munro, N. (2013) *The socio-political bases of willingness to join environmental NGOs in China: a study in social cohesion*. *International Journal of Social Quality*, 3 (1). pp. 57-81. ISSN 1757-0344

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Deposited on: 27 January 2014

Forthcoming in *International Journal of Social Quality* (ISSN: 1757-0344), vol.3, no.1 (Summer 2013).

## **The Socio-political Bases of Willingness to Join Environmental NGOs in China: a Study in Social Cohesion**

**Dr Neil Munro**

School of Social and Political Sciences,  
University of Glasgow, GLASGOW G12 8RT,  
Scotland, UK.

Email: [Neil.Munro@glasgow.ac.uk](mailto:Neil.Munro@glasgow.ac.uk).

Tel. +44-141-3307628

**Biography:** Neil Munro is lecturer in Chinese politics at the University of Glasgow. Before taking up this post in 2011, he researched various aspects of social and political transformation in Asia and Europe, completing a PhD comparing the sources of South Korean and Russian regime support (Strathclyde, 2004). Recent publications include *Popular Support for an Undemocratic Regime: the Changing Views of Russians* (with Rose and Mishler; Cambridge University Press, 2011); and (2012) “Connections, Paperwork or Passivity: Strategies of Popular Engagement with the Chinese Bureaucracy” *The China Journal* 68 (July), 147-75. His current research focuses on issues of social and environmental policy in China.

This research is supported by British Economic and Social Research Council grant number ES/J012688/1

2 tables (table 1 plus Appendix)

1 figure (see separate .tif file)

9,167 words

### Abstract

This article examines willingness to join China's emerging green movement through an analysis of data from the China General Social Survey of 2006. A question asked about environmental NGO membership shows that whilst only one per cent of respondents claim to be members of an environmental NGO, more than three fifths say they would like to join one in future if there is an opportunity, slightly less than one fifth reject the idea, and the remainder are don't knows. The paper tests explanations of willingness to join based on instrumentality, ideology, social identity and social capital networks. It finds that instrumental considerations dominate, although ideology, identity and networks contribute incrementally. The conclusion considers the usefulness of willingness to join as an indicator of social cohesion within the framework of a wider effort to evaluate social quality.

*Keywords:* China, environmental NGOs, civil society, social cohesion, social quality

## Introduction

Social cohesion has been an important buzz word amongst policy-makers, standing for a raft of social, economic and political concerns, from the problems of interethnic relations in multicultural societies, through unemployment and poverty to social and political participation and the effects of social factors on economic development (Chan et al. 2006: 278). Partly as a result of this diversity, there has been little consensus in the literature on what social cohesion is. Friedkin (2004: 411) views it as a “causal system that determines individuals’ membership attitudes and behaviours”. Defined this way, there is no possibility of identifying universal indicators to measure it, and so he suggests instead focussing on concrete constructs and their causal relations (421). Chan et al. (2006: 290) take a more conventional approach, defining social cohesion as **“a state of affairs concerning both the vertical and the horizontal interactions among members of society as characterized by a set of attitudes and norms that includes trust, a sense of belonging and the willingness to participate and help, as well as their behavioural manifestations”** (emphasis in the original). They thus posit two perspectives on cohesion: objective and perceived, and note that social cohesion involves relationships both amongst people who have roughly equal power as well as across power gradients. Because Chan and co-authors propose specific groups of indicators, the definition is much easier to operationalize. It is also of more practical use to policy-makers.

In their account, the “horizontal-subjective” dimension of social cohesion is measured by four sets of attitudes: generalized trust in fellow citizens; willingness to cooperate and help others in society; willingness to cooperate across social and political cleavages; and sense of belonging or identity (Chan et al. 2006: 295). The corresponding “horizontal-objective” dimensions include measures of participation in civil society groups, actual participation in voluntary work, donations to charity and willingness to cooperate with other social groups

(296). “Vertical-subjective” measures include political trust and “vertical-objective” measures include measures of political participation such as voting, signing petitions and taking part in strikes.

The social quality approach provides a broad framework within which the study of social cohesion may be located. Social quality (SQ) has been defined as: “the extent to which people are able to participate in the social, economic and cultural life of their communities under conditions which enhance their well-being and individual potential” (Beck et al., 1998: 3). SQ theory posits that both constitutive and conditional factors contribute to social quality: the constitutive factors produce actors capable of participating, and conditional factors determine the opportunities for participation and its outcomes. SQ has four constitutive factors--personal security, social recognition, personal capacity and social responsiveness—corresponding to four conditional factors--socio-economic security, social cohesion, social empowerment and social inclusion (Walker 2011: 7f).

Chan et al.’s (2006) definition of social cohesion was not proposed as part of the SQ approach, but is compatible with it. For example, van der Maesen and Walker (2005: 11) have defined social cohesion as “collective accepted values and norms, such as trust, that enable community building.” These values and norms condition processes of collective identity formation and self-realisation of individuals by conferring social recognition on people who engage with society in constructive ways. Van der Maesen and Walker (2005: 19) suggest a range of indicators of social cohesion covering such domains as trust, other integrative norms and values, participation in social networks and strength of identity. They include willingness to do voluntary work as an indicator under the second domain.

What is the big picture of social cohesion in China? According to standard survey items included in the 2006 Asia Barometer survey (Inoguchi et al. 2006), 64 per cent of

Chinese citizens feel that most people can be trusted, and 88 per cent feel proud or very proud to be Chinese. Political trust in China is very high. Data from the same survey show that the mean trust in the local government, legal system, army, police, Communist Party and National People's Congress is above the mid-point of a four point scale for 76 per cent of respondents. Institutions of civil society are less trusted: only 47 per cent trust NGOs, 42 per cent trust the media and 33 per cent trust religious organisations. Although 86 per cent agree with the statement that citizens have a duty to vote, only 41 per cent claim to vote some or most of the time in Local People's Congress or village committee elections. These data suggest that China is more cohesive along vertical dimensions than along horizontal dimensions, and more cohesive by subjective than by objective measures. This mismatch between vertical and horizontal and between attitudes and behaviour suggest problems of repressed demand for participation resulting from an underdeveloped civil society. If we want to go deeper, we have to follow Friedkin's (2004: 421) advice and focus on more specific relationships.

The aim of this article is to explore the socio-political bases of willingness to join environmental non-governmental organizations (NGOs) in China. Why focus on environmental NGOs? First, over the past twenty years China's environmental NGOs have made some significant progress in influencing policy and specific environmental management decisions. Their role is thought to be growing. Second, although the study of public opinion about the environment in China has developed rapidly (Lee, 2005; Harris 2006), there have been very few studies of public attitudes towards environmental NGOs. To my knowledge, no one has previously attempted to offer an account of the sources of willingness to join Chinese environmental NGOs using a nationwide survey of public opinion. Third, Chinese environmental NGOs are illustrative of a wider phenomenon relevant to the study of social quality: that of repressed demand for participation.

In this article, I first offer a brief account of the institutional context of China's environmental movement. Second, I develop hypotheses based on the literature about motivations for movement participation including instrumentality, ideology, identity and social capital networks as key categories of independent variables. Third, I describe the data and research design, identify measures to test the hypotheses, and present a logistic regression model to explain willingness to join environmental NGOs. The data show that willingness to join is a mainstream attitude amongst the Chinese population at large. Instrumental considerations dominate in a composite explanation of willingness to join, although ideology, identity and networks have some independent influence. Finally, I relate the findings to the social quality approach and in particular to the task of measuring social cohesion. I propose that, subject to further validation through future survey research, willingness to join environmental NGOs may be considered as a candidate measure of what Chan et al. (2006) call the horizontal-subjective dimension of social cohesion.

## **The Growing Role of China's Environmental NGOs**

The number of China's environmental NGOs is growing. The government-sponsored All-China Association of Environment Federations (ACEF 2006) put the total number of registered environmental groups at 2,768 in 2005, whilst the NGO research centre at Tsinghua University put it at more than 3,500 in 2012 (S. Liu, 2012). These include government-organized groups (GONGOs), self-organized (*minjian*) groups, student groups and branches of international NGOs<sup>1</sup>. This represents a growth rate of more than five per cent annually.

The emergence of increasing numbers of environmental NGOs appears to reflect the selective opening of space for political participation by citizens and interest groups. Guobin Yang (2005) has applied a field perspective to explain their emergence with reference to liberalization of political conditions, as well as the expanding influence of the media, the

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<sup>1</sup> Official China prefers to use the term "social organization" (*shehui tuanti*) instead of "NGO" but this article uses the latter term as it has become accepted internationally.

internet and international NGOs. Ru and Ortolano (2009) use political process theory to explain environmental NGOs' emergence in terms of favourable political opportunities, cognitive liberation amongst potential activists, resource mobilization by organisational entrepreneurs and the reflected influence of international NGOs. Clearly, we can't understand their emergence without reference broader changes in society.

Although the Chinese government does not regularly publish information about numbers of environmental disputes, these seem to be occurring more frequently, and this has undoubtedly put pressure on government. An Ministry of Environmental Protection source put the number of environmental disputes at 51,000 in 2004 and 128,000 in 2005 (Ma 2009: 35). According to evidence given by Yang Chaofei, deputy director of the Chinese Society for Environmental Sciences, to the Standing Committee of China's National People's Congress, environmental protests have been increasing at an average rate of 29 per cent annually since 1996, but less than one per cent of environmental disputes are solved through laws or the court system; there were more than 300,000 environmental petitions submitted from 2006 to 2010 but only 1,100 were dealt with through the courts (Yan, 2012). Aware of the functional need for better representation of popular interests, the government meanwhile has revised its guidelines for environmental impact assessments to include a requirement for "social impact assessments" involving consultation with a broad range of directly or indirectly affected stakeholders including social groups, residents, experts, members of the public and non-governmental organizations (Xiao et al, 2012). If properly implemented these guidelines would represent the partial institutionalisation of NGOs' role in environmental governance.

The Chinese authorities have recently had to confront a spate of "mass incidents" with roots in environmental disputes. In July 2012, protests in Shifang, Sichuan province, led officials to suspend plans to build one of the world's largest copper smelting plants (Bradsher 2012). The same month, protesters in Qidong, Jiangsu province, ransacked local government



offices over a dispute about the location of a coastal effluent pipe, and again, the authorities revised their decision (Perlez 2012). Other famous examples of protests which were at least temporarily successful include in 2011 a PX plant in Dalian, in 2009 waste incineration plant in Panyu, Guangdong province; and in 2007 a PX plant in Xiamen. Although NGOs have not been at the forefront of these NIMBY protests and the authorities seem less worried by NIMBY activity than by coordinated environmental campaigns (Johnson 2010), some evidence suggests use of the internet and mobile telephony facilitated coordination by protesters and green groups (J. Liu 2011; Yang & Song 2011). Incidents like these have created the impression that Chinese society is becoming less tolerant of environmental harm.

Institutionally, environmental NGOs remain very weak. NGOs in general remain highly constrained by the state, lacking the equivalent legal standing accorded to the private and public sectors (Schwartz 2004; Guan 2012). The vast majority of them are unable to register as they are unable to meet the requirement for a supervising government body or “mother-in-law.” This puts them in a precarious legal position. Whilst environmental NGOs have expanded the range of their activities, to the extent they have been able to influence government decisions, mostly it has been by maintaining a cooperative stance and utilizing channels provided by government (Ho 2001; Tang and Zhan 2008: 431ff). Case studies suggest environmental NGOs are often elitist creations, with very small memberships centred on a charismatic personality (Xie 2009). Whilst nationally registered NGOs are permitted to operate at national level, they are forbidden from creating a network of local chapters and from advertising to raise funds (Shapiro 2012: 117). Most stay away from controversial issues and even where the will is there, capacity is limited. For instance, the leading environmental NGO in pollution control, the Centre for Legal Assistance to Pollution Victims, restricts itself to providing legal advice and is only able to get directly involved in about one per cent of the complaints brought to it (van Rooij 2010: 70). Of these, around one third never make it to

court, being rejected at a preliminary stage (Yan 2012). Another NGO called *Shouwang Jiayuan* trains activists in water pollution disputes but faces pressure from the authorities, which has led to the arrest of one of the core activists (van Rooij 2010: 73). We should not be under any illusions that environmental NGOs in China are tightly constrained.

Nevertheless, it would be a mistake to dismiss their influence as negligible. Cooper (2006) argues that China's environmental NGOs are creating new civic freedoms with the potential to spill over into broader political change, much as they did in Eastern Europe. This is almost certainly an overstatement of their radicalism. A few of them have managed to exert substantial policy impact by taking initiatives in areas such as air quality monitoring which are reported by the media and then endorsed by government as a model for replication elsewhere (Shapiro 2012: 117,124). Sometimes their activities impact local politics, as when local developmental coalitions are browbeaten into compliance with environmental legislation, or conversely when local leaders playing the role of "policy entrepreneur" seek involvement by environmental NGOs in their initiatives. Sometimes their impact is even transnational, as when Chinese environmental NGOs shame multinational companies into eliminating harmful substances in their supply chains. These are considerable achievements for a nascent movement under an authoritarian regime.

The focus of many NGOs' activities is to influence public opinion on contentious issues, and to the extent that governments also respond to public opinion, their image is politically important (Meyer & Lupo 2010: 132). Stalley and Yang (2006) have explored the attitudes of university students in Beijing to the environmental movement, finding little enthusiasm for involvement in confrontational protests. They therefore question whether China's environmental NGOs constitute a movement at all, since they have so far lacked the capacity for sustained contention which characterized successful social movements in the West (see eg. Snow et al. 2004). However, this is perhaps an overly restrictive view of the

social significance of China's environmental NGOs. They represent a loosely networked coalition, are not necessarily motivated to challenge the state, but share a set of common concerns about state policies on the environment. To the extent that they enjoy public support and the government is willing to tolerate their activities, we would expect their potential influence to grow in line with a broader "selective opening" of China's policy process (cf. Mertha, 2009).

## **Understanding Willingness to Join**

Van Stekelenburg and Klandermans (2010) distil the findings of sociological and social psychological research on why individuals participate in social movements into a framework for studying what they call "demand" or motivation for movement participation. It consists of three main elements: instrumentality or people's interest in changing their circumstances, identity or their desire to act as members of a group, and ideology or their desire to express their views and feelings<sup>2</sup>. Building on work by Van Zomeren et al. (2008), they posit emotion as an "amplifier or accelerator" of each of these fundamental motives (183). Research in the United States suggests that psychological resources such as "extroversion" based on such attributes as being outgoing, enthusiastic, emotionally stable and handling stress well contribute to activism in local communities (Kavanaugh et al., 2005: 25f). Extending McAdam's (1988) notion of biographical availability, Van Stekelenburg and Klandermans posit biographical continuity and conversion as conditioning factors (191). The former refers to a readiness to participate based on prior political socialization, and the latter to life events which make an individual more ready to participate than they otherwise would

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<sup>2</sup> An alternative social psychological perspective classifies motivations in terms of perceived injustice, efficacy and identity--see Van Zomeren et al. (2008) for an extensive meta-analysis and review based on this framework. It is eschewed here because the perceived injustice element is poorly suited to discussing popular sympathy with a cause such as the environment which is quite consensual. The other elements are included in Van Stekelenburg and Klandermans' (2010) perspective – the concern with efficacy broadly overlaps with instrumentality and identity is present in both.

be. This provides a basic theoretical framework for understanding willingness to join environmental NGOs.

The concept of instrumentality builds on Olson's (1965) solution to the paradox of collective action in the presence of widespread opportunities to free ride: the pursuit of selective incentives. However, instrumentality goes beyond Olson by positing that people participate also in pursuit of collective interests, given positive expectations about other people's participation and some minimal threshold of personal and group efficacy (Klandermans 1984: 585). These ideas have been taken up by political scientists who argue that collective interests are more important motivators than selective incentives (Finkel, Muller et al. 1989; Muller, Dietz et al. 1991; Finkel and Muller 1998) or attempt to specify which types of incentives are important for different types of participation (Bäck et al. 2011). The model of activism adapted by Lubell (2002: 433; Lubell et al. 2006) to explain environmental activism and intention in America, proposes that:

$$EV = [(p_g + p_i) * V] - C + B$$

where EV is the expected value of participation,  $p_g$  is the probability that the group will succeed (its efficacy),  $p_i$  is the marginal difference made by the individual's contribution to group success (personal efficacy), V is the value assigned to the environment, C refers to selective costs of participation, which are born only by the individuals who take part, and B refers to selective benefits, which likewise accrue only to participants. In this model, participation is the aggregate outcome of individual decisions which are rational, at least in the thin sense that they are consistent with the actor's purposes and beliefs (Ferejohn 1991). The model provides the first hypothesis to be tested in this study:

*H1. People express willingness to join environmental NGOs in China out of instrumental considerations.*

The desire for self-expression, as well as feelings of moral indignation, give rise to ideology as an influence on participation (Whiteley 1995: 224; Van Stekelenburg and Klandermans 2010: 183f). Acting or speaking in congruence with an ideology may be a way of producing psychic benefits, and on this basis Lubell and co-authors (2002: 435; Lubell et al. 2006: 155) include “environmental values” in the B term in the equation above. However, as Whiteley (1995: 223) pointed out, the desire for self-expression is not a necessarily a rational motive for participation since it may be unrelated to the expected outcome. Moreover, ideology can influence participation by structuring the discursive framework, the mental map of relations of solidarity and power, through which people understand political issues (Hodge & Kress 1988). Such frameworks may structure the association of values with actions in systematic ways. Thus ideology provides the second hypothesis to be tested in this study:

*H2. Net of instrumental considerations, people express willingness to join environmental NGOs in China for ideological reasons.*

Defining social identity as “socially shared understandings of what it means to be a group member”, Van Zomeren et al. (2008: 505ff) suggest that identification with a disadvantaged group may be an indirect as well as direct cause of collective action because of its effects on efficacy and perceived injustice. Their concern with “disadvantaged groups” is restrictive, but in applying the concept of identity, it makes more sense to think not only of those who are vulnerable, but to think also of self-selected groups who take action for other reasons<sup>3</sup>. Whiteley (1995: 218) proposed that people may participate in politics as a “conditioned response to the actions of other people” or in other words to conform to social norms. In the view of Van Stekelenburg and Klandermans (2010: 181f) identity can be a direct source of motivation, when individuals participate in order to conform to the group

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<sup>3</sup> For instance, people may self-select into the category of “moral persons” and act out of altruism or sense of duty (Dawes et al. 2011; Fowler & Kam 2007).

with whom they identify. We can test the following hypothesis in relation to Chinese environmental NGOs:

*H3. Net of instrumental considerations and ideology, people express a willingness to join environmental NGOs in China because of their social identity.*

In social capital theory, networks are relational resources (Putnam 2000; N. Lin 2001). Access to such networks may make people more likely to participate in collective action not only because the networks facilitate achievement of instrumental goals, and not only because they generate a putative social identity, but because the network itself is a vehicle for coordinating collective action. If this is so, it makes sense to treat social networks as a separate source of influence on willingness to join. The following hypothesis can be tested:

*H4. Net of instrumental considerations, ideology and social identity, people express a willingness to join environmental NGOs in China because of their social capital networks.*

## **Data and Research Design**

This study is based on analysis of data from the China General Social Survey (Li and Bian 2006), carried out nationwide from September to November 2006 by Renmin University and the Hong Kong University of Science and Technology<sup>4</sup>. Respondents age 18 to 70 were drawn from 969 tertiary sampling units including 559 urban neighbourhoods and 410 administrative villages using stratified proportionate to population probability sampling across 28 provinces of mainland China. Tertiary sampling units were randomly selected from settlement lists compiled for the 2000 census. Where significant changes in neighbourhood or village boundaries, population movements or changes in administrative status created differences between current settlements and those in the census, the area sampled was

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<sup>4</sup> CGSS is sponsored by the China Social Science Foundation. The author appreciates the assistance in providing the data by the institutes and individuals aforementioned, but all views expressed here are the author's own. The data is available for download upon completion of a registration form at <http://www.cssod.org>

adjusted to reflect as closely as possible the situation as of the census. Within each settlement, the random route method was used to select individual households with a quota of ten households per sampling unit. The result was a nationwide sample with a total of 10,151 respondents, one of the largest publicly available datasets on the attitudes, attributes and behaviour of China's population.

In 2006 CGSS included a battery of questions on environmental activism as well as other social characteristics and political attitudes. According to this survey<sup>5</sup>, as mentioned in the introduction, less than one per cent of China's adult population claim to be members of an environmental NGO, but almost two thirds say they would like to join one if they have the opportunity, only a fifth say they don't want to and the same fraction don't know (figure 1). The question about environmental NGOs was asked as part of a series including whether the respondent had been a pollution victim, and if so whether s/he had taken any action, what kind of action, and if no action, why not. Asking first about experience of pollution and any action taken runs some risk of making willingness to join a leading question. For those who self-identified as pollution victims, it would appear that the risk is high. However, these were only 6.5% of the sample. For all other respondents, the questions about action were skipped, so it appears that the risk of leading the respondent to reply positively is lower. On the basis of this data, it appears that a majority of Chinese citizens are willing to join an environmental NGO, at least in principle.

[figure 1 about here]

At first glance, this seems a rather high level of willingness to join what is by all accounts still a relatively weak movement. We know that it is not politically feasible for the majority of Chinese citizens to become environmental NGO members, as the Communist

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<sup>5</sup> This is the only available survey in which the relevant questions were asked. CGSS has also made available the 2003, 2005 and 2008 surveys, but these do not include the dependent variable analysed here.

Party would not allow such a powerful green movement to emerge alongside it; and existing Chinese environmental NGOs would not have the capacity to absorb this number of new members. So how can we interpret the survey item?

We can look at responses to a similar question asked in Gallup/USA Today opinion polls in the US to help inform our judgment about how to interpret the high level of willingness to join reported in China. The American question was: *Thinking specifically about the environmental movement, do you think of yourself as—an active participant in the environmental movement; sympathetic towards the movement, but not active; neutral; or unsympathetic towards the environmental movement?* In the March 2011 poll, 20 per cent claimed to be active in the environmental movement, 42 per cent said they were sympathetic, 27 per cent were neutral and 9 per cent were unsympathetic. These numbers have remained more or less stable over the past decade<sup>6</sup>. These data are consistent with expectations that in a liberal democratic society where NGOs enjoy more extensive rights to self-organize, collect funds and to lobby, and where they have a longer history, the level of engagement should be higher. The interesting point is that in both societies there seems to be a strong consensus that the environmental movement is “a good thing,” even though the movement is still nascent in China, and environmental NGOs there face strong barriers to institutionalization.

The CGSS data suggests that there are still too few environmental NGO members to allow multivariate analysis of their characteristics using the China data presented above, but the rather high level of willingness to join an environmental NGO does offer an opportunity to analyse the characteristics of demand for participation<sup>7</sup>.

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<sup>6</sup> See Bowman and Rugg (2012: 43) for the trend data. See Dunlap and McCright (2008) for a study which seeks to validate this as a measure of identification with the environmental movement.

<sup>7</sup> There are only 62 respondents in the survey who have already joined a green NGO. Tests for equality of group means show that the environmental NGO members are very similar in attitudes and social characteristics to those willing to join environmental NGOs. Accordingly, the decision was made to merge the environmental NGO members with those willing to join in later analysis.



The analytical strategy taken here was as follows: first, an exploratory discriminant analysis was used to uncover the “dimensionality” of replies, that is, to test whether there is a single, dominant underlying dimension in the data or more than one important dimension (Klecka 1980). This produced a primary function with an Eigen value of .079 and secondary function with an Eigen value of .019. Since the first function accounted for 80% of the variance, it was taken as dominant. Unstandardized canonical discriminant functions evaluated at group means showed that the dominant primary function distinguished those willing to join an environmental NGO (with a function score of .22) *both* from those who are unwilling to join (with a score of -.36) *and* from those who don't know (with a score of -.37). The secondary function distinguished those who don't want to join (with a score of .23) from those who don't know (with a score of -.22) whilst those willing to join occupied a neutral position (with a score of zero). From this it was concluded that there exists a single, dominant dimension of variation on which don't knows and non-sympathizers bunch together, and both are distinguished from those willing to join. Since the focus of theoretical interest is in willingness to join, the decision was made to dichotomize the dependent variable and to test specific hypotheses about the determinants of willingness to join using a logistic regression model<sup>8</sup>. Although this analysis is based on cross-sectional data, and therefore the direction of causality cannot be presumed, because 98 per cent of sympathizers express a willingness to join *in future*, use of causal language is justifiable.

Logistic regression offers an appropriate tool for analysing the predictive power of multiple independent variables for a binominal dependent variable (Menard 2002). It estimates the association of the independent variables with the ratio of the odds that a respondent will belong to one category rather than another. In the analysis which follows, the

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<sup>8</sup> Lubell et al. (2006, 154) present the arguments for eschewing a formula which directly represents the mathematical structure of their model. This author concurs that the losses in interpretability of the resulting coefficients are not worth the gains in mathematical elegance which the logged equation used by Finkel et al. (1989) or the multiplicative scale used by Whitely (1995) provide.

category of interest is whether the respondent is willing to join an environmental NGO. The model is built in stages, corresponding to hypotheses suggested by theory – instrumentality, ideology, identity, and social capital networks—with the last two treated together.

Significant biographical and emotional state influences are controlled throughout. Since the data come from a general purpose social survey, rather than one tailor-made for studies of political participation, I am reliant on proxy measures for some concepts (see appendix for precise question wordings and descriptive statistics).

## Analysis

The Likelihood Ratio Chi-squared values for all three stages (all  $P < .000$ ), analogous to multivariate F in OLS, shows that the independent variables do help to predict willingness to join an environmental NGO (table 1, bottom panel). The Pseudo R-squared statistics, which measure the association between the independent variables and the dependent variable, are modest. This suggests that willingness to join environmental NGOs is so widely dispersed that the measure is picking non-committal endorsements, and hence the level of randomness is high. Notwithstanding, the model is able to identify strong relationships which make sense in terms of theory, as will be seen below. The analyses show that instrumentality on its own accounts for more than three quarters of the total pseudo R-squared; ideology accounts for less than a tenth; Communist Party identity and social capital networks account for about an eighth. The Hosmer and Lemeshow goodness-of-fit measure is not significant for all three models indicating that these models fit the data tolerably well. The Deviance Chi-squared statistics are all higher than the associated degrees of freedom, indicating over-dispersion for which standard errors have been corrected<sup>9</sup>.

(table 1 about here)

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<sup>9</sup> Multiplying them by  $\hat{\alpha}$  where  $\hat{\alpha} = \sqrt{D/df}$  and D is the deviance statistic and df is associated degrees of freedom.

Table 1 reports for each independent variable the unstandardized regression coefficients (B's), standard errors and significance levels. Comparison of these statistics across the columns show that the different groups of variables offer separate rather than overlapping explanations of willingness to join. In the final model, the ExpB coefficient or exponent of B shows the impact of a one unit change in each significant independent variable on the odds ratio that the respondent will be willing to join an environmental NGO<sup>10</sup>. The final column of table reports the standardized regression coefficient, Beta<sup>11</sup> which, as a standardized measure, may be interpreted as a guide to the relative influence of each of the independent variables on willingness to join.

The first hypothesis, concerning the instrumentality of willingness to join environmental NGOs is tested by items corresponding to personal and group efficacy, the value attached to the environment and the selective costs and benefits of joining an environmental NGO. Note that measures of personal efficacy are amongst the strongest influences (Betas from .14 to .19). Witnessing collective action is another strong predictor (Beta .14). The two variables measuring value placed on the local and global environment are significant in the expected direction (Betas .12 and .07 respectively). Being a pollution victim makes one more likely to be willing to join (Beta=.16), as does satisfaction with the neighbourhood (Beta=.10). Turning to selective costs, media use especially of periodicals (Beta .17) but also television (Beta .09) increases willingness to join<sup>12</sup>. Those with university education are more willing to join (Beta .10) and those with only primary education are less

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<sup>10</sup> ExpB coefficients above one increase the odds ratio, while coefficients below one decrease it and the cumulative effects variables are computed by multiplication, not addition.

<sup>11</sup> Calculated using the formula  $Beta = B(s_x)(R)/s_{logit(Y^*)}$  where B is the unstandardized regression coefficient,  $s_x$  is the standard deviation of the independent variable, R is the correlation between the predicted and observed values of the dependent variable and  $s_{logit(Y^*)}$  refers to the standard deviation of the logit of the dependent variable. See Menard (2002).

<sup>12</sup> My expectation, strongly supported by Zhao's (2012) research, is that *use of medias increase willingness to join environmental NGOs*. Even though information is not destroyed by its consumption and is often free at the point of delivery, as in a state television broadcast, there are costs to the user in terms of the time and attention required to process it. This is why I include media use amongst selective costs.

willing (Beta -.07). Material resources matter, too, but contrary to expectations the highest income quartile is least enthusiastic about green groups (Beta -.10). This turns out to be due to a dependent effect with media use—if these variables are omitted as a bloc, income quartile becomes insignificant, although subjective income expectations are consistently positive (Beta .11). Taken together these findings provide strong confirmation of the instrumental hypothesis.

Model II shows that ideology matters, too. From a list of 11 ideological variables relating to issues of social and political equality, internationalism and the priority given to economic development (see appendix), only variables related to internationalism are significant. The idea that China should send troops to join UN peacekeeping missions matters most (Beta .13), followed by two negative ideological influences, the rejection of foreign culture and endorsement of protectionism (both Beta -.10). The idea of sending medical teams to Africa is a positive influence (Beta .07). These ideational influences are net of the value placed on the environment which is part of the instrumental model.

Model III shows that identifying with the Communist Party is a positive influence (Beta .11). In China, the Communist Party dominates associational life, and being one of the 80 million or so members is not only a privilege but also represents a voluntary commitment to uphold the goals, principles and ethical standards of the Party-state. As a Leninist ruling Party which aims to penetrate and represent all sections of society, the CCP encompasses a huge variety of political preferences. Its distinct socio-political role makes membership in some ways as much a social as a political identity (cf. Djilas, 1957). The significance of this variable confirms the hypothesis that identities matter.

The fourth hypothesis concerns the role of social capital networks net of instrumentality, ideology and social identity. China is a society in which *informal*

associations influence how individuals engage with the state (Chen & Lu 2007; Munro 2012). Of particular interest is so-called “linking social capital” which joins individuals across authority gradients in society (Szreter & Woolcock 2003: 655). CGSS asks about the professions of people with whom the respondent is close enough to exchange greetings at Chinese New Year, and also about whether the respondent’s parents were officials. The model shows that knowing public sector workers (doctors, teachers, nurses) is a strong positive influence (Beta .17), and notably these are professions with a strong ethical basis. The other types of social capital networks – officials, workers, peasants, business people and intellectuals are not significant.

All three models include controls for variables relating to emotional state and biographical availability. Only living in a rural area does not behave as expected. It turns out to be a positive influence (Beta=.15). It seems possible that this is due to the severity of environmental problems facing people living in the countryside – a separate analysis of the CGSS 2006 survey suggests that rural respondents are more likely to identify as pollution victims after controlling for individual and contextual characteristics (Munro, 2012a). Lubell et al.’s (2006: 157) findings in relation to the pro-environmental attitudes of ethnic minorities in the United States are analogous, echoing the “environmental justice” arguments which have their equivalents in China (Schoolman & Ma 2012; L. Liu 2012; Ma 2007). Another possibility is that through their connection to the land, rural people have more awareness of ecological problems.

## **Conclusion**

This article has illustrated how a disposition to join an environmental NGO can be measured and explained in the Chinese context. It has found that instrumental reasons are central to willingness to engage. This is an important insight for anyone who is concerned in a practical sense with motivating participation. At the same time, the article has shown that

engagement also relies on specific ideological cues, on the availability of a social identity which facilitates engagement and on social capital networks which provide channels for dissemination of relevant values and information.

The benefits of a bottom-up measure focussing on the demand or motivation for participation include: first, it draws our attention to the potential for more participation which is latent in a society with an underdeveloped civil society. Second, it allows us to characterize such demand in terms of instrumental and ideological motivation and the types of social identities and networks which respond to it, as was done in this study. Third, because it relies on representative sampling, the measure has broad coverage within the society.

Whilst the indicator used here produced results which make sense in terms of theories of participation, it has a problem in that it seems to encourage a large number of non-committal expressions of willingness to engage, perhaps reflecting the Chinese cultural preference against saying “no” too directly. An improved wording of the Chinese question should add response items aimed at splitting those willing to join an environmental NGO into those who definitely would like to join as soon as an opportunity presents itself and those who might consider it in certain circumstances.

The dependent variable used here is similar to that for which Gallup has provided a long trend in the US and which Dunlap and McCright (2008) argue should be used as a simple measure of environmental movement identity. The US measure would probably not work as direct translation into Chinese because the word “movement” (*yundong*) is too political, carrying echoes of various revolutionary movements of the past. In order to validate whether an improved variant of the dependent variable used in this study would work as a measure of green movement identity, future survey research in China should include questions already asked in the 2000 survey analysed by Dunlap and McCright, including trust

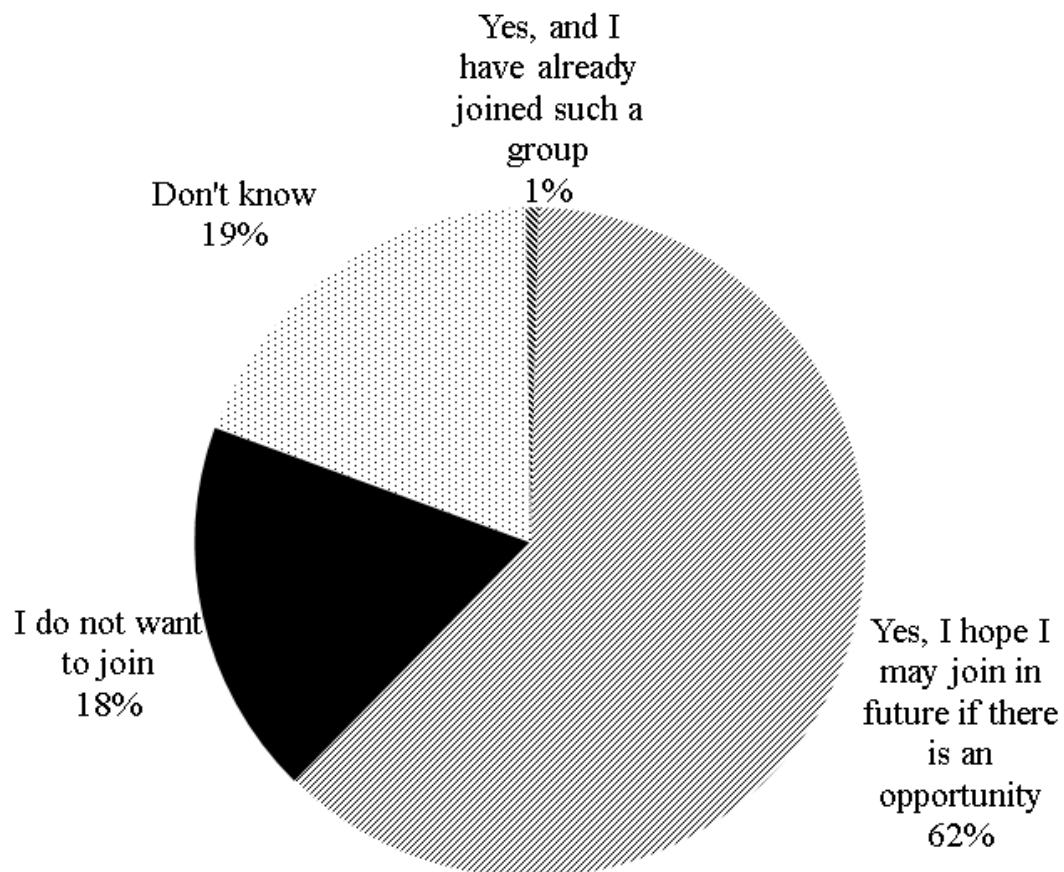
in environmental NGOs, agreement with their goals, and evaluation of their impact, as well as about environmentalist behaviours such as recycling and willingness to engage in political actions such as demonstrations and contacting officials. It should also add another measure which taps the strength of commitment to the environmental movement. Such studies should be “married up” to non-survey-based methodologies, including focus groups, interview-based research and participant observation studies.

In terms of the measurement of social cohesion, willingness to join NGOs illustrates the problem of mismatch between behaviour and attitudes. Although the environment is a relatively consensual issue, China’s environmental NGOs are not able to provide the channel for mass participation in environmental governance which China’s citizens say they want. Even if only a tenth of the expressed demand for participation is genuine, this still implies demand for participation exceeds supply more than five-fold. As argued by Chan et al. (2006) as well as Van der Maesen and Walker (2005), social cohesion is a multidimensional phenomenon. Further survey-based studies would be required to analyse the relationship between horizontal and vertical dimensions and between behavioural and attitudinal measures.

In terms of policy, it is apparent that civil society has untapped potential for the improvement of environmental governance in China. A lighter touch to the regulation of NGOs, combined with reforms aimed at encouraging the development of mechanisms for popular participation and fostering the development of a vigorous third sector would not only do a great deal to ameliorate an unfolding environmental governance crisis, but also in the long term fill in some of the gaps in China’s social cohesion. As long as civil society organizations do not damage the state’s governing capacity, and there are very few that have such an intention, stronger environmental NGOs can only be to the benefit of the Chinese state and people.

Figure 1. Willingness to join environmental NGOs in China

*QE44b. Would you like to join an NGO engaged in environmental protection activities?*



Source: China General Social Survey (CGSS), fieldwork 10 September to 29 November 2006, N=10,151.



**Table 1. Multiple Influences on Willingness to Join an environmental NGO (Logistic Regressions)**

	I			II			III			<i>ExpB</i>	<sup>2</sup>
	B	S.E.	Sig.	B	S.E.	Sig.	B	S.E.	Sig.		
Would vote in direct elections of local leaders	.27	.04	.000	.26	.04	.000	.25	.04	.000	1.28	.19
Recommended candidate in local election	.73	.15	.000	.76	.13	.000	.73	.14	.000	2.07	.19
Attended sessions of local people's congress	.89	.24	.000	.89	.21	.000	.86	.22	.000	2.35	.14
Self or family has suffered harm from pollution	.55	.13	.000	.57	.11	.000	.54	.11	.000	1.72	.16
Identifies local environment as a priority	.09	.03	.000	.09	.02	.000	.09	.02	.000	1.09	.12
Satisfaction with neighbourhood	.15	.00	.000	.14	.04	.000	.13	.04	.001	1.14	.10
Seriousness of global environmental problems	.08	.04	.007	.07	.03	.010	.07	.03	.015	1.07	.07
Has witnessed collective action in last five years	.43	.10	.000	.41	.09	.000	.38	.09	.000	1.46	.14
Household income (omitted Third quartile)											
Lowest income quartile	.11	.09	.101	.12	.08	.078	.13	.08	.060	1.14	Ns
Second income quartile	.09	.08	.142	.10	.07	.124	.11	.07	.085	1.12	Ns
Highest income quartile	-.18	.08	.010	-.17	.07	.011	-.19	.08	.005	.82	-.10
Personal income in three years' time	.15	.05	.000	.15	.04	.000	.15	.04	.000	1.16	.11
How often reads periodicals	.07	.02	.000	.07	.01	.000	.06	.01	.000	1.06	.17
How often watches TV	.09	.03	.001	.09	.03	.001	.09	.03	.001	1.09	.09
Education (omitted secondary)											
University	.38	.11	.000	.36	.10	.000	.26	.10	.005	1.29	.10
Primary or less	-.17	.07	.005	-.16	.06	.006	-.13	.07	.027	.88	-.07
China should send troops for UN peace missions	-	-	-	.19	.05	.000	.19	.05	.000	1.21	.13
Foreign films, music, books are a bad influence	-	-	-	-.12	.04	.001	-.12	.04	.001	.89	-.10
Protect our economy by limiting imports	-	-	-	-.12	.04	.001	-.11	.04	.001	.89	-.10
Send medical teams to Africa	-	-	-	.11	.04	.010	.11	.05	.011	1.11	.07
Communist Party member	-	-	-	-	-	-	.34	.10	.000	1.41	.11
Knows public sector workers	-	-	-	-	-	-	.20	.04	.000	1.22	.17
Age in deciles (omitted 40s)											
18-29	.32	.09	.000	.32	.09	.000	.39	.09	.000	1.48	.18
30s	.09	.08	.159	.09	.08	.176	.13	.08	.061	1.14	Ns
50s	.07	.08	.300	.07	.07	.307	.10	.08	.119	1.11	Ns
60s+	-.17	.09	.036	-.16	.09	.043	-.19	.09	.016	.82	-.08
Lives in rural area	.21	.06	.000	.21	.06	.000	.25	.07	.000	1.28	.15
How happy would you say your life has been	.19	.04	.000	.18	.04	.000	.17	.04	.000	1.18	.15
Constant	-3.18	.31	.000	-3.26	.35	.000	-3.32	.35	.000	.04	

## Model Summaries

Maximum log likelihood	-5,782.73	- 5,729.99	- 5,674.69
LR $\chi^2$ (df)	629.45(22)	691.23(26)	729.93(28)
Deviance $\chi^2$ (df)	10,404(8,283)	11,171(8,913)	11,195(8,998)
Pseudo-R-squared: McFadden	.05	.06	.06
Pseudo-R-squared: Nagelkerke	.09	.10	.11
Hosmer & Lemeshow $\chi^2$ (df)	6.50(8), P<.592	9.37(8), P<.312	12.89(8), P<.149

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Source: As in figure 1. 9,228 cases includes in the analysis after deletion of 917 respondents not reporting household income, and 6 cases not reporting education. All standard errors corrected for over-dispersion. Ns=not significant.

## Appendix. Descriptive Statistics of Measures Used in Analysis

	Minimum	Maximum	Mean	Std. Dev.
<i>Dependent:</i> willing to join an environmental NGO in future	0 No	1 Yes	.62	.49
<i>H1. INSTRUMENTALITY</i>				
<u>Personal efficacy</u>				
Recommended a candidate in most recent local people's congress election	0 No	1 Yes	.05	.22
<i>If I have the opportunity to participate in direct elections of the county/district head, I will definitely take part and vote.</i>	1 Disagree completely	4 Agree completely	2.96	.65
Attended sessions of local people's congress	0 No	1 Yes	.02	.14
<u>Witnessing collective action</u>				
Has witnessed collective action in last five years (1)	0 No	1 Yes	.11	.32
<u>Value placed on environment</u>				
Seriousness of global environmental problems	1 Not at all	5 Very serious	3.75	.81
Identifies local environment as a spending priority (2)	0 No	3 times	.69	1.12
<u>Experience of environmental harm</u>				
Self or family has suffered harm from pollution in the last year (3)	0 No	1 Yes	.07	.25
<u>Environmental amenity</u>				
Satisfaction with neighbourhood	1 Very dissatisfied	4 Very satisfied	2.68	.65
Satisfaction with housing	1 Very dissatisfied	4 Very satisfied	2.56	.76
<u>Material resources</u>				
Household income quartile	1 Lowest	4 Highest	2.49	1.12
Personal income in three years' time	1 Worse	3 Better	2.45	.61
<i>Taking into account my abilities and employment situation, my income is reasonable</i>	1 Very unreasonable	4 Very reasonable	2.45	.65
Personal income compared to three years ago	1 Worse	3 Better	2.29	.68
<u>Education and media use</u>				
Education	1 Elementary	4 University+	2.14	1.00
Number of books in the house at 18	1 None	6 100+	2.06	1.27
How often reads periodicals	1 Never	7 Daily	3.98	2.51
How often uses internet	1 Never	7 Daily	2.01	1.98
How often watches TV	1 Never	7 Daily	6.69	.92

## H2. IDEOLOGY

### Ideology: social and political equality

<i>Disagree: if the economy is stable and developing, we don't need a high level of democracy</i>	1 Agree completely	4 Disagree completely	2.58	.77
<i>Disagree: well-to-do people have more right to speak on public affairs than poor people</i>	1 Agree completely	4 Disagree completely	2.60	.77
<i>Disagree: only people with expert knowledge and abilities have the right to speak in policy-making</i>	1 Agree completely	4 Disagree completely	2.42	.77
<i>People have the right to appeal to higher levels of authority if they disagree with local government</i>	1 Disagree completely	4 Agree completely	3.06	.61

### Ideology: internationalism/isolationism

<i>Even though Africa is very far, we should still send a lot of medical teams there to help our black friends</i>	1 Disagree completely	4 Agree completely	2.99	.58
<i>China should send troops to join UN peacekeeping missions</i>	1 Disagree completely	4 Agree completely	3.01	.56
<i>In order to protect our economy, we should limit imports of products from other countries</i>	1 Disagree completely	4 Agree completely	2.74	.71
<i>We should forbid foreigners from buying large state-owned enterprises in our country</i>	1 Disagree completely	4 Agree completely	2.89	.72
<i>Foreign films, music and publications are a bad influence on Chinese culture</i>	1 Disagree completely	4 Agree completely	2.71	.70
<i>China should increase its economic aid to Third World countries</i>	1 Disagree completely	4 Agree completely	2.92	.62

### Ideology: priority of economy

<i>If companies and enterprises don't pursue profits, this society cannot develop.</i>	1 Disagree completely	4 Agree completely	2.87	.67
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## H3. IDENTITY

Communist Party member	0 No	1 Yes	.09	.28
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## H4: SOCIAL CAPITAL NETWORKS

Types of contacts at New Year: (4)

Workers	0 None	2 Types	.27	.47
Business people	0 None	4 Types	.71	1.07
Officials	0 None	4 Types	.29	.71
Public sector workers	0 None	3 Types	.36	.73
Intellectuals	0 None	3 Types	.16	.46
Peasants	0 None	2 Types	.33	.64
Father, mother were leaders when R was 18 (5)	0 No	2 Both	.13	.39

*CONTROLS FOR EMOTIONAL STATE*

Overall life satisfaction	1 Very dissatisf.	4 Very satisfied	2.69	.61
<i>How happy would you say your life has been</i>	1 Very unhappy	5 Very happy	3.43	.74

*CONTROLS FOR BIOGRAPHY*

Age in deciles	2 18-29 years	6 60+	3.82	1.31
Extent of control over own time at work	1 Totally fixed	3 Totally free	2.61	.73
Married with children	0 No	2 Both	1.34	.73
Gender: Female	0 No	1 Yes	.54	.50
Lives in rural area	0 No	1 Yes	.47	.50

Source: As in figure 1.

- (1) Includes tax or fee strikes, collective resistance to land requisition, collective environmental protection activities, or collective petitioning, bargaining, law suits or appeals, as well as strikes, meetings, marches, demonstrations.
- (2) Identifies environment as a priority in response to the question: If the government has relatively large amount to spend on local development and construction, in which of the following areas do you think it should mainly be used? (Choose up to three). Environmental protection, health, police and justice, civic education, sports facilities, pensions, poor relief, increasing job opportunities, assistance to the unemployed, culture and the arts.
- (3) In the past year, have you or your family suffered harm to your health or economic harm from environmental pollution including air pollution, water pollution, solid waste and noise?
- (4) Based on a principal components analysis of replies to the following question, with highest factor loadings in parentheses: *Amongst the relations, close friends and others who exchanged various forms of greetings with your family at New Year, were there any who worked in the following professions or types of work units?* Officials: *responsible people in government organs* (.70), *leaders in Party and mass organizations* (.66), *executive officials* (.62), *leaders in professional organizations and enterprises* (.53); Business people: *private business owners* (.65), *people in sales and purchasing* (.60), *people in commerce and services* (.54), *sole traders* (.53); Public sector workers: *nurses* (.71), *doctors* (.71), *teachers* (.57); Intellectuals: *engineers* (.61), *scientists* (.59), *university teachers* (.51); Peasants: *farmers* (.82), *agricultural workers* (.81); Workers: *nannies, temporary workers* (.77), *factory workers* (.49) .
- (5) Including leaders, cadres of production teams, villages, brigades, communes, or work units at any level.

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