



# ERCCT Online Paper Series:

# Political Consequences of Online Environmental Values: Cross Strait Comparison between China and Taiwan

Leon van Jaarsveldt PhD Candidate, National Chengchi University

June 2015

- Young Scholars Workshop 2015 selected collections -

The CCKF-ERCCT wishes to express its gratitude to the Ministry of Foreign Affairs (Taiwan, R.O.C.) for generously supporting the Europe-Taiwan Young Scholars Workshop.

European Research Center on Contemporary Taiwan

Eberhard Karls University, Tuebingen Wilhelmstr. 133 72074 Tuebingen

Ph.: +49 7071 29 72717 e-mail: ercct@uni-tuebingen.de

Political Consequences of Online Environmental Values:

Cross Strait Comparison between China and Taiwan

Leon van Jaarsveldt

**Doctoral Candidate** 

Email: <a href="mailto:lvj0507@live.com">lvj0507@live.com</a>

Institutional Affiliation:

International Doctorate Asia Pacific Studies (IDAS)

National Chengchi University

### **Abstract**

Making use of the World Value Survey (2010-2014) data, this research investigates the relationship between environmental values and confidence in central government, and how online media as an information source mediates this association in the cases of the Taiwan and China. This research found that environmental values are associated to confidence in government, which is argued as an indicator that environmental issues are becoming influencers of political legitimacy, especially personal importance ascribed to environmental values and that protecting the environment being more important than economic development. This research also finds support for the mediating role of online media, where it proves negative for China and positive for Taiwan. This research argues that both actors may learn from each other, and that Taiwan may gain benefit from adding a China-like environment-specific legal system to its arsenal, whilst China may benefit from a Taiwan-like approach to establishing an institutions approach to interacting and cooperating with environmental NGOs and the public, to counter the negative anti-government tendency of information that flows through online media.

*Key Words:* online media, political legitimacy, environmental values, confidence in government.

Political Consequences of Online Environmental Values:

Cross Strait Comparison between China and Taiwan

In his book, *Profit over People*, Noam Chomsky (1999) argues that rapid economic development, through the broader acceptance of neoliberalism, has led to a maximisation of benefits for a few at the cost of the many, at the cost of a growing income disparity, resource depletion, and, core to this research, the cost of a deteriorating environment. Anthony Giddens emphatically points out that these environmental costs are seldom paid by those who cause them, becoming 'externalities' that impact instead on those who benefit least therefrom (Giddens, 2009). With neoliberalist economic policies gaining near-global acceptance, political systems aside are increasingly facing the brunt of its climate change consequences (Giddens, 2009; Gilley, 2006; Reus-Smit, 2007; Yan, 2013), including and increasingly unsettled public (Chafe, 2005; Coonan, 2009; Endres et al., 2009; Grano, 2012; Lee & So, 1999; Leonard, 2012; Levin, 2002; Mei-Fang, 2008), with online media the platform of choice for many to vent their frustration and raise their challenges (Endres et al., 2009; FlorCruz, 2012; Gilley, 2006; Hung, 2012; Jiang & Ortolano, 2009; Levin, 2002; Reus-Smit, 2007; Smith, 2011; "Telecommunication Figures," 2013).

# **Economic Development**

These concerns, which have driven many to protest, have its origin in the increasingly rapid economic development. Reaching the end of industrialisation, the conclusion of the Second World War imparted on the US new found global influence, which they wasted no time in using. Key to their post-war rebuilding strategy, was the construction of a new global trade system that would impart a certain a certain level of interdependence amongst nations, and greater wealth than before, giving birth to the Washington consensus (Chomsky, 1999). Under this system, the US rapidly expanded its own industrial wealth from some 524 billion dollars in 1948 to 1.516 trillion dollars by 1979 (Chomsky, 1999; Jorgenson, Gollop, &

Fraumeni, 2014), making the case for its wider global adoption through such aspects Free-Trade-Agreements (FTAs) and loans.

Attractive as wealth was, it drew its first Asian economies. Amongst these, Taiwan adopted economic ideals in 1952, when after the end of a period of hyperinflation the Kuo Min Tang (KMT) Nationalist party re-established government and economy on the island of Taiwan. Backed up by a period of land reform, existing Japanese infrastructure and US financial aid, the KMT party-driven economic development established a new stable currency, and a growth rate of 8.7% per year between 1952 and 1982 (Mai & Shi, 2001). China joined this race much later in 1979, with the reform policy of Deng Xiaoping's three goals of affluence, stability and power, mixing for the first time Authoritarian governance with neoliberal economic principle, setting in motion a period of rapid growth that initially exceeded 10% per year, before slipping below double figures in recent years and ranking China as the world second largest economy (Leonard, 2012; Yan, 2013). However, unlike its western counterpart, privatisation was allowed in limited amounts, with central government still maintaining much control (Chen, Chang, & Zhang, 1995; Leonard, 2012; Li, Cui, & Lu, 2014; Xu, 2011; Yan, 2013).

# **Environment and Protest**

With the success of the new age of rapid economic development, environmental alarm bells soon rang louder and harder than they had during industrialisation. The race for ever increasing (national) wealth, in democratic and non-democratic nations alike, was causing mass-degradation to the environment, adding large quantities of man-made greenhouse gas emissions (GHGs) into the atmosphere. At the centre of these, with around 50%<sup>1</sup>, carbon source are largely credited for aiding in the pushing of atmospheric GHG levels past 400ppm

<sup>&</sup>lt;sup>1</sup> This number varies across estimates, and changes frequently as new measurements and indirect effects are added. This number here, is also sans deforestation and indirect effects through decay, which adds another estimated 17% (Boden, Andres, & Marland, 2010; "IPCC," 2007; "Climate Change," 2012).

(parts per million) in 2015, growing at ab out 2.1ppm per year (National Research Council, 2012; Hossain & Selvanathan, 2011; Jasparro & Taylor, 2008; IPCC, 2014). But while climate change has received global attention, its more immediately visible counterpart, pollution, is what drives the local population to protest. Here such, reigns such examples as soil, water and air pollution that results from CO2, and other GHG and chemical pollutant expelled by from cars and factories (Van De Veer & Pierce, 2003).

Amongst the first to adopt the new economic system, Taiwan was amongst the first to face its environmental impacts and consequences. also the first to feel its consequences. Amongst the key of these consequences, were the formation of both formal and informal resistance to environmental pollution<sup>2</sup>. In protesting environmental consequences, earlier movements derived largely from rural communities, including farmers and indigenous tribes, who found themselves subjected to soil pollution and nuclear-waste siting (Ho, 2005; 2010; Goldsmith, 1999; Levin, 2002). However, following its democratisation in 1986, many formalised movements joined the fight as they gained legal rights under the new democratic constitution (Constitution of the Republic of China. art. XIV). Government followed up on environmental problems with the addition of a US-styled Environmental Protection Agency, that became enforcer of environmental policies through a number of cooperative projects with society and NGO's (Environmental Protection Administration, 2010, 2014; Ho, 2009; Lee & So, 1999; Levin, 2002).

Likewise facing an environmental crisis, China has seen a dramatic rise in environmental movements of its own. Permitting environmental NGOs since 1994, China allowed for a limited participation of NGOs, limiting their functions to specified policy areas and the task to environmental education, rather than activation (Jiang & Ortolano, 2009; Tang & Zhan,

<sup>&</sup>lt;sup>2</sup> By informal, it is mean that they lacked organization structure, such as an NGO would have (Laumann & Knoke, 1986).

2008; Yang & Taylor, 2010). This leaves the central government as the primary, and often the only viable, actor in the environmental enforcement role. Much as in Taiwan, civil society has thus had impetus to emerge, but drastically more so in China with an estimated 180 000 major protests a year by 2012 (Leonard, 2012), an increase of about 29% per year since 1996 (Blanchard & Ruwitch, 2013; Fengshi, 2009; Jie & Tao, 2012).

It is from this perspective, with little existing prior research of a directly comparable type, that this research investigates the relationship between environmental values and confidence in central government, and how online media as an information source serves in warping this association. Furthermore, with Taiwan having a relatively more peaceful time at present, and sharing both history and culture with China, there is perhaps an opportunity for these two actors to learn from each other in this regard. To this extent, use is made here of the World Value Survey (2010-2014), applying a path analyses on the cases of Taiwan and China.

# The Maintenance of Legitimacy

Within this context, an argument arises for a politics of environmental values, one where political actors may be said to face either a crises of legitimacy or a legitimacy support base. Such a legitimacy may be defined as "a generalized perception or assumption that the actions of an entity are desirable, proper, appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995, 574). Legitimacy can thus be lost where the regime is perceived as no longer able to live up to the expectations that society placed on it. Mancur Olson (1971) has already pointed out that this relationship is seldom characteristic of rationality alone, and thus economic growth alone may lose its battle as pillar of legitimacy to the more evaluative side of values (Heberlein, 2012). For such a legitimacy to thus be built, it is argued here for the need to not only align environmental

values of the public with confidence in government, but also to ensure a uniform communication of these values across government-to-citizen communication platforms.

# **Environmental Values and Confidence in Government**

A first step to such an alignment of views, and thus the building of support, and the avoidance of its loss, is argued here to focus on the basis of what build a citizens' attitudes, namely values (Benford, 1993, 1997; Bateson, 1974; Goffman, 1984; Heberlein, 2012; Snow, Rochford, Worden, & Benford, 1986). Within the IPCC's 5<sup>th</sup> assessment report (IPCC, 2014), solutions dealing with climate change are divided into mitigation and adaption, with the resulting economic instruments—including carbon taxes, tradable allowances, and subsidies—, regulatory approaches, information programmes, government provision of public goods and services, and voluntary actions (IPCC, 2014), are described by Heberlein (2012) as technological, structural and cognitive fixes that incorrectly assumes a direct link to attitude change, which is further incorrectly assumed by many as being equal to human behaviour. To this remedy, values are suggested, with an emphasis on evaluative aspects thereof, which may be formed and reformed with exposure to information where the central government's position will face competing views from corporate, civic and other actors in competition for the individuals" support (Heberlein, 2012; Olson, 1971).

As such, political legitimacy hinges at least in part on the degree to which society is confident in governments' ability to make satisfactory environmental policy that align to their environmental values. This legitimacy, as apparent from the literature above, is indiscriminate of political system, although the tools by which it can be achieved might be different. In the democracy, such legitimacy may be expressed through the mechanisms of

voting, whilst in both it may also be expressed through protest, each nevertheless affecting support for the regime. In Taiwan, such might be achieved through increased cooperative practices through the Environmental Protection Agency, whilst in China this may be seen through a strict legal application such as a dedicated environmental court (Beyer, 2006; Chun-Xi, Head, & Sheng-Rong, 1994) that has seen some 8400 arrests and 2100 cases turned over for police investigation in 2015 for various environmental infringements (Duncan, 2015). With this in mind, this research raises hypothesis one:

H1: Environmental values are associated to confidence in political institutions, with a positive association indicative of confidence, or a growth thereof, in the central government's policy, a negative association indicating a loss of confidence and no association indicating no confidence.

# **Environmental Values and Online Media as an Information Source**

Legitimacy also extends to the information regime. The values formed by citizens, will depend largely on the information to which they have access. Online media has proven strongly its role as such a media, acting not only as a platform for communication, but as one for dissemination of information, even if alternate to that visible in mainstream media, able to bypass censorship regimes sheer vastness and speed (Guobin & Calhoun, 2008; Hung, 2012; Kyriakopoulou, 2011). Its role in the maintenance of legitimacy has does become an essential one, especially as it has proved capable of achieving the opposite, degrading the legitimacy of 'Arab Spring' countries to such a level as to lead to the overthrow the presidents of Tunisia, Libya and Egypt (Harb, 2011; Hounshell, 2011; Miladi, 2011).

As a largely authoritarian regime, China has always actively enforced media control through its Department of Propaganda, making no secret of its censorship regime (Haiyan, 2010; Leonard, 2012; Liu, 2012; Tong, 2009). With traditional media thus carrying the

responsibility to serve primarily as the voice of the Chinese Communist Party, the public levels of trusts in it has driven many to the increased freedom perceived in government-permitted social media, such as Sina Weibo (Cottle, 2011; Walter, 2007; Wright, 2011).

By comparison, Taiwanese media has, since its 1980's democratisation, become increasingly open and privatised, resembling more closely that of the United States as a media liberalism model, although this relationship is described as far from perfect (Rampal, 1994). Rawnsley and Gong (2011, p. 1) indicates that for Taiwan this relationship is "defined by high levels of conflict, hostility, mutual suspicion, and mistrust". For some this relationship between press and politician have often translated into too close a power relationship, where implicit control and bias is often present to the extent that certain publication are argued as clearly politically aligned (Chen-Ling, 2013). Online media has likewise taken off, with official statistics indicating that 74.9% of citizens have broadband access, and more than 77.4% are mobile broadband subscribers ("Telecommunication Figures," 2013). Unlike in China, Taiwan has also seen increased use of online media, and especially social media, by political actors' in an effort to increase make use of increasingly direct communication as a form of trust building with citizens (Don-Yun, 2006; Hung, 2012; Kwak, 2005). To this end, hypothesis two is introduced:

H2: Online media has a mediating potential between environmental values and confidence in central government.

# Methodology

In addressing the above hypotheses, this research applies path analyses by using the STATA Structural Equation Modelling (SEM) package on the dataset obtained from the World Values Survey (2010-2014). The following sections first discuss data collection strategies employed by the different WVS (2010-2014) teams, before operationalising the variables used here.

# **Data Collection**

As reported by WVS (2010-2014), data for China was collected between the 12<sup>th</sup> of November 2012 and the 16<sup>th</sup> of March 2013, by the Research Center for Contemporary China (RCCC) at Peking University. Surveyors targeted Adults between the ages of 18 and 75. Face-to-face questionnaire interviews were conducted on a target sample of 3840, with a valid response rate of 2300 (65.8%) and margin of error of 2.1. The sample was drawn using a GPS-assisted Area Sampling Method, incorporating stratification and multi-stage probabilities proportional to size. Researchers acknowledged that there was a need to change and omit certain China-specific sensitive questions, which this research does not use.

Data for Taiwan was collected between the 14<sup>th</sup> of March 2012 and 11<sup>th</sup> of September 2012. Researchers made use of a three-stage PPS Sampling, using (1) PSU=township, (2) Li (administrative unit under township), and (3) the eventual respondents, using systematic sampling on population of 18 years and older. A final sample of 1238 persons were drawn with a margin of error of 2.8.

# Operationalisation

This research makes use of several continuous and binominal variables that fit into the theoretical outlay above. The first of these, the dependent variable, is on a four-point continuous scale based on item V115 in the WVS (2010-2014) dataset, and deals with the confidence of the respondent in the central government (Chi: M=3.03, SD=1.13; TW: M=2.26, SD=.95):

I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? The government (in your nation's capital).

The independent variables are identified here as environmental values, and links to the literature of Heberlein's (2012), who discusses the role of values and evaluative beliefs in forming attitudes, and which eventually inform behaviour. The items used here are based on variables V60, V78, V80, and V81 and are denoted in figures 1 and 2 below as 'Beautification' (V60), 'Importance' (V78), 'Pollution' (V80), and 'Protection' (V81). The first of these, V60, is by interpretation a value extended from what Heberlein (2012) refers to as an evaluative belief, talking here of what is most valued for future national planning. A categorical value, it is dummy coded as 1= Beautification (Chi: M=.12, SD=.33; TW: M=.23, SD=.42):

People sometimes talk about what the aims of this country should be for the next ten years. On this card are listed some of the goals which different people would give top priority. Would you please say which one of these you, yourself, consider the most important? A high level of economic growth? Making sure this country has strong defense force? Seeing that people have more say about how are done at their jobs and in their communities? Trying to make our cities and countryside more beautiful?

The second independent variable, V78, is directly akin to what Heberlein (2012) describes as a value—an engrained belief held closely in the way a person may think of him or herself. A continuous variable, it is here reverse coded from negative to positive (Chi: M=3.94, SD=1.49; TW: M=4.18, SD=1.34):

Now I will briefly describe some people. Using this card, would you please indicate for each description whether that person is very much like you, like you, somewhat like you, not like you, or not at all like you? Looking after the environment is important to this person; to care for nature and save life resources.

The third independent variable, the categorical V80, was dummy coded as 1 equals environmental pollution (Chi: M=.22, SD=.41; TW: M=.36, SD=.48), and is by interpretation also a value extending from an evaluative belief (Heberlein, 2012), this one juxtaposing several values, and asking the lack of which is considered most serious:

I'm going to read out some problems. Please indicate which of the following problems you consider the most serious one for the world as a whole? People living in poverty and need Discrimination against girls and women; Poor sanitation and infectious diseases; Inadequate education; Environmental pollution.

The last of the independent variables, V81, is a dichotomous item that offers a choice between two opposed values, namely economic development and environmental protection, and is recoded as 1=protecting the environment should be given priority (Chi: M=.55, SD=.50; TW: M=.60, SD=.49):

Here are two statements people sometimes make when discussing the environment and economic growth. Which of them comes closer to your own point of view? Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs; Economic growth and creating jobs should be the top priority, even if the environment suffers to some extent.

The last variable in this research, online media as an information source, is described here as a mediating variable that is argued to alter the association between environmental variables and confidence in government. From the dataset, two variables were judged theoretically appropriate for this purpose, including the continuous variables V222, which asks about email use as an information source (an online information activity often linked to other websites), and V223, which asks about internet usage as an information source. These two items were reverse coded from negative to positive and combined into a mean scale

henceforth referred to as Online media (Chi: M=.97, SD=1.37, α=81; TW: M=1.93,

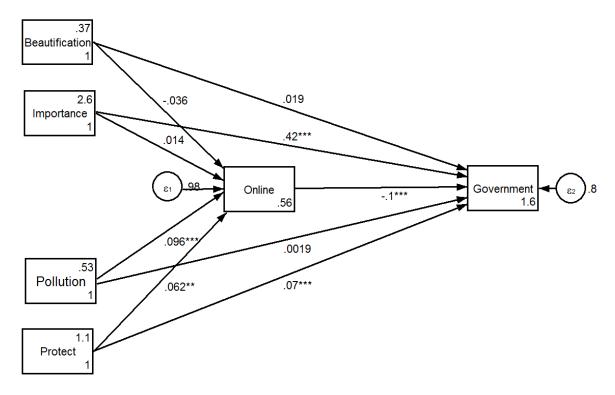
SD=1.69,  $\alpha$ =86), but should be taken in the context as an online information source:

People learn what is going on in this country and the world from various sources. For each of the following sources, please indicate whether you use it to obtain information daily, weekly, monthly, less than monthly or never: Email; Internet.

### Results

As mentioned above, path analyses were subsequently run on each of the two national cases; the attention on the flow of environmental values to confidence in government, and the mediating effect of online media as an information source. Figures one and two provide graphical representations, with the following discussion taking a comparative approach. Models are standardised to aid comparison.

Figure 1: Path Analysis China



Note: \*<.05, \*\*<.01, \*\*\*.001; All betas are standardised for comparison purposes, thus mean (top right in box) and SD (bottom right in box) differ from operationalisation description.

| S5 | Beautification | 1 | 027 | .016 | .023 | .15\*\*\* | Government | .2 | .023 | .15\*\*\* | Government | .76 | Pollution | .2\*\*\* | -.0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .0054 | .00

Figure 2: Path Analysis Taiwan

Note: \*<.05, \*\*<.01, \*\*\*.001; All betas are standardised for comparison purposes, thus mean (top right in box) and SD (bottom right in box) differ from operationalisation description.

# **Confidence in Central Government**

Hypothesis one asked about the association of environmental values on the confidence in the central government. It was argued in the theory that environmental values, if incorrectly dealt with by government, may result in legitimacy issues. Where this association is positive, it can be argued that that there is satisfaction with government action in dealing with the issue, whilst a negative action would indicate a loss of confidence—and thus that government is potentially seen as worsening the situation, whilst no association would imply no confidence and thus inadequate government response.

In the case of China, support is seen for hypothesis 1, as can be seen in figure 1 above. In this regard, strong positive support is found for *personal importance ascribed to* environmental values (b=.42, p<.001) and confidence in government as well as for protecting the environment being more important than economic development (b=.07, p<.001). There is

however a lack of support for the argument of *beautification* and *pollution as the most serious issue*, with this absence perhaps implying that there is a general no confidence in government's policy to this end. Pollution is especially noteworthy, as with a p-score of .92 it is almost 100% non-significant.

In the case of Taiwan, there is only support for the *personal importance ascribed to protecting environment* (b=.15, p<.001) to confidence in government, which as with China, suggests individuals who personally value environmental protection see themselves as aligned with government efforts in this regard. Elsewhere, such alignment is lacking.

Beautification, pollution as the most serious issue faced by society, and giving precedence for protecting the environment over economic development, are all non-significant, accounting for no significant confidence in governments' current policy to this end. Pollution, however, with a p-score of .09, is significant at the somewhat laxer 91<sup>st</sup> percentile, which in comparison to China is a significantly more positive view of pollution at a .48 increase for every standard deviation increase in the independent variable. Another difference here, is that of placing the environment before economics, which with a p-score of .86, it almost as non-significant as pollution for China.

# **Online Media Mediation**

Hypothesis two argued that online media, due to its increased usage as an information source, holds the potential to alter existing values through the provision of alternative information.

In the case of China, partial support is found with both *pollution as the most serious* problem (b=.096, p<.001) and protecting the environment at the cost of a slower economic development are significant (b=.062, p<.01), associated to online media generates a negative indirect association through its -.1 (p<.001) for every standard deviation unit increase in

online media usage as an information source. This supports the assertion of hypothesis two of online media mediating the relationship between environmental values and confidence in government.

In the case of Taiwan, the same two variables offer partial support for hypothesis two, with pollution as the most serious problem (b=.08, p<.01) and protecting the environment at the cost of a slower economic development are significant (b=.20, p<.001), generating positive support, with the former slightly less so. Unlike the case of the China, though, they do so positively through online media with a .13 (p<.001) increase for every standard deviation increase in its usage. Neither these variables contributed significantly to confidence in government before the mediation of online media, again generating support for the Hypothesis 2's assertion that online media mediates the relationship, in this case changing no support into positive support.

### **Discussion**

# **Issues of Legitimacy**

Severe dissatisfaction with pollution was already visible in the literature review above, where it has been visible for some time in China and in Taiwan's past. Such dissatisfaction has been recorded to occur in the form of protests both peaceful and violent (Beyer, 2006; Chun-Xi, Head, & Sheng-Rong, 1994; Ho, 2005; 2010; Goldsmith, 1999; Levin, 2002). With examples of just how violent, visible in the more recent history of the 'Arab Spring', where protestors led to the ouster of the former presidents and in some cases a continued state of anarchy (Harb, 2011; Hounshell, 2011; Miladi, 2011). Within the case of China, such eventualities have been ongoing on various fronts. In the cities of Kunming, Chengdu and Jisung in China, polluting factories have resulted in contamination of water, air and soil, with water pollution further affecting the fishing industry ("Call for Protest Against Chengdu...",

2013; Chafe, 2005; Coonan, 2009; Liu & Chen, 2012). Singular to China, however, is that these protests often target local governments, with central government often taking corrective action in support of the protestors (Bigham, 2013; "Call for Protest," 2013; Chafe, 2005; Deng & Yang, 2013; "Pipeline Cancelled," 2013), with the nature of the response possibly reflecting on the confidence in the Central Government through displays of strength, such as in the case of the dedicated environmental court, its arrests and prosecutions, and active policies aimed at reforestation, deforestation prevention etc. However, there are also negative policies which may counter full-on success and thus the gaining and maintaining of such support, including the maintenance of strong control over environmental NGOs and maintaining a strong association to economic development, and thus risk continued association of negative effects from corporate activities to the Central Government (Deng & Yang, 2013; Hossain & Selvanathan, 2011; Leonard, 2012; Yan, 2013). Such notions could explain both the absence of association for pollution as the most severe problem faced by the nation, as well as the positive support between the strength of personal importance ascribed to environmental values and confidence in government, as well as for protecting the environment being more important than economic development; and provides both an economic and legal model for consideration by Taiwan.

As with the case of China, Taiwan also indicates that individuals who personally value environmental protection see themselves as aligned with government efforts in this regard. Furthermore, a laxer significance level of p<.09 would also permits the inclusion of a positive association between pollution as the most severe issue facing the nation and confidence in government. Such an association may well be indicative of Taiwan-government's efforts to tackle pollution, especially since democratisation in the 1980's. These efforts have included the establishment of Environmental Protection Agency, which has had the task of building

communications with the community in addition to enabling cooperation with environmental NGOs (Environmental Protection Administration, 2010, 2014). And this is also where it presents its comparative advantage. While the case of the Chinese above is proven successful through a legal model, Taiwan's model offers up the case of promoting government-public cooperation, especially with well-established environmental NGOs and encouraging the participation of the general public through promotional events. From the above, Taiwan has however also proven a weakness, with a visible preference for corporate action, even if at the cost of environmental degradation, as indicated by the above variable in favour of environmental over corporate activity non-significant with a p-score of .86. Such a score may suggest a significant preference for economics, even at the cost of environmental damage. To confirm this assertion, the same dichotomous item was reverse coded to 1=economic development more important even at the cost of some environmental damage. Results from this extension reveals a strong positive association of a .099 increase per standard deviation increase in the independent variable, with a p-score of perfect zero. With economic development leading to support for government, even at the cost of environmental damage, Taiwan might do well to further green economic opportunities and enforce laws; where China's legal model may offer some guidance.

# **Online Media Mediation**

With regard to online media mediation, media censorship in China has never been a secret. With traditional media openly serving as the instrument of government communication, even though more autonomy has been given in recent years, increasing numbers of citizens have found an outlet online (Chengju, 2000; Edney, 2012; Haiyan, 2010; Lee, 2008). From this perspective, additional information available online potentially frees up the existing position of citizens from government information monopoly (Kyriakopoulou,

2011; Leonard, 2012; Liu & Chen, 2012; Young, 2012). Support is illustrated to this effect where the direct positive effect of protection of environment over economic development turns a strong negative through the online platform. This is further seen with pollution as the most serious issue finding life online, and moving away from generating no confidence, to generating negative confidence. Online media thus seems to serve as a platform for breeding discontent in China, where censorship does not seem able to end this. Furthermore, as already pointed out in the literature above, by its nature, online media quickly links the local to the national, holding the ability for a sudden rapid spread of even an isolated issue.

By stark contrast, Taiwan's media freedom policies seem to allow for strong and positive pathways of environmental values through online media (Herman & Chomsky, 2008; Rampal, 1994; Rawnsley & Gong, 2011). With the often critical association to traditional media, as discussed in the literature review above, online media has also found a place central in democratic community, where there is arguably an increased freedom of speech. The nature of this freedom has been visible through several political demonstrations, including the anti-nuclear movement that gained special prominence in the face of the Fukushima nuclear reactor meltdown in Japan (Chen, 2011; Ho, 2010, 2014; Hsu, 2005). By contrast, overtly negative communications of government online seem to be tempered with the extension of other voices online, including environmental NGOs, the Environmental Protection Agency and the central government along with many of its politicians. This, by extension, might explain the why of online media as information source in generating positive support, with such a situation creating an improved free market of ideas, narrowing the possibility that singular ideas thrive and improving chances for aligning similar pieces of information. It is for example noteworthy that the running the reverse coded variable of *placing environmental* protection at the cost of economic development, that when placing economics first, there is a negative -.1 (p<.001) association to online media usage, suggesting that such actors are either

not able to, or not willing to, share their perceptions in this online marketplace for ideas. The underlying argument is thus that a freer online marketplace of ideas may also benefit China's Central Government in and online setting.

### Conclusion

From the above, it is first of all clear that environmental values increasingly serve as a pillar of legitimacy, affecting confidence in central government of both Taiwan and China. But of greater interest, in both cases they are mediated by online media. In its role as mediator, online media has proved an Achilles heel for China, and benefactor for Taiwan. There are however lessons to be learned from both actors, with the other perhaps able to benefit from considering to add these to their own arsenal. Taiwan might, for example, gain benefit from adding an environment specific court to its legislative enforcement, especially in dealing with more serious issue of pollution and in reigning in the apparent willingness to pursue economic goals even if it harms the environment. Such courts may speed up the prosecution process and by extension gain more confidence from the public as a government dedicated to tackling pollution, and by further extension, climate change. China, however, has perhaps the most to gain. Not only may it benefit from a more inclusive cooperative approach with civil society and environmental NGOs, but also by opening up its online media sphere to the alternative views of these actors may it gain a more extensive market place of idea that blocks a single negative notion from thriving even when censored.

There are some notable dataset limitations that may be considered in future research.

These include pursuance of the role of local government as a further mediating factor for the flow of environmental values, especially in the case of China. In addition, variables of media confidence for online media could benefit the control aspect, and it might be worthwhile to look deeper into the different types on online media, especially social media.

### References

- Abouzeid, R. (2011). Scenes from A Revolution. Time, 178(8), 40-43.
- Benford, R. D. (1993). Frame disputes within the nuclear disarmament movement. Social Forces, 71(3), 677-701.
- Benford, R. D. (1997). An Insider's Critique of the Social Movement Framing Perspective. Sociological Inquiry, 67(4), 409-430. DOI: 10.1111/j.1475-682X.1997.tb00445.x
- Bigham, R. (2013). Pedestrian Political Power, Editorial. *Pollution Engineering*, pp. 10-10. Retrieved from http://search.ebscohost.com
- Blanchard, B., & Ruwitch, J. (2013). China hikes defense budget, to spend more on internal security. Reuters. Retrieved from <a href="http://www.reuters.com/article/2013/03/05/us-china-parliament-defence-idUSBRE92403620130305">http://www.reuters.com/article/2013/03/05/us-china-parliament-defence-idUSBRE92403620130305</a>
- Boden, T., Andres, B., & Marland, G. (2010). *National CO2 Emissions from Fossil-Fuel Burning, Cement Manufacture, and Gas Flaring: 1751-2008*. Retrieved from: http://cdiac.ornl.gov/trends/emis/top2010.tot
- Bodley, J. H. (2008). Anthropology and Contemporary Human Problems: AltaMira Press. Plymouth, United Kingdom. ISBN 0-7591-1138-3
- Brandon, H. (2010). Cheap Chinese goods take costly toll on environment, human health, Comentary. Western Farm Press, pp. 19-19. Retrieved from <a href="http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=48897262&site=ehost-live">http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=48897262&site=ehost-live</a>
- Call for Protest Against Chengdu Chemical Plant Gets Censored, Poster is Detained. (2013). Retrieved from Fei Chang Dao website: http://blog.feichangdao.com/2013/05/call-for-protest-against-chengdu.html?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed:+feichangdao/HHPU+(Fei+Chang+Dao)&m=1
- Caparini, M. (2004). Media in Security And Governance: The Role of the News Media in Security Oversight And Accountability: Nomos. ISBN: 9783832908584
- Chafe, Z. (2005). Chinese Villagers Protest Local Environmental Damage. World Watch, 18, 9-9.
- Chen-Ling, H. (2013). Media Control and Democratic Transition: Ongoing Threat to Press Freedom in Taiwan. *China Media Research*, 9(2), 83-93.
- Chen, C., Chang, L., & Zhang, Y. (1995). The role of foreign direct investment in China's post-1978 economic development. *World development*, 23(4), 691-703. doi:10.1016/0305-750X(94)00143-M
- Chen, D.S. (2011). Taiwan's Antinuclear Movement in the Wake of the Fukushima Disaster, Viewed from an STS Perspective. *East Asian Science, Technology and Society, 5*(4), 567-572. doi: 10.1215/18752160-1465683
- Chengju, H. (2000). The Development of a Semi-Independent Press in Post-Mao China: An Overview and a Case Study of Chengdu Business News. *Journalism Studies*, 1(4), x. DOI:10.1080/146167000441358
- Chomsky, N. (1999). Profit Over People: Neoliberalism and Global Order: Seven Stories Press. New York, United States. ISBN: 9781888363821
- Climate Change: Evidence, Impacts, and Choices (2012). National Research Council, Division on Earth and Life Studies. National Academies Press. ISBN: 9780309278423
- Controversial dam plan in Tibet's east moved upstream. (2008). *Tibetan Review: The Monthly Magazine on all Aspects of Tibet, 43*(1), 10-10.
- Coonan, C. (2009). Chinese more willing to protest publicly despite tight controls. Irish Times. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=nfh&AN=9FY787312609& site=ehost-live

- Cottle, S. (2011). Media and the Arab uprisings of 2011: Research notes. *Journalism*, *12*(5), 647-659. doi: 10.1177/1464884911410017
- D'Aprile, S. (2009). Operation New Media. Politics (Campaigns & Elections), 30(4), 26-37.
- Davenport, C. (2014). Obama Pursuing Climate Accord in Lieu of Treaty. The New York Times. Retrieved from: <a href="http://www.nytimes.com/2014/08/27/us/politics/obama-pursuing-climate-accord-in-lieu-of-treaty.html?\_r=0">http://www.nytimes.com/2014/08/27/us/politics/obama-pursuing-climate-accord-in-lieu-of-treaty.html?\_r=0</a>
- Deng, B. (2015). 2014 was the hottest year on record. Nature. Retrieved from: http://mfkp.org/INRMM/article/13477654. doi:10.1038/nature.2015.16674
- Dongli, Z. (2007). Xi'an Marks the Spot. Earth Island Journal, 9-10.
- Don-Yun, C., Tong-Yi, H., & Naiyi, H. (2006). Reinventing government through on-line citizen involvement in the developing world: a case study of taipei city mayor's e-mail box in Taiwan. *Public Administration & Development*, 26(5), 409-423. doi: 10.1002/pad.415
- Edney, K. (2012). Soft Power and the Chinese Propaganda System. *Journal of Contemporary China*, 21(78), 899-914. doi: 10.1080/10670564.2012.701031
- Environmental Protection Administration, T. (2010). Government Takes Lead to Spur Private Investments in Green Energy Industry. Retrieved 11 July, 2014, from http://www.epa.gov.tw/en
- Environmental Protection Administration, T. (2014). Retrieved 11 July, 2014, from <a href="http://www.epa.gov.tw/en/FileDownloadPage\_EN.aspx?path=420">http://www.epa.gov.tw/en/FileDownloadPage\_EN.aspx?path=420</a>
- Fengshi, W. (2009). Environmental Activism in China: Fifteen Years in Review 1994-2008. Conference Papers -- International Studies Association, 1-14.
- FlorCruz, J. A. (2012). People Power a Sign of Times in China's Internet Age. *CNN*. Retrieved from Jaime's China website: http://edition.cnn.com/2012/07/06/world/asia/china-shifang-protest-florcruz/index.html?iref=allsearch
- Fürst, R. (2005). Taiwan -- A Maturing Chinese Democracy. *Perspectives: Central European Review of International Affairs*, 24, 42-60.
- Gallagher, S. (2013). *Meltdown: China's Environment Crisis*: Pulitzer Center on Crisis Reporting.
- Giddens, A. (2011). Politics of Climate Change, 2nd Edition: Polity Press, Camden United Kingdom. ISBN-13: 978-0-7456-5464-5
- Gilley, B. (2006). The meaning and Measure of State Legitimacy: Results for 72 Countries. European Journal of Political Research, 45(3), 499-525. DOI: 10.1111/j.1475-6765.2006.00307.x
- Goldsmith, E. (1999). Increasing Trade--Increasing Pollution. *Ecologist*, 29(3), 176.
- Goytisolo, J. (2011). Liberation Square. Massachusetts Review, 52(3/4), 380-390. Retrieved from <a href="http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=67444949&site=ehost-live">http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=67444949&site=ehost-live</a>
- Grano, S. A. (2012). Green Activism in Red China: The Role of Shanghai's ENGOs in Influencing Environmental Politics. *Journal of Civil Society*, 8(1), 39-61. doi: 10.1080/17448689.2012.665652
- Haiyan, W. (2010). How Big Is the Cage? An Examination of Local Press Autonomy in China. Westminster Papers in Communication & Culture, 7(1), 56-72.
- Harb, Z. (2011). Arab Revolutions and the Social Media Effect. M/C Journal, 14(2), 2-2.
- Heberlein, T. A. (2012). Navigating Environmental Attitudes: OUP USA. ISBN: 9780199773336
- Herman, E. S., & Chomsky, N. (2008). *Manufacturing Consent: The Political Economy of the Mass Media*: Random House. ISBN: 9781407054056

- Ho, M.S. (2009). Co-optating Guanxi: How Taiwanese Petrochemical Industry Neutralized Environmental Opposition through Social Ties. *Conference Papers -- Midwestern Political Science Association*, 1.
- Ho, M.S. (2010). Understanding the Trajectory of Social Movements in Taiwan (1980-2010). *Journal of Current Chinese Affairs*, 39(3), 3-22. ISBN: 9781407054056
- Ho, M.S. (2014). The Fukushima Effect: Explaining the Resurgence of the Anti-nuclear Movement in Taiwan. *Environmental Politics*, 23(6), 965-983. DOI:10.1080/09644016.2014.918303
- Hossain, M., & Selvanathan, A. (2011). Climate Change and Growth in Asia: Edward Elgar Publishing Limited. Masschusetts, USA. ISBN: 9781849809665
- Hsu, S.H. (2005). Advocacy Coalitions and Policy Change on Nuclear Power Utilization in Taiwan. *The social science journal*, 42(2), 215-229. doi:10.1016/j.soscij.2005.03.002
- Hung, C.F. (2012). China's Changing State-Society Relations in the Internet Age: Case Study of Zhao Zuohai. *International Journal of China Studies*, *3*(3), 363-381. doi: http://ics.um.edu.my/?modul=IJCS
- Hung, M. J. (2012). Building Citizen-centred E-government in Taiwan: Problems and Prospects1. *Australian Journal of Public Administration*, 71(2), 246-255. doi: 10.1111/j.1467-8500.2012.00764.x
- IPCC, 2014a: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 688.
- Jiang, R., & Ortolano, L. (2009). Development of Citizen-Organized Environmental NGOs in China. *Voluntas: International Journal of Voluntary & Nonprofit Organizations*, 20(2), 141-168. doi: 10.1007/s11266-009-9082-3
- Jie, F., & Tao, W. (2012). Officials struggling to respond to China's year of environment protests. *Chinadialogue*. Retrieved from: https://www.chinadialogue.net/article/show/single/en/5438-Officials-struggling-to-respond-to-China-s-year-of-environment-protests-
- Kyriakopoulou, K. (2011). Authoritarian States and Internet Social Media: Instruments of Democratisation or Instruments of Control? *Human Affairs*, 21(1), 18-26. doi: 10.2478/s13374-011-0003-y
- Laumann, E. O., & Knoke, D. (1987). The Organizational State: Social Choice in National Policy Domains: University of Wisconsin Press. ISBN 0299111946 or 9780299111946
- Lee, C.C. (2008). Top-Down and Bottom-Up Views of Ideological Diversity: Comparing U.S. and Chinese Media. *Conference Papers -- International Communication Association*, 1-32.
- Lee, Y. F., & So, A. Y. (1999). *Asia's Environmental Movements: Comparative Perspectives*: M.E. Sharpe. ISBN: 9781563249099
- Leonard, M. E. (Ed.) (2012). China 3.0. M. European Council on Foreign Relations, London, United Kingdom. ISBN: 978-1-906538-66-8
- Levin, M. (2002). Asia's Eco-guerrillas. New Internationalist (351), 34. ISSN: 0305-9529
- Li, M. H., Cui, L., & Lu, J. (2014). Varieties in State Capitalism: Outward FDI Strategies of Central and Local State-Owned Enterprises from Emerging Economy Countries. *Journal of International Business Studies*, 45(8), 980-1004. doi:10.1057/jibs.2014.14

- Lin, S.F. (2009). The 'Popular Democracy vs. Civil Society' Debate in Taiwan Revisited. *Journal of Political Ideologies*, 14(3), 227-252. doi: 10.1080/13569310903231586
- Liu, & Chen, D. (2012). Why China will Democratise. The Washington Quarterly, 35(1), 22. doi:10.1080/0163660X.2012.641918
- Liu, L. (2010). Made in China: Cancer Villages. *Environment*, *52*(2), 8-21. DOI:10.1080/00139151003618118
- Mai, Z., & Shi, J. (2001)[Eds]. *Taiwan's Economic Success Since 1980*: Edward Elgar Publishing. ISBN: 9781782542261
- Mei-Fang, F. (2008). Environmental citizenship and sustainable development: the case of waste facility siting in Taiwan. *Sustainable Development*, 16(6), 381-389. doi: 10.1002/sd.353
- Morris, A. D., & Mueller, C. M. C. (1992). Frontiers in Social Movement Theory: Yale University Press. ISBN: 9780300054866
- Pipeline Project Cancelled After Protests. (2013). Retrieved from China Digital Times website: http://chinadigitaltimes.net/2012/07/pipeline-project-cancelled-after-protests/
- Serious polluters in China could face death penalty. (2013). Article. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=nfh&AN=6FPTS2013062024 665750&site=ehost-live
- Polluting Factory Penalized Following Mass Protests. (2009). *Tibetan Review: The Monthly Magazine on all Aspects of Tibet, 44*(9), 34-34.
- Rampal, K. R. (1994). Post-Martial Law Media Boom in Taiwan. *International Communication Gazette*, 53(1-2), 73-91. doi: 10.1177/001654929405300106
- Rawnsley, G., & Gong, Q. (2011). Political Communications in Democratic Taiwan: The Relationship Between Politicians and Journalists. *Political Communication*, 28(3), 323-340. doi: 10.1080/10584609.2011.572462
- Reus-Smit, C. (2007). International Crises of Legitimacy. International Politics, 44(2-3), 157-174. doi:10.1057/palgrave.ip.8800182
- Shockley-Zalabak, P. S. (2012). Fundamentals of Organizational Communication: Knowledge, Sensitivity, Skills, Values (8th Edition ed.): Pearson Education, Limited. ISBN: 978-1-292-02506-3
- Smith, A. (2011). 22% of Online Americans used social networking or Twitter for Politics in 2010 Campaign. Report of the Pew Internet Research Center.
- Snow, D. A., Rochford, E. B., Jr., Worden, S. K., & Benford, R. D. (1986). Frame Alignment Processes, Micromobilization, and Movement Participation. *American Sociological Review*, *51*(4), 464-481. doi: 10.2307/2095581
- Tang, S.-Y., & Zhan, X. (2008). Civic Environmental NGOs, Civil Society, and Democratisation in China. Journal of Development Studies, 44(3), 425-448. doi: 10.1080/00220380701848541
- Telecommunication Figures in 2013. (2013). Retrieved 11 January, 2015, from http://www.ncc.gov.tw/english/news\_detail.aspx?site\_content\_sn=300&is\_history=0 &pages=0&sn\_f=1511
- Tong, J. (2009). Newsroom Self-Censorship in China: A Case Study of How Discourse Gets Changed. *Conference Papers -- International Communication Association*, 1-40.
- VanDeVeer, D., & Pierce, C. (2003). The Environmental Ethics and Policy Book: Philosophy, Ecology, Economics: Thomson/Wadsworth, Toronto, Canada. ISBN 0-534-56188-8
- Walter, P. (2007). Txt Protest Halts P-Xylene Plant :-o. *Chemistry & Industry*(11), 5-5. While You Were on Holiday. (2000). *Business China*, 26(4), 2.
- Wright, T. (2011). Perpetuating Communist Party Rule in China. Journal of International Affairs, 65(1), 31.

- Xu, C. (2011). The Fundamental Institutions of China's Reforms and Development. *Journal of Economic Literature*, 49(4), 1076-1151. doi: 10.1257/jel.49.4.1076
- Yan, L. (2013). Chinese Economy, an Economic Miracle for More Decades in the Future. *Journal of International Finance & Economics*, 13(4), 131-136.
- Yang, A., & Taylor, M. (2010). Relationship-Building by Chinese ENGOs' Websites: Education, Not Activation. *Conference Papers -- International Communication Association*, 1.
- Yang, Guobin and Calhoun, Craig (2008) Media, Power, and Protest in China: From the Cultural Revolution to the Internet. Harvard Asia Pacific Review, 9 (2). pp. 9-13. ISSN 1522-1113
- Young, D. (2012). Social media both friend and foe for China's new leaders. *CNN*. Retrieved from: http://edition.cnn.com/2012/11/09/world/asia/china-social-networking-young/index.html?iid=article\_sidebar