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## Low carbon plot: climate change skepticism with Chinese characteristics

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Current sociological literature on climate change skepticism almost exclusively focuses on the discourses in the Western World. This paper seeks to broaden the scholarship by examining the Chinese case, and to bridge this body of literature with nationalism. Through critical discourse analysis of Chinese publications, I demonstrate the existence of an undercurrent of climate change skepticism in China. The main discursive patterns follow a conspiracy theory that sees climate change as a western plot to constrain China's development space and to create a new site for financial accumulation. The result suggests that Chinese climate change skepticism stems from identity politics and mistrust towards Western countries. In China's climate skepticism discourse, science also becomes a subject of national identity politics. This paper calls for a sociology of climate change 'knowledge' to move forward the study of climate change skepticism and denialism.

**Keywords:** climate change; climate change skepticism; anti-reflexivity; China, nationalism; conspiracy theory

In early 2010, Larry Hsien Ping Lang, a University of Pennsylvania-trained economist and well-known provocative commentator in China, openly questioned the science of climate change in his popular evening talk show *Larry's Eyes on Finance*. The episode<sup>1</sup> was entitled 'climate change great swindle.' Elements of his theory would sound familiar to the ears of western climate skeptics – corruption in the Intergovernmental Panel on Climate Change (IPCC), warming caused by the sun's variation, warming precedes CO<sub>2</sub> increase, etc. After attacking climate science, Lang soon returned to his iconic inflammatory political speech. 'We understand that environmental issues are important, just that we cannot bear that the Western countries demonize and constrain China in the name of climate,' he asserted. The video clip accumulated close to one million hits on China's YouTube-equivalent video streaming sites, and most comments were in favor of his views, calling him a 'prophet.' Here are a few samples of viewer's responses (as translated by the author):

'[The weather] is obviously getting colder and colder, but they are still lying through their teeth. These disgusting Westerners never stop trying to topple China.'

'Honestly, I think the key is that we Chinese people need to unite; we have to stand on our own feet.'

'These foreign bastards are so worried that China will rise and surpass the United States. Because they are jealous of China, they even made up lies about China and other developing countries. . . The scientists are all puppets controlled by politics. Copenhagen liars! American liars!'

China's perception of and action on climate change is extremely significant. Within the last decade, China overtook the United States to become the largest greenhouse

gas emitting country in the world; close to 25% of global emissions come from China. On a per capita basis, China's emissions have risen to more than 7 tons per year, which is second only to the levels in most Western industrialized countries. China's trajectory of development will have planetary climatic implications.

A great number of scholars have taken on the mission of studying China's climate change policies (Gilley 2012; Lo 2010; Marks 2010). Nevertheless, most studies focus on the Chinese state as the main actor; rarely do they touch on the responses from China's civil society. In this paper, I examine those who do not believe in climate change within the Chinese public. I present two major findings: (1) There is an undercurrent of climate change skepticism in Chinese society that scholars ignore and understand poorly; (2) China's climate skepticism is different from the American variety – the former is largely a nationalistic reaction to the international climate agenda, while the latter, to an extent, is driven by a conservative movement. I demonstrate that nationalist sentiment strongly influences public understanding of climate change, and I join Susannah Fisher in using the term 'climate nationalism' (Fisher 2012) to describe this particular response.

### Theories of climate change skepticism

Although there is little doubt in the scientific community about the anthropogenic origin of climate change, the public often does not have the same understanding. Many climate policy experts are confused and troubled by the glaring gap in the understanding between laypeople and experts. In environmental sociology, there is a growing body of literature that seeks to explain how and why certain populations remain unconvinced of climate change.

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The ‘Anti-Reflexivity’ thesis is a leading explanation of climate change skepticism in the United States (Dunlap 2013; McCright and Dunlap 2010, 2011). The term ‘Anti-Reflexivity’ originates from reflexive modernization theory, in which reflexivity – critical self-evaluation of the unintended consequences of industrialism – is essential to further ‘modernize’ modernity. Reflexivity is particularly useful to deal with ecological risks, including those associated with climate change. Scholars such as Dunlap, McCright, and their collaborators argue that we are not as reflexive as the reflexive modernization theorists would suggest. With the potent force of industrial capital, the countermovement to reflexive modernization – the anti-reflexivity – could be just as successful.

Anti-Reflexivity theorists argue that skepticism and denialism are mainly the result of a well-organized and well-funded movement fostered by the coalition of the fossil fuel industry, free-market think tanks, political conservatives, and contrarian scientists – a movement described as a ‘denial machine’ to misinform the public about climate science (Begley et al. 2007). The movement’s core strategy is to ‘obfuscate, misrepresent, manipulate and suppress the results of scientific research’ (McCright and Dunlap 2010), as well as to silence individual scientists or block the climate policy agenda. In their book *Merchants of Doubt*, Oreskes and Conway demonstrate the similarities between the climate change debate and the tobacco debate. In both instances, a small group of influential and well-connected scientists spread doubts and confusion to undermine the scientific consensus, which then precipitates a delay of crucial action (Oreskes and Conway 2010).

Other scholars have taken a cultural approach to analyze our understanding of climate change. In his book *Why We Disagree about Climate Change?*, British climatologist Mike Hulme illustrates that the very idea of ‘climate’ has both physical and cultural dimensions that mutually shape each other. Climate change is more than just alterations to physical attributes; it is often used to carry and convey values concerning religions, risks, freedom, national security, etc. Tracing the discovery of climate change, Hulme shows that climate change means different things in different places at different times throughout history. He argues that ‘disagreements about climate change are as likely to reveal conflicts within and between societies about ideologies that we carry and promote, as they are to be rooted in contrary readings of the scientific evidence that humans are implicated in physical climate change’ (Hulme 2009).

To understand the fundamental disagreement that characterizes the issue of climate change, it is necessary to unravel the multiplicity of climate’s cultural symbolism. To further this research agenda, Andrew Hoffman highlights three main themes in the American climate skepticism movement: (1) a strong belief that climate change is a liberal agenda to limit citizens’ freedom; (2) a strong faith in the free market; and (3) a deep distrust of the scientific peer-review process (Hoffman 2011a). In a different paper,

Hoffman uses qualitative observation taken from a climate deniers’ conference and content analysis of newspaper editorials to analyze the cultural framing of climate believers’ and climate deniers’ logics. He finds that the two sides engage in different debates – believers talk about the solutions, while the deniers focus on the definition of the problem – thus constantly talking past each other (Hoffman 2011b). The Anti-Reflexivity theorists also note the cultural dimension: the Anti-Reflexivity movement is part of a political culture that resists the very idea of public goods (Antonio and Brulle 2011). McCright and Dunlap, citing comparative studies of US/Canada and US/Germany, argue that ‘conservative movement’s opposition to climate science and policy has a firm ideological base that supersedes the obvious desire for corporate funding (McCright and Dunlap 2010).

The aforementioned research has done a great service to sociology’s understanding of the origins of climate change skepticism. So far, this body of literature focuses mainly on industrialized countries, especially the United States – the country with the strongest tendency to doubt climate change in the world. (Pew Global Attitudes Project 2010). In addition, as documented by Dunlap and Jacques’ (2013) publication database, climate skepticism and denial clearly goes beyond the United States. To date, just a handful of sociologists examine this phenomenon in other parts of the Western world. For example, Young and Coutinho (2013) compare the political strategies used by conservative governments in Australia and Canada to manage public impressions of climate change, and Kari Norgaard (2011) looks at the socially organized denial in a rural Norwegian community. Few scholars have ventured outside of the Western world to examine the views of climate change skeptics in developing countries. This inattention may lead to tunnel vision, whereby climate change skepticism is seen as a Western phenomenon alone, glossing over the nuances generated from different social and cultural contexts. In this paper, I initiate a preliminary attempt to expand the geographic scope of this research agenda.

To further our theoretical discussion, I suggest that we move beyond the focus on climate ‘skepticism’ and ‘denialism,’ in order to pursue a sociology of climate change ‘knowledge.’ As Jasanoff and Hulme have rightfully pointed out, the ‘global kinds of knowledge’ – e.g., IPCC’s climate models – often erase cultural contexts and collapse meanings to the global scale, and the universal imagery of climate science easily creates tension between human actors’ everyday experiences. They advocate for a more contextual, interpretive, and poly-centric understanding on knowledge instead. Hulme (2010) argues that ‘processes of knowledge-making are intimately bound up with the assumptions about political and social ordering which lie implicit in the institutions which enable and endorse this knowledge.’ Jasanoff (2011) also adds that ‘[knowledge] relates to long-established, culturally situated practices of interpretation and reasoning, or civic epistemologies.’

With this more contextual view on knowledge, I also adopt Bell's framework that sees knowledge as a *social relation*, in which knowledge is a matter of identity and relies heavily on the trust between social actors (Bell 2004, 2011). Climate change skepticism, in this framework, is a symptom of a lack of trust among social groups. Similarly, Dan Kahan, in his 'Cultural Cognition Project,' also recognizes that people interpret new evidence in a biased way that reinforces their predisposed group values. As a result, groups with opposing values often become more polarized, not less, when exposed to scientifically sound information (Kahan 2010). This 'identity-protective cognition' tends to protect the status of individuals in their group memberships (Kahan et al. 2007). With this focus on social relations, the focus of the climate change debate itself shifts from a discussion of the science to a 'group-making' event of taking sides.

In this study, I introduce nationalism as a variable in the identity politics of climate change knowledge. I suggest that nationalism – using Susannah Fisher's phrase of 'climate nationalism' – is indispensable to an understanding of climate change skepticism. Through her study of India's climate politics, Fisher notes that the diversity of climate change discourses is subsumed by the need for national solidarity – the climate nationalism – to avoid eco-imperialism from the North. She points out that India maintains dual tracks of policy development: 'that for international negotiations, where a strict no-emissions position is maintained; and that at home, where initial developments are being made to consider climate mitigation, tying this into wider concerns of energy security' (Fisher 2012). Nonstate actors, therefore, are caught in the 'climate nationalism' discourse, where they struggle with their responsibility to critically appraise India's national policy, on the one hand, and avoid undermining the country's international negotiation position on the other.

China, similar to India's position as a rapidly growing and emerging economy, also adopts the dual track strategy and exhibits nationalism in its climate change politics. In this paper, I extend Fisher's observation to the public understanding of climate change. In this context, China's climate skepticism is largely motivated by the deep-rooted mistrust towards Western countries. I highlight that, seen through a nationalistic perspective, climate change appears to be a 'low-carbon plot' that poses a constraint on China's development or works as an accumulation strategy for Western financial capital. In many cases, skeptics often question climate science because it has been conducted by 'Western' scientists. The trust between countries, mostly ignored by this literature, can be a key factor in the knowledge production regarding climate change.

## Methods

This study uses critical discourse analysis to explain the social worlds that constitute, and are constituted by, Chinese climate skepticism discourses. In this framework,

discourse is defined as 'relatively stable uses of languages serving the organization and structures of social life.' Critical discourse analysis (CDA) sees the use of languages, both in oral and written forms, as a 'social practice.' This method seeks to address the following three questions: (1) How is the world represented?; (2) What identities are set up for those involved in the story?; and (3) What relationships are set up between those involved? (Fairclough 1995). The 'critical' aspect of CDA sees its scientific practice as both a means to explain social phenomena as well as to change them (Fairclough, Mulderrig, and Wodak 2011; Wodak and Meyer 2009). Various scholars have recently used critical discourse analysis to study climate change skepticism and yielded useful insights. For example, Barr (2011) examined the 'virtual' discourses on the discussion forum of the *Guardian* newspaper. McKewon (2012) studied the anti-climate science fantasy themes developed by an Australian neoliberal think tank. Young and Coutinho (2013) analyzed the discourses used by Australia's Howard administration and Canada's Harper administration to manage public impressions of climate change.

Similar to this work, my analysis is based on in-depth and systematic readings of written texts on climate skepticism, including the eight books described below, as well as other news reports, commentaries, and online discussions. During the process, primary sources are coded into broad discursive themes. I was able to identify repeated discursive patterns as presented in the analysis section. This paper does not seek to quantify the prevalence of climate skepticism in China; rather, it is a qualitative exploration of its key characteristics shaped by Chinese nationalism.

Since 2013, I have been collecting Chinese-language publications with skeptical stances on climate change to serve as my primary sources. To make the list as comprehensive as possible, I searched bookstores in Beijing and Shanghai, various online bookstores, and popular online discussions forums (douban, tianya, etc.). In the end, I collected the following eight books on climate skepticism written by Chinese authors:

*Currency Wars 2: World of Gold Privilege* [sic]<sup>2</sup>; *In the Names of CO<sub>2</sub>: The Global Struggle Behind the Low-Carbon Hoax* [sic]; *Low-Carbon Plot: The Life-and-Death Battle Between China and the West* [sic]; *The Empire of Carbon Brokers: Carbon Capitalism and Our Bible*; *The Double Wars on Carbon Finance and Carbon Ethics*; *Climate Change 2010 – Comments on IPCC's Global Warming Hypothesis*; *Low Carbon War: The Transformation of the 4th Industrial Revolution* [sic]; and *Asking the Sky: What Drives Climate Change?* While this may not be an exhaustive list, it covers the most vocal voices from China's climate change skeptics. Table 1 provides a list of these sources.

Using Dunlap and Jacques' database, I also gathered information of the western climate skeptic books that have been translated into Chinese<sup>3</sup>, as listed in Table 2. None of the translated publications generated as much discussion

Table 1. Climate change skepticism publication by Chinese authors.

Chinese title	English title (*translated by the author)	Author(s)	Publisher	Year
货币战争 2: 金权天下	Currency Wars 2: World of Gold Privilege	宋鸿兵 Song Hongbing	中华工商联合出版社 Chinese Industrial-Commercial Press	2009
以碳之名: 低碳骗局背后的全球博弈	In the Names of CO <sub>2</sub> : The Global Struggle Behind the Low-Carbon Hoax	柳下再会 Liu Xia Zai Hui	中国发展出版社 China Development Press	2010
低碳阴谋: 一场大国发起假 环保之名的新经济战争	Low-Carbon Plot: The Life-and-Death Battle Between China and the West	勾红洋 Go Hongyang	山西经济 Shanxi Economy Press	2010
碳客帝国: 碳資本主義和我們的聖經	The Empire of Carbon Brokers: Carbon Capitalism and Our Bible*	白海军 Bai Haijun	中國友誼出版公司 China Friendship Press	2010
大国游戏: 碳金融与碳道德 之双重战争	The Double Wars on Carbon Finance and Carbon Ethics*	大國遊戲 Da Guo You Xi	天涯論壇 Tianya (online forum)	2010
气候变化2010 – 评IPCC二 氧化碳变暖说	Climate Change 2010 – Comments on IPCC's Global Warming Hypothesis*	温景嵩 Wen Jinsong 朱珍华 Zhu Zhenhua 黄伟夫 Huang Weifu	冶金工业出版社 Metallurgical Industry Press	2010
低碳战争: 第四次产业革命的谋变	Low Carbon War: The Transformation of the 4th Industrial Revolution	邓光奇 Deng Guangchi	中国经济出版社 China Economic Publishing House	2011
天问: 谁驱使了气候变化?	Asking the sky: What Drives Climate Change?*	钱维宏 Qian Weihong	科学出版社 Science Press	2011

Table 2. Climate change skeptical publication translated into Chinese.

Book title	Chinese title	Author	Chinese publisher	Year
Unstoppable Global Warming: Every 1,500 Years	全球变暖: 毫无来由 的恐慌	Fred Singer	上海科学技术文献出版社 Shanghai Scientific and Technological Literature Publishing House	2008
Cool It: The Skeptical Environmentalist's Guide to Global Warming	暖化? 别闹了	Bjorn Lomborg	博雅书屋 Goodness Publishing House (Taiwan)	2008
An Appeal to Reason: A Cool Look at Global Warming	呼唤理性	Nigel Lawson	社会科学文献出版社 Social Sciences Academic Press	2011
The Deniers: The World Renowned Scientists Who Stood Up Against Global Warming Hysteria, Political Persecution, and Fraud, and Those Who Are Too Fearful to Do So	气候变化译丛: 全球 变暖否定者	Lawrence Soloman	中国环境科学出版社 China Environmental Science Press	2011
L'imposture climatique: Ou La fausse écologie	气候骗局	Claude Allègre	中国经济出版社 China Economic Publishing House	2011
What Is Endangered: Climate or Freedom?	环保的暴力	Vaclav Klaus	世界图书出版公司 World Publishing Corporation	2012
Climate Change Reconsidered	气候变化再审视	Craig Idso, Robert Carter, Fred Singer	科学出版社 Science Press	2013

as books written by the Chinese authors. Moreover, far more mainstream climate change publications are translated into Chinese than ones with a skeptical perspective. Therefore, for the purpose of investigating climate change skepticism with Chinese characteristics, I will only focus on China's 'native' climate skepticism books listed in Table 1.

Finally, the use of discourse analysis on published materials in China requires an address of the censorship question. Did I find only 15 books because the Chinese government exerted tight control over such views?

Although it is difficult to answer this question without inside access to China's propaganda machine, I argue such censorship is unlikely. One piece of evidence is that 9 out of the 15 books are from publishers that are loosely affiliated with China's central government or the Chinese Communist Party<sup>4</sup>. Most symbolically, *Climate Change Reconsidered*, the flagship publication of the Western 'denial machine,' was translated and published by a division of the Chinese Academy of Sciences<sup>5</sup>. We can assume that the Chinese government does not actively suppress such skepticism.

Before I use these publications as my ‘dataset’ to distill the key elements of the China’s climate skepticism, let me first use secondary sources to offer a brief overview of the public perception on climate change in China.

### How China sees climate change

The perception and understanding of climate change among the Chinese citizenry is rather thin and unstable. In a survey led by the Yale Project on Climate Change Communication, Oxfam China, and Renmin University in early 2013, 93% of respondents believe that climate change is happening (China Center on Climate Change Communication 2013). Other survey research also shows that Chinese people mostly believe in warming of the climate (World Bank 2009; Carlsson et al. 2012; Yu et al. 2013). The Yale–Oxfam–Renmin survey, however, also suggests that 38% say that climate change is caused mostly by natural changes in the environment (China Center on Climate Change Communication 2013); in the World Bank survey, 35% of Chinese respondents answer either that the climate science is still divided, or the problem does not warrant urgent action (World Bank 2009). Just like many other countries, anthropogenic climate change is far from a solid social consensus in Chinese society. It is also important to note that climate change, as a global issue, is only at the periphery of the public’s attention, while most Chinese citizens care much more about local environmental problems such as air and water pollution (Harris 2006; Liu and Leiserowitz 2009).

In contrast to the tepid public concern, the Chinese government has taken climate change more seriously. In 2007, China formulated a *National Climate Change Programme* to outline its objectives, basic principles, and key areas of action on climate change. In this document, the Chinese government recognized the scientific consensus on the anthropogenic cause of climate change and stated that China’s annual average temperature had risen 0.5 ~ 0.8°C in the past century. In the latest five-year plan, China adopted a policy goal to reduce carbon intensity by

40–45% in 2020, from 2005 levels, and since 2013, China even established pilot carbon trading scheme to limit emissions in some regions. In addition, the Chinese government has used extra caution to protect its image as a responsible stakeholder in climate negotiation. Unlike prominent American conservative politicians disparaging climate science, virtually no important political figures in China have espoused skepticism in the public realm.<sup>6</sup> The Chinese government does not question anthropogenic climate change and has taken some pragmatic steps to address the issue.

To further illustrate the Chinese government’s positions, I did a keyword search on ‘climate change’ (qihou bianhua) in China’s state news organ *People’s Daily*, which serves as a good indicator of China’s official policy positions. Figure 1 shows the annual number of new articles that contain ‘climate change’ in their titles, from the 1970s to the present. Three hundred and seventy-eight articles were found in this search. The first article appeared in 1973, and through the ‘80s, ‘90s, and early ‘00s, climate change made rather infrequent appearances. Climate change made its real debut in 2007, peaking in 2009, with a record number (91) of news articles in *People’s Daily*, mostly due to the raucous COP15 in Copenhagen. The number declined rapidly after 2011.

I do not intend to go into the representation of climate change in Chinese media here – it warrants much-needed further research. What I want to point out is that no climate skepticism is found among the 378 articles. Only one article from 1994 reported on the ‘geocentric theory,’ an alternative explanation of climate change. In more recent years, there were even articles debunking the myth of the slowdown of global warming. Since *People’s Daily* is carefully mediated by the Chinese Communist Party, it is obvious that there is very little explicit state-sanctioned climate skepticism in China.

Although very few skeptics appeared in *People’s Daily*, climate skepticism still exists in social media, online discussions, and popular socio-economic commentaries – as expressed in Dr. Lang’s opinions. Many observers do not recognize the divide between official policy



Figure 1. Number of people’s daily news title with ‘climate change’.

and popular psyche in China, and as a result, China's 'native' climate skepticism often falls off the radar.

In the following section, I introduce the origins of China's climate skepticism and analyze its major characteristics. My analysis illustrates the representative themes across all texts. Noticeably, all books under examination in this study, except *Asking the Sky*, follow the meta-narrative that sees climate change as a Western plot. Even for the science-centered text *Climate Change 2010*, climate nationalism is still a visible discursive component.

### Climate nationalism: climate change as a grand conspiracy?

#### *Origins of China's climate nationalism*

Nationalism is one of the most frequent themes encountered in the corpus of texts examined in this study. In this empirical analysis section, I will discuss the origins and the characters of such nationalism in greater length.

Many scholars have noted that China shows an 'aggrieved nationalism' that is rooted in the historical memory of the 'Century of Humiliation' (Barmé 2009; Callahan 2004; Fitzgerald 1999; Gries et al. 2011). In this view, China fell from the glory of its destiny as a great civilization because of Western and Japanese colonialism. Such nationalism discourse is promoted by a state-led patriotic education campaign in post-Tiananmen China (Zhao 1998), and reproduced through textbooks, museums, popular culture, and events like the 'National Humiliation Day' (Callahan 2006). On the other hand, Chinese nationalism also has an external origin. That is, interaction between China and the outside world also contributes to the ebb and flow of nationalism. Ample evidence demonstrates that China's nationalist fervor, at least part of it, is fueled by a sense of Western disrespect and distrust of China's core national interests and particular suffering (Jia 2005). In short, dignity and humiliation are extremely significant to an understanding of China's national identity.

We can also trace the origin of China's climate nationalism in the emergence of China's 'New Left,' which is a loose grouping of intellectuals, ranging from social democrats to nationalists to Maoists. The newness of the New Left comes from their departure with the diehard, Stalinist Old Left. New Leftists find common ground in the critique of inequality, globalization, and privatization, but struggle to come to an agreement on alternatives (Li 2010; Yu 2006). One distinct group of New Leftists especially champion economic nationalism, manifested in bestsellers such as *China Can Say No* (1996) and *Unhappy China* (2009). They propose policies to increase state involvement in everyday economic life and advocate strengthening China's economic independence to fend off Western influences (Freeman and Yuan 2011).

In China's climate nationalism, we observe elements from both the 'aggrieved nationalism' and New Left economic nationalism. As climate change has become a

prominent global agenda, it provides an arena for international conflicts. The failure of the Copenhagen COP15 was a particularly significant event. After the collapse of negotiations, the UK climate secretary, Ed Miliband, accused China of trying to 'hijack' the Copenhagen climate deal (Vidal 2009b). Subsequently, the *Guardian's* Mark Lynas published the incendiary piece *How do I know China wrecked the Copenhagen deal? I was in the room*, alleging that China 'block[ed] the open negotiations for two weeks, and then ensure[d] that the closed-door deal made it look as if the West had failed the world's poor once again' (Lynas 2009). After these news pieces, many Western media concurred with the verdict that China is guilty of the negotiation breakdown.

Things certainly looked quite different from China's perspective. The accusation from the West was a slap in the face and seriously damaged the already fragile trust. China felt insulted by what it perceived as unfair criticism. The belief that China was humiliated at the Copenhagen summit produced the archetype of China's native climate change skepticism – seeing climate change as a Western plot to undermine China. All texts examined in this study were published after the conference, and most of them feature the Copenhagen political drama at length and in much exaggerated fashion to support the climate skeptics' conspiracy theory.

For example, *The Empire of Carbon Brokers* begins by saying

One day in the future, we will discover that the planet is not getting any warmer, but colder; meanwhile, we will also realize that we are already tightly controlled by the United States, becoming their new slaves. (The Empire of Carbon Brokers, pp. 2)

Scholars have identified that conspiratorial ideation leads to rejection of climate science (Lewandowsky, Oberauer, and Gignac 2013). My paper builds on this insight and shows that conspiratorial thinking can also create an alternate framing of climate change. In my dataset, the Chinese authors under examination often frame climate change as a nationalistic struggle and frequently conjure up bellicose metaphors. Many book titles contain the word 'war.' Both *Low Carbon War* and *Low-Carbon Plot* describe climate change as the 'life-and-death battle between China and the West' in their subtitles. While Western climate skeptics try to challenge the scientific consensus, for China's climate skeptics, climate change is more about the power struggle with Western countries, and much less about whether, or how, the planet has changed.

This distinction is very important. Capstick and Pidgeon (2014) distinguish between *epistemic* skepticism and *response* skepticism: the former doubts climate change as a physical phenomenon, while the latter questions the necessity for strong climate action. Epistemic skepticism focuses on science; response skepticism is about economics and politics. While *epistemic* skepticism

is certainly an element in Chinese climate skepticism – many skeptics espouse agnostic attitudes toward the climate science – the general discursive pattern tends to focus more on the consequences of climate politics – the realm of *response* skepticism.

### **Constraining China's development**

A recurring theme in China's climate conspiracy theory is that the West has a secret plot to constrain China's economic development by pushing for ambitious action on climate change. In the eyes of China's climate nationalists, the global climate action agenda is 'climate imperialism' intended to benefit western countries. According to their theory, the West seeks to constrain China by limiting China's emission space, levying carbon tariffs, and controlling key technologies.

First, these authors warn that the developed countries could limit China's economic potential by demanding that China adopts a 'hard cap' on greenhouse gas emissions. For them, such a demand is unfair and a dangerous trap to be avoided; moreover, given that developed countries have contributed the majority of greenhouse gases to the atmosphere, they should be the ones to fix the problem. Climate nationalists assume that if China commits to such an emission cap, its economy will experience negative effects. The 'Danish Text,' a secret draft agreement leaked during the Copenhagen conference, was seen as telling evidence of Western malicious intent. The text, a product of a few developed countries, was understood as setting unequal limits on per capita emissions for rich and poor countries (Vidal 2009a). In *Low-Carbon Plot*, the author notes that

According to the [Danish Text] draft, developed countries can emit twice as much GHG emissions as developing countries. That is, from now to 2050, developed countries can emit 2.67 ton per capita, while developing countries can only emit 1.44 ton per capita. Developed countries always make an effort to promote ideas such as human rights and equality to developing countries, but totally forget about their principles and justice when discussing carbon emissions. . . it is like the developed countries had a dinner banquet together, and brought the developing countries to the table to split the bill. (Low-Carbon Plot, pp.34)

China's climate skeptics are certainly not alone in their worry concerning potential emissions limits. In UN negotiations, China's representatives have always insisted on the principle of 'common but differentiated responsibility' and are extremely sensitive to any discussion about legally binding emissions target.

Second, the proposal of a carbon tariff, a levy based on the carbon content of products, is perceived as additional evidence of Western climate imperialism and is vehemently resisted in China. Although this topic is not at the top of the international climate agenda, its repercussions remain significant in China. Critics fear that a carbon tariff will impoverish high-GHG-emitting industries in the developing countries. *Low Carbon War* asserts that the

West tries to 'kill [China] without shedding blood' via a carbon tariff, saying that

The carbon tariff, with its admirable goals of environmental protection and trade fairness, is essentially a new form of green trade barrier, an extension of international protectionism. The United States uses the carbon tariff as camouflage to force developing countries, China in particular, to lower carbon emissions and halt their industrialization processes. The carbon tariff is the new nuclear weapon from the US, harming countries invisibly. Moreover, the victims have no way to dispute [because of their emissions]. (Low Carbon War, pp.13)

Similar arguments also appear in *Low-Carbon Plot*:

The carbon tariff will build up an ecological fence. Inside the fence, major developed countries will enjoy green spaces, bird singing, and flowers; on the other side of the fence, whether developing countries are suffering from wind, dust, or starvation, is not their concern. (pp.12)

The carbon tariff is a trump card that the US keeps in the dark. It can be shown whenever necessary. As for export-led developing economies, the carbon tariff still is a 'Sword of Damocles' above their heads. (pp.19)

Finally, another variation of the 'development constraint' argument claims that the West has an edge on green technology and relies less on fossil fuels. If developing countries were to undertake large-scale greenhouse gas reduction efforts, they would have no choice but to acquire expensive green technology from the industrialized West. The green economy, comprised of solar, wind, and biofuel industries, is just another site for capital accumulation, which works in favor of the West. In *Low Carbon War*, the author predicts that

Because developing countries do not have leading new energy technology, in the end, they have to spend an enormous amount of money to purchase it from the European Union. When every country uses the nuclear, solar, and wind technology, Europe then realizes its goal of becoming a global power. It all looks so 'spontaneous' [with a low carbon plot]. (pp.101)

*In the Names of CO<sub>2</sub>* also makes a similar point: Europe controls the core green technologies and has developed an entire industry around them. It argues that once a legally binding treaty is enforced, EU countries will earn huge profits. In this scenario, developing countries have no choice but to buy emissions allowances or green technologies – both firmly controlled by Europeans.

### **A climate for finance**

Climate conspiracy theorists also contend that climate change was invented for intricate financial maneuvers. In the past decade, carbon trading has become a key mechanism to mitigate greenhouse gas emissions. Western financial institutions were deeply involved in the market creation process. Carbon has been slowly commodified

and securitized like other financial assets. These carbon commodities are met with deep suspicion by China's climate nationalists. For example, in *Currency Wars II*, the author believes that all climate action is driven by economic incentives in the West, saying that

The strategy of environmental commodification has been devised for 40 years. If there is no strong economic incentive, who would spend so much time and money spreading the idea about carbon emissions? There are so many options of 'doing good', such as fighting poverty, hunger, and diseases in the third world countries – but when do the world's 'benevolent' ruling elites make efforts to save people's lives? If the more urgent life-saving is not done, how can we believe that things like carbon currencies, carbon trading, and carbon tariffs are not driven by a strong economic incentive? (pp.340)

The author of *In the Names of CO<sub>2</sub>* goes even further, accusing the 'green fundamentalists':

We can conclude that all the climate alarmists are bunch of green fundamentalist thugs. They are anti-human and anti-civilization. Their hysterical propaganda of climate crisis... is to fulfill the greed for a few conspiracy theorists to extract the world's wealth. (pp.175)

Wall Street is often seen as the source of this evil agenda to commodify nature. Note that their criticism is not grounded on the inherent flaws of the market-based governance, but the practical political and economic consequences for China.

Wall Street is, without doubt, the place that best symbolizes capital's greed. What is Wall Street? It is the temple of capital, the paradise of speculation, and the feast for the world's wealth. What does Wall Street love? It loves currencies. What is Wall Street most capable of? It is the expert on financial scams. They can securitize anything that generates cash flows, make financial innovations way beyond people's wildest dreams...and complete the wealth redistribution in an instant! It is not difficult for us to imagine what would happen when the weapon of 'carbon emission allowances' is controlled in the hands of financial capital – must be a nightmare for everyone in the world! (In the Names of CO<sub>2</sub>, pp.160)

As long as there is money to be made, events like hurricanes and floods can all become financial derivatives...the US and Russia started to develop weather warfare many decades ago. When you want to make money, you can artificially create weather events to profit... (The Empire of Carbon Brokers, pp.176)

The *Currency Wars* quartet, written by the popular writer Song Hongbing, is the best example in this economic-nationalist and conspiracy-infused category. These books offer a grand theory of how western countries, the United States in particular, are controlled by international bankers, most notably the Rothschild family, to manipulate the world's economy. Since 2007, *Currency Wars* has sold millions of copies and become one of the bestsellers in China. Climate change is featured prominently in the sequel *Currency Wars 2: World of*

*Gold Privilege*. Song predicts that the world will evolve into a single currency system, based on gold and carbon. The author prophesizes that carbon will be made into a 'flexible currency' to accompany a worldwide gold standard system. As Western countries have significantly larger gold reserves than China, and as the supply and demand of carbon are artificially controlled by Western ruling elites, Song cautions that

The single currency system of gold and carbon will make 1.3 billion Chinese people work for free for the West in the next 60 years!...China is already facing a [currency] war without gun smoke, and has only little time to come up with defensive strategies. (Currency War II, pp.340)

*The Double Wars on Carbon Finance and Carbon Ethics*, on the other hand, offers more nuanced analysis of the rise of carbon finance. The author, using the pen name which means 'the game between world's powers (daguo youxi),' is possibly a Chinese national who has worked in America's financial industry. He sees climate change as a means to advance the carbon financialization agenda through the collusion of the 'cultural Left' and 'Wall Street Right' in the West. The 'cultural Left' garners moral authority by promoting climate change alarmism, while the Wall Street Right gains profits from emissions trading and other financial schemes.

Like the *Currency Wars*, the author is highly suspicious of the 'green economy' and urges a more confident and independent position for China to fight the 'double wars on carbon finance and carbon ethics.' Interestingly, this book has never been published in print, but is extremely popular among some Chinese nationalists.

### *Science is not the battlefield*

Science is very much at the center of the Western climate skepticism discourse. Skeptics often focus on the inherent uncertainties associated with climate science to buoy their alternative views. They often adopt a strategy of attack with the IPCC and the mainstream climate science community, maligning them as corrupt, and in the meantime, seek support from prominent contrarian scientists to leverage credibility. This strategy is thoroughly documented in studies of the Anti-Reflexivity movement.

As mentioned before, China engages less in *epistemic* skepticism; rather, it concentrates on the *response* to climate change. Chinese skeptics, unlike their Western counterparts, do not incorporate science as much in their discourse, nor do they intentionally 'manufacture scientific uncertainties' to delay actions. Some of them even dismiss climate science as irrelevant. For example,

Global warming is politics, an economic issue, a religion, and a war; science is the only thing that it is not. (In the Names of CO<sub>2</sub>, pp.2)

This trivializing treatment of science might be explained by the organization of the Chinese skepticism community. First, most Chinese skeptics are not scientists

and do not have a community of contrarian scientists for allies. Except *Asking the sky* and *Climate Change 2010*, the authors are popular political commentators without training in climate science.<sup>7</sup> None of the books have a reference section, nor have they undergone peer-review processes. Second, Chinese skeptics are isolated individuals rather than an organized community. There are no conservative think tanks, no skeptics' conferences, and no American-style misinformation campaigns. China's fossil fuel companies are mostly state-owned, meaning that their interests are often part of state's interests, and therefore they do not possess strong lobbying power as they do in the American context. In sum, China does not have a well-organized Anti-Reflexivity movement. Finally, the Chinese government has worked closely with a small circle of scientific experts to formulate its climate policy. Many advisors take on the hybrid character of 'expert-bureaucrats,' and the line between science and politics is blurred. This also means that the climate science community tends to follow the official position – that anthropogenic climate change requires action – and refrains from critically challenging the government (Wübbeke 2013).

To be clear, science is still featured in the Chinese skepticism discourse. I have found two books published by Chinese contrarian scientists.<sup>8</sup> Qian Weihong, an atmospheric physicist at Peking University, regularly promotes his alternative climate theory in various media outlets.<sup>9</sup> In *Asking the Sky: What Drives Climate Change?*, he argues that natural climate cycles, instead of CO<sub>2</sub>, are the main driver of global climate change. Qian also asserts that the scientific community unfairly favors proponents of anthropogenic climate change but denigrates the views of climate skeptics (Qian 2010). Wen Jinsong, a retired meteorologist from Nankai University, and his co-authors, also challenge the mainstream climate change consensus in *Climate Change 2010 – Comments on IPCC's Global Warming Hypothesis* with a theory that claims climate change is the result of the sun's natural fluctuations. Most other books include a few chapters on the flaws of climate science, but these only serve as background in the debate.

### When science meets nationalism

On other hand, climate nationalists question scientific knowledge across national boundaries. To them, science is more credible if it is done in China or by Chinese scientists. Chinese climate skeptics, therefore, do not fully trust climate science because Western scientists have dominated the discourse. Science becomes yet another realm for the nationalist battle. For example, *In the Names of CO<sub>2</sub>* especially lamented that the West controls all information on climate change, saying that

Climate change...is especially a plot from Europeans, who also firmly control the 'discursive power' in climate change. The Europeans have made great effort on climate science for so many years. They have tons of publications and an enormous amount of data to back up their claim.

But their data is of poor quality, laden with scandals, and manipulated by certain individuals – not exact a good example of 'science.' But after all, they have the data, which gives them the authority to speak...and therefore, we need more resources devoted to climate research, so that we can use our own hard data to counter the Western hoax. (pp. 213–214)

Yearning for original Chinese climate science, many books under examination here refer to Coching Chu – a renowned Chinese meteorologist in mid-20th century – for his alternative climate change theory. Chu was a pioneer in the study of ancient climate change and famously challenged the global cooling hypothesis in the 1970s. As one of China's earliest climate researchers, his *A Preliminary Study on the Climatic Fluctuation during the Last 5000 Years in China* sketched out a climate change theory based on natural fluctuation.

Hardly known outside of China, Chu became a household name in China when his story as an exemplary scientist was included in elementary school textbooks. In recent climate change discussions, Chu was once again heralded as a diligent and independent scientist who was not swayed by the 'western science agenda.' He is the model scholar who serves the nation's interests. *People's Daily* even editorialized that China needs more Chu-like scientists to safeguard the country. The article ends by articulating that

To deal with climate change, China cannot repeat whatever everyone says; China must have its own voice. China needs scientists like Mr. Chu, who used independent research and insights to form his own theory and discourse. We have to stand by our own views to protect China's development rights, as well as the rights for people of most developing countries. (People's Daily 2013)

Many Chinese officials and scientists share this position and strive for more participation from China in the climate science community. For example, Liu Hongbin, a senior researcher for the National Climate Center in Beijing, is disappointed by the limited participation of climate scientists from China in the IPCC review process. 'The 28 Chinese scientists made up less than 2% of all contributors to the fourth assessment report,' Liu said (Li 2010). Similarly, Xuedu Lu, the deputy director of China's National Climate Center, makes the point that 'The majority of the IPCC's references came from Europe and North America. Developing countries also want their voices to be heard in the drafting stage.' Lu also suggests that investing in research institutions in developing nations would be a way to reform the IPCC (Watts 2010).

### Discussion

Through discourse analysis, I have demonstrated that there is an undercurrent of climate change skepticism in China – a voice hardly noticed by scholars. China's skepticism bears some similarities in its worldview with the 'lay skepticism' in other countries documented by scholars

(Barr 2011; De Kraker et al. 2014). It is challenging, however, for researchers to characterize the extent of such skepticism because Chinese newspapers often lack online comment sections; even when comments are allowed, they are heavily monitored and moderated by the state. Nevertheless, if we sample Chinese popular internet forums, e.g., douban, tianya, guokr, and weiming, we find a multitude of examples of discussion concerning climate change as a Western plot immediately after the Copenhagen conference. The conversation seems to be most active during 2010–2012, and its pattern is likely driven by significant international events, such as the Copenhagen conference or the Climategate controversy.

To understand the skeptics' discourse, my analysis shows that, in China, people question climate change mainly because of identity and trust, in which nationalism plays an important role. To explain this phenomenon, we need a more contextual understanding of scientific knowledge. As Sheila Jasanoff suggests, environmental knowledge does not achieve its robustness through scientists' decontextualized representation of the world; rather, it is done via continual interaction between fact-finding and meaning-making (Jasanoff 2010).

Recognizing that what is deemed reliable knowledge in one place could be rejected in another, I find it useful to follow Bell's (2004, 2011) discussion of the cultivation of knowledge. Through a study of how farmers transition into sustainable practices, he makes the case that *knowledge is a social relation*. According to Bell (2011),

what I take to be knowledge is a matter of my identity and a matter of the social relations of trust that shape my identity and come from my identity. It's an interactive matter. It's ongoing. And it is cultivated within culture and [the] resulting sense of lines of difference and lines of similarity with others. (pp. 282-283)

Using this framework, public perception of climate change involves more than the communication of facts – it also depends upon the social relations that exist among individuals and groups. Knowledge on climate change immediately associates identities and group boundaries, where nationalism creates a strong sense of 'us' versus 'them.' In China's case, nationalism mobilizes skepticism – some people are unwilling to recognize climate change because either it is a product of 'foreign science' or its political consequences may hurt China. The mistrust between China and the Western world is the fuel for doubting climate science and actions.

For climate policy interests, one should not hastily equate China's climate change skepticism to delay tactics or foot-dragging. Unlike their Western counterparts, China's climate skeptics do not object to environmental regulations. Their skepticism is often based on different policy priorities: local environmental issues, such as air and water pollution, deserve more urgent action than climate change. This vision is common also within the Chinese environmental community. As an active member

in China's environmental NGO community once said to me, 'No one cares about this [climate] issue. Climate change is really diffuse and distant, while we have far more direct environmental problems to worry about.'

Most books examined in this study adopt what I call a 'pragmatic agnosticism' that leaves aside the uncertainties in climate science, and urge China to take a proactive approach to compete in the low carbon economy.

The key is that China should not argue whether climate change is real or not with the West, but be part of the game. Because if we are not, we will lose the ticket to join this competition. The West does not care if other countries believe in global warming or not...it is a game that all countries play without fully believing in it. (The Empire of Carbon Brokers, pp.30)

Whether skeptical discourses have any broader impact is a future research question that deserves attention. China's recent policy development actually reflects the pragmatic attitudes mentioned above. China voluntarily commits to reduce carbon intensity, but also refuses to commit to an emission limit to protect its development rights. Tremendous resources are devoted to the renewable energy sector as a development strategy. Foreign capital is restricted in China's domestic carbon trading schemes. Finally, China is taking initiatives to strengthen its climate science research, so that it has its own data to participate in the global climate regime. Although not directly evident in government publications, Chinese nationalism is apparently not limited to civil society alone and seems to shape climate policy at the highest level.

## Conclusion

This paper seeks to broaden the conversation on climate change skepticism. I have expanded the research agenda beyond the Western world to analyze the climate change skepticism in China. For a group of Chinese people, climate nationalism is the dominant force that shapes their understanding of climate change. Many Chinese skeptics are ambivalent or agnostic about whether climate change is happening, but remain vigilant about the political and economic consequences of taking part in the climate regime. To reiterate, it is important to make the distinction that Chinese climate skepticism is mostly grounded in *response* skepticism, rather than epistemic skepticism.

As I highlight nationalism as a factor that shapes people's understanding and attitudes on climate change, I do not claim that climate nationalism is something unique to China – quite the contrary. Nationalistic attitudes likely could be found in many countries, developing or developed alike. Fisher has already shown that climate nationalism is the dominant discourse in India (Fisher 2012). In the context of developed countries, Young and Coutinho (2013) illustrate that appealing to nationalism is one prominent strategy for the Canadian and Australian governments to delay strong mitigation action. Nationalism also

features notably in US conservatives' refusal to take action on climate change. As early as 2000, McCright and Dunlap (2000) identified national sovereignty as one theme in conservatives' counter-claims to challenge global warming as a social problem. In climate skeptics' circles, it is a well-recited point that the US' unilateral action will only do very little to slow down climate change and will hurt the economy. Even more, when I attended Heartland Institute's climate change conference a few years ago<sup>10</sup>, I heard multiple participants express their anxiety about a 'world government' led by the corrupt United Nations. They see global climate action as infringement on national sovereignty and the freedom of American people. In this respect, skeptics in China and the United States bear considerable similarity in their nationalistic sentiments.

Looking forward, I suggest that we expand this research agenda beyond the focus on climate change 'skepticism' and 'denialism,' and rather pursue a sociology of climate change 'knowledge.' To be sure, this is not giving equal weight to all kinds of knowledge – anthropogenic climate change is a scientific fact. While the power of vested economic interests is certainly an important factor influencing public opinions on climate change, the formation of climate change attitudes is much more nuanced. Worldviews, ideologies, identities, and trust all play a part in our decisions of what to believe, and what not to believe, regarding the changing climate. We should also be particularly attentive to the differences resulting from national contexts. A focus on seeing climate change knowledge as a social relation might yield many valuable insights to move this conversation forward.

#### Disclosure statement

No potential conflict of interest was reported by the author.

#### Notes

1. The original show was on Guangdong TV on January 17, 2010. To access the video, see link: [http://www.56.com/u92/v\\_NDkwMzQyMDk.html](http://www.56.com/u92/v_NDkwMzQyMDk.html) (Retrieved August 1, 2014).
2. It is a common practice for a Chinese publication to include an English title in its book cover.
3. To compile such a list, I took advantage of Dunlap and Jacques' (2013) database, which consists of 141 English-language books that espouses climate change skepticism, or 'denialism' in authors' terms, then searched each title in search engines to verify whether it has been translated in China. Out of the 141 books in the database, five of them have a Chinese version. Besides these five books, Claude Allègre's *L'imposture climatique: Ou La fausse écologie* was also translated into Chinese language but was not included in Dunlap and Jacques' database. Finally, *Climate Change Reconsidered*, a two-volume report from the Nongovernmental International Panel on Climate Change (NIPCC) originally published by The Heartland Institute in 2009 and 2011, was also translated into Chinese in May 2013. Table 2 describes the detailed information of these translated publications.
4. China Development Press is governed by the Development Research Center of the State Council; China Economic

Publishing House was established by China's Commission of National Economy (now defunct), and currently is governed by State-owned SINOPEC group; China Environmental Science Press is the publisher for Chinese Ministry of Environment; Social Sciences Academic Press is the publisher for Chinese Academy of Social Sciences; Chinese Industrial-Commercial Press is a publishing house for All-China Federation of Industry and Commerce (ACFIC), which mostly consists of powerful industrialists and business people in the Communist Party of China. Science Press is the affiliated publisher of Chinese Academy of Sciences. Metallurgical Industry Press is the publishing house of China Iron and Steel Association.

5. The Chinese Academy of Sciences issued a caveat that the publication does not mean an endorsement of climate change skepticism. See the press release from the Heartland Institute at <http://heartland.org/policy-documents/climate-change-reconsidered-translation-chinese-academy-sciences> (Retrieved August 1, 2014).
6. Only in very rare cases, China's highest-level bureaucrats have expressed some very mild skepticism toward the anthropogenic causes of warming. For example, Xie Zhenhua, China's lead negotiator, has said that 'There is one starkly different view, which the climate change or climate warming issue is caused by the cyclical element of nature itself. I think we need to adopt an open attitude to the scientific research.' Link: <http://news.bbc.co.uk/2/hi/8478643.stm> (Retrieved August 1, 2014).
7. Two authors use their pen names. Their biographies are therefore unknown.
8. For more information on Chinese native contrarian scientist, see China Daily's coverage 'Skeptics turn up the heat' on February 3, 2010. Link: [http://www.chinadaily.com.cn/cndy/2010-02/03/content\\_9418037.htm](http://www.chinadaily.com.cn/cndy/2010-02/03/content_9418037.htm) (Retrieved August 1, 2014).
9. For example, Qian was interviewed on CCTV's 'One on One' on March 21, 2010. Link: <http://tv.cntv.cn/video/C10359/ffd0945e07184006a826c5bcf1eb9c35> (Retrieved August 1, 2014).
10. The author attended The Heartland Institute's International Conference on Climate Change as an observer in May 2012.

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