

# How May National Culture Shape Public Policy? The Case of Energy Policy in China

*Philip Andrews-Speed<sup>a</sup>*

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## ABSTRACT

This paper explores how aspects of national culture may shape the design and implementation of public policy, using the example of energy policy in China. It focuses on cognitive style and on political and legal culture. China's energy policies display a combination of pragmatism, incrementalism, internal contradiction and ambiguity. This is consistent with evidence from experimental psychology and history that the development of Chinese and East Asian cognitive styles have taken a path distinct from those of Western civilizations with their Greek philosophical heritage. These variations of cognitive style between cultures are reflected in brain function and genes. Policy implementation also bears features from imperial times in the political culture of China's Communist Party and the contemporary legal system. These arguments reinforce existing calls for caution when seeking to transfer energy or other public policy approaches between countries with different cultures.

**Keywords:** China; culture; energy policy; cognition; political culture; legal culture.

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## 1. INTRODUCTION

It is almost a tautology to say that the management of public policy varies between countries, and even between different parts of a single country. Prevailing political ideologies, the structures and systems of governance, state capacity, demographics, societal values and norms, and level of economic development all contribute to such variations. As a result, public policy has become an object of study in many disciplines, including political science, economics, public administration, law, sociology and anthropology. Nevertheless, a number of scholars have claimed that public policy analyses have generally failed to take into account societal culture adequately (e.g. Geva-May, 2002; Hoppe, 2007). In her extensive review of the literature, Daniell (2014) identified a number of ways in which culture can determine how publics engage with and respond to public policies and concluded that cultural variation should be taken into account when designing or transferring public policies.

That is not to say that academics in different fields had not already identified this need. Behavioral economists have long argued that governments should improve their understanding of societal values and behavioral norms in order to improve public policy (Chetty, 2015). Organiza-

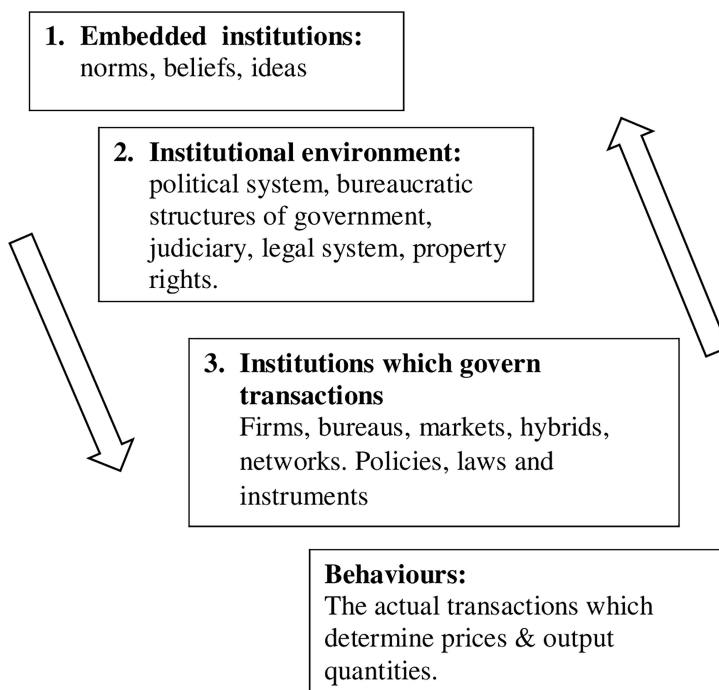
<sup>a</sup> Energy Studies Institute, National University of Singapore, 29 Heng Mui Keng Terrace, Block A #10-01, Singapore 119620. E-mail: [esicpa@nus.edu.sg](mailto:esicpa@nus.edu.sg); [cpandrewsspeed@hotmail.com](mailto:cpandrewsspeed@hotmail.com)

tional institutionalism recognizes the importance of cognition as well as normative ideas in the public policy process. Campbell (1998), for example, distinguished between ideas at the cognitive level and those at the normative level. In his view, cognitive ideas take two forms: concepts and theories that underpin policy program design; and assumptions that underlie policy paradigms. In contrast, normative ideas take the form of frames that policy makers use to legitimize policy programs, as well as the underlying assumptions held by the public. In the field of public policy, Howlett (2011) adapted this framework to distinguish three sets of ideas: world views and ideologies that shape the approach to governance, policy paradigms that underpin the policy regime, and causal stories that determine the details of the policy program.

The study of national energy policies has become increasingly sophisticated over the past 20 or so years, stimulated largely by the need to constrain rising greenhouse gas emissions from energy production and use. In addition to the analytical tools traditionally applied to public policy analysis, new approaches pertaining to energy governance include the multi-level perspective (Geels, 2002), reflexive governance (Kemp and Loorbach, 2006) and institutionalism (Andrews-Speed, 2016; Lockwood et al., 2016). Culture is implicated in all these frameworks. Notably, Williamson's (2000) heuristic includes at the highest level the embedded institutions that comprise social values, cognitive frames and normative behaviors (Fig. 1; Level 1).

However, most analyses that apply one or other of these three approaches focus on structural or institutional variables, with the institutional variables belonging to Williamson's institutional environment (Level 2) or the rules that govern the play of the game (Level 3). Although scholars have variously applied behavioral economic, sociological and anthropological approaches to the study of energy policy, their focus has been mainly on societal values and engagement in the

**Figure 1: The Three Levels of Institution that Collectively Govern Actor Behaviors (modified after Williamson, 2000).**



energy policy process and on responses to state policies (e.g. Wilhite et al., 1996; Owens and Driffl, 2008; Mumford and Gray, 2010; Sovacool, 2016; Baker and Mundaca, 2017; Smith and High, 2017; Galvin, 2020). These observations have led scholars to deploy the term “energy culture” coined by Stephenson et al. (2010). However, very few studies have addressed the way in which culture may shape the cognitive aspects of policy design and the approach to policy implementation.

China is a pertinent example in several respects. First, how China manages its energy sector is a matter of global interest due to its consequences for international energy markets and greenhouse gas emissions. Second, its approach to energy policy design and implementation contrasts with many of the practices and prescriptions of Western nations. Third, its distinctive culture has a long and well-documented history. This provides the opportunity to link what we see today in aspects of China’s energy policy to longstanding cultural traditions.

The aim of this paper is to explore how aspects of national culture may play a role in shaping the way in which public policies are designed and implemented using the example of energy policy in China. The analysis follows two lines of reasoning. The first involves exploring the link between culture and cognition and highlights certain characteristics of traditional and contemporary East Asian and Chinese cognition. An individual’s cognitive style determines how they perceive, analyze and solve problems. The societal context of an individual, including the prevailing culture, is one of several factors that play an important role in shaping their cognitive processes. Neuroscience research shows that brains of individuals from different cultures operate in different ways, even to solve the same problem. Further, recent advances in genetics have revealed that such differences can be reflected in the genes. This would allow some shared cognitive features in a society to persist over long periods of time, as we see in China. Thus one should not be surprised if those analyzing and solving policy problems take quite different approaches in different cultural contexts.

The second line of reasoning lies in how a society’s political and legal cultures may determine the nature of policy solutions and how they are implemented. Political culture shapes the manner in which political power is legitimized and exercised. This is closely related to legal culture which determines how the political elites and wider society perceive the role of law, and how the law and legal instruments may be used or not used to implement policy decisions. Once again, aspects of a society’s political and legal cultures may have deep historical roots.

The paper begins with a short section that summarizes the relevance of culture to public policy drawing on neuroscience and genetic studies, highlighting the importance of history (a fuller account is provided in the online Appendix). The subsequent section identifies a selection of distinctive features of energy policy design and implementation in China that I believe may have a cultural origin. Section 4 focuses on China’s political and legal traditions and identifies features that seem to persist to the present day in the nature and operation of that Party-State. The final section draws some tentative conclusions concerning the role of culture in shaping policy design and implementation in China. The contribution of this paper is to reinforce existing calls for caution when seeking to transfer energy or other public policy approaches between countries with different cultures (Foster and Rana, 2019).

This study has two key limitations. First, the fields of experimental psychology, cultural neuroscience and epigenetics remain contested. I have deliberately chosen those perspectives that permit the research topic of this paper to be explored further rather than those that would undermine this line of investigation. Second, the analysis spans many disciplines including public policy, politics, sociology, anthropology, philosophy of science, genetics and neuroscience. For this reason, my inferences draw only on a limited range of literature in each field and are necessarily simplified. As a result, the aim of the paper is not to prove a point nor even to demonstrate the validity of an

argument. Rather, the goal is to demonstrate that the issue of how culture influences public policy in the energy and other sectors requires more rigorous and systematic study, in particular beyond the prevailing focus on the citizen.

## 2. THE RELEVANCE OF CULTURE TO PUBLIC POLICY<sup>1</sup>

Many definitions of culture exist, but one that is appropriate for this analysis is the “causally distributed patterns of mental representations, their public expressions, and the resultant behaviors in given ecological contexts” (Medin et al., 2007). In other words, culture links the mind with language, action and environment. Culture is transmitted across a society and across generations principally through imitation and teaching, with language playing a central role (Bender and Beller, 2019).

Culture, along with training, expertise and life experience, is one of the factors affecting reasoning and causal explanation. Traditional societies tend to apply concrete or intuitive reasoning based on experience. More sophisticated societies, especially those with a western cultural heritage, are more likely to apply formal logic and display a strong tendency to distinguish between right and wrong solutions to problems. In identifying causes, they are also more likely to focus on the role of specific actors. In contrast, other societies, such as China’s, may apply more holistic thinking, assess the wider context and accept contradiction and ambiguity (Norenzayan et al., 2007; Bender and Beller, 2019). The caveat that applies to all such generalizations is that they have greater explanatory power at the group or societal level than for individuals (Ji and Yap, 2016).

Technological advances in neuroscience have allowed researchers to investigate the links between culture and cognition. It has become clear that the human brain is highly plastic and that sustained use of certain cognitive tools rewires the brain. This rewiring draws on the interaction between the brain, the individual’s perceptions and the environment. In different cultures, the same task may use either different parts of the brain or the same part of the brain with different intensity (Northoff, 2016). Cultural differences detectable in brain function include understanding of self, language, numbers, the organization of information, visual perception and attention, and reaction to incongruence.

Genetic studies are revealing that culture may be carried by genes through what are termed epigenetic changes. Such changes can involve morphology, physiology, behavior and life history. They are not reflected in changes to the genes and are reversible. Rather, epigenetic changes involve variations in the intensity with which individual genes are expressed. In simple terms, genes can be turned on or off. Such changes are quite different from genetic changes which are more random and may not be advantageous (Cabej, 2011). Evidence in support of adaptive epigenetic inheritance is growing and it is becoming apparent that sustained epigenetic adaptations may result in genetic change (Lind and Spagopoulou, 2018).

The significance of these developments in neuroscience and genetics is two-fold. First, cultural differences are reflected in how the brain works. In other words, societies from different cultures are likely to think and act in different ways in a range of settings. In the context of this paper, they may solve problems in distinctive ways. Such variations are more strongly expressed at the level of the group than of the individual. Second, culture and genes co-evolve. Some elements of a contemporary culture may have deep historical roots and be embedded in genetic information. Thus, history is important. Its significance is particularly relevant in China which has a long-lived culture.

1. Please see the online Appendix for a fuller account of the link between culture and cognition and of the distinctive features of East Asian and Chinese cognitive styles.

The implication for public policy is that the way in which policy actors identify, analyze and resolve policy challenges may vary between cultures. Further, such cognitive differences may change only slowly and may not converge to some universal norm. In the context of energy policy we might therefore expect that governments in different cultural contexts may vary greatly in the way that they design and implement policy. Such variation may include the way policy is expressed, the mix of tools deployed, the role of law and of the state, and the mix of administrative and economic instruments.

### **3. DISTINCTIVE FEATURES OF CHINA'S ENERGY POLICY DESIGN AND IMPLEMENTATION**

The governance of China's energy sector today has its origins on the Marxist-Leninist system put in place by Mao after 1949. At that time, the state took full control of the sector through the planning of production and consumption, ownership of the main energy producing and consuming enterprises, and control over producer and consumer prices (Dorian, 1994).

Security of energy supply and maximizing domestic energy production have been and continue to be key components of the policy paradigm for the sector, along with the desire to provide widespread access to energy at affordable prices (Andrews-Speed, 2012). This explains the strong and enduring influence of the central government over the energy sector. Today, this is expressed through continuing state ownership of most of the large enterprises involved in the production and transformation of energy as well as the control of some energy prices. The push for self-sufficiency and the abundance of the resource endowment has supported the long-standing dominance of coal in the primary energy mix. The abundance of cheap domestic coal resources allowed the government to set energy tariffs at low levels in the past, especially for energy-intensive industries and households.

The Chinese government's choice of policy instruments for the energy sector reflects the prevailing policy paradigm and the current state-dominated character of the sector (Andrews-Speed and Zhang, 2019). The preference has long been to combine administrative (command-and-control) instruments with generous financing. Administrative instruments take the form of obligations and targets directed at different levels of government, at an entire industry or at companies within a particular energy producing or energy consuming industry. Financial support in many forms has played a central role in promoting investment and technological advance in the nation's energy industries.

The state-owned enterprises play an important role as instruments of government policy in the energy sector, not least to maximize domestic energy production and investment in energy infrastructure. The integration of industrial policy with energy policy has allowed China to undertake vast infrastructure projects such as the Three Gorges Dam, to play a leading international role in renewable energy and new energy technologies, and to go overseas to secure critical mineral resources.

China's energy policy and the management of its energy sector have evolved significantly since the late 1970s when Deng Xiaoping suppressed the dominance of ideology and started to reform and open the economy. As was the case in many countries, reform of the energy sector progressed more slowly than other parts of the economy. In the 1980s, the government corporatized and commercialized the energy sector, transforming ministries into state-owned enterprises. At the same time, it began a gradual process of enhancing the role of market forces in the setting of energy prices by introducing dual and triple track pricing (Andrews-Speed, 2004).

The late 1990s saw market rhetoric reach a peak under the leadership of President Jiang Zemin and Prime Minister Zhu Rongji. Nevertheless, the radical structural reforms to government agencies and state-owned enterprises of 1998 still left the majority of energy companies in state hands at central or local levels and the government retaining strong influence over energy pricing (Andrews-Speed and Zhang, 2019). A new phase of energy market initiatives began in 2011 and accelerated after 2013 under the leadership of President Xi Jinping. Notable among these are plans for a national carbon market and an electricity market (Zhang and Andrews-Speed, 2020) that are currently being implemented (as of 2021).

This 40-year evolution of the country's energy sector is distinctive from the experience of most other countries in several respects. Most notable is that the process has been very gradual, one step at a time, or "crossing the river by feeling for the stones" as Deng Xiaoping allegedly expressed it. This approach reflects a combination of paradigmatic outlook, pragmatism and caution: the policy paradigm required state control, or at least strong influence over energy as a key strategic sector; pragmatism acknowledged that the rationale for reform was to address pressing contemporary problems; caution to avoid major system failures, such as the Californian power crisis of 2001, that might undermine the legitimacy of the Party. This contrasts with what might reasonably be called "market idealism" propagated by the international financial community in the 1990s and bought into by many governments around the world. In other words, China's government has not been applying a theoretical model to solve a practical problem. This style of problem solving dates back many centuries, as described in section B of the online Appendix.

However, China's incremental and pragmatic approach involved accepting severe contradictions and ambiguities in the policy framework within which the energy and other sectors operated. Whilst market forces have been present and have set incentives for the commercialized state-owned energy companies, the state has continued to play a dominant role in many respects. In addition to the creditable provision of incentives for clean energy production, the central government has continued to impose non-commercial objectives on the enterprises as well as influencing energy prices. Non-commercial objectives have included employment, security of oil and gas supply, and bearing financial losses to support energy pricing policies. More disruptive of national policy initiatives has been the involvement of local governments in the operation of embryonic energy markets as well as the tolerance by government of abuses of market power by the largest state-owned energy enterprises (Zhang and Andrews-Speed, 2020).

Such contradictions and ambiguities concerning the roles of the state, the private sector and the market are also evident in high-level policy documents and laws. In November 2013, President Xi Jinping laid out his vision for the country at the Third Plenary session of the 18<sup>th</sup> Central Committee of the Chinese Communist Party (CCP) in the "Decision of the Central Committee of the Communist Party of China on Some Major Issues Concerning Comprehensively Deepening the Reform". Three extracts illustrate the internal contradictions embodied in this key document (Anonymous, 2014):

- The introductory paragraph to Part II on the Basic Economic System states: "We must unswervingly consolidate and develop the public economy, persist in the dominant position of public ownership, give full play to the leading role of the state-owned sector, and continuously increase its vitality, controlling force and influence".
- Paragraph 6 in Part 11 on the Mixed Economy states: "A mixed economy with cross holding by and mutual fusion between state-owned capital, collective capital and non-public capital is an important way to materialize the basic economic system of China".

- The introductory paragraph to Part III on the Modern Market System states: “Establishing a unified, open, competitive and orderly market system is the basis for the market to play a decisive role in the allocation of resources”.

The Draft Energy Laws of 2007 and 2020 contain similar contradictions:

- Article 87 on Price Formation in the 2007 Draft Energy Law states “The State establishes the energy price formation mechanism that combines market regulation and government control but is led by market regulation” (unofficial English translation).
- Article 66 on Price Mechanism in the 2020 Draft Energy Law states “In the competitive segment of the energy sector, prices are mainly determined by the market, and the state promotes formation mechanism of price that is mainly determined by energy and resource conditions, market supply and demand, environmental costs, intergenerational equity and sustainability and other factors.” (unofficial English translation).

If we set aside the possibility that these high-level documents suffered from poor drafting, then we have to conclude that the contradictions and ambiguities are deliberate in one of two ways: either the documents are compromises between two opposing and irreconcilable positions or they reflect the generally accepted way of expressing policy and law. The second of these provides local government officials with the scope to adapt the national policy to local conditions as well as allowing them discretion in the implementation of the policy. This approach to drafting laws and policies is also expressed in key government ideological initiatives such as “Scientific Development” and “Ecological Civilization”.

Slogans play a role in many political systems—think of UK Prime Minister Tony Blair’s “Middle Way” and US President Trump’s “America First”. However, such slogans take on much deeper political significance in China and are intended to provide a framework for policy across many fields. First mentioned at a high level by President Hu Jintao in 2007, Ecological Civilization was endorsed and reinforced by President Xi Jinping in 2013 (Goron, 2018). In 2015, a Central Document of the CCP elaborated on the meaning of the term and presented proposals on how to pursue this goal achieved (Geall and Ely, 2018). Ecological Civilization was even written into China’s national constitution in 2018. The term has evolved from being an ambiguous ambition embracing economic, political, cultural and social development (Meng, 2012) to a systematically documented plan, or at least a strategy. This strategy addresses land and resource use, innovation and environmental protection, and requires improvements to the legal and economic governance systems, as well as public administration. A whole section is devoted to the need to improve social customs (Xinhua News Agency, 2015).

In one way, the slogan “Ecological Civilization” is China’s response to the West’s sustainable development. Hansen and Liu (2016) referred to it as a “socio-technical imaginary” of a future ideal world, whilst Geall and Ely (2018) saw it as a political narrative. Journalistic and scholarly attempts to ascribe meaning to the term have multiplied in China, as have academic research projects (Goron, 2018). Possibly because of its implicit acknowledgment of Daoist and Confucian values, the slogan is not only ambiguous but embodies a number of contradictions, notably between environmental protection and economic development (Hansen et al., 2018) and between political and cultural chauvinism and the stated global nature of its vision (Goron, 2018). Contradiction and ambiguity have long been key features of Chinese cognitive style (see section B of the online Appendix).

What is clear from these and other government documents is that state control, or at least strong influence, and public ownership remain key components of economic governance in China.

Policy actions under the current leadership have reinforced this impression despite market rhetoric. The policy paradigm for the energy sector continues to be state-centric and focused on maximizing self-reliance to enhance energy security. A reliable and affordable supply of energy is essential to support economic growth and improved public welfare, which in turn promote social stability and the legitimacy of the CCP. This approach follows a long imperial tradition in which Emperors justified their Mandate of Heaven by providing for the needs of the people (see below section 4). Although the imperial state was not formally and directly involved in most economic activities, it did institute monopolies and controls over industries that it perceived as being strategic at the time. In addition, government officials cultivated their own business interests.

Much has been written about the challenges encountered by China's central government in implementing policies, notably those relating to energy and the environment (e.g. Davidson et al., 2017; Chen, 2019). Many of these challenges arise from current or longstanding structural features unavoidable in such a large country. Nevertheless, the law has rarely been used to address the failures of local governments or state-owned enterprises to follow central government policy. Linked to this is the continuing insecurity and ambiguity of property rights, including natural resource rights. As will be discussed in section 4 below these phenomena have their roots in the longstanding legal traditions of the country that remain in evidence despite significant reform.

Whilst none of these specific features of energy governance may be unique to China, this combination has few analogies elsewhere. The remainder of this account explores some of the cultural roots to this apparent exceptionalism.

#### **4. POLITICAL AND LEGAL CULTURE**

This section examines the closely related cultures of politics and law in China and identifies those elements of current political and legal practice relevant to energy governance that appear to have historical roots.

##### **4.1 Political traditions past and present**

Political culture can be seen as comprising the socially constructed assumptions and collectively shared meanings about political life (Elkins and Simeon, 1979; Aronoff, 2001). Lehman (1972) distinguished the institutional dimensions of political culture that involve interactions between individuals and groups from the legitimation dimension of political power through symbols and abstract rules. Historical myths can be particularly powerful symbols. Ideologies should be seen as more precisely specified versions drawing on selected aspects of political culture to suit the interests or values of a particular group (Aronoff, 2001).

Politics in Imperial China drew on two traditions, Confucian and Legalist (Zhao, 2015). Societal norms drew heavily on Confucian traditions of ritual, hierarchy, filial loyalty, allegiance to family and clan, and conformity. Key values included virtue and harmony between different interests. These norms and values were embodied in the Emperor and in the relationship between him and the people (Wong, 2011; Jiang, 2018). The Emperor was at once the all-powerful Son of Heaven and subject to the Mandate of Heaven. He, because the Emperor was usually male, was the ultimate symbol and holder of absolute power, facing no formal constraints on the use of this power. Embodying political, moral and intellectual superiority, his duty was to provide for the needs of the people through ensuring political stability and food supply, for example (Pines, 2012; Jiang, 2018). Virtuous emperors who cared for their subjects would demand their loyalty. However, failure to



deliver these public goods would result in the loss of legitimacy and of the Mandate of Heaven and lead to potential revolution.

The vast geographical size and population of China required the Emperor to rule through a large, professional, Confucian bureaucracy. This bureaucracy was selected principally, but not wholly, on the basis of performance in the imperial examinations discussed (see section B of the online Appendix) and was central to state capacity (Peng, 2018). Senior officials took most of the decisions that were then implemented by lower level officials and state-appointed local agents. The role of all but the most energetic Emperors was largely ritualistic and thus their direct political power was quite limited (Pines, 2012).

The economy was an essential part of the Emperor's agenda and thus there was no separation between the state and the economy. Nevertheless, the role of the state in the economy was relatively modest (Feuerwerker, 1984), but varied over time as policy preferences fluctuated. Legalists argued for state control to maximize production, whilst Confucians supported markets as means to distribute goods to the people. The result was a mixed economy with state involvement being directed at monopolizing production and flows of what were perceived to be resources and goods of national strategic importance that might also be sources of state revenue. The most long-lived was the state monopoly for salt. Monopolies also existed at different times over key metals, granaries, coin minting, textiles and international trade, and even tea and wine (Zheng and Huang, 2018). Attitudes toward national self-sufficiency and foreign trade also varied with time (Fairbank and Reischauer, 1989; Spence, 1990).

Despite the dominance of Confucian rhetoric, Legalist principles were often deployed to ensure effective control of the country. These date back to the fourth century BCE and built on a cynical view of humanity that required a powerful ruler exercising absolute power (Hwang, 2008). In his consolidation of China in the following century, Emperor Qin Shi Huang applied these principles to great effect in the following century: centralizing power, enforcing tight control of the population, undertaking massive infrastructure projects and enforcing policies and laws (Zhao, 2015). Later dynasties deliberately incorporated Confucian principles into their governance narratives, resulting in what Zhao has term a Confucian-Legalist State in which the balance between the two philosophies fluctuated over time (Zhao, 2015).

The extent to which today's political culture and political economy represents continuity with the Imperial past or a truly evolutionary new era is contentious (Moody, 2009). Even some of those who argue for a degree of continuity suggest that the CCP has deliberately chosen to wear the imperial mantle of governance rather than unconsciously follow political cultural tradition (Zheng and Huang, 2018). The CCP of today is essentially all-powerful, at least in form, dominating as it does both state and society, with no formal constraints on its power and no formal political competition. National unity and stability remain key priorities (Pines, 2012; Zheng and Huang, 2018), and social harmony a central ideological pillar (Bell, 2017).

Since the time of Mao, leadership of the CCP became more or less collective, but a small political elite continues to wield significant power at times. Legitimacy has relied on continuing to improve peoples' livelihoods (Zheng and Huang, 2018). To achieve this goal, the state bureaucracy reverted to its meritocratic traditions (Bell, 2017), grew in sophistication and expanded its scope of powers. The result was what could be termed a "bureaucratic emperor" (Zheng and Huang, 2018) or a "collective emperor" (Pines, 2012). Although the current leadership of Xi Jinping increased the intensity of rhetoric promoting Confucian values (Jiang, 2018), it has at the same time centralized power and personalized the leadership more than has been seen for 40 years and has reduced the gap between party and state (Guo, 2017). In other words, Legalism remains a component of Chinese

governance that returns to prominence at different times, despite the official promotion of Confucian ethics.

As in the past, China's economy remains mixed, with oscillations between preferences for a greater role for state and markets. Nevertheless, state involvement remains significant through ownership and direct control of key industries as well as through playing a dominant role in many national markets. Despite rhetoric to the opposite effect, the state has been increasing its involvement in the economy under the current leadership (Zheng and Huang, 2018; Blanchette, 2020). In the same way, striving to maximize self-sufficiency in key commodities such as fossil fuels and food has been a creed for the CCP, despite not achieving it (Dorian 1994; Brammal, 2009). The 'dual circulation' policy announced in 2020 reemphasized this aspiration (Pei, 2020).

#### **4.2 The traditions and evolution of China's legal system**

The relationship between law and culture has been a highly contested topic for decades, as has the term 'legal culture' (Nelken, 2016). A nuanced view which suits the purpose of this analysis is that cultural norms and values shape the law at the same time as law shapes societal behaviors and values; and, even, that law is a component of culture (Saguy and Stuart, 2008; Mautner, 2011).

China's legal system has several unique features that distinguish it from those in other countries, whether they be authoritarian regimes with rule by law, western democracies practicing the rule of law, or other types of mixed or immature legal systems (Siems, 2016). The approach to law arose from an amalgamation of ideas from several schools of thought, among which the Legalist and Confucian schools were prominent as in the political sphere (Chang, 2016). The result was a system of law-making, laws, regulations and courts that was directed at promoting and protecting the interests of the state. Neither philosophy was consistent with the rule of law as espoused by western nations (Steinmuller, 2017).

The law provided no formal constraints on the ruler and no protection for the individual. Instead, the legal system viewed the family as the basic unit of society, not the individual. No separation of powers existed, and the legal system was largely a political and administrative device to be managed by the government bureaucracy in support of the state. It was not seen as a reflection of the moral order in society, as in much of Western law, neither did it aim to achieve an abstract goal of social justice. The law did not prioritize private matters such as contracts, property and succession. Disputes over such issues would be managed by local magistrates or other mediating actors (Jones, 2003).

The aim of law was purely pragmatic. State law existed for the government itself and the role of the general legal code was to protect the state from threats to its authority. Civil law addressed only a limited range of issues relating to property, contract and inheritance. Citizens could gain access to the law, but this involved cost and risk, and might well have required bribes. Because of this, citizens preferred the private ordering of disputes rather than submitting to the courts (Chen, 1999; Peerenboom, 2002). Knowledge and intellectual property were considered as public goods and were not subject to any law (Chang, 2016).

Since the introduction of economic reforms in the late 1970s, the government has taken great strides to draft new laws and regulations, to create a new cadre of professional lawyers and judges, and to spread understanding of the importance of the law. In pushing forward these reforms, China has drawn extensively on international examples, especially in the realm of economic law (Jones, 2003; Clarke, 2007a). Law making through the National People's Congress has become more transparent and involves seeking suggestions from the public by placing drafts on the inter-

net. Further, the government has passed a number of administrative laws that seek to enhance the accountability, transparency and effectiveness of government itself, though the results vary greatly across the country (Horsley, 2010).

Constraints to the pace and development of legal reform includes the close relationship between the courts and both Communist Party and local governments, for the courts are directly responsible to the government and Party at the level at which they operate (Clarke, 2007b; Liebman, 2007). More fundamentally, the overall approach to the law continues to bear a striking resemblance to that of Imperial times. The law is still seen as an instrument of government and the CCP, to be deployed to retain power, maintain social order and promote economic development (Wang and Madson, 2013).

In terms of the role of law in economic activity, two important features deserve emphasizing. First, the law in China is notorious for failing to provide formally secure property rights and government agencies at all levels of government exercise their right to transfer rights with little due process. Within this context, many enterprises have been very successful at enhancing the degree of protection of their property rights through the building of networks and the use of personal connections involving both public and private sectors (Wank, 1999; Krug and Hendrischke, 2008). Second, citizens, enterprises and public agencies continue to prefer to settle civil disputes through private ordering rather than going through the court system (Peerenboom, 2007).

#### **4.3 Application of recent legal reforms to environment and energy**

Since coming to power, Xi Jinping has emphasized the need to reform the legal system and enhance the role of the courts (Minzner, 2015). Key measures have been to reduce the influence of local governments over local courts by centralizing authority at provincial levels and to build on earlier efforts to professionalize the judiciary (Li, 2016). The motives for the reforms are clearly instrumental and directed at underpinning economic development and social stability. In the past, local courts were directly accountable to local governments and thus the latter were effectively above the law. The new system is designed to better enforce property rights and protect citizens from abusive behavior by local government officials. Whilst some of the measures are designed to support economic reform, others have a more Leninist flavor aimed at enhancing the power of the Party-state (DeLisle, 2017).

One major source of social instability has been the lack of recourse by citizens for environmental damage resulting from the actions of enterprises or the inaction of government agencies. The revised Environmental Protection Law that came into effect in January 2015 for the first time permitted officially registered non-government organizations (NGOs) with a focus on environmental protection to file public interest claims in the People's Courts (Zhang and Meyer, 2017). At the same time, provincial procuratorates (public prosecutors), who had previously been dedicated solely to criminal cases, were allowed to file public interest cases as part of a two-year pilot program. Two years later, in 2017, the National People's Congress amended two laws: the Civil Procedure Law and the Administrative Procedure Law. Together these two amended laws allow the procuratorates to undertake public interest litigation against government agencies, citizens, enterprises and other types of organization (Zhang, 2017). This initiative was a great success in terms of scale. In 2019 alone, procuratorates across China handled 69,000 public interest cases relating to the environment and natural resource protection, up 16.6% on 2018 (Supreme People's Procuratorate, 2020).

Despite this progress, the effectiveness of these legal reforms continues to be constrained by the legal traditions described above. In contrast to Western legal custom, China lacks the tradi-

tions of equality before the law, of the state being bound by the law and of the predictability of the law (Barresi, 2017). Political priorities, personal connections and social norms continue to affect judicial decisions, including in environmental cases (Barresi, 2017; Niu and Dijk, 2017). In addition, a favored approach of the courts is to refer the case to mediation (Zhang and Meyer, 2017).

Several structural issues are also implicated. Procuratorates face a number of conflicts of interest. They have close relationships with local governments and have the power to intervene in civil judicial processes, such as those that might be brought by NGOs. Their actions may also be distorted by the desire to bring a large number of cases and achieve a high success rate, causing them to select minor and low-risk cases to pursue (Gao, 2018).

NGOs face numerous obstacles in filing cases in court. In addition to the requirement to be officially registered with the government, most Chinese environmental NGOs lack the funds and the expertise, face difficulties obtaining the necessary evidence, and encounter overly restrictive rules of standing. Moreover, they have no right to bring cases against public authorities. Only the procuratorates can do so. This is important because most violations have their roots in the failure of local governments to fulfil their obligations (Gao, 2018). Furthermore, Chinese law does not allow private parties to use the law to prevent other private parties causing damage before the damaging action takes place (Barresi, 2017).

Given the scale of environmental damage caused by electricity generation in China, notably through carbon dioxide emission, one might expect procurators and environmental NGOs to be pursuing public interest cases in this field as well. The Renewable Energy Law of 2005, amended in 2009, and subordinate regulations require grid companies to connect all renewable energy installations and to purchase and dispatch that power. A number of supporting measures have also been introduced, notably by the NDRC and the NEA. As of 2018, no cases had been brought by either the NEA or renewable energy companies against the grid companies for failures to purchase renewable energy. The lack of action by the NEA relates to a range of technical and system management issues as well as the tension between these requirements and longstanding local practices. In the case of the renewable energy companies, they face a large power differential between them and the vast monopoly that is the grid company (Zhang, 2019).

The prominent environmental NGO, the Friends of Nature, filed cases in 2016 against the grid companies of Gansu and Ningxia on the grounds that they had failed to purchase all the available wind and solar energy in their respective areas of jurisdiction. The claims were based on the environmental damage caused by the companies' actions. The Gansu case was filed at the local court in Lanzhou and the Ningxia case in Yinchuan. The court in Lanzhou dismissed the case on the grounds that the grid company was not the party causing the pollution. Friends of Nature then appealed to the Gansu Provincial High Court which, in December 2018, revoked the earlier ruling and required the court of the Gansu Mining District to hear the case. There was a pre-trial meeting for the Ningxia case in April 2018 (Wang, 2019). No further information on either case was available as of March 2021.

These examples illustrate the way in which ongoing reforms to the legal system have so far failed to change traditional approaches to the law, particularly in relation to actual or alleged failures of state agencies or state-owned enterprises to fulfil their legal obligations.

## 5. CONCLUSIONS

This paper has examined possible links between culture and public policy using the case of energy policy in China. The approach has been deliberately suggestive rather than definitive, with

the aim of stimulating further research in the energy field. Whilst scholars and policy professionals are paying increasing attention to the role societal culture can play in energy policy, the focus of attention has tended to be directed at energy users and citizens in general. In contrast, this analysis highlights the need to focus on the government, its policy making circle and the context of policy implementation. The account examines two specific ways in which culture can affect public policy: through its shaping of cognition, on the one hand, and of the political and legal systems, on the other.

The justification for pursuing these lines of investigation lies in developments in neuroscience and genetics. These advances are enhancing the credibility of arguments that seek to establish links between culture and cognition and between culture and genetics. Neuroscience has demonstrated the plasticity of the brain that allows its development to be affected by environmental factors such as culture and by training. More contentious is evidence that suggests that genes and culture co-evolve.

China's energy policies over the last 40 years display a combination of pragmatism, incrementalism, internal contradiction and ambiguity. These features are consistent with evidence from experimental psychology and ancient history that the development of Chinese and East Asian cognitive styles over the past 2,000 or more years have taken a path distinct from Western civilizations with their Greek philosophical heritage. That is not to deny a significant degree of commonality between cognitive styles, not least due to historically recent interactions. Rather, differences do exist and may sometimes be expressed in the design of public policy.

China's imperial traditions of national governance date back thousands of years and only ended officially in 1911. However, the CCP regime has adopted, consciously or unconsciously, many of the attributes of the imperial political and legal cultures. It runs a highly centralized system of administration, in principle at least, with no formal constraints on its power. As was the case with past Emperors, the CCP's legitimacy derives from meeting the needs of the people such as energy supply. Following imperial practice, during the opening up of the economy in the 1980s and 1990s the CCP released its tight hold over much of the economy but retained control of strategic industries, especially those that yielded rents. In the past it was salt, today it is energy. However, President Xi is reversing this trend by demanding Party loyalty from all enterprises, public and private. China's legal traditions are also thousands of years old. Despite significant reform over the last 40 years, the current legal system retains some features from the past. Notable in the energy sector is an almost complete absence of litigation concerning the failure of local governments or grid companies to promote renewable energy.

If valid, these lines of argument have several important implications for public policy in general and energy policy in particular. In the case of China, we should not expect substantial changes in the way the country is governed, especially in sectors like energy which are seen to be strategically important. Referring back to Williamson's (2000) three levels of institutions, not only will new rules that govern transactions (Level 3, Fig.1) be constrained by the wider institutional environment (Level 2), but the institutional environment itself will be constrained by the embedded institutions or culture (Level 1). As a consequence, most change in Chinese public policy will be incremental and follow a path peculiar to the country and its culture.

Barring a major political or economic crisis, we should expect the governance of China's energy sector to show a high degree of continuity. The contradictions within policy statements between the importance of the public sector and the usefulness of markets will persist. State ownership will predominate. Whilst energy and carbon markets may develop gradually, they will be subject to significant distortions as well as to policy reversals by the central government as it seeks to regain control. Energy is too important to be subject to market forces and the central government and the

Party will remain the final arbiter. The economic regulation of these emerging markets will lack independence. Command and control instruments will endure as the preferred tools for policy implementation and judicial processes will likely play only a minor role in curtailing the malpractices of local governments and state-owned enterprises.

The wider implications of this study are that culture plays a significant role in public policy in any country, sub-national jurisdiction or society, though the nature and potency of the constraints will vary depending on the specific history and culture. The significance of these observations is that they render even more challenging the task of transferring public policy models between countries with different cultures. A further inference is that the “China model” of energy and economic governance is not easily exportable to other countries. That is not to say that specific achievements such as the deployment of renewable energy are not replicable, but rather that the manner in which they were achieved has been peculiar to China. Likewise, each society with its own political, legal, intellectual and social culture will address public policy in its own way.

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