

FEATURES OF CHINESE INTELLIGENCE SYSTEM: EXPERIMENTING WITH METAKNOWLEDGE

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Abstract

For practitioners and scholars of intelligence alike, referring to the Chinese intelligence system remains a defying task. Until recently, most studies dedicated to China's intelligence research approached the subject from its institutional viewpoint, with a focus on the structure and function of Chinese intelligence services and the immediate relation with the political apparatus (Greenberg, 2007; Mattis, 2012; Inkster, 2013). Relevant for prediction purposes, as well as for the epistemology of the domain, the state of information science research in China should offer clues about the dynamics between politics, science, and the networked framework which facilitates information sharing for national advance and security goals. Along these lines, the development of a paradigm cantered on native intelligence perspectives will readily be possible. Thus, I argue that the Chinese intelligence system remains, with the exception of its secretive apparatus, institutionally and conceptually undefined. However, there are clues in acknowledging experimentation policies from the central government (Bell, 2016) aimed at knitting a native intelligence system, starting with the political support for research concerning metaknowledge.

Keywords: *Chinese intelligence system, Chinese political system, information science, intelligence, metaknowledge.*

Introduction

Lately positioned as major hub in international networks, China seems to take an original stand concerning the use of knowledge to enhance national security policies, and western researches are rapidly concerned with theoretical framing of those strategic moves, that may or may not touch other

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national security interests in the future. Even outside a realist perspective, the importance of understanding China's relation with the knowledge revolution represents an innovative step for intelligence research.

For some time now, scholars in intelligence research proceed with caution when approaching the topic of intelligence applied to the Chinese security system. This situation is due in part to the opacity of the Chinese governmental policies, but also to a recently discovered gap in understanding Chinese cultural specificity, which could be attributed to its political and social features, combined with its accelerated pace in cyberspace innovations. Therefore, news of experiments conducted in information science laboratories are likely to originate from the Chinese state media, announcing breakthroughs in technological advance.

In the public sphere, the Chinese government publicizes all its technological efforts meant to improve social development policies, along with its longstanding priority in preserving social security and the legitimacy of the ruling party. Statehood in China is assimilated with the communist party ontology. Moreover, the Chinese state security guidelines are contained in the Constitution¹ and the National Intelligence Law of the People's Republic of China and should be considered the basis for understanding the meaning of security as conceived by the national government.

Therefore, Chinese intelligence services are to be analysed differently than their western counterparts (Greenberg, 2007; Mattis, 2012), seen that the way they operate is different in a practical sense. The sources of its development must be found somewhere else, in another developmental logic. There is a native straight-line dynamic between Chinese politics and science goals, which is confirmed by the network theories advanced in the latest decade in the western literature referring to governance models and social theories. In the case of China as a state, and particularly concerning the Chinese intelligence networks, there is a profound practical meaning of the networking which is applied at all levels of governance, which in turn have as purpose to inspire social networking practices for the benefit of the state.

As follows, intelligence statecraft of Chinese sources is a complex entanglement between politics, policy, security purposes, normative sources to power and social behaviour, all these supported by a communication network meant at facilitating control from the central government. As such, the following research endeavour is meant to address the meaning of

¹ The Constitution was enacted in 1982, with five amendments, 1988, 1993, 1999, 2004, and 2018.

intelligence as the craft of intelligence, a system which should be understood as not only in the way it treats knowledge as end-product, but also as the result of metaknowledge.

An important number of scholars have emphasized the existence of experimental policies, which include by default characteristics related to metaknowledge. The role of metaknowledge became clear along with the 'big data' revolution, when gathering knowledge about a topic remained insufficient for the purposes of arriving to a coherent solution. In China, this phenomenon is augmented by the realization that collecting data in a systematic and global manner will create analytical problems in the future, specifically in respects to state security. Simultaneously with the fast innovations regarding metaknowledge processes and application, the academia receives governmental financial incentives to frame in a theory the uniqueness of the Chinese political system and the advances made in securing its population.

Thus, I argue that the Chinese intelligence system remains, with the exception of its secretive apparatus, institutionally and conceptually undefined. However, there are clues in acknowledging experimentation policies from the central government aimed at knitting a native intelligence system, starting with the political support for research concerning metaknowledge.

In the following pages, I will address the subject of the relation between intelligence and metaknowledge, followed by an account of China's experimental policies, and finally, the clues linking Chinese intelligence statecraft with metaknowledge production.

Metaknowledge and Intelligence

The Kentian meaning of the intelligence process is a historical product. Relevant, timely, accurate information for strategic decision-making is what intelligence represents for practitioners of statecraft intelligence, as well as for intelligence scholars. The concept of national security defines almost fully the intelligence practice inside national structures and is inevitably implying not only the existence of an enemy or a competitor, but also the fact that in relation with oneself, there are only enemies and/or competitors inside a system. The consistent result of this perspective is that intelligence is unable to become overarching in problem-solving, and consistently recurs to the adaptation argument – secrecy, confidentiality, etc., whenever there is the

likelihood of exchange between intelligence practitioners and intelligence scholars.

Along with the increase in complexity of the contemporary intelligence research field, all-known as the big data revolution, intelligence studies are characterized by a phenomenon of branching. On one hand, there is an integration process of interconnected disciplines and methods into a broad theoretical framework, which aims at the creation of an intelligence paradigm. On the other hand, there is a branching process, referring to the creation or resurgence of analysis methods and applications in certain domains, specialized and independent, however having a supporting role for all levels' intelligence. Bridging these two sources is the aim of intelligence for state security.

Intelligence research must remain permanently attached to intelligence practice, where the communities of practice have been implemented or are on their way to become part of the mainstream institutional framework. The recurrence of the topic of bringing together intelligence academics and intelligence practitioners shows there are several issues resulting either from communication or from adaptive issues. More explicitly, the two camps are unable to exchange knowledge, due to creating knowledge based on different criteria and in specific workflows, or they are reluctant in exchanging knowledge due to different value marker assigned to a specific piece of knowledge.

In the first process, there are some priorities concerning processes of definition and meaning in relation with the term security, the taxonomy of the intelligence domain, and the relation with a cosmopolitan version of human and values, a critical part of the paradigmatic build-up. At this point, metaknowledge is generated from analytical processes of high-end priority, strategic intelligence for national or international cooperation security demands.

The last process is characterized to a lesser extent by defining the limits of the field and assigns a higher importance to diversification of methods of collecting, selecting, analysing, managing, and directing the information to be assimilated in the higher-end process of intelligence research.

In reviewing both processes described above, metaknowledge is critical in developing a synergic project for the intelligence community of practice and security beneficiaries.

What is metaknowledge? Metaknowledge is a concept that has only recently started being used to understand how knowledge is accessed and processed in social networks, or communities of practice, where such morphology has been already implemented. There is a relatively low yield of

articles that treat metaknowledge from other perspective than that of computer science, which is the source of the concept.

Referring to patterns of scientific content, Evans & Foster (2011) define metaknowledge as knowledge about knowledge, a scientific process which aims to uncover patterns and regularities, infer beliefs and create tools to research. Following their operational definition, metaknowledge is a dynamic instrument meant to “reshape science”, based on a networked morphology. Chen (1993) views metaknowledge as a feature of knowledge-based systems and has relation with the way in which knowledge is accessed and applied during the search of a solution. Adding to the above definition, Paquette (1999) considers metaknowledge an instrument to autonomous learning, taking as reference information technology learning systems, where a knowledge model is assimilated with a learning events network.

According to Chen (1993, p. 81), metaknowledge is important because it supports: 1. knowledge acquisition – the knowledge needed to maintain the influx of knowledge, and 2. inference control – controlling the application of rules by organizing and prioritizing. Both morphologies are consistent with the needs of the intelligence process dynamics.

Therefore, metaknowledge is understood in this study as an ensemble of models providing the user with an enhanced system of knowledge assessment, together with strategies to applying that knowledge to specific domains and purposes, integrated in a networked learning morphology.

Introducing the concept of metaknowledge in the usage of the intelligence domain is a natural step in understanding and solving the communication and adaptation requirements scholars and practitioners in intelligence have, to be able to exchange critical knowledge at low risk.

China and the Chinese Intelligence system as topics for Intelligence research

Before engaging in evaluating the state of research regarding China's intelligence system, there are some metatheoretical considerations to be made about China as an overall subject for the intelligence community.

Firstly, there is the issue of defining China as a subject of research. Due to factors pertaining to the political-administrative migration policies and technological implementation policies, China is to be understood for intelligence analysis purposes as concept, more than a national state actor. Secondly, there is also the reference to Chinese ethical norms, influencing political action and outcomes, a subject which is deeply misunderstood and remains a subject of inquiry for intelligence research. Lastly, there is the issue

of theoretical approach to integrating China in a manageable perspective for policymakers. In a political philosophy representation, the Chinese politico-administrative-social nature is yet to be addressed in theoretical frameworks, and to produce new theoretical effects and analytic methodologies.

It's worth mentioning here the active debate between the adepts of China as part of the mainstream theoretical framework and those which favour the representation of China in a contextual approach. Both perspectives would produce analytical effects for strategic intelligence. Based on the above-mentioned prerequisites, I argue that the Chinese intelligence system is the product of the Chinese socio-political nature, cultural norms and a vast assortment of policy experimentation.

Studying the effects of metaknowledge for the development and understanding of the Chinese intelligence system, there are two vantage points to be considered.

a. Metaknowledge usage in the Kentian intelligence system

From the Kentian intelligence community perspective, the metaknowledge production is related to accessing information from a historically opaque political system. In respects to its organization, the Chinese intelligence system has an organizational structure similar to that of the intelligence services in United States, or the UK, and intelligence statecraft is similarly defined.

However, China combines simultaneously in governance normative and positivist perspectives on politics and social development. Until now, there is no theory that can be applied to explain the Chinese political system, and this is mostly due to the lack of a control variable (or a similar example to compare it with). Western researchers used information analysis to understand the Chinese system, which offered an extensively branched research field, but no integrated theory. From this point of view, metaknowledge research could be used to fill this gap.

b. Metaknowledge usage in the Chinese intelligence system

The Chinese political elite became extensively interested in developing this field, especially by innovating in artificial intelligence. There is funding from the central government meant to develop the metaknowledge concept as an inference method to big data. This effort is also supported by its adaptive authoritarianism features, which uses local experimentation in order to combat risks to political instability. Hence, China uses metaknowledge in its philosophical acceptance, as well as part of the information science revolution, supported by high financing from the central government.

For intelligence theorists and practitioners, referring to China became a positivist vision about a normative political system, which creates analytical problems. Therefore, creating a theory based on metaknowledge research in order to explain it represents the most feasible option.

The meaning of intelligence as accepted in Chinese governmental sphere remains similar to the definition of strategic intelligence, as it was proposed by Sherman Kent (1949, p. VII), as “knowledge vital for national survival”. Kent’s project for a national community of intelligence would have been based on specialized bureaus housed within the departments of the executive branch, following the decentralization logic. However, the project was rejected by the Congress. (Greenberg, 2007, p. 171).

In order to use metaknowledge for intelligence purposes, it is necessary to understand the research sources and methods that should stay at the basis of the Chinese intelligence statecraft, by bridging the knowledge about areas of study with the methods and its afferent metaknowledge.

In a recent article, Peter Gill & Mark Phythian (2016) identified four main areas when analysing the development of intelligence studies, as follows: the research/historical, definitional/methodological, organizational/functional, and governance/policy perspective. I am using the same categories, to outline the fact that the Chinese intelligence is a multidimensional system, source:

- *The research/historical approach*

No matter the period of time, western research literature has been one step behind concerning China’s security system. At the end of the Cold War, the access to reliable sources informing about the intelligence services, their modus operandi, and the historical path, it was relatively scarce. This was also due to the ideological heterodoxy of the Chinese communist party. But maybe the worst aspect was the deeply flawed methodology used to study them, counting mostly on journalist reporting, more than on scholarly research. In the 80’, along with the elite change, public intelligence history publications started to appear, one of the reasons being that the Ministry of State Security gains diplomatic reputation abroad (Chambers, 2012), making the relative access to information a strategic vision promoted by the CCP. This situation is reported today, when there is almost no integrated knowledge about the Chinese contemporary intelligence capabilities, especially regarding collection against foreign targets (Inkster, 2013).

- *The definitional/methodological approach*

One approach to Chinese intelligence is the “mosaic” or “grains of sand” strategy, which is explained by four basic assumptions. According to Mattis (2012, p.48-40), Chinese intelligence collection is based on the work of ethnic Chinese, more likely to be amateur collectors rather than professional

intelligence officers. The Chinese intelligence tends to use unclassified information. Even though Chinese intelligence resembles the western intelligence statecraft where intelligence is defined as a specialized form of knowledge with the purpose of reducing uncertainty during decision making, in practical terms, the Chinese intelligence is more connected with the social environment in which it operates.

- *The organizational/functional approach*

Peter Mattis explains that the analysis of intelligence institutions is another way to know more about how the Chinese government uses information to formulate policies, to guide diplomats and security officials, and to implement policies. Contrary to the western intelligence, Chinese civilian intelligence and security agencies have the authority to operate outside the Chinese borders, since there is an irrelevant distinction between strategic intelligence and internal security. This is due the fact that the purpose of state security policy is to keep the integrity and power position of the Communist Party of China (Mattis, 2012, p. 47).

Chinese Intelligence and Security Services²	
Civilian	Military
<i>Ministry of State Security (MSS)</i> Counterespionage and Counterintelligence; Foreign Intelligence; Domestic Intelligence	<i>Second Department of the People's Liberation Army (PLA) General Staff Department (2PLA)</i> Foreign Intelligence; Defence Attaché System; Imagery Intelligence; Tactical Reconnaissance
<i>Ministry of Public Security (MPS)</i> National Police; Domestic Intelligence;	<i>Third Department of the PLA General Staff Department (3PLA)</i> Signals Intelligence

- *The governance/policy approach*

The governance approach to policing is represented with the term “adaptive authoritarianism” (Perry and Heilmann, 2011). The meaning of the term implies that the political regime is able to resist to systemic disturbances, and furthermore, to adapt and further resilience (Perry and Heilmann, 2011,

² Other major intelligence and security departments not specifically discussed in this essay include the Fourth Department of the PLA General Staff Department (4PLA); the Liaison Office of the PLA General Political Department; the intelligence departments of the PLA Navy, PLA Air Force, and Second Artillery; and the State Secrecy Bureau.

p.11). China's local experimentation represents an instance of adaptability to local disturbances.

Experimenting with metaknowledge

According to Lewis Husain (2017), there is a specific Chinese model of development that supposes experimental policy-making and policy innovation to reform complex systems, systems that require metaknowledge to make use of adapted policies (reported previously by Daniel A. Bell, 2006). He applies the Chinese experimentation paradigm to the reform of the Chinese health system of the '90s. (2017, p. 5) and proposes four typologies of experimental policies which can be applied in China for developing complex systems.

The proposed typology shows that in the case of previously partially successful counties, the central government tended to allow a more decentralized framework in implementing pilot policies.

Typology of China's experimental policy processes³	
Indicative type	Salient features
TYPE I: MANAGED PILOTING/POLICY TRIALING Extended oversight, central government expertise	- Direct experimentation, allowing trialling of targeted interventions in which pilots are relatively closely managed with the intention of trialling specific approaches to defined policy problem; local governments have a relatively low degree of discretion - Technical support to implementing units is often provided by research institutes, academics, and/or international agencies; local governments retain discretion in concrete management approaches adopted and in timing, etc., in an attempt to find approaches with contextual fit - Pilots may be in advance of the national (or provincial) policy agenda, and have an agenda setting function, or

³Adapted from Husain, 2017, originally entitled "Indicative typology of China's experimental health policy processes", in reference to health reform from the '90s onwards.

	may fall within existing policy frameworks and form part of ongoing reforms and may provide lessons of supra-local or systemic significance - Screening and learning: scale up of practices deemed useful may or may not take place; may be directed by higher levels of government (frequently through one size doesn't fit all scale up) or may be relatively organic
TYPE II: EXPERIMENTAL POLICY FRAMEWORKS; LOCAL GOVERNMENT PURPOSEIVE REFORMS • Implementation choices made available to the local governments	- Framework policy is set by central or provincial government, giving local governments or other implementing units limited discretion between relatively defined implementation choices; leads to multiple practices - Implementing counties often have little expert support or technical assistance, though better-resourced jurisdictions may have support from national or sub-national research institutions, or occasionally external TA through international programmes; space for pragmatic problem solving and emergence of 'appropriate' approaches with contextual fit - Local government reforms fall within the 'implementation' phase of the policy cycle; may provide lessons of supra-local or systemic significance - Screening and learning: as above
TYPE III: OPEN POLICY FRAMEWORKS; LOCAL GOVERNMENT ADAPTIVE INNOVATION AND LEARNING BY DOING • Relative autonomy to decide own reforms	- 'Open' policy frameworks are used by central government, allowing space for broad local discretion in implementation and learning by doing and emergence of multiple practices - Often little expert support – as above; space for pragmatic problem solving and emergence of 'appropriate' approaches with contextual fit

	- Local government innovation falls within the 'implementation' phase of the policy cycle; may provide lessons of supra-local or systemic significance - Screening and learning: as above
TYPE IV: DECENTRALISED IMPLEMENTATION; RANGE OF POLICY PRACTICES • Contextual policy practices	- Decentralized policy making in the absence of national standardization can produce a range of policy practices - Often little expert support – as above; space for pragmatic problem solving and emergence of 'appropriate' approaches with contextual fit - May fall in multiple phases of policy cycle; may provide lessons of supra-local or systemic significance - Screening and learning: as above

From a theoretical perspective, intelligence exploits metaknowledge to obtain efficient models and solutions. Metaknowledge stands for knowledge to be exploited from past learning tasks, which may both mean past learning tasks on the same data or using data of another problem domain (Lemke & Budka, 2015). The clue obtained from the health system reform case reported by Lewis Husain (2017) shows that policing in China tends to resort to local experimentation and exploits metaknowledge retrieved from this type of policing.

Current accounts about security policy in China report about adapted local policies, which take the form reflected by the above-mentioned experimentation case regarding the health system. With the help of a largely improved communication system, – which established the „information society” in China (Mattis, 2012, p. 48). Based on a heavily regulated social system, metaknowledge is no longer a challenge for the Chinese government.

Moreover, the combination between vertical and horizontal lines of authority, as well as the „open policy framework” assures that the system remains flexible enough to permit shifts in experimentation policies.

In order to further exemplify previous ideas, I am referring to the Golden Shield Project and the Social Credit System, two governmental policies implemented after successful local experimentation.

The Golden Shield Project: The Golden Shield was one of twelve projects started in the 80s, with the main strategic goal of creating an e-government infrastructure, and the declared goal of improving communication between the Chinese people and their government, and increase efficiency in policy implementation (Guo, 2006). Following several years of experimentation at local level, this intelligence policy was eventually implemented nation-wide. In 2008, the Ministry of Public Security inaugurated the „public security informatization” policy, which was meant to closely integrate collected information into the intelligence and public security management components (Mattis, 2012:50). The goal of Information and Communication Technologies (ICT) development in China, “to deepen administration system reform, further transform government functions, improve management style, promote e-government, enhance administrative efficiency, reduce administrative costs, and form a standardized, harmonious, fair, transparent, clean, and effective administrative system.” is based on the directive of the former secretary general of the Communist Party of China, Jiang Zemin (Guo, 2006:3).

The Social Credit System

Briefly put, China’s Social Credit System (社会信用体系 *shehui xinyong tixi*) is a real-time social reputation rating system. Individual reputation is measured by the level of compliance of a person towards specific governmental rules, norms, and policies, and is enforced by a broad range of rewards and punishment methods (Ohlberg, et al., 2017, p. 4). The first steps of the project have been made in 2003, with experiments at provincial level. In 2016, 11 pilot cities have been chosen to test the implementation of the system, followed by another 32 cities, later that same year (Ohlberg, et al., 2017, p. 9). Legislation is currently underway for the last steps in nationwide implementation and popularization media campaigns have already been released at national level. The Social Credit System is based on the ICT framework developed according to the Golden Shield project principles.

The above-described projects have fundamentally changed the principles of governance in China and there are yet to set the foundation for further reforms. Governance moved into cyberspace and the metaknowledge resources and possibilities to be used by the Chinese intelligence became overwhelming.

Concluding remarks

The purpose of this article was to outline certain theoretical concerns related to the research about the Chinese intelligence system, the understanding of China's political and administrative specificity and to draw attention on the need to focus on metaknowledge production as explanatory and defining for future governance and intelligence policies in China. I argued that intelligence policies in China are subject to local experimentation and that metaknowledge is the key to predicting governance actions. Assessing the Chinese intelligence, – for scholars and practitioners alike – should be predetermined by a meta-theoretical strategy, used as basis for a new theory that integrates China as concept and as strategic node in dynamic networking.

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