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China and its hybrid warfare spectrum

Lora Saalman

Introduction

While the Chinese term for ‘hybrid warfare’ (混合战争) is a derivation of English, its strategic utility against adversaries can be as traced as early as *The Art of War* (孙子兵法) of the fifth century BCE.¹ It was not until the late 1990s, however, that a book written by two Chinese generals entitled *Unrestricted Warfare* (超限战) became the bedrock of Western understanding of Chinese views on hybrid warfare.² Still, this narrow emphasis on a few Chinese texts misses the complexity of perspectives on and employment of hybrid warfare in China.³

To provide a more comprehensive overview, the author surveyed 192 Chinese-language writings on hybrid warfare.⁴ This research on essays by experts from China’s military, industrial and academic complexes reveals not only a multiplicity of definitions, but also a wide range of cases of application. Among these, Chinese strategists cite a variety of arenas in which hybrid warfare may be applied, including disruption through trade wars, information manipulation in cyberspace and military integration of advanced technologies.

This survey finds that Chinese writings on hybrid warfare are often so inclusive that it can be difficult to decipher what is effectively *not* factored into their strategic thinking. This chapter seeks to remedy this by evaluating Chinese views hybrid warfare along a spectrum of unrestricted warfare, information warfare, cyber warfare, intelligent warfare and kinetic warfare.⁵ Recognizing overlap among these, the author seeks to offer a more nuanced analysis of how each term is applied in Chinese writings on the threat, response and operationalization of hybrid warfare.

To achieve this aim, this chapter begins with an overview of Chinese views on the origins and applications of hybrid warfare. It then examines each element of China’s hybrid warfare spectrum to trace cross-domain shifts from soft to hard power. It concludes with an analysis of what this continuum means for political and military planners who seek to understand Chinese trends in the hybridization of warfare.

Origins and applications

While diverse in coverage, there are some points of convergence within Chinese-language texts on hybrid warfare. Central among these is that Chinese strategists place their emphasis on the role of the nation state. In other words, while non-state actors often play a vital role in the execution of hybrid warfare activities, more often than not the force behind them is a foreign power using a wide range of technical, financial and human resources to achieve a desired outcome.⁶

However, there is an important distinction with this Chinese focus on the nation state. It is largely externally directed. When China is alleged to be the country behind hybrid warfare activities, its official and non-official experts deflect such claims citing the difficulty of attribution and the potential of non-state actors and other nation states to have served as the perpetrators.⁷ Nonetheless, when citing itself as the victim, the role of the nation state is key.

In tracing this evolution, the majority of Chinese writings cite the United States as the origin point of hybrid warfare during the 1980s and 1990s, through its military operations, colour revolutions,⁸ regime change⁹ and defence documents¹⁰ impacting such countries as former Czechoslovakia,¹¹ Iraq,¹² Syria,¹³ Iran,¹⁴ Yemen,¹⁵ Libya,¹⁶ Afghanistan,¹⁷ Kosovo,¹⁸ Venezuela¹⁹ and Georgia.²⁰ They note that it was not until it started to perceive itself as a victim of hybrid warfare, that the United States listed it as a threat in its National Defence Strategy in 2005.²¹

As for Russia, Chinese strategists cite 2013 as its turning point on hybrid warfare. This was the year when the Chief of General Staff of the Russian Armed Forces published an article on the blurring of the boundaries of warfare following large-scale, anti-government demonstrations in Moscow and St. Petersburg.²² These Chinese writings point to Ukraine and Syria as just a few examples of how Russia has learned from its own victimization to turn hybrid warfare against the United States.²³ In other words, they contend that while Washington originated hybrid warfare, Moscow perfected it.²⁴

While Chinese writings concentrate on the actions of other nation states, the ability to correct historical and territorial wrongs through greater adaptability, reaction speed, attack capability, survivability, jointness, flexibility and rapid response has a strong appeal in China.²⁵ Chinese analysts cite how China faces a range of similar concerns to Russia that include US encirclement and expansion, missile defence deployment, prompt global strike systems, among others.²⁶ In fact, Moscow's ability to overturn a stronger power's asymmetrical advantage fits perfectly into Beijing's threat environment.²⁷ This includes a range of challenges that China faces in Hong Kong, Taiwan, Xinjiang, Tibet, the East China Sea and the South China Sea.²⁸

In confronting these security threats, Chinese strategists like Major General Tang Yongsheng refer to the Thucydides Trap in which Washington seeks to isolate Beijing on all fronts with a 'new cold war' (新冷战) and 'comprehensive game' (综合博弈) by exploiting their strategic entanglement.²⁹ In doing so, they detail US use of information penetration and control, economic sanctions and trade wars, support for internal unrest, external ideological pressure as well as destruction of China's strategic capabilities and development.³⁰

To counter these trends, Chinese analysts stress the importance of strengthening domestic controls and foreign engagement.³¹ While domestically this has contributed to such controversial measures as the social credit system and alleged reeducation camps in Xinjiang,³² at the international level such pressures have compelled China to improve its relations with Japan, India, the Philippines, the European Union, among others to counteract US attempts to isolate it.³³ Nonetheless, Tokyo's and Canberra's concerns over Beijing's alleged 'grey zone' (灰色地带) activities³⁴ and influence over political systems³⁵ demonstrate that these stabilizing trends may have their limits.

Hybrid warfare and unrestricted warfare

As noted at the outset, Chinese concepts underpinning hybrid warfare can be traced back to the fifth century BCE in Sun Zi's *The Art of War*.³⁶ Strategists like Major General Li Bingyan continue to cite this ancient work to emphasize the butterfly effect of hybrid warfare, in which interdependence can be exploited.³⁷ Centuries later, General Qiao Liang's and General Wang Xiangshui's book *Unrestricted Warfare* contributed to this discourse by describing an increasingly multilayered technical, political, economic, regional, cultural, diplomatic and military threat surface.³⁸

As with many Chinese strategic writings following the first Gulf War, *Unrestricted Warfare* expounds upon how adversaries no longer use 'armed force to compel the enemy to submit to one's will', but rather 'all means, including armed force or non-armed force, military and non-military, and lethal and non-lethal means to compel the enemy to accept one's interests'.³⁹ The concept of a continuous and comprehensive struggle driven by national core interests, on ground, sea, air, space, and cyberspace, as well as political, economic, cultural and civil society fits well into China's own strategic traditions of continuous revolution at home and abroad.

Yet, an unrelenting campaign also brings risks for Beijing. Chinese strategists have long attributed the United States with the omnipresence required to dominate all of the aforementioned arenas. Even with debates over the reliability of Washington's commitments and alliances overseas,⁴⁰ China's broader strategic community continues to lament the outsized strength and role of the United States,⁴¹ arguing that Washington remains positioned to play a 'geopolitical game among great powers' (大国间地缘政治博弈) in which the boundaries of warfare are blurred.⁴²

While suggesting hybrid warfare is a Western term, however, Chinese strategists have also shaped the concept into an umbrella for the staged evolution of warfare. Within this, they highlight shifts in four primary spheres: (1) from traditional land, sea and air to multidimensional fields that feature land, sea, air and space electromagnetics; (2) from tangible military geographic space to invisible and intangible networks and virtual space; (3) from country-based exchanges to a complex range of combatants, including regular forces, militia, militants, agents and hackers; and (4) from a narrow conception of combat to an all-inclusive one.⁴³

In tracing this progression, Major General Wang Baofu of China's National Defense University argues that 'foreign wars' (外战) have transitioned to 'civil wars' (内战) with

the goal of regime change.⁴⁴ External interference leads to empowerment, legitimization and arming of domestic organizations comprised of terrorists, extremists, separatists and civil society.⁴⁵ Major General Wang emphasizes how foreign-supported domestic rallies and protests provoke the state to respond, thereby opening the door to intervention of other countries in the name of protecting human rights.⁴⁶ Much of this explains Chinese narratives of US interference and malfeasance in Hong Kong, Xinjiang, East China Sea, South China Sea and even with the novel coronavirus (2019-nCoV, Covid-19).⁴⁷

However, hybrid warfare is not simply about shaping or manipulating a population. Chinese analysts cite the integration of new combat methods into hybrid warfare with global integrated operations, air and space operations and precision operations.⁴⁸ These combine offensive and defensive activities that include conventional and irregular operations, counter-terrorist attacks, counter-armed riots, psychological operations, as well as electronic, information and cyber warfare.⁴⁹ In these analyses, the overwhelming Chinese focus remains the manipulation of domestic groups by foreign parties. This leads into the next segment of the spectrum, namely information warfare and cyber warfare.

Information warfare and cyber warfare

More often than not, Chinese analyses cite the centrality of information and cyber operations as part of hybrid warfare. While these terms are at times used interchangeably, there remains a difference. 'Information warfare' or 'informationized warfare' (信息战争、信息化战争) is narrower in scope and largely refers to combat in which information technology is used to obtain or suppress information.⁵⁰ By contrast, 'cyber warfare' or 'cyberized warfare' (网络战争、网络化战争) is a broad term that connotes various forms of warfare that are enhanced by information technology.⁵¹ Wang Guifang of China's Academy of Military Sciences has emphasized that the US military places a priority on cyber warfare as a new type of hybrid warfare, strengthening its drills for future integrated cyber operations.⁵²

Given US prioritization of the term 'cyber warfare', the concept has also begun to permeate Chinese strategic writings. In part, this stems from China's focus on alleged US and Israeli use of the Stuxnet worm and cyberattacks against Iranian nuclear facilities.⁵³ Operations as with Russia's alleged BlackEnergy and KillDisk cyberattacks that shut down Ukrainian power facilities also receive Chinese attention, even if less frequent than their coverage of Stuxnet.⁵⁴

Facing the threat of cyberattacks crossing the boundary into kinetic damage, Chinese technical analysts from the Joint Operations College of China's National Defense University provide roadmaps to enhance modelling and simulation of battlefield conditions.⁵⁵ These analyses cite cyber means as part of hybrid warfare, emphasizing the importance of China leveraging its position as a major cyber power to improve its cyber capabilities and defences.

Among these, Zhu Xingping of the School of Defense Engineering of China's Army Engineering University advocates strengthening 'civil defence engineering' (人防工程)

to enhance support scaled response and combat of hybrid warfare operations.⁵⁶ Further, Xie Suming of China's National Defense Science and Technology Information Center discusses the role of backdoors, viruses and logic bombs in networks tied to intelligence, command and control, government affairs, transportation, energy networks, finance and the internet.⁵⁷

In spite of this shift towards discussion of cyber warfare, there also remains a compelling interest in China in employing information warfare as a force multiplier.⁵⁸ This includes manipulation of social media to influence public opinion through information collection, propaganda and psychological tools.⁵⁹ In this arena, Zhu Xingping advocates information support forces for all elements of the standing armed forces, as well as state and non-state forces to stand in preparedness to combat colour revolutions, riots, terrorism and counterintelligence.⁶⁰

Operationally, these support forces focus on border and maritime zones through strengthened strategic communications, psychological warfare operations and military-civilian cooperative operations.⁶¹ China's efforts in developing quantum communications to encrypt sensitive information channels and integration of coast guard and naval forces in protecting maritime flows are just a few examples.⁶² To facilitate these operations, media propaganda, communication networks, municipal security, civil society, social credit systems, as well as industrial and commercial networks are all to be protected and strengthened.⁶³

Recognizing the importance of this information warfare arena, there are a series of Chinese activities that indicate implementation of these concepts not just defensively, but also offensively. These include China's alleged data theft and manipulation targeting the US Office of Personnel Management, Permanent Court of Arbitration at The Hague, and at least seventeen countries in Southeast Asia and South Asia with Advanced Persistent Threat 30 (APT 30).⁶⁴ Each of these cases points to China's core national interests and security.

More recently, there have been indications of Chinese information campaigns that both question the origin of Covid-19 and declare China's victory in taming the epidemic as a national and international milestone.⁶⁵ However, while successful domestically, the international response has varied. There have been counter-allegations that China seeks to leverage foreign distraction due to the pandemic to conduct more aggressive military actions at the border with India, flyovers of Taiwan, as well as naval and administrative operations in the East China Sea and South China Sea.⁶⁶

As one of the countries impacted by such operations, Japan has developed both official and unofficial writings on grey zone activities that both implicitly and explicitly discuss China's role.⁶⁷ Yet, when discussing Japanese views, Chinese analyses on 'grey zone' (灰色地带) incidents demonstrate a marked lack of concern over Japan's response to, much less ability to conduct, such operations.⁶⁸ Instead, they argue that grey zone activities are less violent than hybrid warfare and do not rise to the level of those conducted by Russia and the United States.⁶⁹

In essence, Chinese analyses dilute the definition of grey zone operations and dismiss the role of China, arguing that Japan has largely undertaken a 'passive response' (被动应对).⁷⁰ Within this narrative, they again shift the blame towards the United States and its use of regional proxies.⁷¹ So while Chinese writings may acknowledge

Japanese concerns over China's advances in space, networking, electromagnetics, anti-access/area-denial (A2/AD), and power projection at sea, they still label Japan as a pawn of the United States.⁷²

Thus, when discussing regional hybrid warfare contingencies, Chinese attention continues to focus on Washington. Analysts with the Joint Operations College of China's National Defense University in Beijing train their sights on US conduct of electromagnetic warfare via unmanned expeditionary manoeuvre warfare expendables to combat China's alleged A2/AD operations.⁷³ They also cite the use of intelligent technology, big data and information technology to design new weapons for subversive cyberspace operations, autonomous intelligent cyber-defence and cyberattacks.⁷⁴

To keep up with these advances and to thwart them, Chinese technical experts emphasize the importance of integrating the high efficiency and low cost of autonomy in unmanned swarm operations for cyber warfare, electromagnetic warfare and even physical combat operations.⁷⁵ In other words, these writings move beyond the digital realm to the final part of the spectrum, namely intelligent warfare and kinetic warfare.

Intelligent warfare and kinetic warfare

As the future of hybrid warfare, Chinese analysts have increasingly placed a premium on 'intelligentized' (智能化) tools when combatting and conducting kinetic military operations. In other words, these writings indicate the hybridization of warfare through cross-domain warfare. Early on, discussions of hybrid warfare included dissection of Washington's dispersed targeting and long-range attack weapons systems used in full-depth simultaneous attack, such as the F-22 and Tomahawk cruise missile.⁷⁶ More recently, these analyses have focused on how best to counter increasingly artificial intelligence-enabled US air and naval long-range strike forces and forward deployment.⁷⁷

As part of this discourse, Lin Zhiyuan from China's Academy of Military Sciences has sought to understand how the United States is integrating cutting-edge technologies, such as hypersonics, directed energy, space, cyber, advanced autonomous systems, artificial intelligence and biological systems, while enhancing its nuclear triad through modernizing its bomber fleet, developing the next generation of B-21 Raiders and fielding Columbia-class ballistic missile submarines to replace Ohio-class nuclear submarines.⁷⁸ Faced with this proliferation of technologies across multiple domains, Chinese strategists highlight the need to defend against conventional, nuclear and biochemical strikes that may be integrated into hybrid warfare of the future.⁷⁹

Among defensive measures, Zhu Xingping from the School of Defense Engineering of the Army Engineering University advocates for the need to effectively counter explosions, network breaches, electromagnetic pulse and nuclear radiation, in part through the introduction of buffer zones around vulnerable information and physical resources.⁸⁰ Further, he prioritizes integration of better standards in security inspections, crowd control, ventilation, containment, decontamination, video surveillance, traffic control, power control, water supply systems, drainage systems and fire protection systems.⁸¹

Again, not all of these measures are defensive in nature.⁸² Major General Tang Yongsheng, vice president of the National Security Institute of China's National Defense University, stresses the importance of 'asymmetric' (非对称) hybrid warfare operations, including unmanned systems, hypersonic vehicles and cyber weapons.⁸³ New hybrid warfare technologies are to be mixed on the battlefield to disrupt interoperability, as well as channels of information employed in command and control. This inclusion of multiple platforms and strategies speaks to larger questions of cross-domain operations and how they are evolving in terms of enhanced accuracy, speed and targeting.⁸⁴

Moreover, a profusion of Chinese analyses on hybrid warfare cite how autonomous systems can assist in frontier warfare, space warfare, precision warfare, paralysis warfare, cluster warfare and cyber warfare. Xie Suming of China's National Defense Science and Technology Information Center notes that autonomous systems can be decisive in facilitating space-based destruction, attack and blockade to achieve the 'commanding heights of battlefield advantage' (夺取战场优势的制高点).⁸⁵ He highlights how unmanned intelligent equipment allows for more precise targeting, while enabling 'cloud clusters' (云团), 'swarms' (蜂群) and 'motherships' (母舰) to execute a large number of unmanned swarm attacks.⁸⁶

Further, Chinese analysts with the Department of Vehicle Engineering and Performance Training Center of the Army Armored Forces College and the Joint Equipment Security Department of the United Service College of China's National Defense University examine the central role of unmanned combat aerial vehicles, as well as that of more generic unmanned systems.⁸⁷ For counterterrorism and other operations, these platforms are to be used in penetrating hiding areas and urban shelters. They also emphasize swarm and synchronization of command and control of such systems to integrate reconnaissance, targeting and strike capabilities.⁸⁸ In fact, these analysts laud the multiplier effect of these systems in enhancing real-time sensing, efficient command, precise strike, rapid manoeuvring, full-dimensional protection, comprehensive support, combined with intelligence.⁸⁹

In integrating these platforms into specific operations, Chinese technical sources cite their utility in combat missions to maintain control and stability, while countering separatism and terrorism.⁹⁰ They also discuss the use of unmanned vehicles for reconnaissance and situational awareness, air and ground assault and strike, as well as high-speed information gathering and processing.⁹¹ Thus, while there is discussion of human-machine teaming on target acquisition, there is also discussion of 'autonomous planning ability' (自主规划能力) that suggests greater inclusion of machine learning and autonomy.⁹²

Interestingly, Chinese writings in some cases even highlight hypersonic vehicles and their utility in the shifting nature of hybrid warfare. One analyst from Beijing Techscope Technology Consulting Co Ltd advocates for development of these weapons to be able to engage in the 'strategic game' (战略博弈) among great powers.⁹³ Pan Letian with Beijing Yuanwang Think Tank Technology Consulting Co., Ltd. further notes that the development of hypersonic technology will deepen integration between military and civilian spheres, through a new generation of space shuttles, reusable space vehicles, as well as hypersonic and aerospace aircraft.⁹⁴

Concerns about blurring the boundaries of warfare still exist within China, even though it has espoused a strategy of ‘military-civil fusion’ (军民融合).⁹⁵ Nonetheless, these cautionary analyses remain trained on US use of unmanned and prompt platforms to intervene in domestic conflicts with impunity.⁹⁶ In effect, much like the unmanned platforms, cyberspace tools, and other technologies discussed in the context of hybrid warfare, hypersonic technologies are inherently dual use. As China expands its view of hybrid warfare, which is in effect the hybridization and mixing of tools for combat, there is an ever growing need to evaluate how it intends to employ any range of weapons from cyber warfare algorithms to its unmanned and hypersonic platforms.⁹⁷

Conclusion

Overall, while Chinese analyses on hybrid warfare have historically tended towards abstraction, this survey uncovers signs of increasing granularity. Among these, Chen Hanghui of China’s Army Command Academy provides specific foreign cases of hybrid warfare in Syria, Iraq, Yemen and Afghanistan with (1) utilization of interest groups, government and military forces, religious sect militia and tribal armed forces, separatist and terrorist organizations, (2) application of conventional operations, guerrilla warfare, maritime ambush and irregular operations, as well as (3) integration of political, economic and military measures.⁹⁸

As a domestically oriented example, members of the People’s Liberation Army in Beijing and Xinjiang – when dissecting Russian hybrid warfare – emphasize the importance of China expanding its advances in special force war fighting, information warfare, non-traditional military power as well as attack capabilities that enhance survivability, flexibility and ‘rapid response’ (快速反应).⁹⁹ Such analyses point not only to the soft elements of hybrid warfare, but also to a series of kinetic platforms that China has also been working to develop, including unmanned combat vehicles.¹⁰⁰

In mediating between these softer and harder variants of hybrid warfare, Chinese strategic and technical writings tend to encompass nearly every aspect of modern warfare. This hybridization of what is in effect cross-domain warfare makes it difficult to fully understand how it is being applied. However, if hybrid warfare is evaluated along a spectrum and in relation to how other countries are employing it, this can facilitate comprehension of some of the strategic decisions being made by China.

This survey reveals that Chinese views on hybrid warfare are largely vested in the actions of the nation state. When victimized by actions that China deems to be hybrid warfare, Chinese interlocutors attribute these activities to a country, rather than to a non-state actor. Given the prevailing view in China that Washington is the origin point and purveyor of such acts, this means that the United States will be the target of Chinese blame and retaliation. This has already played out repeatedly as China confronts domestic protests, terrorist incidents, pandemics and tensions in Xinjiang, Tibet, Hong Kong, Taiwan, the East China Sea and the South China Sea.

When China becomes the subject of blame, however, the response is the exact opposite. In other words, the role of non-state actors and difficulties of attribution are

highlighted. Therefore, it is instructive to observe how Chinese analyses dissect Russia's alleged successes with hybrid warfare in Ukraine and Syria.¹⁰¹ Given the admiration of Chinese military strategists for Russia's ability to perfect and surpass the United States in hybrid warfare, it is not beyond reason that they may select a similar set of responses when faced with commonly held threats. Given China's strong foundation and aspirations in information, cyber and intelligent warfare, its ability to apply hybrid warfare in multiple domains is destined to expand.

Moreover, when evaluating Chinese responses along a spectrum, there is a move towards integrating kinetic platforms with varying levels of autonomy into strategizing about hybrid warfare. Thus, while information warfare and cyber warfare may continue to dominate, China's future rests with intelligent or AI-enabled warfare. Chinese inclusion of unmanned systems and even hypersonic vehicles into hybrid warfare strategic and technical writings indicates that the emphasis on disinformation is increasingly intertwined with cross-domain applications of hard power.

In sum, while unrestricted warfare, information warfare, and cyber warfare are likely to remain the core of Chinese discussions of hybrid warfare, Chinese military strategists are poised to undertake a future shift towards the intelligent warfare and kinetic warfare end of the continuum. This makes understanding China's hybrid warfare spectrum and its nuances of interpretation and application all the more crucial. Doing so will prepare political and military planners for anticipating how the future hybridization of warfare will evolve and how China will respond and employ it.

Notes

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