

Chinese-US Relations

Moving Toward Greater Cooperation or Conflict?

*Adam Lowther, John Geis, Panayotis Yannakogeorgos,
and Chad Dacus*

A great debate is taking place within the US government between those who believe China will become an adversary and those who believe Chinese-US relations will remain focused on trade and peaceful coexistence.¹ Although the current debate includes a far more complex range of possibilities, this dichotomy highlights the fundamental conundrum facing diplomatic and military decision makers: what is the future of Chinese-US relations?

Former secretary of defense Robert Gates expressed the view of many within the Department of Defense when he said in March 2007, “I do not see China at this point as a strategic adversary of the United States. It’s a partner in some respects. It’s a competitor in other respects. And so we are simply watching to see what they’re doing.”² In his statement, Secretary Gates was careful to include the phrase “at this point,” leaving room for change in the relationship. Numerous individuals within the military strongly hold the view that US and Chinese interests are destined to clash as China continues its rise and, in coming decades, reaches economic and military parity with the United States.³ This view is similar in many ways to that expressed by John Mearsheimer—that conflict rather than competition between great powers is inevitable.⁴

This view is juxtaposed with a decidedly less adversarial perspective which predominates within the State Department. Former secretary of state Hillary Clinton expressed this view in 2009: “Some believe that China on the rise is, by definition, an adversary. To the contrary, we believe that the United States and China can benefit from and contribute

The authors are research professors at the Air Force Research Institute (AFRI), Maxwell AFB, Montgomery, Alabama (<http://www.au.af.mil/AFRI>). This article is the result of a Headquarters USAF/A8-directed white paper completed in 2012. Dr. John Geis is a retired USAF colonel and the director of research at AFRI, Dr. Adam Lowther is a specialist in international relations, Dr. Panayotis Yannakogeorgos represents cyber expertise, and Dr. Chad Dacus is a research economist.

Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 2013		2. REPORT TYPE		3. DATES COVERED 00-00-2013 to 00-00-2013	
4. TITLE AND SUBTITLE Chinese-US Relations: Moving Toward Greater Cooperation or Conflict?				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Air University, Strategic Studies Quarterly (SSQ), 155 N. Twining Street Building 693, Maxwell AFB, AL, 36112-6026				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

to each other's successes."⁵ For those who hold a worldview more similar to neoliberal institutionalism, China's status as friend or foe is largely determined by the United States—a distinctly constructivist point.⁶ In essence, China and the United States are naturally destined for cooperation based on economic interests but are susceptible to becoming adversaries if China is forced into that role by US action.⁷

The difficulty with each school of thought is it views Chinese actions through Western and American lenses and theoretical frameworks. This leads to the detrimental effects of mirror imaging. China's worldview and the philosophy that shapes it are different from those of the West; therefore, one must understand the basic tenets of Chinese strategic culture before attempting to interpret Chinese actions and long-term ambitions. Once China's strategic culture is understood, three variables—economic activity, activity in cyberspace, and developments in military technology—offer observers from all schools of thought a sense of whether China is moving in the direction of cooperation or conflict.

This article offers analysts indicators pertaining to each variable that can determine the trend of the Chinese-US relationship. Each variable is analyzed in terms of cooperation, conflict, and US options. We must note that no single current or future action described below necessarily serves as an absolute certainty of Chinese intent to cooperate or fight, but these actions are highly suggestive. Based on this perceived direction, certain options then become available to the United States.

Strategic Culture

While the debate over the nature and characteristics of strategic culture remain unsettled, the concept—credited to Jack Snyder (1977)—has received considerable attention over the past three decades.⁸ Andrew Scobell provides the most straightforward definition of *strategic culture*: “a persistent system of values held in common by the leaders or group of leaders of a state concerning the use of military force.”⁹ Others have offered related definitions focusing on varying components of the concept.¹⁰ Most important, however, is that US scholars, analysts, and the military have shown particular interest in Chinese strategic culture since the mid to late 1990s, in part because some believe China may become our next strategic adversary.¹¹

Chinese strategic culture differs greatly from that of the West in ways that too few Americans understand. The influence of Hellenic philosophy, Judeo-Christianity, Enlightenment rationalism, American exceptionalism, and the US experience in war have shaped a strategic culture that prefers direct engagement with the enemy, major combat operations, and total defeat of an adversary.¹² Chinese strategic culture is shaped by very different influences that include Daoism, Confucianism, China's classical military writings, and—among younger military officers—nationalism.¹³ To understand the influence of these traditional ideas, it is helpful to think of Lao Tzu's *Dao de Jing* and the *Analects* by Confucius as core texts in the formation of Chinese strategic culture. More specifically, Lao Tzu focuses on the metaphysical, while Confucius offers a clear approach for moral behavior. *The Seven Military Classics of Ancient China*, which includes Sun Tzu's *Art of War*, can serve as the capstone of traditional Chinese strategic culture.¹⁴ Admittedly, this is a simplification of a complex subject that was more than a millennium in the making and continues to evolve, much as it did from the sixth century BC when scholars believe Lao Tzu, Confucius, and Sun Tzu are likely to have written and the tenth century AD when Daoism, Confucianism, and Sun Tzu's work were firmly ingrained in Chinese culture, writ large, and more specifically, into Chinese strategic culture.¹⁵

Communism has also played a central role in shaping strategic thought over the past six decades, but as Huiyen Feng pointed out in her operational coding of Mao Zedong and Zhou Enlai's beliefs, both leaders exhibited a Confucian strategic culture—suggesting that traditional strategic culture remained intact despite communist efforts to remake Chinese culture.¹⁶ Most recently, scholars and China analysts have highlighted the impact of nationalism in shaping the external actions of the Chinese government, an important point. However, China and its current leaders remain deeply influenced by more than two millennia of traditional culture that offers a very different approach to addressing strategic challenges than a turn to raw pursuit of national interests.¹⁷

In one of his early works on the subject, Alastair Iain Johnston suggests China has, over its long history, had a parabellum strategic culture that is largely realist in nature—a view that minimizes the influence of Eastern philosophy and metaphysics. Johnston suggests that at its weakest, China employs a strategy of appeasement. When weak but able to hold off an adversary, it employs a defensive strategy. And when militarily

superior, China takes the offensive.¹⁸ This view differs greatly from how other scholars and analysts describe Chinese strategic culture.¹⁹

In the view of many Chinese scholars and military officers, the country has *always* acted defensively—never offensively.²⁰ Thus, China has long acted to defend its territorial integrity and core interests, not for territorial expansion or the greed often ascribed in Western foreign policy. This point is of central importance because it is a principal characteristic of why China views its actions as defensive. Thus, the 1979 invasion of Vietnam (the Third Indochina War) was a defensive act in the view of Chinese leaders; for scholars and officials in the West, it was seen as an aggressive act by China. Thus, there is a disconnect when US and Chinese foreign policy analysts discuss offensive and defensive actions, because what Western observers often see as an offensive act is viewed by Chinese observers—when it is they who are acting—as defensive.²¹

Equally important is the dramatic divergence between Western and Sino military strategies; the former emphasizes mass at the point of attack while the latter focuses on winning without fighting. Chinese strategic culture, both modern and traditional, is characterized by ambiguity, disinformation, and secrecy—all critical to good generalship, according to Sun Tzu.²² These characteristics are important because they have the potential to achieve victory through “acting without action”—a precept of Daoism that is discernible in the writings of China’s classical military strategy.²³

In other words, China can achieve its strategic objectives—“winning without fighting”—by employing ambiguity, deceit, and secrecy in such a way that the United States follows a path (Dao) desired by China. This is another key difference between Western and Sino thinking. US strategic culture is often conceptualized as (1) determine the desired outcome (ends), (2) ascertain the methods to achieve those ends (ways), and (3) operationalize a strategy (means).²⁴ Chinese strategic culture, however, does not begin by determining the desired end state. Rather, through “right action,” a positive end state unfolds.²⁵

While the Dao was originally a metaphysical concept designed to give structure and purpose to an individual’s path in life, the concept became so culturally ingrained that it also influenced Chinese strategic culture, where it was raised to the national level and is guided by China’s leadership—civil and military.²⁶ By taking advantage of opportunities as they arise and exploiting the situation, one attains the optimum

outcome.²⁷ In other words, China's civil and military leadership do not have a cultural imperative that leads them to establish a desired end state to which they orient action, as is common in the West. Rather, there is a positive (natural) and negative (unnatural) direction in which the country can move. This causes China to appear to be acting as an opportunity seeker.²⁸ For example, China's path (Dao) includes economic modernization, but it does not include a specific point at which a predetermined objective will be reached—as would be common in the West. Admittedly, this may be difficult for the Western reader because it is so different from our own cognitive approach.

To explain this concept further, it is important to recognize that in Sino tradition, as illustrated by the writings of Sun Tzu, understanding the potential of a situation enables the state or the general to profit when advantageous circumstances arise. This is a critical skill/capability for a leader. Ambiguity, deception, secrecy, and the other characteristics Sun Tzu praises are all tools for maximizing advantageous circumstances.²⁹

The essential point of this discussion suggests that China's leaders will pursue strategic opportunities as they arise, even if they do not appear to be a part of a Western-conceived end state.³⁰ Thus, if the United States is weak and creates a space China sees as advantageous to fill, it is likely to do so. When this occurs, it should not be viewed as part of a grand strategy to displace the United States. Thinking in terms of the "Great Game" is a distinctly Western way of conceptualizing foreign policy.³¹ Instead, the United States should focus on understanding the path China's leadership is pursuing and work to support those objectives where they do not conflict with vital US interests. Where China's core interests conflict with US vital interests, China can be influenced if the United States maintains superiority in the right areas.

It is important to keep in mind China's strategic culture and the influences that shape how its civil and military leaders view defense and foreign affairs. China observers—principally those concerned with the direction of the Chinese-US relationship—can garner a stronger sense of whether that relationship is moving in the direction of cooperation or conflict by observing three areas of interests within the context of Chinese strategic culture: China's growing economic power, its activities in cyberspace, and its ongoing military modernization. Recognizing anything more than a sense of directionality, however, may require clairvoyance.

Chinese Economic Activity

Sustaining rapid economic growth is a core tenet of China's current path and a primary variable that can either ensure Chinese-US cooperation or, should the two countries' economic interests diverge, lead to economic and/or military conflict. The role and importance of the Chinese economy to the regime is central to how China's foreign and military policy may evolve in the years ahead. This is why Chinese economic activity is selected as one of the three variables. Given the real or perceived fragility of the Chinese Communist Party's (CCP) control over the country, the regime views maintaining strong economic growth as inextricably linked to its preservation—making this a core interest and key indicator.³² Although the current preeminence of internal stability through continued economic growth makes a cooperative China more likely, observers should monitor its leadership for indications of whether the country will continue to be relatively cooperative or attempt to undermine US interests and employ a strategy elaborated by Sun Tzu and consistent with Chinese strategic culture—winning without fighting.

Cooperation

Former premier Wen Jiabao expressed hope for improvement in Chinese-US relations: "We also don't hope for this year to become an unpeaceful year in the China-US economic and trade relationship. This will require both sides to work together."³³ One reason for potential Sino-US cooperation stems from positive economic and financial ties between the two countries. For example, China holds more than \$1.5 trillion of US sovereign debt, while Walmart serves (indirectly) as one of China's largest private-sector employers.³⁴ China's economic policies are principally designed to soothe a population that already questions the regime's legitimacy. Economic and/or military conflict with the United States would not aid economic growth in the short term. This makes such strife unlikely absent a clear belief that conflict is necessary for the long-term internal stability of China. Given its cultural penchant for taking the long view, perceived efforts to slow or restrain a restoration of economic and political power could, however, elicit a more immediate negative response. Presently, PRC leaders engage in little more than occasional saber rattling to stir nationalistic sentiment—when a distraction from flagging growth is perceived as beneficial to the CCP.³⁵ Although much has been made of China's provocative rhetoric concerning territorial

claims, the domestic and international politico-economic environments provide strong support for the proposition that the regime is likely to remain largely nonaggressive for the foreseeable future—absent a serious challenge to core interests.³⁶ A continuation of the status quo, and especially expressions of military cooperation and further liberalization of its economic policy, would indicate China is following a cooperative strategy.

Barring an economically debilitating regime change, China is expected to surpass the United States in economic and military might by midcentury—although such a transition is not inevitable. While the latest empirical research indicates that China's growth is likely to slow considerably over the coming decades, it will continue to outstrip that of the United States, giving China little reason to employ economic warfare in any form.³⁷ Moreover, the most likely question is not if, but when, the Chinese economy will become the world's largest and, in future decades, lead to military superiority. Even with modest economic growth (by Chinese standards), a consistent share of its gross domestic product devoted to defense spending, and relatively optimistic projections of US defense expenditures, China's military outlays are likely to eclipse US defense spending shortly after 2025. This would suggest that China's most rational course of action is to promote sustained economic growth and wait until its status as the world's leading power is solidified. The CCP leadership has indicated it will wait until that time has come before more aggressively seeking to challenge the status quo in any substantive way.³⁸

According to publicly released figures from China's finance ministry, the PRC spends more on internal security than on national defense. Internal security funding has also grown more quickly over the past two years than military spending.³⁹ With the CCP focusing on internal security, it is clear the regime sees this as a serious and growing concern—with instability serving as a potential black swan in Chinese foreign policy. In light of uprisings in the Middle East and increasing unrest at home, China's leaders have good reason to be concerned. Due to concern for instability at home, China is unlikely to initiate large-scale change within the international system. Its likely course of action over the coming years is to emphasize economic growth and continue concentrating its military efforts on developing defensive capabilities. However, if its economy stagnates and internal dissension rises, CCP leaders may act differently to preserve their hold on power.

Lastly, there is no indication that over the next decade China's need for food or energy will be constrained by the current international trading system. Should such constraints emerge, China would probably wage war if necessary to feed its people or power its industries. To avoid a potential conflict over energy issues, it is investing more in green energy than any other nation on earth and working to improve its agricultural industry. The Chinese government's actions and history suggest it is pursuing a strategy of cooperation and conflict avoidance when possible, while saving face.

Conflict

Considering China's strategic culture and the geopolitical environment, antagonistic actions by the PRC toward the United States are more likely to be economic than military. Given its cultural preference for winning without fighting, economic warfare offers the PRC an approach that challenges the United States resorting to kinetic operations. In both Johnston's view of Chinese strategic culture and that of his critics, such an approach would be consistent with long-held tradition. These policies would be designed to slow economic growth in the United States and its allies or to create instability in their economies—speeding China's ascent.⁴⁰ China could execute this strategy by accelerating liquidation of its long position in US treasury bonds (causing a devaluation of the dollar),⁴¹ by limiting US access to rare earth elements,⁴² and by seeking exclusive partnerships with European Union countries and Japan in high-tech industries.⁴³ While carrying out such actions, the Chinese government is likely to employ a deception strategy—consistent with its strategic culture—insisting that nothing substantive has changed in US-China relations.

China has been diversifying its currency holdings for some time and recently created an office devoted to finding new investment options for its large currency reserves.⁴⁴ A strong Chinese movement away from the dollar could raise the cost of financing the considerable US debt precipitously and create intense pressure to scale back spending on other priorities such as national security. Although this would clearly decrease the value of China's remaining dollar reserves, there are few better ways to undermine the long-term prospects of US hegemony that are more consistent with the tactics advocated by Sun Tzu.

The 2010 Chinese embargo of rare earth minerals to Japan—over a maritime dispute—provides a small preview of what future economic conflict may entail.⁴⁵ China controls a high percentage of rare earth elements widely used in high-technology industries and national defense. A full embargo would not be necessary; China could simply reduce availability while citing brisk internal demand and limited production. This tactic has the potential benefit of weakening the United States both economically and militarily.

Finally, China could weaken US hegemony through gradually pursuing increasingly extensive high-technology partnerships with EU countries and Japan. The PRC is already the most prolific exporter to both the EU and Japan, offering reason to believe these countries could eventually judge such arrangements as better serving their economic interests than close relations with the United States.⁴⁶ While China would bring increasing scientific talent to any potential partnership, the United States could be effectively marginalized in some developing industries. Currently, there are significant barriers to technology transfers with military applications, but this could easily change as China's economic importance to these countries intensifies.

US Options

If the United States desires to prevent China from viewing such economic tactics as an opportunity, it would be well advised to strengthen its long-term fiscal position, pursue additional sources of rare earth minerals, and eschew protectionist policies.⁴⁷ It will not be easy to deter China from seeing the US economic malaise as a strategic opportunity to expand its own influence. Thus, restoring US vitality and leadership in the global economy is vital if the United States desires to remain relevant and the primary nation of influence. Simply relying on globalization as a mechanism to prevent conflict is insufficient and offers short shrift to the wealth of historical evidence supporting the prospects for conflict advanced by Mearsheimer and other offense-based realists.

Activities in Cyberspace

China's rapid rise as an economic power is in part the result of effective economic reforms but also of its use of cyberspace to conduct widespread state-sponsored espionage against governmental and industrial

targets to “catch up” with advanced nations.⁴⁸ Extensively exploiting the newest domain of operations is consistent with Chinese strategic culture and the operational approach advocated by Sun Tzu and employed in more recent Chinese military history. Such behavior is exemplified by Google’s 2010 “exit” from China, which was the result of Chinese efforts to expropriate intellectual property. Recent information about China’s rapidly expanding use of the Internet suggests that residents of the PRC’s 60 largest cities spend 70 percent of their leisure time online, some actively engaged in attempts to exfiltrate corporate and government information from the United States.⁴⁹ The People’s Liberation Army (PLA) is also developing what is likely to be the largest cyber force focused on offensive operations within any military.⁵⁰

Whether such activities are state-sponsored or not, China is proving unwilling to undertake efforts to stop them. Until 2013, cyberspace proved to be a relatively risk-free domain with many opportunities for the PRC to expand its economic development and create a global military advantage. However, the release of the Obama administration’s intellectual property protection strategy suggests the US government is beginning to develop strategies to impose penalties on countries that use cyberspace for such theft.⁵¹ These policies will increase the prospects for cooperation in cyberspace to create a secure environment through which commercial and intellectual transactions can take place in an atmosphere of trust.⁵² It is here—perhaps even more than in the areas of economic activity and military modernization—that the United States can, by observing Chinese behavior, develop an accurate sense of the Chinese-US relationship.

Cooperation

A variety of cyber cooperation options can serve as indicators of the direction the Chinese-US relationship is moving. Developing cooperation with China on cyber issues is necessary—but from a position of strength. Recent studies have concluded that intense international pressure prompted the PRC to escalate efforts to curb doping in sports, suggesting that similar efforts to prevent malicious hacking might encourage Chinese compliance with emerging international cyber security rules and norms.⁵³ In short, if the United States wishes to eliminate opportunities for the PRC to exploit cyberspace, it must cooperate with the Chinese government on cyber issues.

Congressional testimony by Larry Wortzel, a member of the US-China Economic and Security Review Commission, also makes clear that cooperation in cyberspace is possible, as evidenced by supportive activities for specific law enforcement purposes. Wortzel told the House Committee on Foreign Affairs, “In some areas of cyber-crime, such as credit card theft rings and the theft of banking information, China’s law enforcement services have cooperated with the United States.”⁵⁴ Chinese authorities have criminalized malicious hacking and jailed culprits found guilty of creating damage through illegal actions involving intrusions into computer systems and networks. China’s law enforcement agencies have also cooperated with their US counterparts.⁵⁵ This common approach to dealing with cyber crime can pave the way for serious bilateral discussions and negotiations on approaches for building a strong code of conduct dealing with criminality in cyberspace. Common ground exists for bilateral discussions and, ultimately, negotiations about cooperation on cyber security. Finally, several leading members of Congress recognize that Chinese-US cooperation in cyber security needs to encompass both military and nonmilitary aspects of cyberspace.

With President Obama and President Xi having most recently met in California 7–8 June 2013 to discuss, among other issues, China’s aggressive cyber espionage,⁵⁶ China’s opportunity to make tangible progress toward cyber cooperation will be evident in the months and years to come.⁵⁷ In previous meetings, the two presidents had agreed to create a high-level working group to address cyber issues. Examples of greater cyber cooperation would include a reduction in attempted intrusions originating from the PRC which target intellectual property, improved and timely sharing of information between Chinese and US computer emergency response teams, and enhanced law enforcement activities when cyber crimes occur.

Conflict

With the release of the Mandiant report, *Exposing One of China’s Espionage Units*, in early 2013, the world received insight into China’s current cyber activities.⁵⁸ As the report alleged, the PLA is actively engaged in cyber-espionage activities that target private sector networks. For most of the past decade, this was assumed to be the case for a number of intrusions not just against the United States, but our allies worldwide.⁵⁹ While alarming, Chinese hackers have shown considerable restraint in

their use of cyberspace—limiting their activities to espionage as opposed to destructive attacks. However, the PLA is focused on developing “informationized warfare,” which should give US decision makers cause for serious concern.⁶⁰ A refusal by the Chinese government to control state-sponsored cyber espionage will serve as a clear indication of how China’s leadership views the United States—with a lack of cooperation indicating it views the United States as a weakening power. To demonstrate its resolve on the cyber front, the United States should create a coalition of Chinese hacking victims to clearly indicate that this behavior will not be tolerated by the world. The PRC’s response to such action would also serve as an indicator of intent.

If China ignores US overtures such as those described above, this will serve as a clear signal it does not view cooperation with the United States as necessary to advance its core interests. Indeed, the ratcheting up of Chinese cyber espionage activities since the onset of track-two initiatives could indicate China’s intentions to continue such actions until a US strategy is implemented that either offers incentives to cease or makes it more painful for China to conduct cyber espionage.⁶¹ Both the Mandiant and Defense Science Board reports would suggest such a need. Given its perception of US weakness in cyberspace, it should come as no surprise that China has employed an aggressive cyber-espionage strategy, all while feigning innocence—an approach advocated by Sun Tzu. Absent a marked decline in Chinese cyber espionage, US leaders in the public and private sectors should attribute the failure of cooperative efforts to a perception by China’s civil and military leadership that the United States is a declining power without sufficient will and capability to prevent malicious activities in cyberspace. Should China refuse to cooperate, this would serve as an indicator of developing conflict on an issue that ranks among US vital interests.

China can also interfere with US cyberspace lines of communication (LOC). While closing sea and air LOCs to commercial traffic would clearly be seen as antagonistic and cause a loss of global goodwill, cyber attacks aimed at commercial interests (LOCs) can serve much the same purpose without arousing the same ire from the international community. Furthermore, targeted hacking of national security information systems can lead to the acquisition of key technologies with military applications. China’s use of hacking to steal technologies has received

veiled mention in the DoD's annual report to Congress on developments involving the Chinese military.⁶²

Secretary of State John Kerry's April 2013 visit to Beijing was an early sign of what was hoped would be a bilateral thaw after a series of intensifying disagreements surrounding US weapon transfers to Taiwan, UN sanctions on Iran, and the US Internet freedom agenda.⁶³ Kerry's visit was less successful than desired as it did little to slow China's cyberespionage efforts, lending credence to Brad DeLong's suggestion that the balance of influence in Chinese-US relations has changed dramatically due to fundamental economic factors. Clearly, there will be fluctuations in this bilateral relationship, with the most recent "downs" linked to continued Chinese support for pervasive PLA-sponsored industrial espionage and China's growing assertiveness in the South China Sea.⁶⁴

US Options

Although the United States has been the technological pioneer in cyberspace, China is proving itself a pioneer in strategic thinking. One Chinese military theorist stated that "in confrontations on the future battlefield, what is scarier than inferior technology is inferior thinking."⁶⁵ The United States has focused on using technology to resolve issues without strategically thinking whether the technology is the right fit for the problem at hand.⁶⁶ Thus, without formal US strategies for managing this behavior, China will continue its widespread cyber espionage. This point cannot be underscored enough. Because the United States lacks a strategy for deterring or defeating actors undertaking malicious cyber activities, there is little reason for China to cease malicious cyber activities that have led to the theft of an estimated \$4 trillion in intellectual property.⁶⁷ For the United States, the only viable option is creating and implementing a cyber strategy that effectively protects the public and private sectors from cyber crime, cyber espionage, and cyber attack. Given the latent capabilities possessed by the United States, there is little doubt—particularly if Johnston is correct about Chinese strategic culture—that the PRC's behavior in cyberspace can be pushed toward international norms.

Gen Joseph Ralston, USAF, retired, former vice chairman of the Joint Chiefs of Staff, makes a compelling case for the long-term benefits of building trust with China through military-to-military contacts.⁶⁸ A similar argument can be constructed for building trust with China regarding the

areas of computer security and critical infrastructure protection.⁶⁹ VADM Mike McConnell, USN, retired, suggests Chinese-US cooperation would help “clean up” malevolent cyber activity and minimize hostile intrusions and disruptions caused by hacking and cyber crime.⁷⁰ Additionally, the East-West Institute has undertaken several track-two diplomatic initiatives to build trust. Secretary of State Kerry announced while in Beijing in April a formal initiative to begin building a foundation for cooperation between the United States and the PRC. Kerry said in his statement,

We will create an immediate working group because cyber security affects everybody. It affects airplanes in the sky, trains on their tracks. It affects the flow of water through dams. It affects transportation networks, power plants. It affects the financial sector, banks, and financial transactions. Every aspect of nations in modern times are affected by use of cyber networking, and obviously all of us, every nation, has an interest in protecting its people, protecting its rights, protecting its infrastructure. And so we are going to work immediately on an accelerated basis on cyber.⁷¹

If the Chinese leadership’s public statements are sincere, this is a positive step in the US-China relationship in cyberspace.

Chinese Military Technology

China’s acquisition and development of advanced military technology also offers significant insight into the likely direction of the Chinese-US relationship and will ultimately prove central to any conflict that might occur. Thus, it was selected as the third variable. The military technologies China pursues over the coming decades should indicate whether it perceives the United States as a friend or a clear military threat and the steps it will take to deter or defeat the US military.⁷² Unsurprisingly, China’s military is likely to continue focusing on the defense of the PRC’s core interests in the South China Sea, preventing Taiwanese independence, and building a military capable of defending the country’s advancements.⁷³ For the United States, understanding PLA capabilities, PRC leadership objectives, and Chinese strategic culture may enable it to deter the PRC from acting counter to US interests while supporting China’s peaceful rise.

Cooperation

While the People's Liberation Army (Navy, Air Force, Second Artillery Corps) is in the midst of an impressive modernization program, whether capability improvements will increase the prospects for conflict between the United States and China is uncertain. It is, however, important to point out that the specific weapons systems China acquires and develops send a very clear signal as to where a prospective threat might originate. For example, the acquisition and development of a large number of anti-aircraft carrier missiles, "carrier killers," by the Second Artillery Corps or fifth-generation fighters by the People's Liberation Army Air Force (PLAAF) signal that China sees a threat arising from a peer competitor. On the other hand, a PLA focus on such systems as military airlift, sea transport, and smaller combatant ships—all of which can serve a military, humanitarian, or counterpiracy mission—sends a very different signal. This specific point concerning platform acquisition and modernization also has cultural importance. *The Seven Military Classics* and Daoist writings place importance throughout on avoiding direct confrontation, particularly when facing a superior adversary. Thus, the PRC's modernization program is taking a form that appears designed to mitigate US strengths. This could promote cooperation and stability or create mistrust which degrades the Sino-US relationship.

Consistent with Chinese strategic culture, the PRC has shown a willingness to be patient with regard to securing core interests. In the case of Taiwan, it has waited more than 60 years for reunification and appears content to continue the ongoing integration process. The only indications of a willingness to use force have occurred at moments when Taiwan moved toward a formal declaration of independence. However, as Taiwan backed away from independence, relations with China returned to normal.⁷⁴ Competing claims in the South China Sea are potential flashpoints between the PRC and its neighbors, but China has also shown some willingness to delay aggressively asserting its territorial claims. This may result from a self-perceived weakness in its capabilities by the People's Liberation Army Navy (PLAN) or a reliance on patience and diplomacy, a characteristic of Chinese strategic culture.

In recent years, the PLAN—an increasingly capable blue-water force—has actively participated in counterpiracy operations, multilateral exercises, and, along with the PLAAF, is integrating into the global military community.⁷⁵ In a similar fashion, increased PLA participation in

regional multilateral military exercises and events would also demonstrate a desire on the part of China to integrate into a regional security arrangement.

Increased openness by the PLA is another indicator. Where, for example, the United States publishes a large number of national, defense, and military strategies elaborating US interests and concerns, China has historically remained opaque. The publication of periodic PLA defense white papers over the last decade is a positive development, but greater military transparency would indicate a desire to cooperate.⁷⁶

Conflict

The positive steps are offset by China's periodic aggressive acts, which often undermine confidence-building efforts. The ongoing modernization efforts of the PLAAF and PLAN are particularly concerning for the United States and China's neighbors.

The regular employment of ambiguity, disinformation, and secrecy—characteristics of Chinese strategic culture—in PRC foreign affairs has left the United States and countries throughout Asia reticent to believe that China's military modernization is solely for defensive purposes. With good reason, many nations in the region see the PLA undertaking an aggressive program of indigenous development and foreign (Russian) purchases that is enabling China to develop significant anti-access and area denial capabilities as well as the ability to project power regionally—a posture seen as highly provocative by US policymakers.⁷⁷ The primary effect is that the United States may have difficulty projecting power into the Asia-Pacific.⁷⁸ How China seeks to advance and defend its interests is causing concern within the US military that conflict may result.⁷⁹ Given the PRC's growing assertiveness regarding territorial claims in the South China Sea, it is also possible that missteps like the 2001 EP-3 incident and the more recent confrontation between China and Japan over the disputed Senkaku Islands may lead to an unexpected military confrontation between the two countries.⁸⁰

While the potential for military conflict remains low, the PLA modernization program appears targeted toward the defeat of US strategy in the region. Thus, many of China's acquisition and development choices serve as indicators that the PRC is preparing for a conflict with the United States. For example, China has built and fielded as many as 2,000 conventional ballistic and cruise missiles and is working to increase these numbers.⁸¹ The newest of these, the Dongfeng 31, comes in

two variants. It can be road-mobile and can carry multiple independent reentry warheads with a range of 11,000 km—sufficient to threaten US forces operating throughout the Asia-Pacific region. Over the next decade, the development of precise seeker warheads on these missiles will likely result in an enhancement of China's ability to accurately target ships and airfields. Should the Chinese focus on developing such warheads, the United States can take this as a negative indicator. These weapons are of particular concern to the US military given the lack of facility hardening and protective aircraft shelters at target airfields on Guam, Diego Garcia, and Hawaii, for example.⁸²

Another potential indicator of the Chinese-US relationship's direction is the threat to ships and airfields posed by the indigenously produced J-20 fighter, unveiled during then-secretary of defense Robert Gates' last visit.⁸³ The J-20 is widely considered a fifth-generation fighter, placing it in the same class as the F-22 and F-35.⁸⁴ It appears to have been developed on a time line from first pencil-drawn sketch to prototype in approximately 10 years—a much faster cycle than typically seen in the United States and perhaps, according to the Defense Science Board, aided by stolen F-22 and F-35 plans.⁸⁵ Larger than the F-22, the J-20 is likely to have longer range—giving it medium-range strike capability—posing a threat to US airfields and naval assets closest to China. Again, the future acquisition and deployment of these aircraft will serve as an indicator of the PRC's intent.

China's air defense network, and the deterrent effect it provides, is also becoming more robust. China has purchased the S-300 (formerly called SA-20) and has developed the HQ-19/SA-400 with Russia.⁸⁶ The HQ-19 has variants with up to a 400-km range—with some antistealth capability. Russia is now developing the S-500 and S-1000 systems, which appear to have ranges of 500 to 3,500 km.⁸⁷ The S-1000, if purchased or indigenously produced, could give China surface-to-air-missile ranges that exceed the combat radius of the newest US fighters, requiring them to refuel within range of these systems. There are also indications that these systems are being specifically designed to target air-refueling and airborne early warning aircraft.⁸⁸

China is also investing in a new and robust navy. Its first aircraft carrier is undergoing sea trials and will likely be equipped with helicopters, with fixed-wing aircraft added in the future.⁸⁹ China is planning to build two additional carriers, with the literature suggesting they will be fully

operational by 2020.⁹⁰ The PLAN also continues to add advanced diesel attack submarines that would make it very difficult for the US Navy to operate in the western Pacific.⁹¹

These developments (and others) are congruent with China's stated policy of "defending" its core interests, which it defines as securing and stabilizing the territory of "Greater China" and securing access to food and energy resources.⁹² Greater China includes Tibet, Taiwan, and the semiautonomous provinces of Hong Kong and Macao, as well as some disputed border areas. The Paracel and Spratly Islands, although not usually included in this definition, are clearly seen by some in China as Chinese territory.⁹³

The greatest risk of military escalation emanates from boundary disputes within the South China Sea. China is currently involved in maritime disputes with Vietnam, Brunei, Japan, Malaysia, and the Philippines. The recent dispute with the Philippines over Scarborough Shoal caused tensions to remain high for more than two months.⁹⁴ In April 2012, Chinese fishermen began fishing in disputed territory near the shoal. In response, the Philippines deployed naval vessels escorted by quasi-military utility vessels to the region to protect its claim. As each side deployed more vessels and tensions increased, China's *PLA Daily* suggested that war with the Philippines may be necessary to determine sovereignty over the Spratly Islands. By 24 May, China had 79 vessels arrayed in the disputed territory, including five navy combatants and its flagship vessel.⁹⁵ Shortly thereafter, fearful of the risk of a mistake or of emotions spiraling out of control, leaders on both sides began to work deliberately to deescalate tensions.⁹⁶ In future disputes, cooler heads may not prevail.

US Options

The danger for the United States is that it could be drawn into a conflict triggered by a miscalculation such tensions might cause. For example, just before the recent dispute, the United States had promised the Philippines it would come to its aid in the event of conflict. Had fighting broken out during the standoff, the United States would have had to risk serious damage to the Sino-US relationship or renege on its commitment to the Philippines.

Should the Association of Southeast Asian Nations (ASEAN) declaration of conduct (signed by China) become the framework for resolving

South China Sea disputes, claims in this area may have a path for resolution.⁹⁷ If this mechanism fails, however, the prospects for conflict increase.

China claims it does not seek global power status and that its current military-development programs would limit its ability to conduct long-range force projection (except in cyberspace) for a generation. When pressed, however, Chinese leaders acknowledge they may reach global power status by 2030 or sooner. They then suggest that 2030 is too far away to think about and, at present, they do not seek a global leadership role.⁹⁸ However, China's current modernization programs are clearly targeted toward mitigating US strengths and building a military capable of regional coercion. Because of this, and the increasing importance PLA capabilities play in the China-US relationship, the single best option for the United States may be to maintain military superiority across the air, sea, space, and cyber domains.

Conclusion

Monitoring China's actions in these three vital areas—keeping in mind the cultural context—will offer US decision makers a sense of whether the Chinese-US relationship is moving toward increasing cooperation or conflict. Ensuring the world's two great powers do not go to war will require US decision makers to understand Chinese strategic culture and its long tradition. Preventing conflict will call for an understanding of China that includes a deep and abiding appreciation for Sino metaphysics and philosophy, which have persisted in spite of six decades of Maoism and the new nationalism that is replacing it as capitalism leads to greater prosperity.

China is a state that will seek opportunities to advance its interests and restore traditional relationships with its regional neighbors, and perhaps beyond, all while attempting to avoid clearly challenging the international status quo. This is likely to mean China and the United States will compete on the world stage for economic resources and influence but will prevent that competition from escalating to war. However, if Alastair Iain Johnston is correct, preventing conflict will largely depend upon the United States protecting its interests while presenting China with a natural, cooperative path to continued prosperity.

Historically, great powers have found it difficult to become close friends. At the same time, a nonconfrontational relationship is possible.

Continued trade and cooperation on antiterror efforts, humanitarian relief, and antipiracy operations offer a solid foundation upon which to build relations. This does not, however, suggest that the United States should not carefully monitor the Chinese-US relationship. Observing the directionality of China's use of economic power, activity in cyberspace, and military modernization should give US policymakers and military leaders a sense of whether China and the United States may find themselves at an increasing risk of turning competition into conflict. **SSQ**

Notes

1. A number of off-the-record conversations by the authors with current and former senior military officers, defense officials, congressional staffers, and State Department officials since 2011 have repeatedly highlighted the disagreement surrounding the future of Chinese-US relations (cooperation vs. conflict) as a point of contention within defense and policy circles.

2. Quoted in Jim Garamone, "China Not Strategic Adversary of U.S., Gates Says," American Forces Press Service, 8 March 2007, <http://www.militaryconnection.com/news/march-2007/china-strategic-adversary.html>.

3. For a military officer's view of this widely held perspective, see Daniel Larsen, "U.S.-China Relations: No Need to Fight," *Joint Force Quarterly* 63, no. 4 (Winter 2011): 92-94. See also Richard Andres, "Recapitalizing the U.S. Air Force: Pay Now, Or Pay Later," *American Interest*, 18 March 2013, http://www.the-american-interest.com/article.cfm?piece=1397#_ftnref1. While those involved with Air-Sea Battle have written in the pages of *Armed Forces Journal* and other publications that this concept of operations is not targeted at China, it is viewed by some Chinese officials and US military officers in much the same way as Queen Gertrude's comment from Act III, Scene II, of *Hamlet*, "The lady doth protest too much, methinks."

4. John Mearsheimer, *The Tragedy of Great Power Politics* (New York: W. W. Norton, 2001). For a detailed description of offensive realism, see Peter Toft, "John J. Mearsheimer: An Offensive Realist between Geopolitics and Power," *Journal of International Relations and Development* 8, no. 4 (December 2005): 381-408.

5. "Clinton Says China Not an Adversary," *Washington Times*, 14 February 2009, <http://www.washingtontimes.com/news/2009/feb/14/clinton-says-china-is-not-an-adversary/?page=1>.

6. Jennifer Sterling-Folker, "Competing Paradigms or Birds of a Feather? Constructivism and Neoliberal Institutionalism," *International Studies Quarterly* 44, no. 1 (March 2000): 97-120.

7. Amitai Etzioni, "China: Making an Adversary," *International Politics* 48, no. 6 (2011): 647-66.

8. Jack L. Snyder, *The Concept of Strategic Culture: Implications for Limited Nuclear Operations* (Santa Monica, CA: RAND, 1977). For an excellent overview of the three generations of strategic culture scholarship, see Rashed Uz Zaman, "Strategic Culture: A 'Cultural' Understanding of War," *Comparative Strategy* 28, no. 1 (Summer 2012): 68-88. See also, Colin Gray, *Nuclear Strategy and National Style* (Lanham, MD: Hamilton Press, 1986); Elizabeth Kier, "Culture and Military Doctrine: France between the Wars," *International Security* 19, no. 4 (Spring 1995): 65-93; and Colin Gray, "Out of the Wilderness: Prime Time for Strategic Culture," *Comparative Strategy* 26, no. 1 (2007): 1-20.

9. Andrew Scobell, "Soldiers, Statesmen, Strategic Culture and China's 1950 Intervention in Korea," *Journal of Contemporary China* 8, no. 2 (Spring 1999): 479.

10. Jack Snyder originally defined the concept in writing that "strategic culture can be defined as the sum total of ideas, conditioned emotional responses, and patterns of habitual behavior that members of a national strategic community have acquired through instruction or imitation and share with each other with regards to [nuclear] strategy. In the areas of strategy, habitual behavior is largely cognitive behavior." Snyder, *Concept of Strategic Culture*, 8.

11. Teijun Zhang, "Chinese Strategic Culture: Traditional and Present Features," *Comparative Strategy* 21, no. 1 (Spring 2002): 73.

12. For an excellent description of Greek rationalism, see Reginald Allen, *Greek Philosophy: Thales to Aristotle* (New York: Free Press, 1991). Enlightenment philosophy is accessibly described in Jonathan Israel, *Democratic Enlightenment* (Oxford, UK: Oxford University Press, 2011). For an understanding of American exceptionalism and the worldview that shaped the United States, see Alexis de Tocqueville, *Democracy in America* (New York: Penguin, 2003). Historians John Shy, Russell Weigley, Henry Kissinger, and T. R. Fehrenbach, along with political scientists Morris Janowitz, Samuel Huntington, Carl Builder, and Colin Gray, have written extensively on the "American way of war." Perhaps the most succinct work on the subject is Adrian Lewis, *The American Culture of War* (New York: Routledge, 2007).

13. Huiyen Feng's *Chinese Strategic Culture and Foreign Policy Decision-Making* (London: Routledge, 2007) suggests that each of the People's Republic of China's leaders from Mao Zedong to Hu Jintao exhibit Confucian defensive strategic preferences. This does not suggest that communism and Chinese nationalism are not important influences in present strategic culture.

14. For an understanding of Chinese thinking, see Lao Tzu, *The Dao De Jing: Book of the Way* (New York: Penguin, 1964); Confucius, *The Analects* (New York: Penguin, 1979); and Ralph Sawyer, trans., *The Seven Military Classics of Ancient China* (New York: Basic Books, 2007).

15. The introductory chapters to Ralph Sawyer's translation of *The Art of War* (2001), Raymond Dawson's translation of the *Analects* (2008), and Jonathan Star's translation of the *Tao Te Ching* (2008) discuss when scholars believe each text was written and when that text rose to prominence within Chinese philosophy. In all three cases, the texts were written by court officials and were only adopted as great texts whose teachings should be followed over a period of more than a thousand years.

16. Feng, *Chinese Strategic Culture*, 36–52.

17. See Jacqueline Newmyer Deal, "China's Nationalist Heritage," *National Interest* no. 44 (January/February 2013): 44–53. Deal offers an excellent synopsis of Chinese nationalism since the later nineteenth century.

18. Alastair Iain Johnston, *Cultural Realism: Strategic Culture and Grand Strategy in Chinese History* (Princeton, NJ: Princeton University Press, 1998).

19. Interestingly, with near perfect uniformity, US scholars offer a more bellicose view of Chinese strategic culture than do their native Chinese counterparts—who describe Chinese strategic culture as largely defensive and Confucian. This difference in perception may be indicative of the variation in Western and Sino strategic cultures.

20. At a 2011 conference sponsored by the Chinese government, one of the authors was repeatedly told by Chinese academics that China has never acted offensively but always defensively—for the preservation of core interests.

21. In private conversations with Chinese scholars and military officers, this differing view of what constitutes an offensive and defensive act became readily apparent.

22. Sun Tzu, *Art of War* (Boulder, CO: Westview Press, 1994), 185–95.

23. Lao Tzu, *Dao De Jing*, 31–32.

24. Jack Kem, "Military Transformation: Ends, Ways, and Means," *Air and Space Power Journal* 20, no. 3 (Fall 2006): 85–95, <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj06/fal06/kem.html>.

25. For a discussion of the difference in Chinese and Western thinking on this subject see Francois Jullien, *A Treatise on Efficacy* (Honolulu: University of Hawaii Press, 2004), 32–45. According to Jullien, it is more appropriate to juxtapose Western and Sino thinking as goal or consequence. Where Western thinking is goal-focused, Sino thinking is consequence-focused. See also David Kang, *East Asia before the West* (New York: Columbia University Press, 2010), 25–53.

26. In its broadest sense, the Dao is the natural order of all things. It is the natural path of everything from the universe down to the individual. The path, in many ways, is like a river flowing around, beneath, and over obstacles. It reaches the ocean by following the path of least resistance.

27. For example, if you were walking down the street and saw a \$100 bill lying in front of you, it would be incumbent upon you to pick it up and use it for some advantageous purpose.

28. There was disagreement among the authors as to whether the use of *positive* and *negative* was more or less appropriate than *natural* and *unnatural* in this sentence. This is the result of varying interpretations of the original text and the degree to which the individual or country can alter or control the path.

29. Jullien, *Treatise on Efficacy*, 167.

30. While states, Western or Eastern, are wont to miss an opportunity to improve their position, which opportunities they pursue and the rationale behind their actions differ significantly from West to East because of the differences in philosophical traditions.

31. This shortsighted view of Chinese interests can often explain why China will act assertively and then back down. Its leaders have incorrectly perceived that an opportunity was present when, in fact, it was not. See Mark Leonard, *What Does China Think?* (New York: Public Affairs, 2008), 88–90.

32. For a detailed discussion of the inner workings of the Chinese Communist Party (CCP) and its views, see Richard McGregor, *The Party: The Secret World of China's Communist Rulers* (New York: Harper, 2010). Chapters two and seven are particularly instructive of how the CCP has inserted itself into and become dependent upon China's liberalizing economy.

33. J. R. Wu, "Wen Engages Chinese in Web Chat," *Wall Street Journal*, 1 March 2010, A-7.

34. Stephen Cohen and J. Bradford DeLong, *The End of Influence: What Happens When Other Countries Have the Money* (New York: Basic Books, 2010). See also Niall Ferguson, "Complexity and Collapse: Empires on the Edge of Chaos," *Foreign Affairs* 89, no. 2 (March 2010).

35. Susan Shirk, *China: Fragile Superpower* (Oxford, UK: Oxford University Press, 2007), 13–34.

36. Joshua Kurlantzick, *Charm Offensive* (New Haven, CT: Yale University Press, 2007), 82–107.

37. The economic and defense expenditure forecasts and the elements of China's possible economic strategy, referred to in this article, have been taken from Chad Dacus, "Chinese Soft Economic Warfare," in *The Asia-Pacific Century: Challenges and Opportunities*, ed. Adam Lowther (Maxwell AFB, AL: Air University Press, 2012).

38. Since assuming his current post, Xi Jinping has given no indications through his public speeches or actions that suggest the regime will pursue a more aggressive policy during his tenure. In fact, his recent imposition of authority on Chinese elites suggests that the senior leadership is focused on internal challenges.

39. See "China's Spending on Internal Police Force in 2010 Outstrips Defense Budget," Bloomberg, 6 March 2011, <http://www.bloomberg.com/news/print/2011-03-06/china-spending-on-internal-police-force-in-2010-outstrips-defense-budget.html>.

40. With a few notable exceptions, such as the Soviet Union, empires and great powers were built through commercial success which then enabled the development of military might. China is on course to follow this same historical example. And like past empires and great powers, China may seek to use its newfound power in more aggressive ways to reshape the international system—often in ways that appear to the detriment of its interests. See Jane Burbank and Frederick Cooper, *Empires in World History* (Princeton: Princeton University Press, 2010).

41. Those who believe the PRC would not take such an action argue that it would impose an economic cost on China, thus it is unlikely to occur. This argument is not persuasive because all forms of warfare impose costs. Economic warfare has the benefit of avoiding kinetic operations while still harming an adversary.

42. After China ended shipments of rare earth elements to Japan in 2010, the United States, Australia, and other nations began looking at their own production of these minerals. At present, there is no replacement for China's near monopoly. It may, however, come in future decades. Roland Buerk, "Japan and China in Rare Earth Dispute," *BBC*, 10 November 2010, <http://www.bbc.co.uk/news/business-11727224>.

43. While the potential success of an economic attack on the United States is debatable, the Pentagon has given serious consideration to the possibility. War games and studies have been commissioned by the DoD to examine a wide range of possible economic warfare approaches and US susceptibility to such tactics. See Eamon Javers, "Pentagon Preps for Economic Warfare," *Politico*, 9 April 2009, <http://www.politico.com/news/stories/0409/121053.html>.

44. Aileen Wang and Nick Edward, "China Steps up Effort to Diversify FX Reserves," *Reuters*, 13 January 2013, <http://www.reuters.com/article/2013/01/14/us-china-forex-investment-idUSBRE90D05T20130114>.

45. Keith Bradsher, "After China's Rare Earth Embargo, a New Calculus," *New York Times*, 29 October 2010, http://www.nytimes.com/2010/10/30/business/global/30rare.html?_r=0. It should be noted that China denies any formal embargo.

46. Admittedly, a dynamic environment exists. While China is rapidly supplanting the United States as a trade partner for EU nations, the United States is pursuing a free trade agreement with the EU. Such bold moves could dramatically change the bilateral economic balance, as could other large moves.

47. Although many people within the neoliberal institutionalist camp believe that China-US trade will ensure that the two nations do not go to war, this view either implicitly or explicitly suggests that neither China nor the United States has interests of greater importance than bilateral trade. This may not be the case and will largely depend upon the perspectives of US and Chinese decision makers as they weigh one interest against another in the future.

48. Antone Gonsalves, "Chinese Cyber-Espionage Threatens U.S. Economy, DoD Says," *CSO Online*, 24 May 2012, <http://www.csoonline.com/article/707035/chinese-cyber-espionage-threatens-u.s.-economy-dod-says>.

49. Yuval Atsmon and Max Magni, "China's Internet Obsession," *McKinsey Quarterly*, March 2010. See also Bryan Krekel, Adam Patton, and George Bakos, *Occupying the Information High Ground: Chinese Capabilities for Computer Network Operations and Cyber Espionage* (Washington: US-China Economic and Security Review Commission, 7 March 2012).

50. Office of the Secretary of Defense (OSD), *Annual Report to Congress: Military and Security Development Involving the People's Republic of China* (Washington: OSD, 2013), 44–46.

51. *Administration Strategy on Mitigating the Theft of U.S. Trade Secrets* (Washington: The White House, February 2013), http://www.whitehouse.gov/sites/default/files/omb/IPEC/admin_strategy_on_mitigating_the_theft_of_u.s._trade_secrets.pdf.

52. Panayotis Yannakogeorgos, *Strategies for Resolving the Cyber Attribution Challenge* (Maxwell AFB, AL: Air University Press, 2013).

53. Dali Yang and Alan Leung, "The Politics of Sports Anti-Doping in China: Crisis, Governance and International Compliance," *China: An International Journal*, March 2008. This paper was published several months prior to the Beijing Olympics—judged widely to be an amazing success for China in its transformational era of rapid economic growth and entry into the international community.

54. Larry M. Wortzel, "China's Approach to Cyber Operations: Implications for the United States, Testimony to the Committee on Foreign Affairs, US House of Representatives, 10 March 2010."

55. James Areddy, "People's Republic of Hacking," *Wall Street Journal*, 20 February 2010, A-1, describes the three-year imprisonment of a convicted Chinese hacker.

56. Ellen Nakashima, "Confidential Report Lists U.S. Weapons System Designs Compromised by Chinese Cyberspies," *Washington Post*, 27 May 2013, http://www.washingtonpost.com/world/national-security/confidential-report-lists-us-weapons-system-designs-compromised-by-chinese-cyberspies/2013/05/27/a42c3e1c-c2dd-11e2-8c3b-0b5e9247e8ca_story.html.

57. "Obama and Xi Conclude Summit, Ambiguity on Cyber Remaining," *Epoch Times*, 9 June 2013, <http://www.theepochtimes.com/n3/99012-obama-and-xi-conclude-summit-ambiguity-on-cyber-remaining/>.

58. *APT1: Exposing One of China's Cyber Espionage Units* (Washington: Mandiant, 2013), <http://intelreport.mandiant.com/?gclid=CMj66brt4bkCFTFo7Aodtx0A2A>.

59. See "China Hackers Hit EU Point Man and DC with Byzantine Candor," Bloomberg, 26 July 2012, <http://www.bloomberg.com/news/2012-07-26/china-hackers-hit-eu-point-man-and-d-c-with-byzantine-candor.html>.

60. Zhang Ling, "Initial Appearance of the Characteristics of Informationized Warfare," *Liaowang* no. 28 (July 2003): 9–15.

61. Karl Frederick Rauscher and Zhou Yonglin, eds., *Fighting Spam to Build Trust* (New York: East West Institute, 2011).

62. OSD, *Annual Report to Congress*, 12.

63. Hillary Rodham Clinton, "Internet Freedom," prepared remarks, Newseum, Washington, DC, 21 January 2010; and John Pomfret, "China Suspends U.S. Military Exchanges in Wake of Taiwan Arms Deal," *Washington Post*, 29 January 2010, http://articles.washingtonpost.com/2010-01-29/world/36893526_1_china-s-defense-ministry-chinese-energy-companies-china-over-internet-censorship.

64. See Richard Rosecrance and Gu Guoliang, *Power and Restraint: A Shared Vision for the U.S.-China Relationship* (New York: Public Affairs, 2009).

65. Timothy Thomas, *The Dragon's Quantum Leap* (Fort Leavenworth, KS: Foreign Military Studies Office, 2009), 238.

66. US history is replete with examples. World War II was won on technological superiority, not better strategy. When US-German forces were on parity earlier in the war, the Germans would typically win. The invasion of Iraq is a more recent example. Because the United States entered the war with the wrong strategy, the situation on the ground did not improve until strategy caught up with technology and the "surge" was implemented. *Ibid.*, 13–33.

67. "How to Steal a Trillion," *Economist*, 19 February 2013, <http://www.economist.com/blogs/babbage/2013/02/chinese-cyber-attacks>.

68. Because of specific prohibitions on interaction between members of the US military and the PLA by both governments, military-to-military interaction is limited and, as the authors have experienced, circumscribed.

69. Joseph W. Ralston, "Why the Pentagon Needs Friends in Beijing," *Wall Street Journal*, 5 March 2010.

70. James Fallows, "Cyber Warriors," *Atlantic*, March 2010, 58–63. Also see "Mike McConnell on How to Win the Cyber-War We're Losing," *Washington Post*, 28 February 2010, B-1.

71. John Kerry, solo press availability in Beijing, China, 13 April 2013, <http://www.state.gov/secretary/remarks/2013/04/207469.htm>.

72. The most recent edition of the *Military Developments Involving the People's Republic of China* (2013) offers insight into many of the topics covered here. It is worth noting, however, that this report from the OSD continues to suggest that China's primary external security concern and the thrust of its military modernization is geared toward a conflict with Taiwan. See OSD, *Military and Security Developments Involving the People's Republic of China 2013* (Washington: OSD, 2013).

73. Richard Bitzinger, "China's New Defence Budget: What Does It Tell Us?" *S. Rajaratnam School of International Studies (RSIS) Commentaries* no. 060/2012, 4 April 2012, http://www.rsis.edu.sg/publications/Perspective/RSIS0602012.pdf?utm_source=getresponse&utm_medium=email&utm_campaign=rsis_publications&utm_content=RSIS%20Commentary%20060%2F2012%20China%E2%80%99s%20New%20Defence%20Budget%3A%20What%20Does%20It%20Tell%20Us%3F%20by%20Richard%20A.%20Bitzinger%20.

74. Michal Roberge and Youkyung Lee, "China-Taiwan Relations," Council on Foreign Relations backgrounder, 11 August 2009, <http://www.cfr.org/china/china-taiwan-relations/p9223>.

75. USS *Winston S. Churchill* (DDG-81) Public Affairs, "US and China Team Up for Counter-Piracy Exercise," *America's Navy*, 18 September 2012, http://www.navy.mil/submit/display.asp?story_id=69643.

76. Information Office of the State Council of the People's Republic of China, *China's National Defense in 2000* (Beijing: State Council, 2000), www.china.org.cn/e-white/2000/index.htm; and Information Office, *China's National Defense in 2006* (Beijing: State Council, 2006), www.china.org.cn/english/features/book/194421.htm.

77. John P. Geis et al., *Discord or "Harmonious Society"?: China in 2030* (Maxwell AFB, AL: Air University Press, February 2011), 71–93.

78. Dan Blumenthal, "The Power Projection Balance in Asia," in *Competitive Strategies for the Twenty-First Century: Theory, History, and Practice*, ed. Thomas Mahnken (Stanford, CA: Stanford University Press, 2012), 168–83.

79. For a discussion of potential scenarios where conflict may occur between China and the United States, see James Dobbins et al., *Conflict with China Prospects, Consequences, and Strategies for Deterrence* (Santa Monica: RAND, 2011).

80. Shirley Kan et al., *China-U.S. Aircraft Collision Incident of April 2001: Assessments and Policy Implications* (Washington: Congressional Research Service, 2001); and Malcolm Moore, "Military Conflict 'Looms' between China and Japan," *Telegraph*, 27 September 2012.

81. At the end of 2010, China had 1,900 missiles and was increasing its inventory by approximately 200 per year. See "China Weapons of Mass Destruction: Theater Missiles," *GlobalSecurity.org*, 24 July 2011, <http://www.globalsecurity.org/wmd/world/china/theater.htm>. As of August 2010, Sean O'Connor estimated the Chinese inventory at between 1,435 and 1,885 missiles. See O'Connor, "PLA Ballistic Missiles: Technical Report APA-TR-2010-0802," *Air Power Australia*, August 2010, <http://www.ausairpower.net/APA-PLA-Ballistic-Missiles.html>.

82. If internal DoD analysis is correct, US bases in Japan and on Guam are the most likely targets for a possible PLA Second Artillery attack.

83. Austin Ramzy, "China Flexes Its Muscles with Stealth Fighter Test," *Time*, 11 January 2011, <http://www.time.com/time/world/article/0,8599,2041755,00.html>.

84. Lee Ferran, "Chinese Stealth Fighter Could Rival U.S.'s Best: Report," *ABC News: The Blotter*, 9 May 2011, <http://abcnews.go.com/Blotter/chinese-prototype-stealth-fighter-rival-uss-best-report/story?id=13561596>. Similar assessments are also available from *Indiadefence.com* and other Asian military sources.

85. Nakashima, "Confidential Report Lists U.S. Weapons System Designs Compromised by Chinese Cyberspies."

86. "HQ-19 (S-400) (China), Defensive Weapons," *Jane's Strategic Weapon Systems*, 22 December 2011, <http://articles.janes.com/articles/Janes-Strategic-Weapon-Systems/HQ-19-S-400-China.html>. This system has three missiles that can be mated with the radar. The shortest range is the 9M96, which has a range of 120 km; the longest is the 40N6, with a range of 400 km.

87. Dmitry Solovoyov, "China Buys Air Defense Systems from Russia," Reuters, 1 April 2010, <http://www.reuters.com/article/2010/04/02/us-russia-china-arms-idUSTRE6310WG20100402>; and "S-500/S-1000 (Russian Federation), Defensive Weapons," *Jane's Strategic Weapon Systems*, 23 December 2011, <http://articles.janes.com/articles/Janes-Strategic-Weapon-Systems/S-500-S1000-Russian-Federation.html>.

88. "S-500/S-1000 (Russian Federation), Defensive Weapons."

89. "Taiwan Keeping Eye on Sea Trials of China's Aircraft Carrier," *Focus Taiwan News Channel*, 10 June 2012, http://focustaiwan.tw/ShowNews/WebNews_Detail.aspx?Type=aIPL&ID=201206100009; and Andrew S. Erickson and Andrew R. Wilson, "China's Aircraft Carrier Dilemma," *Naval War College Review* 59, no. 4 (Autumn 2006).

90. "Taiwan Keeping Eye on Sea Trials."

91. OSD, *Military and Security Developments, 2013*, 14–16.

92. Michael D. Swaine, "China's Assertive Behavior Part One: On 'Core' Interests," *China Leadership Monitor* no. 34 (15 November 2010), http://www.carnegieendowment.org/files/CLM34MS_FINAL.pdf.

93. *Ibid.* The more widespread use by China of maps that include territory within the "Nine Dash Line" appears to be a clear sign that China is increasingly asserting its territorial claims in the South China Sea.

94. "Firepower Bristles in South China Sea as Rivalries Harden," *Times of India*, 11 June 2012, <http://timesofindia.indiatimes.com/world/china/Firepower-bristles-in-South-China-Sea-as-rivalries-harden/articleshow/14033349.cms>.

95. Jamie Laude and Pia Lee-Brago, "Navy Monitors 79 Chinese Boats near Shoal," *Philippine Star*, 24 May 2012, <http://www.philstar.com/article.aspx?publicationsubcategoryid=63&articleid=810116>.

96. Evangeline De Vera, "Scarborough Breakthrough: Vessels Parked outside Lagoon," *Malaya Business Insight*, 6 June 2012, <http://www.malaya.com.ph/index.php/news/nation/5677-scarborough-breakthrough>.

97. Since its dispute with the Philippines began in 2012, the PRC has "annexed" the Scarborough Shoals. "Basic Facts on China's Sovereignty over Huangyan Island," *Xinhua*, 26 April 2012.

98. In a number of visits to China and other international forums over the past 24 months, the authors have spoken with a number of Chinese officials, both civil and military, about China's view of itself and its aspirations.

Disclaimer

The views and opinions expressed or implied in SSQ are those of the authors and are not officially sanctioned by any agency or department of the US government.