

BACKGROUNDER

No. 3240 | AUGUST 16, 2017

Evolving Chinese Thinking About Deterrence:The Nuclear Dimension

Dean Cheng

Abstract

The People's Republic of China (PRC) is in the process of improving its nuclear forces as part of a larger modernization program. The ongoing modernization effort seems to include major new nuclear weapons programs, including new intercontinental ballistic missiles, submarine-launched ballistic missiles, and even a new bomber. The Chinese think about deterrence differently than do American policymakers, given their radically different set of historical and cultural circumstances. China's approach to deterrence is about dissuasion and coercion. Deterrence is not focused on preventing actions in a given domain or with certain types of weapons (e.g., space or cyber capabilities), but about achieving certain political goals. It is essential that the United States also maintain a modern nuclear arsenal in order to ensure that the Chinese do not miscalculate either American capabilities or resolve.

As competition between the United States and the People's Republic of China (PRC) increases, understanding Chinese views of deterrence has become salient. Reaching this understanding is complicated because U.S.-China competition is markedly different from Cold War-era competition between the U.S. and the Soviet Union. The U.S. and China are simultaneously economic partners and geopolitical competitors. Moreover, China's views on deterrence do not align with America's, so the limited parallels between Soviet and American approaches are less evident with regard to China.

Understanding China's concept of deterrence has important implications for bilateral and global stability, especially in the con-

This paper, in its entirety, can be found at http://report.heritage.org/bg3240

The Heritage Foundation

214 Massachusetts Avenue, NE Washington, DC 20002 (202) 546-4400 | heritage.org

Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hinder the passage of any bill before Congress.

KEY POINTS

- China's approach to deterrence is fundamentally different than those of the United States and the West. Deterrence for Chinese decision makers is not only about dissuasion but also about coercion. Deterrence is not focused on preventing actions in a given domain or with certain types of weapons (e.g., space or cyber capabilities), but about achieving certain political goals.
- While China has generally pursued a limited nuclear deterrent of only a few hundred warheads, the ongoing modernization effort seems to include major new nuclear weapons programs, including new intercontinental ballistic missiles, submarine-launched ballistic missiles, and even a new bomber.
- The United States relies on nuclear weapons to deter not only aggression against itself but its allies in the Pacific and globally. Therefore, a modern nuclear force and a sustaining nuclear enterprise are essential in order to deter possible aggression. Deterrence can be further enhanced with effective missile defenses.

text of nuclear deterrence. While the Chinese are unlikely to field tens of thousands of warheads, as the Soviets did, their nuclear capability will continue to pose an existential threat to the U.S.

The U.S. and China Have Different Definitions of Deterrence

The concept of deterrence, "in its most general form...[is] simply the persuasion of one's opponent that the costs and/or risks of a given course of action he might take outweigh its benefits." This formulation has no presumption that deterrence is dissuasive versus coercive. Either would be a form of deterrence.

However, the difference between U.S. and Chinese thinking about deterrence begins at this fundamental level. For Western thinkers, deterrence is primarily about *dissuasion* (although nothing in the definition of the term presupposes this). Thomas Schelling, for example, in his 1966 book *Arms and Influence*, defines deterrence as "the threat intended to keep an adversary from doing something." This definition is echoed by other Western analysts of deterrence. John Mearsheimer, in his book *Conventional Deterrence*, notes that "deterrence, in its broadest sense, means persuading an opponent not to initiate a specific action because the perceived benefits do not justify the estimated costs and risks."

Schelling specifically differentiates deterrence from compellence, which he defines as "the threat intended to make an adversary do something." Glenn Snyder makes the same point by noting that deterrence "is the power to dissuade as opposed to the power to coerce or compel." Thus, Western analyses of deterrence implicitly (and even explicitly) associate deterrence with dissuasion, and disassociate it from coercion.

The Chinese term that is often equated with deterrence is *weishe*. The Chinese themselves translate the term as "deterrence." But the attendant meanings and implications underlying the term are very different.

For the Chinese, the term *weishe* embodies *both* dissuasion *and* coercion. The 2011 PLA volume on military terminology, for example, defines a strategy of deterrence, or *weishe zhanlue*, as "a military strategy of displaying or threatening the use of armed power, in order to compel an opponent to submit." This definition does not distinguish between dissuasion or coercion. Indeed, the entry notes that there are offensive deterrence strategies and defensive deterrence strategies, which would seem to represent coercive and dissuasive approaches, respectively.

Chinese decision makers assess successful deterrence differently from their American counterparts. American discussions tend to characterize deterrence as a *goal*; in particular, reference is often made to deterring an adversary from acting in a particular domain (e.g., space, cyberspace, etc.). The 2010 *U.S. National Security Strategy*, for example, states that the U.S. is committed to maintaining "superior capabilities to deter and defeat adaptive enemies" and reassure friends and allies. The very act of deterring one or more opponents from acting in certain domains or in certain ways is seen as serving U.S. interests.

In contrast, the Chinese view deterrence as a *means* to achieving political ends. Little focus is on deterring or dissuading an adversary from acting in space or cyberspace, for example. Instead, for Chinese decision makers, successful deterrence is ultimately a form of political activity and psychological warfare, whereby an adversary is constrained in their actions, allowing China to achieve its goals. (Nuclear deterrence does seem to be the exception,

- 1. Alexander George and Richard Smoke, Deterrence in American Foreign Policy: Theory and Practice (NY: Columbia University Press, 1974), p. 11.
- 2. Thomas Schelling, Arms and Influence (New Haven, CT: Yale University Press, 1967), p. 69.
- 3. John Mearsheimer, Conventional Deterrence (Ithaca, NY: Cornell University Press, 1983), p. 14.
- 4. Schelling, Arms and Influence, p. 69.
- 5. Glenn Snyder, "Deterrence and Defense," in The Use of Force, ed. Robert Art (New York: University Press of America, 1988), p. 31. (Emphasis added.)
- PLA Encyclopedia Committee, Chinese Military Encyclopedia, Supplemental Volume (Beijing, PRC: Academy of Military Science Publishing House, 2002), p. 477.
- 7. All Army Military Terminology Management Committee, Academy of Military Sciences, Chinese People's Liberation Army Terminology (Unabridged Volume) (Beijing, PRC: Military Science Publishing House, 2011), p. 51.
- 8. Office of the President of the United States, *National Security Strategy* (Washington, DC: Government Printing Office, 2010), pp. 17–18, https://www.hsdl.org/?view&did=24251 (accessed July 26, 2017).
- 9. Zhou Peng and Wen Enbing, "Developing the Theory of Strategic Deterrence with Chinese Characteristics," China Military Science, No. 3 (2004), p. 20.

marked as it is with a general desire to avoid the use of nuclear weapons against China.)

Chinese writings suggest that their decision makers will rely on more than one means in order to deter (and coerce) an adversary. Chinese discussions of deterrence suggest that they will incorporate conventional, space, and information forces and actions, as well as orchestrate economic, diplomatic, and even mobilization activities and planning, in order to compel an adversary to submit. The focus is not on deterring action in one or another domain, but on securing the larger Chinese strategic objective (e.g., compelling Taiwan to abandon efforts at securing independence or obtaining support for Chinese claims to the South China Sea). The act of deterrence is to help achieve a particular goal. Deterrence itself is not the goal. As one Chinese analysis notes, the basic developmental path for Chinese deterrence is "nuclear and conventional unified; deterrence and warfighting unified; deterrence and control [of conflict] unified."10

For Chinese decision makers, this situation is further complicated by the need to engage in *multilateral deterrence*. For most of the Cold War, the U.S. could focus almost solely on the Soviet threat. By contrast, since the Sino–Soviet split in the 1960s, Beijing has had to worry about deterring multiple potential threats, beginning with the U.S. and the Soviet Union. In addition, after India exploded its first nuclear device in 1974, the Chinese have also had to take into account India's nuclear capabilities in its deterrence calculations.

China's Concepts of Nuclear Deterrence

Nuclear weapons occupy a particular place within the Chinese perspective on deterrence. The primary role of Chinese nuclear weapons is in supporting broader Chinese policies of *weishe*, in both its dissuasive and coercive aspects. Chinese leaders have noted that the mere possession of nuclear weapons compels an adversary to take them into account. In 1962, Chinese Foreign Minister Chen Yi observed, in the midst of the "two bombs, one satellite effort," "producing atomic bombs, missiles, and supersonic aircraft would put me, the Minister of Foreign Relations, in a better position!" ¹²

Chinese writings define nuclear deterrence as the display of nuclear forces, or the threat of their employment, in order to shake and awe an adversary, or limit and constrain their military activities. Nuclear deterrence involves warning an adversary of the possible employment of nuclear weapons, either in an offensive or counter-offensive manner, and the associated destruction in order to generate psychological impacts in the target of deterrence. The expectation is that this will compel an adversary to engage in a cost-benefit analysis, and, by generating fear, shake their will and cause them to abandon their goals. As the 2007 *PLA Encyclopedia* notes, successful nuclear deterrence will allow the deterring side to achieve their political or military goals.¹³

According to Chinese writings, the power of nuclear weapons, coupled with their capacity for both coercion and dissuasion, means that nuclear weapons not only can deter conflict and coerce adversaries, but can also serve to limit the outbreak of conflict more generally. Beginning in the 1990s, Chinese leaders noted that China's strategic deterrent forces could constrain conflicts, delay its outbreak, or limit the scale of a conflict should one nonetheless occur.¹⁴

According to Chinese analyses, capabilities are the main focus of deterrence in peacetime, but signaling one's will to employ those capabilities is the more important in time of crisis. ¹⁵ Only if an adversary has no doubt that the PRC is prepared to employ its capabilities can conflict be constrained. Nuclear weapons' inherent destructiveness is a means of influencing an adversary's calculations of risk and cost, while their deployment is a concrete expression of Chinese capability.

^{10.} Academy of Military Science Military Strategy Research Office (PRC), *The Science of Military Strategy* (Beijing, PRC: Military Science Publishing House, 2013), p. 147.

^{11.} Chinese Military Encyclopedia 2nd Edition Editorial Committee, "Strategic Missile Force Strategy," in *PLA Encyclopedia*, 2nd Ed. (Beijing, PRC: China Encyclopedia Publishing House, 2007), p. 4.

^{12.} Deng Liqun, ed., China Today: Defense Science and Technology, Vol. 1 (Beijing, PRC: National Defence Industry Press, 1993), p. 60.

^{13.} Chinese Military Encyclopedia 2nd Edition Editorial Committee, "Military Strategy," in *PLA Encyclopedia*, 2nd Ed. (Beijing, PRC: China Encyclopedia Publishing House, 2007), p. 282.

^{14.} Academy of Military Science Military Strategy Research Office (PRC), The Science of Military Strategy, p. 142.

^{15.} Ibid., p. 174.

China's Nuclear Forces and Strategy

For all the benefits that nuclear weapons and nuclear deterrence provides the PRC, China's approach to nuclear deterrence has been marked by a focus on "limited deterrence." China has sought to develop sufficient nuclear weapons to allow it to maintain a survivable force that can hold at risk a variety of targets. However, this deterrent effort is aimed at more than just the U.S. Chinese leaders and must also deter Russia, India, and potentially Japan. Thus, China arguably maintains more than a "minimal" deterrent. At this point, however, little opensource evidence indicates that Beijing is acquiring sufficient numbers of nuclear weapons to engage in nuclear warfighting strategies, including counterforce targeting of adversary nuclear forces.

China's strategic nuclear forces are mainly comprised of land-based intercontinental ballistic missiles (ICBMs) and a handful of sea-based nuclear missiles. Until 2015, the land-based missiles were under the control of the Second Artillery, which was considered an "independent branch" (as opposed to a full-fledged service), with a strategic mission.

In December 2015, the PLA announced a massive overhaul of the People's Liberation Army (PLA). This included a reorganization of the Central Military Commission which manages the entire PLA, and the consolidation of the seven military regions into five war zones. In addition, China created several new services, including the elevation of the Second Artillery into the PLA Rocket Forces (PLARF). It also saw the creation of the PLA Strategic Support Force (PLASSF) which combines China's space, electronic warfare, and network warfare forces into a single service.

The elevation in status means that PLARF officers will be co-equal members of the staffs of each of the new war zones, alongside the ground forces, PLA Navy, PLA Air Force, and PLASSF. Indeed, a PLARF officer could, in theory, be placed in command of a war zone.

This does *not* necessarily presage an increased likelihood of PLA employment of nuclear weapons.

The PLA has invested substantial effort in developing a variety of conventionally equipped missiles and adapting them to new roles, including anti-ship roles. These conventional medium-range and longrange missiles were also under the control of the Second Artillery, and now the PLARF. These weapons make the PLARF an essential part of any future joint campaigns, whether nuclear or conventional, as the long-range striking arm of the PLA. The PLARF is therefore likely to be a central element of future wars, without necessarily involving the Chinese nuclear component. Indeed, one Chinese article suggests that this dual role, as the organization that controls both a substantial portion of China's nuclear deterrent and its long-range conventional strike capacity, is why the force was labeled the "PLA Rocket Force," rather than the "PLA Strategic Rocket Force."16

China's Nuclear Deterrence Activities

China's nuclear forces are marked by several key characteristics. China fields only a *limited deter-rent*. China has no need for a massive nuclear force because, in the Chinese formulation, China adheres to a *nuclear no-first-use policy* against states and regions that have no nuclear weapons.¹⁷ Moreover, it has *a strictly "defensive" nuclear policy*, where it will only use nuclear weapons in response to an adversary's aggression.

Within this context, the PLA's nuclear deterrent forces, the Second Artillery and its successor the PLARF, are focused on retaliatory nuclear missions. According to Chinese analyses, the PLA therefore needs to field an elite deterrent force that is credible (*ke xin*) and reliable (*ke kao*).

In order to improve its credibility, Chinese writings suggest that the PLARF will have to field a force that can weather an adversary's first strike, and possible missile defenses, and still launch an effective retaliatory strike. This will entail strengthened striking power, improved survivability, and the ability to respond rapidly if and as necessary. Improvements in these areas will allow the PLARF

Zheng Wenhao, "China's Second Artillery Rocket Force Changes Name to Rocket Force, Why Didn't It Include the Word 'Strategic'?" Sina.com, January 1, 2016, http://mil.news.sina.com.cn/china/2016-01-01/doc-ifxneept3524560.shtml (accessed July 25, 2017).

^{17.} However, this no-first-use policy appears to be less than absolute. Chinese officials have at times suggested that they may use nuclear weapons if Chinese strategic targets are threatened by precision conventional strikes. Chinese writings have also suggested that attacks against certain types of targets such as nuclear power stations may generate a nuclear response, even if the initial attack is conventional. Alexandra Harney, Demetri Sevastopulo, and Edward Alden, "Top Chinese General Warns US Over Attack," Financial Times, July 14, 2005, https://www.ft.com/content/28cfe55a-f4a7-11d9-9dd1-00000e2511c8 (accessed July 25, 2017).

to generate much more destructiveness should it be employed, thereby enhancing the credibility of the threat posed.

However, it is important to note that Chinese analyses, while not calling for nuclear counterforce targeting, do call for the ability to wage "real war" (*shi zhan*) with nuclear weapons, in addition to implementing deterrence. "Deterrence capability is based on the ability to wage real war, and the structure of deterrent strength is indistinguishable from combat strength. Deterrent strength is embedded in real combat capability." Chinese writings therefore suggest that deterrence is served by maintaining a capability of waging "real war," including mounting nuclear strikes.

This view is reflected in what appears to be a concept of a "deterrence ladder," akin to an escalation ladder, as part of Chinese deterrent activities. In the PLA volume *Science of Second Artillery Campaigns*, the authors suggest that the Second Artillery (and presumably the PLA Rocket Forces) has adopted an escalatory ladder to frame their deterrence activities.¹⁹ The rungs comprise the following:

- **Public opinion pressure.** The public display of Chinese nuclear missiles in the media underscores that China possesses a nuclear deterrent capability.
- Elevating weapons readiness. This includes increased readiness of warheads and launchers (seen as two separate, but related activities), as well as demonstrating launch preparations. Since Chinese nuclear warheads appear to be stored at centralized facilities, this would suggest that deploying warheads to missile units would be part of a Chinese deterrent effort.
- **Displays of actual capability.** This goes beyond public displays before the media, to include military reviews and parades, invitations to foreign attaches to inspect Chinese forces, and coverage of high-level visits to forces in the field. The authors of *The Science of Second Artillery Campaigns* also suggest that mobile missiles might deploy while

other nations' surveillance satellites are known to be overhead, or nuclear missile forces might be incorporated into various exercises. They also suggest simulated launches could be undertaken at this rung.

- Manipulating tensions and creating impressions and misimpressions. By deploying forces, emitting various signals and signatures, simulating launches, and/or raising readiness (in a demonstrable fashion), the PLA would seek to influence an adversary's calculus of the likelihood and destructiveness of a conflict.
- **Demonstration launches.** As a crisis progresses, the Chinese may launch one or more missiles, in order to deter an adversary. These would be aimed at designated areas at sea or on land, and might involve the launch of several different types of missiles to demonstrate comprehensive readiness.
- **Demonstration launches near an adversary's forces or territory.** By engaging in test firings near an adversary's naval forces, homeland, or seized territories, the PLA would try to coerce an adversary into abandoning their ongoing activities. It is a form of indirect attack that seeks to deter or coerce.
- Announcing the lowering of the nuclear threshold. The PLA specifically associates this move with countering an adversary that has substantial nuclear capabilities, but also an advantage in high-technology conventional weapons. In order to counter the latter element, the Chinese leadership might announce a lowering of the nuclear threshold (e.g., entertaining a nuclear response to conventional attacks against vital strategic targets in the PRC). These include nuclear facilities (including nuclear power stations); targets that could cause great loss of life such as hydroelectric facilities (presumably such as the Three Gorges Dam); the nation's capital; or other major urban or economic centers. Such an adjustment might also occur if the PRC found itself in

^{18.} Academy of Military Science Military Strategy Research Office (PRC), The Science of Military Strategy, p. 147.

^{19.} This section draws from Chinese People's Liberation Army Second Artillery, *The Science of Second Artillery Campaigns* (Beijing, PRC: PLA Publishing House, 2003), pp. 281-296.

a situation where it was losing a conventional war, and was faced with a challenge to its national survival.

This array of actions underscores the Chinese belief that successful deterrence requires the PLA to be able to signal resolve—and those signals can include the employment of actual forces (as in the sixth and potentially the seventh rungs). Coupled with the incorporation of both conventional and nuclear forces under PLARF command, this suggests that the PLA Rocket Force may envision conventional missiles as a means of warning of potential nuclear escalation. Rather than developing a nuclear counter-force capacity, the PLARF may hope to employ the same missile with a conventional warhead, to engage in demonstrations or even attacks, as a warning of the potential for further escalation to nuclear means. For example, by employing conventional DF-21s, Chinese leaders could demonstrate the capability and reach of the missile, as well as their willingness to employ such systems. The existence of a nuclear-armed variant, perhaps within the same unit, would therefore exert deterrent pressure upon the adversary (coercive or dissuasive), regardless of whether there was an explicit threat.

Recommendations for U.S. Policy Responses

China's focus on a more limited nuclear deterrent poses a different challenge than that of the Soviet Union during the Cold War. The U.S. has less to fear from a disarming Chinese first strike aimed at eliminating America's own nuclear deterrent, since China has a much smaller nuclear inventory. At the same time, however, China poses a threat separate from President Vladimir Putin's Russia, which has retained a far larger nuclear arsenal.

American security calculations must take into account the potential threats China may pose directly to the U.S., to U.S. allies such as Japan, the Philippines, and South Korea, and to the special relationship with Taiwan. China's increased assertiveness in the South China Sea raises the potential for miscalculation and friction there. American security planners need to take these issues into account in responding to the growing Chinese challenge in the nuclear realm, as the U.S. needs to deter not only possible action against the American homeland, but also against key allies and friends. Consequently,

modernizing and improving the American nuclear deterrent improves U.S. regional credibility; conversely, strengthening America's regional presence reduces the likelihood of a conflict that might escalate to nuclear proportions. For these reasons, the U.S. should implement several moves.

Maintain a Modern Nuclear Enterprise. At present, the American nuclear triad is comprised of land-based Minuteman ICBMs manufactured in the 1960s; B-52 bombers older than many of their crew members; a handful of stealthy B-2 bombers; and the Ohio-class ballistic-missile submarine (SSBN) fleet. The complex of labs and facilities that produce and maintain the nuclear weapons needs modernization as well. The Obama Administration had promised to spend some \$85 billion on this complex in exchange for Republican votes for the New START Treaty. That support must be sustained in order to ensure the credibility and long-term viability of the American nuclear deterrent.

The Trump Administration is currently undertaking a Nuclear Posture Review, which will examine a variety of modernization efforts as well as nuclear weapon policies, including the new Columbia-class SSBN, the B-21 bomber, and a new ground-based nuclear missile. To cope with the modernizing Chinese and Russian militaries, as well as North Korea and potentially Iran, the Administration and Congress must fund the nuclear force modernization effort. As important, they need to sustain funding for modernizing the nuclear complex, including the national laboratories, regardless of the New START Treaty.

Integrate Additional Deterrent Elements. With the end of the Cold War, the U.S. downgraded the role of tactical nuclear weapons. In 1992, the U.S. withdrew its tactical nuclear weapons from the Korean peninsula. The emergence of the North Korean nuclear threat raises the question of whether that de-emphasis should continue, or if the U.S. should consider redeploying tactical nuclear weapons to the Pacific theater. This does not have to be permanent deployment in Korea or Japan—the regular exercising of redeployment of tactical nuclear weapons could underscore the broader commitment, while also allowing political signaling in time of crisis.

An expansion of missile defense capabilities could complement American tactical nuclear capabilities. An adversary would then have to deal with the uncertainty of the effectiveness of any nuclear attack, while also being confronted with a range of possible nuclear ripostes, both tactical and strategic. As in the Cold War, the objective would be to establish "escalation dominance," so that no adversary would ever think that they could dominate one or another rung of the nuclear escalatory ladder.

Maintain the Credibility of American Commitments in the Pacific. Since its founding, the U.S. has had ties to the Asia-Pacific region, including military, security, economic, and political commitments. It is in the American interest to prevent any hegemon from dominating this region with its substantial markets and resources. In the Information Age, when many of the world's microchips and hard drives comes from the region, this importance has been heightened. The U.S. must maintain a robust forward posture to deter any adversary from trying to dominate the region.

The lack of freedom of navigation operations (FONOPS) in the South China Sea for three years (2012–2015) is but one example of a self-inflicted, sucking chest wound of degraded credibility. The impact of sequestration on American training and forward presence is another. American forces must make their presence known again, such as the recent FONOPS in the Spratlys area, in order to put away any misimpressions of American abandonment of the region.

Maintain the Visibility of the American Commitment. The U.S. is at the center of a network of friendships and alliances with a variety of nations spanning the entire western Pacific. This is a key strength—as these alliances are matters of choice, not coercion—which merits regular attention. This includes preserving close coordination and cooperation with long-standing allies like Australia, Japan, the Philippines, South Korea, and Thailand, as well as friends like New Zealand, Singapore, and Taiwan. Regular military exercises are one means of demonstrating this commitment, as are regular political

visits by senior leaders, whether to individual countries or to regional forums such as Asia Pacific Economic Cooperation and Association of Southeast Asian Nations meetings. In addition, strengthening trade ties with the region helps reinforce the economic pillar of the multi-faceted relationship.

None of the elements can be taken for granted. Leaders from both sides of the Pacific must ensure that they explain to their nations the importance of these relationships. In doing so, they will garner public support, which makes for stronger relationships. The strengthening of these relationships can help avoid misimpressions of the extent of American and allied resolve and strength.

Conclusion

Throughout the Cold War, the U.S. and the Soviet Union pursued a broadly symmetric approach to deterrence, rooted in a shared understanding of what "deterrence" meant and entailed. The PRC has a very different understanding of deterrence, grounded in a fundamentally different worldview and historical foundation. The PRC modernizing its military is beginning to alter long-standing Chinese approaches to its nuclear forces, including an expanding array of modern nuclear systems. As the U.S. relies upon its nuclear forces to provide both basic deterrence against attacks against the American homeland and extended deterrence for its allies, this imposes significant demands upon both American nuclear forces and the broader nuclear enterprise. Keeping them up-to-date, and coupling them to effective missile defense, will enhance both basic and extended deterrence in the face of a modernizing Chinese military.

—Dean Cheng is a Senior Research Fellow in the Asian Studies Center, of the Kathryn and Shelby Cullom Davis Institute for National Security and Foreign Policy, at The Heritage Foundation.