

Abstract

Challenging the Binary Worldview of “Peace and War” Limits of the Gray Zone and Shift to the Competition Continuum

HASEGAWA Jun

The Competition Continuum concept was proposed by the U.S. military in 2018 as an alternative to the traditional binary worldview of peace and war. Competition Continuum shares criticality against the binary worldview with the Gray Zone concept, and both are understood in relation to each other. In this understanding, however, insufficient attention has been paid to the fact that the term Gray Zone is not used at all in the U.S. official papers which advocate Competition Continuum.

The purpose of this paper is to clarify the relationship between the concept of Gray Zone and Competition Continuum. This paper views the advocacy of Gray Zone and Competition Continuum as a series of events in which the U.S. military pursue an alternative to the binary worldview, and analyzes it using the conceptual change model of George J. Posner, Kenneth A Strike, Peter W. Hewson, and William A. Gertzog.

It is assumed that the Gray Zone concept was not adopted as doctrine by the U.S. military due to the difficulty of defining the concept and its small usefulness, leading instead to the advocacy of Competition Continuum. Therefore, it is not appropriate to understand Competition Continuum using only the term Gray Zone.

A Study of Hybrid Warfare in the Annexation Process of Crimea in 2014 How Russia was able to Annex Crimea so Shortly

INAGAKI Yoshiro

Why was Russia able to annex Crimea on March 18, 2014, in less

than three weeks, and almost bloodlessly? We know that in the operation to annex Crimea, Russia conducted a non-military campaign, mainly information warfare, in parallel with its military campaign, called “hybrid warfare (strategy)” by Western experts.

On the other hand, the intervention in eastern Ukraine that occurred after April 2014 has escalated into a violent civil war. Despite the similarities in the operational environment between Crimea and eastern Ukraine, and the analogy that Russia executed hybrid warfare in both cases, why did the results differ so much?

The Crimea operation was so vividly successful that the utility of hybrid warfare may have been overestimated while the impact of contingencies may have been underestimated. Therefore, in order to examine the effectiveness of hybrid warfare in the annexation of Crimea, I divided the factors that influenced the operation into non-contingent factors that are not affected by changes in the situation and other factors.

As a result, it was concluded that the hybrid warfare did not work by Russia's own efforts alone, but that the contingency factors that arose during the operation complemented Russia's efforts and brought about the success of the operation.

Changes in Russia’s Strategy toward NATO over the Arctic

— Norwegian Interference —

TAKAHASHI Keita

This paper focuses on Russia strategic interests in the Arctic and analyzes the evolution of its strategy toward NATO in the region. It also focuses on the influence of Norway, a small Nordic country, and its impact on the changing relationship between the three countries.

Based on Russia's various strategic documents and specific actions, Russia's strategy towards NATO in the Arctic has escalated in terms of competition, antagonism, and confrontation, and tensions have increased. This thesis proposes that this situation is the result of recent requests from Norway for increased intervention by NATO in the Arctic. As a result of these actions, Russia has been threatened by the expansion of NATO's intentions and capabilities in the region.

On the other hand, however, both NATO and Russia desire a relationship, in which both sides aspire to contain tensions by balancing cooperation and confrontation in the Arctic. It is concluded that Norway's intervention between the two sides in the Arctic created a security dilemma, which has in turn led to increased tensions.

Changes in the Nuclear Posture of the Trump Administration

A Comparison between NPR2010 and NPR2018

TANAKA Shinya

The Nuclear Posture Review (NPR2018), released in February 2018, has received much critical acclaim for opposing the trend of leaning toward nuclear abolition and leading to a new arms race. So, what kind of nuclear posture review has the Trump Administration done? This article identifies what has changed between NPR2018 and NPR2010, and the factors that have led to these changes, focusing on the changing role of nuclear weapons, in the following order:

(1) Reviewing the security environment surrounding the United States and the evolution of the U.S.-Russian nuclear strategy.

(2) Comparing the NPR2010 and NPR2018 to identify any differences.

(3) Analyzing the factors of change in NPR2018 from various perspectives, including changes in the security environment and the impact of Russia's nuclear policy.

This study has identified three aspects of change between the NPR2010 and NPR2018 which are: (a) clarification of individual deterrence strategies, (b) expansion of the role of nuclear weapons, and (c) introduction of the low-powered nuclear option.

It concludes by analyzing that the factors for change should be: (a) improvement of the extended deterrence environment, (b) divergence from reality and improvement of punitive deterrence, (c) counteracting Russia's nuclear strategy and correcting gaps in regional deterrence.

Points (b) and (c) argue that the roles of nuclear weapons are evolving and support the argument that NPR2018 remains a relevant and valid document today.

How can the Alliance be Sustained? The U.S.-Taiwan Informal Alliance

KITAYAMA Takahiro

Previous literature does not explain the case that an informal alliance can be stronger than a formal one. My thesis is that Taiwan's security treaty is important, but there is another element concerning alliance reliability.

The academic contribution of this paper is to introduce new perspectives to the theory of alliances. In the case of the Taiwan-U.S. relationship, the first perspective is to consider the existence of a security treaty versus an informal alliance. The second perspective is to consider the strength of the relationship between U.S. and Taiwan. The last perspective is to consider the degree of Taiwan's economic dependence to China. The relationship can be understood from these three perspectives.

Firstly, the close relationship between the U.S. and Taiwan is evident through Taiwan's democratization and U.S. arms sales to Taiwan. Second, Taiwan's economic dependence to China is evident through the Taiwanese governments' policies and China's strategy.

The security treaty is important, but it is not decisive concerning the alliance's reliability. The substance of the alliance relationship is important.

As a Japanese author, the addition of these perspectives to alliance theory also has significant implications to the U.S.-Japan alliance. The U.S.-Japan alliance needs not only a security treaty, but also substance.

Effective Deterrence Mechanisms in Cyberspace

KUMATORIYA Susumu

Conventional deterrence mechanisms developed during the Cold War mainly consist of deterrence by punishment that impose unacceptable cost to the enemy. In addition, there is deterrence by denial that denial of the benefit from specific actions of the enemy. However, cyberspace has different characteristics from physical space, such as land, sea, and air, and conventional deterrence mechanisms may not work well enough. Therefore, effective deterrence theory in cyberspace are being explored, but there is not necessarily a consensus on them.

So, this paper analyzes and organizes the effective deterrence in cyberspace, based on the characteristics of cyberspace and the conventional concept of deterrence. As a result, although the conventional deterrence mechanism can be partially applied due to the advancement of technology, but they are not sufficient. Therefore, there are several new assertions that combine several different means, and this way of thinking can consider to be the trend. However, since deterrence is very difficult to prove and changes with technology and economic conditions, the deterrence measures described in this paper may not be appropriate. Deterrence in cyberspace has issues that is currently being debated, and we need to continue to monitor it closely.

Strategic Information Dissemination in Age of Social Media Narrative Fixation by Diffusion from the Third Parties

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HIRAIZUMI Tatsuya

This paper examines how to strategically transmit information in the age of social media. In the international community, perception sometimes becomes reality and is more important than facts, so it is important to achieve strategic goals by appealing to the audience's sympathy and psychology.

Based on this recognition, we will examine the nature of information dissemination in the age of social media prosperity, using narrative warfare and propaganda warfare as keywords. Based on this, I attempted to conduct a case study on how the U.S. Navy is trying to utilize social media by reading the U.S. Navy Social Media Handbook as a concrete example of its use.

As a result, it was concluded that information dissemination in the age of social media should be based on the characteristics of social media, i.e., the characteristics of the human mind, which is more easily penetrated when communicated through a third party.

Background of Zero Fighter Development Transition from Development and Mass Production of Extra Super Duralumin to Zero Fighter

UMEHARA Hirokazu

This paper discusses the development of Extra Super Duralumin (ESD), the material for the Zero Fighter, the construction of industrial infrastructure for ESD, and ESD, which was adopted as the standard material for the Zero Fighter.

Research and development are not feasible without not only the development of technology but also the construction of an industrial infrastructure that supports technology. Therefore, this paper focuses on the construction of industrial infrastructure necessary for the development of technology and mass production of ESD. In 1935, when the development of ESD was started, the level of Japanese technology was inferior to that of Western countries, and its industrial infrastructure was not well constructed. Despite these circumstances, the development of Zero Fighter from ESD had been carried out in only five years.

In order to discuss the factors that realized ESD development in a short period of time and the construction of an industrial infrastructure, the author use a techno system model that focuses on how industry-government-academia collaboration worked for technological development as presented by MURAYAMA Yuzo. In conclusion, it will be revealed that a Japanese-style techno system that applied and developed technologies imported from foreign countries had been functioning and discretionary freedom, centripetal force, incentive at the development site in the industrial infrastructure.

Development of Counter-ASBM Capabilities and Overcoming the Vulnerability of Forward Deployed Force: Focusing on the U.S. Navy's New Electronic Warfare System

FUSE Satoru

The U.S. Navy has been tackling with the challenge of the threat to U.S. forward-deployed forces posed by PLA's anti-ship missiles such as ASBM (Anti-Ship Ballistic Missile) and cruise missiles, which represent the Chinese A2/AD threat, with technological innovation and the development of new operational concept.

As a result of more than a decade of work, the U.S. Navy is establishing countering measurements such as electronic warfare capabilities of SEWIP (Surface Electronic Warfare Improvement

Program) and NEMSIS (Netted Emulation of Multi-Element Signature against Integrated Sensors) in addition to sea-based BMD.

The development of countermeasures against ASBMs and overcoming the vulnerability of forward-deployed forces may provide the U.S. Navy a certain degree of confidence in operating within the A2/AD environment. This has not only the military implication of maintaining America's freedom of maneuverability at tactical level, but also the strategic implication of strengthening the credibility of U.S. military commitments in case of conflict with China.