# Original Paper

# Study on the Application of the Principle of Proportionality in

# the Use of Force in Maritime Law Enforcement

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### Abstract

With the step-by-step advancement of China's strategy to become a strong maritime nation, the requirements for high quality and high level of maritime law enforcement activities have become more and more stringent. In maritime law enforcement activities, the use of force is a necessary means to realize the purpose of law enforcement. In maritime law enforcement activities, the use of force is a necessary means to realize the purpose of law enforcement, but the unrestricted use of force not only fails to maintain maritime peace and security, but also triggers conflicts and disputes in the international arena. However, the unrestricted use of force not only fails to maintain maritime peace and security, but also triggers conflicts and disputes in the international arena. This paper analyzes the actual cases of the use of force in maritime law enforcement, and explains the application of the principle of proportionality in the use of force in maritime law enforcement. This paper discusses the current situation of the application of the principle of proportionality in the use of force in maritime law enforcement, and discusses and concludes that the principle of proportionality, as a principle, is unable to provide an effective solution for law enforcement officers when they use force in law enforcement due to the lack of a middle bridge. It discusses and concludes that the principle of proportionality, as a provision of principle, cannot provide accurate guidance for law enforcement officers in the use of force. The article starts from each sub-principle of the principle of proportionality and takes its own logical. The article starts from the sub-principles of the principle of proportionality, takes its own logical structure as the starting point, and summarizes the specific problems of the principle of proportionality when applied to the use of force in maritime law enforcement.

### Keywords

Maritime law enforcement, Principle of proportionality, Use of force, Quantitative discretion

### 1. Introduction

The United Nations Convention on the Law of the Sea established the exclusive economic zone system, there is a large amount of overlap between countries adjacent or opposite sea areas, China's neighboring waters in addition to the Gulf of Tonkin and Vietnam reached a delimitation agreement, there are still a number of delimitation of undetermined state of controversy, such as China, Japan and South Korea in the East China Sea continental shelf demarcation of the disputed area, China and South Korea in the Yellow Sea disputed area, the disputed area around the Diaoyutai Islands and South China Sea disputed area and so on, not peaceful! The unpeaceful maritime environment has aggravated the difficulty of maritime law enforcement, and at this time, the use of force must be prudent, excessive force may cause unnecessary national disputes and exacerbate international instability. In the international arena, the application of the principle of proportionality to the use of force in maritime law enforcement is corroborated by a number of legal bases, such as article 3 of the Code of Conduct for Law Enforcement Officials adopted by the General Assembly of the United Nations in 1979, which states: "Law enforcement officials may use force only when strictly necessary and to the extent required for the performance of their duties". This article is the embodiment of the specific requirements for the use of force by law enforcement officials under the principle of proportionality, which is a subprinciple of the principle of balance of interests; and article 4 of the general provisions of the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials, adopted by the United Nations Congress on the Prevention of Crime and the Treatment of Offenders in 1990, provides that: "Law enforcement officials, in the performance of their duties, should, as far as possible, resort to nonviolent means, and should only resort to force or firearms as a last resort. They shall use force or firearms only as a last resort. They shall resort to the use of force and firearms only when other means have failed or when there is no hope of achieving the desired result". This article requires that force be used as a last resort, which is a reflection of the principle of proportionality's principle of least harm. The Marine Police Law of the People's Republic of China (hereinafter referred to as the "Marine Police Law"), which came into effect in China on February 1, 2021, stipulates that China's marine police departments shall reasonably judge the necessary limits of the use of weapons in accordance with the nature, degree and urgency of the danger of the criminal act and the perpetrator of the criminal act, so as to avoid or minimize unnecessary casualties and property losses as much as possible. This provision is the principle of proportionality applies to the use of force at sea law enforcement in China's legislative embodiment, but the general provisions of the provisions of the complex law enforcement reality there is a huge gulf between the "Nova", "Guangdao Xing 28", "Lu Yan Yuan Fishing No. 010" to the tragic cases in September 2016, when the South Korean maritime police chased away a Chinese fishing vessel that entered the South Korean exclusive economic zone and used sound-exploding bombs, causing a fire on the Chinese fishing vessel and resulting in the deaths of three people due to smoke and asphyxiation, etc., it can be seen that the connotation of the principle of proportionality has not been fully comprehended and applied when law enforcement force at sea is being used to find out

the Finding out the specific reasons why the legislative significance of the principle of proportionality cannot be fully realized in the law enforcement process of the use of force and the problems of its application can provide a direction for the improvement of the level of law enforcement at sea.

## 2. Practice in the Application of the Principle of Proportionality in the Use of Force in Maritime Law Enforcement

### 2.1 The Meaning of the Principle of Proportionality

The origin of the principle of proportionality can be traced back to Aristotle's idea of distributive justice more than two thousand years ago. Although the idea of distributive equality does not directly express the word proportionality, the core idea of proportional distribution is the earliest ideological origin of the principle of proportionality. The idea of proportionality has been around for a long time, but the principle of proportionality in today's jurisprudence originated in the German police law at the end of the 18th century. 1794 Germany enacted the "Prussian General State Law" so that the principle of the principle of proportionality in the principle of necessity, "the police can take the necessary measures in order to maintain the public tranquillity, public safety and public order, to prevent the potential danger to the public or individuals. Danger". In 1882, the Higher Administrative Court of Prussia handed down the famous judgment in the Mount of the Cross case, marking the final formation of the principle of necessity, the prototype of the principle of proportionality. Nowadays, the principle of proportionality has been developed into a constitutional principle, and its logical structure has also developed from the early second-order theory, that is, the principle of proportionality contains only the principle of necessity and the principle of balance, to the present fourth-order theory, which holds that the principle of proportionality includes the principle of justification, the principle of appropriateness, the principle of necessity, and the principle of proportionality in a narrow sense. The essence of the principle of proportionality is to balance power and rights, adjust the rational relationship between means and ends, and provide a reasonable scale for the exercise of power and rights. The principle of proportionality discussed in this paper adopts the third-order view that the principle of proportionality consists of three subprinciples: the principle of appropriateness, the principle of necessity and the principle of balance, and that the examination of the appropriateness of the purpose of law enforcement acts is the first step in the examination of whether the acts meet the requirements of the principle of proportionality.

## 2.2 Current Status of the Application of the Principle of Proportionality in the Use of Force in Maritime Law Enforcement

Means of force is the common law enforcement activities in law enforcement, means of force has a strong injurious, unrestricted use of force does not have justice, maritime law enforcement activities are different from maritime military activities, through the discussion of maritime law enforcement cases, to summarize the principle of proportionality applied to the current situation of the use of force in maritime law enforcement, and in this way to elaborate on the problems that exist therein.

### 2.2.1 The Saiga Case

The Saiga is a tanker registered in St. Vincent and the Grenadines on March 12, 1997 by Tabona Maritime Ltd. of Nicosia, Cyprus. On October 27, 1997, the Saiga entered the Guinean Exclusive Economic Zone (EEZ) and was carrying out fuel replenishments for three fishing vessels from 0400 to 1400 hours on the same day. The Saiga was discovered by a Guinean Customs patrol boat and was arrested by Guinean authorities for violating the Customs Tariff Law and the Prohibition of Import and Export Law. The Guinean authorities arrested the Saiga for violating the Customs Code and the law on prohibited imports and exports, and the Saiga fled into the open sea. In hot pursuit, the Guinean authorities fired machine guns from the patrol boat at the hull of the Saiga and boarded the vessel at 0900 hours on 28 October. When the crew of the vessel did not resist, the Guinean law enforcement officers opened fire at random on the deck, injuring two crew members and damaging important equipment on board. The vessel and its crew were taken back to the Guinean capital, Conakry, by the law enforcement officers and detained. On the basis of the facts of the case, Saint Vincent and the Grenadines protested and a dispute ensued between the two countries. Following unsuccessful negotiations between the two countries, the case was referred to the International Tribunal for the Law of the Sea for adjudication and settlement.

In this case, there was forceful enforcement of the law, which took place in the course of the exercise of the right of hot pursuit by the enforcing State, and the International Tribunal for the Law of the Sea held that, although the United Nations Convention on the Law of the Sea does not contain a specific provision on the use of force in the course of a ship's arrest, the use of force in the course of a ship's arrest is not prohibited by the Convention, but by virtue of the provisions of article 293 of the Convention on the Law of the Sea and of the Convention on the Enforcement of Foreign Armed Conflicts in Connection with the United Nations Convention on the Law of the Sea of 10 December 1982, which are applicable to all vessels.

However, according to Article 293 of the United Nations Convention on the Law of the Sea and Article 22 of the Agreement for the Implementation of the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (hereinafter referred to as the Migratory Fish Stocks Agreement), the use of force in the course of the taking should be avoided as far as possible, and, if it is unavoidable, the degree of force should be limited to what is necessary and reasonable. It is clear from the reasoning of the Court that, in the course of maritime law enforcement, the use of force should be applied as a conservative and last resort. However, even in scenarios where the use of force is necessary, there is still a difference in the level of force within the means of force, which should be selected in accordance with the degree of force that is necessary and reasonable.

Analyzing the Saiga case from the perspective of the subprinciples of the principle of proportionality, before boarding the Saiga, the Guinean law enforcers had a legitimate law enforcement purpose, that is, to safeguard the country's tariff power and administrative order, and there was a correlation between

the forceful means of hot pursuit and firing and the realization of the law enforcement purpose, and it was not possible to determine whether the law enforcement means complied with the principle of least damage, but no casualties were caused in the course of the law enforcement, and the law enforcement actions were legitimate and lawful. The law enforcement officers successfully boarded the Saiga, at which point the benefits of law enforcement were proportional to the damage caused by the means of law enforcement, and the law enforcement action was justified and lawful; after the Guinean law enforcement officers boarded the Saiga, the above-mentioned law enforcement objective was close to being realized, at which point the officers resorted to the means of force of firing at the deck of the vessel to deter the crew of the Saiga, and in the absence of resistance from the crew of the vessel, the action did not have a justified law enforcement objective, although the means was proportional to the damage caused by the means of law enforcement. That, although there was a correlation between the means and its purpose, the purpose was not justified and the correlation at that point had an element of illegality, and that the forceful means of randomly shooting at the deck did not comply with the principle of least harm, and that the damage caused by the forceful means of shooting at the deck resulted in injuries to two crewmembers and destruction of important equipment on the ship that was disproportionate to the gains from the law enforcement officers' law enforcement purpose of trying to deter the target of the law enforcement officers' actions. Therefore, the law enforcement actions of the Guinean law enforcement officers after boarding the Saiga were disproportionate and unlawful.

#### 2.2.2 The Nova Incident

"The New Star, a Sierra Leone-flagged Chinese-owned cargo vessel, sank on February 15, 2009, in the waters off Vladivostok, Russia, after being fired upon 515 times by Russian forces on its way home". The cause of the incident was that the Nova had a dispute with the Russian consignee on January 29, 2009 during unloading of cargo in Nakhodka port and was detained, so it quietly set sail and left the port on the night of February 12 when there was no time for it to go through the departure procedures. "When a Russian border patrol boat caught up with the Nova and demanded that it return, the Nova refused to respond, and the Russian side then opened fire on the bow and stern of the ship. The sinking resulted in the disappearance of 8 of the 16 crew members, 7 of whom were Chinese".

In this incident, the use of the disproportionate means of law enforcement, such as the killing of a chicken or a cow, can be seen, and the Russian side's law enforcement action, which resulted in the destruction of the vessel and the death of its crew, was unlawful, as the Nova was subjected to 515 fire strikes because of its administrative violation of the law. Analyzed by the principle of proportionality, the Russian side's law-enforcement purpose was to prevent the Nova from leaving the port illegally, which is a legitimate law-enforcement purpose, and there is a correlation between the forceful means of opening fire and the attainment of the law-enforcement purpose; however, opening fire, even 515 times, does not conform to the principle of least damage, and the result of preventing the Nova from leaving the port is not in accordance with the principle of least damage. "The value of the purpose of preventing the Nova from leaving Hong Kong in violation of the law was disproportionate to the

damage that resulted in the deaths of eight people. That is, the enforcement action did not meet the requirements of necessity and reasonableness".

2.2.3 Incidents of Sound Bombs Being Thrown by the Korean Coast Guard

On September 29, 2016, at around 9 a.m., the Chinese fishing vessel S caught fire on the sea 70 nautical miles southwest of Hongdo Island, Saenam-gun, Jeonnam, and the fire on the fishing vessel resulted in the death of three Chinese crew members. According to the Mokpo Marine Police Safety Agency, at 9:00 a.m. on the same day, the Mokpo Marine Police issued three orders to stop the vessel and attempted to inspect the S in accordance with the contents of the management manual, but the crew of the vessel did not respond and attempted to flee, so the Korean Marine Police forcibly boarded the S for inspection, and during the boarding and inspection of the S the crew closed the cockpit in order to avoid inspection and resisted, so the Korean Marine Police threw three sound bombs into the cockpit, of which three were explosive bombs, one of which was a fire bomb. Three sound bombs were thrown into the cockpit, two of which exploded, presumably causing the fire.

Analyzing by the principle of proportionality, the law enforcement purpose of the Korean Maritime Police is to remove obstacles and carry out inspections, and this law enforcement purpose is justified, and there is a correlation between the use of the means of using sound bombs (cylindrical sound bombs with a length of 128 millimeters and a circumference of 45 millimeters, which are thrown within two to three seconds with the safety pin pulled out, and which instantly emit light, noise and smoke) and the achievement of the law enforcement purpose, and the sound bombs are a non-lethal weapon, so it cannot be judged by the principle of minimum damage. The principle of minimum damage can not be judged, but the value of the purpose of removing obstacles to carry out inspections and the damage caused by the death of three people is disproportionate to the result of this law enforcement behavior is unlawful. Moreover, although the sound bombs are non-lethal weapons, they are still weapons and a means of force, which is not necessary to achieve the law enforcement purpose of removing obstacles and carry out inspections.

Conclusion: Through the analysis of the above three cases, we can feel that although the law stipulates that the use of force should be reasonable and necessary, but the lack of corresponding quantitative standards, law enforcement officers through the subjective standards can not be in the process of law enforcement to reasonably control the extent of the use of force, which makes the principle of proportionality is only embodied in the legislative process, and can not be applied in practice in the law enforcement process.

# **3.** Proportionality Analysis of the Application of the Principle of Proportionality in the Context of Maritime Force Enforcement Activities

Maritime law enforcement is different from land law enforcement in that it involves foreigners and ships, and these properties require that maritime law enforcement must be cautious in the use of force, and although the principle of proportionality can navigate maritime law enforcement in terms of direction, there is a lack of a direct basis for its application in concrete practice. From the subprinciples of the principle of proportionality, the principle of relevance, the principle of necessity and the principle of balance of interests each have specific problems of application.

3.1 Large Margin of Discretion in the Application of the Principle of Proportionality

The two main specific situations in which force may be used in maritime law enforcement are the exercise of the right of self-defense by law enforcement officers and the obstruction of maritime law enforcement, in which case law enforcement officers may use force as appropriate.

(1) Law enforcement officers exercise the right to self-defense.

The Protocol of 2005 to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (hereinafter referred to as "the Protocol") provides that: "The use of force shall be avoided in the conduct of operations authorized in accordance with this article, except where it is necessary to ensure the safety of the officers and the persons on board the ship, or where the officers are prevented from carrying out the authorized operations. The use of force in accordance with this article shall not exceed the minimum necessary and reasonable under the circumstances". Article 3 of the Code of Conduct for Law Enforcement Officials states, "Law enforcement officials may use force only when absolutely necessary and no more than is necessary for the performance of their duties". Article 48 of China's Maritime Police Law provides that in the event that a law enforcement vessel or aircraft is attacked by weapons or other dangerous means, shipboard or airborne weapons may be used. These provisions show that law enforcement officers can use force out of the need for defense, and in the content also shows the meaning of the principle of proportionality to be used to limit the use of force, but in the actual law enforcement process, how to determine that the measure of force is necessary, how to define the use of force is reasonable? Take our country as an example, law enforcement officers based on the law enforcement ship was attacked by weapons, can use hand-held weapons, shipborne weapons or airborne weapons, that in a specific case, is the law enforcement ship was attacked by weapons (the semantics of weapons with the "people's police use of firearms and weapons regulations" in the same way as the weapons referred to in the lethal weapons, such as firearms, ammunition, etc.). Law Enforcement Officers can be enumerated in the "Marine Police Act" of the weapons in a few items Can law enforcement officers choose any of the weapons listed in the Marine Police Act for defense? Is the standard degree of defense limited to preventing the law enforcement counterpart from violating the law or something else? Although there is Article 50 of the Maritime Police Act to provide directional guidance, but there will still be law enforcement officers are suspected of excessive discretion, which requires the principle of proportionality to be specifically

detailed into the rules, and quantitative discretion, so as to better balance the relationship between power and rights.

(2) Obstruction of maritime law enforcement powers.

When obstruction cannot be removed by non-forceful means, law enforcement officers may use force to assist in the enforcement of the law. Obstruction of the right to enforce the law can be divided into two situations, one is the object of law enforcement violent resistance (which is overlapped with the first point of self-defense force defense), and the other is that if the use of force is not used will probably lead to the escape of the illegal ship. In the case of maritime law enforcement rights are obstructed, the use of force is to exclude the obstruction of law enforcement, to the "South Korean Marine Police threw sound bombs" incident, for example, the South Korean Marine Police to exclude the S fishing vessel obstruction of the inspection of the reasons, the S threw sound bombs to the cockpit, at this time, the South Korean Marine Police has successfully boarded the S, the ship has considerable control over the power, the closed cockpit has been closed, and the vessel has been the first time, the South Korean Marine Police has already successfully boarded the S, and the vessel already has considerable control over the power. At this point, the Korean Maritime Police had already successfully boarded the S and had considerable control over the vessel, and the tightly closed cockpit was no longer an imminent situation in which law enforcement rights were obstructed, and the use of weapons at this point was not a necessary and reasonable use of force. This reflects the excessive discretionary power of law enforcement officers, and the legal norms that restrict them with the words "necessary and reasonable" are not able to adapt to the complex reality of the situation.

Legal principles are distinguished from legal rules by a high degree of abstraction and universal applicability. The principle of proportionality as a kind of administrative discretion and judicial review benchmark, the maritime law enforcement activities have a directional guidance role, in the examination of a number of case practice, can be found, the principle of proportionality is mostly applied to the use of force in the legislative and judicial fields, such as China's "Marine Police Law" stipulated by law enforcement officers to reasonably judge the necessary limits of the use of firearms, the international "Code of Conduct for Law Enforcement Officials" and other legal norms directly to words The international Code of Conduct for Law Enforcement Officials and other legal norms directly stipulate in writing the principle of "necessary and reasonable" use of force, which is a direct manifestation of the application of the principle of proportionality to the legislative sphere; in the Red Cross, Lone and Saiga cases, the principle of proportionality was directly reflected in the legislative sphere. In cases such as the Red Cross, the Lone Star and the Saiga, international judicial bodies have justified the use of force in terms of what is "necessary", "reasonable" and "proportional", which is proportionality. This is a concrete application of the principle of proportionality in the judicial field. In the field of maritime law enforcement, the principle of proportionality can provide law enforcement officers with a direction for exercising their discretionary power, but it lacks a direct basis for application, that is, a specific standard of discretion, for example, in the aforementioned Saiga case,

even though the maximum speed of the Saiga did not exceed 10 knots, the Guinean patrol vessel was not allowed to use a 10-nautical-mile speed limit when it could use a 10-nautical-mile speed limit. For example, in the aforementioned Saiga case, even though the maximum speed of the Saiga did not exceed 10 nautical miles, the Guinean patrol boat, which could have boarded the vessel by non-forceful means, still fired at a cargo ship loaded with gasoline, without any consideration of the extent of the use of force, i.e., the contents of the provisions of the law, such as "reasonableness" and "necessity". In other words, the content of the provisions on "reasonableness" and "necessity" stipulated in the law cannot be directly manifested in law enforcement, which makes the provisions on "necessity" and "reasonableness" stipulated in the law, which are subjective in nature, to be shelved.

3.2 Failure to Provide Guidance on the Correlation between the Ends of Law Enforcement and the Means of Force-Lack of Typologies

The diversity of specific law enforcement situations can give rise to multiple states of use of law enforcement force. In the course of maritime law enforcement, when law enforcement officers are faced with defensive dangers or when their right to enforce the law is obstructed and they have to use force to assist in law enforcement, they have a wide range of law enforcement weapons to choose from, such as police firearms, which are less harmful on a stand-alone basis, beam-type riot control bombs and fire-fighting water cannons, which are classified as non-lethal weapons, and lethal weapons, such as machine guns and naval cannons. While the single-arm injuriousness of these weapons can probably be measured, the different ways in which different weapons are used in different law enforcement situations can lead to different law enforcement damages. For example, in the "Sail" case mentioned earlier, the Sail was a cargo ship loaded with gasoline, and the Guinean patrol boat's fire attack on the Sail could easily lead to fire and explosion. It can be seen that the law enforcement officers did not take into account the specific situation of the target of law enforcement in the choice of means of force. The Korean Maritime Police threw sound bombs into the closed cockpit of the S. Normally, the use of sound bombs does not cause fires, but under certain circumstances, such as confined spaces and wooden structures, sound bombs are not an option, and the Korean Maritime Police clearly did not consider the circumstances of the law enforcement situation.

In the 21st century, with the diverse development of weapons, the types of weapons a law enforcement vessel is equipped with are quite varied, and the variability of law enforcement environments should be taken into account in the selection of force measures, and given the complexity and difficult nature of maritime law enforcement environments, the types of weapons that should be applied under what circumstances, and the rank of what weapons should be discharged backward in terms of what conditions they are used in are the types of typologies that guide the documents that are the relevance principle important medium for applying the principle of relevance to the use of force.

### 3.3 Lack of Conditions for the Application of the Principle of Necessity in Practice

In the case of the Nova incident, for example, the Nova left the port in violation of the law and ignored the law enforcement order of the Russian border patrol vessel to return to the port, at which point, if the Russian law enforcement vessel had not used force, the Nova could have escaped, and the Russian forces fired on the Nova a total of 515 times in order to achieve their law enforcement objectives, in violation of the requirements of the principle of proportionality of necessity and reasonableness. At this point, if the Russian law enforcement vessels did not use force, it might have caused the Nova to escape, and in order to achieve the purpose of law enforcement, the Russian forces opened fire on the Nova a total of 515 times, which violated the degree of proportionality between what is necessary and what is reasonable, and although the norms of law enforcement require that law enforcement officers follow the degree of force required for law enforcement in the maritime law enforcement, it is insufficient to regulate the content of the force to be divided into lethal and non-lethal weapons. Although the law enforcement norms require law enforcement officers to follow the degree of force required for the use of force in maritime law enforcement, the simple division of force into lethal and non-lethal weapons is insufficient to regulate the discretion of law enforcement officers in the use of force, and cannot adapt to the needs of real law enforcement. In the "Nova" incident, the Russian military had a legal basis for the use of force, but lacked the degree of force to regulate the indicators, to fire 515 times to achieve the purpose of law enforcement by means of unreasonable force, this law enforcement process is obviously not in line with the principle of proportionality of the minimum damage requirements, but also highlights the principle of proportionality applied to maritime law enforcement force lack of an intermediate bridge, in the must implement the means of force to assist the implementation of the principle of proportionality. It also highlights the fact that the principle of proportionality as it applies to the use of force in maritime law enforcement lacks an intermediary bridge, and that the least damaging means of force cannot be accurately selected in scenarios in which the means of force must be used to assist in the realization of law enforcement objectives.

## 3.4 Lack of Criteria for Measuring Proportionality between the Value of Harm and the Interests of Law Enforcement

Value in economics refers generally to the positive significance and usefulness of an object to a subject, while legal value is an extremely traditional jurisprudential issue. Most of the theoretical disputes in the history of legal research are related to the legal value system, and the key reason for these disputes and conflicts is that it is difficult to find universal arguments that can help us to prove the specific hierarchical structure and hierarchical pattern of values such as freedom, order, justice, equality and efficiency, whether from the theoretical point of view of their own connotations or from the empirical point of view of the emphasis and preference of each nation and era. It is difficult to find universal arguments that can help us validate the particular hierarchical structure and hierarchical pattern. For example, in the classic "trolley problem", how to choose between the value of the lives of five people compared to the value of the lives of one person? In measuring the relationship between law

enforcement interests and the value of harm, we cannot simply draw conclusions from empirical evidence, which requires a standardized theory to provide guidance to law enforcement officers.

How is the proportionality of an act of force to be determined in accordance with the principle of proportionality, which focuses on measuring the proportionality between the detrimental outcome of the force and the law enforcement benefit gained? How is the law enforcement value of stopping and boarding a vessel measured against the damage caused by its destruction? In the previously mentioned incident of the Korean Maritime Police dropping sound bombs, the Korean Maritime Police realized the law enforcement purpose of boarding and inspection and safeguarded its maritime law enforcement rights and interests, and the force used resulted in the damage outcome of the destruction of vessel S and the death of two crew members, in which case we are able to conclude that there is a lack of proportionality between the benefits and the costs from a teleological point of view, but this is a case of obvious disproportionality. What if the damage outcome of the case was only the destruction of ship S? At this point, there will be a big difference in the mental evidence of the judges. Some of them will think that the destruction of a fishing vessel by the Korean Maritime Police in order to safeguard the maritime rights and interests of South Korea and to realize the purpose of law enforcement is a just and appropriate law enforcement; the other part of them will think that, the Korean Maritime Police had already boarded the S, and the level of resistance of its crew did not reach that of using weapons to enforce the law, and the result of the ship's destruction caused by the forceful law enforcement is unnecessary and disproportionate. It is thus clear that mental evidence cannot replace written guiding standards to provide guidance on the application of the principle of proportionality to the use of force in maritime law enforcement. Moreover, the determination of whether a law enforcement action is proportional is an important guarantee that the law enforcement counterpart will be able to bring a claim for relief.

### 3.5 Lack of Proper Purposeful Judgment of Specific Law Enforcement Actions in Practice

With the deepening of legal research, the principle of proportionality of the logical structure of the continuous development and improvement, to date, the "fourth order" principle of proportionality in the academic community has a large number of supporters. In this paper, the review of the legitimacy of the purpose of a law enforcement behavior is the application of the principle of proportionality to carry out law enforcement behavior of the legality of the review of the previous review link. In this paper, the principle of proportionality applies to the use of force at sea law enforcement activities, refers to the maritime law enforcement activities, the principle of proportionality of the subprinciples as a guiding principle of the implementation of all aspects of the use of force activities; in the maritime law enforcement behavior in accordance with the provisions of the law, whether to make the power and the right to balance in the range of a certain proportion. In practice, however, not only are the subprinciples of the principle of proportionality not used directly, but in cases where the use of force is unlawful, there are few instruments or articles that evaluate the legitimacy of the law

enforcement purpose of the means of force.

In the Saiga case, taking the boarding of the Saiga as the dividing line in time, before the boarding, the law enforcement officers of the Guinean side pursued and shot at the ship, an act of law enforcement that had a legitimate law enforcement purpose, that is, to safeguard the maritime rights and interests of their own country. However, after the boarding of the Saiga, the Guinean law enforcement officers, in the context of peaceful law enforcement environment in which the purpose of law enforcement could be achieved without the use of force, demonstrated their authority by shooting at the deck, which clearly did not have the legitimacy of the purpose intended to be achieved by the law enforcement officers. The purpose of the law enforcement action was clearly not justified. At this point, the Guinean law enforcement officers' act of force after boarding the Saiga can be recognized as a violation of the purpose. The International Tribunal for the Law of the Sea, while agreeing that the Guinean side's boarding of the Saiga at a low speed and its use of force in a situation where the use of force was not justified were unlawful, did not assess the legitimacy of the purpose of the law enforcement action. The remaining references to the Saiga case also fail to assess the legitimacy of the purpose of the purpose of the force used by the Guinean party.

### 4. Analysis of the Reasons for the Problematic Application of the Principle of Proportionality in the Context of Maritime Force Enforcement Activities

### 4.1 Subjective Reasons

4.1.1 Insufficient Experience in the Use of Force by Law Enforcement Officials

Taking China as an example, our Marine Police Law stipulates that the main body of maritime law enforcement in China is the Chinese Maritime Police, which is subordinate to the Chinese People's Armed Police Force, and according to the cases released by the Chinese Maritime Police Bureau, the Chinese Maritime Police has accumulated a wealth of experience in the use of low-intensity, non-lethal force in response to the obstruction of law enforcement by domestic law-breaking vessels, and has not seen any high-intensity law enforcement conflicts. When facing the obstruction of law enforcement by foreign vessels, because of the cultural differences between the law enforcers and the targets of law enforcement, and the openness and vastness of the sea, the targets of law enforcement usually have more fierce resistance behavior, which increases the difficulty of law enforcement by the Chinese Marine Police, and the intensity of the use of force at this time is even higher, and lethal weapons are usually used, and the control of guns and ammunition in China is extremely strict, and the experience of Chinese Marine Police in the use of lethal weapons is still relatively lacking, and it is not possible to master the use of lethal weapons. China's maritime police lack experience in the use of lethal weapons and are unable to grasp the extent to which they are reasonable and necessary, and neither the Provisions on the Procedures for Handling Criminal Cases by Maritime Police Agencies adopted in 2023 nor the Provisions on the Procedures for the Administrative Law Enforcement by Maritime Police

Agencies adopted in 2024 contain procedural details on the use of force by the maritime police in the course of law enforcement. In the case of the Vietnamese fishing vessel QNG90617TS, which illegally entered the waters of the Xisha Islands, the Chinese Marine Police ship 4301 warned it off in accordance with the law, and the Vietnamese vessel eventually sank after hitting the 4301 ship. Although there were no casualties, the lack of experience in the use of lethal weapons by the marine police agencies in the case of a high-intensity conflict is still visible in this case. As conflicts involving foreign law enforcement occur from time to time, the experience of the Chinese Marine Police in the use of force in maritime law enforcement still needs to be accumulated.

4.1.2 Inconsistent Legal Literacy of Law Enforcement Officials

As mentioned above, marine rights enforcement activities are more complex than land enforcement activities, the marine environment is ever-changing, under the interference of weather, equipment and other factors, maritime law enforcement officers may be in a state of communication difficulties with their superiors, at this time the law enforcement activities of law enforcement officers are more isolated, in this case, if law enforcement officers are faced with urgent obstacles to the enforcement of the cause of need for the use of force to assist the law enforcement officers, law enforcement officers if they do not have Rich legal literacy, fully understand and accurately implement the necessary and reasonable content of the provisions of the implementation of force, it is easy to evolve into unlawful law enforcement, law enforcement officers have different legal literacy, and can not accurately grasp the extent of the requirements of the necessary and reasonable, therefore, if the principle of proportionality is truly applicable to the use of force for maritime law enforcement, it is necessary to intermediate provisions of the implementation of the system of force will be fixed to reduce the law enforcement process of the Uncertainty.

### 4.2 Objective Reasons

### 4.2.1 Ongoing Maritime Disputes and a Hostile Law Enforcement Environment

The establishment of the exclusive economic zone system under the 1982 United Nations Convention on the Law of the Sea has given rise to a large number of overlapping maritime areas, and the determination of maritime rights and interests requires the conclusion of a delimitation agreement through consultation among countries with adjacent or opposite maritime areas, and there are still a number of disputed areas around our country where the delimitation has not yet been determined, such as the disputed areas around the Diaoyutai Islands of China and Japan, and the disputed areas in the South China Sea, and so on. The continuous disputes over the sea have given rise to a large number of disputes over maritime rights and interests, and the use of force in law enforcement by various countries is endless, so that the degree of restriction required by the principle of proportionality cannot be realized in the law enforcement process. The vastness, openness and variability of the sea itself, as well as the deterioration of global weather, the increase in extreme weather and other realities, have also made the conditions for maritime law enforcement increasingly harsh. Harsh environments can easily lead to extreme law enforcement measures, and clear institutional guidance is needed to ensure that the principle of proportionality is truly implemented in the use of force in maritime law enforcement.

4.2.2 Lack of Institutional Connection from Theory to Practice

Regardless of whether it is a norm of international law or a norm of domestic law, the formulation of norms on the extent of the use of force in maritime law enforcement mostly focuses on the words "necessary" and "reasonable", that is to say, the principle of necessity and the principle of balance of interests in the principle of proportionality are briefly stipulated in the provisions of the law without any specific institutional guidance on the words "necessary" and "reasonable". In other words, the principle of necessity and the principle of balance of interests in the principle of necessity and the principle of balance of interests in the principle of necessity and the principle of balance of interests in the principle of proportionality are briefly stipulated in the law, without providing specific institutional guidance on "necessary" and "reasonable". What kind of force is necessary? What level of force is reasonable? The lack of a typology of "necessary" and "reasonable" use of force, and the absence of intermediate norms to guide the transition, will make the application of the principle of proportionality lack a foothold.

4.2.3 Application of Modern Scientific and Technological Equipment to Be Explored

In modern society, the development of science and technology is ever-changing, subject to the harsh environment of law enforcement, if we want to regulate the extent of the use of force in maritime law enforcement, it is inevitable that we need to be assisted by science and technology, no matter whether it is the mechanism of cost-benefit analysis that is often discussed together with the theory of the principle of proportionality, or the development of new types of weapons and the application of AI supervision function system can add bricks and mortar to the cause of regulating maritime law enforcement. Conventional sea-based or air-based law enforcement platforms need to improve their performance in terms of cost control, structural flexibility, and the use of low-intensity non-lethal weapons; the recycling of shipborne drones and the application of harsh environments need to be strengthened; the research and development of non-conventional maritime law enforcement platforms such as underwater law enforcement platforms and law enforcement platforms with both sea-based and air-based functions still need to be promoted; and networked law enforcement means such as "virtual boarding" still need to be promoted. The research and development of non-conventional maritime law enforcement platforms, such as underwater law enforcement platforms with both sea-based and air-based functions, still needs to be pushed forward; and "virtual boarding" and other cyber law enforcement means still need to be actively explored.

### 5. Conclusion

Whether in international or domestic law, legislators have paid attention to the issue of controlling the extent of the use of force in the law enforcement process, and have also used the principle of proportionality to control the discretionary power of law enforcement officers, which also indicates that the principle of proportionality is correctly and appropriately applied to maritime law enforcement activities by force. Therefore, identifying the specific problems in the application of the principle of proportionality to maritime force enforcement activities can point out the direction for improving the comprehensive law enforcement ability of law enforcement officers and realizing the legislative value of the law. From the logical structure of the principle of proportionality, the principle of appropriateness can limit the means of force for law enforcement officers, indicating the measures of force associated with the purpose of law enforcement in a particular scenario; the principle of necessity is an absolute aid in regulating the degree of force, which requires that the least detrimental means of force among the measures of force under the limitations of the principle of appropriateness should be selected; the principle of proportionality in a narrower sense is the best measure of balancing the power and the right, principle, a forceful means cannot be selected and utilized if it results in a greater detrimental outcome than the law enforcement benefit it achieves, even if it meets the requirements of the first two logical constructs. The analysis of this entire logical structure, it seems that the principle of proportionality is applied to the use of force in maritime law enforcement, but the paper logic is different from the reality of application, if you want to realize the value of the logical structure, it is necessary to clarify the procedural conditions for the use of force in maritime law enforcement, standardize the delineation of the level of the use of force content, the introduction of a specific law enforcement scenarios under the typology of law enforcement measures proposed and the establishment of a measure of the value of the damage and law enforcement interests into a proportional standard, so as to build an intermediate bridge. In order to realize the value of this logical structure, it is necessary to clarify the procedural conditions for the use of force in maritime law enforcement, standardize the content of the hierarchy of the use of force, propose typological law enforcement measures in specific law enforcement scenarios, and establish a standard for measuring the proportion between the value of damage and the benefits of law enforcement.

### References

Chen, Z. N. (2022). The systematic pattern of legal value. Chinese Law, 2022(02), 225.

- Fu, K. C., & Xu, P. (2011). Maritime Law Enforcement and the Use of Force—How to Apply the Principle of Proportionality. WU International Law Review, 14(02), 20-21.
- Gao, J. J. (2009). Study on the Use of Force in Maritime Law Enforcement Based on International Practice. Law and Business Research, 26(04), 23.

- Globe News wire. Science and Technology South Korean Marine Police Use Shock Bombs That May Have Caused Chinese Fishing Boats to Catch Fire. [EB/OL]. (2016-9-30). Retrieved from https://mil.huanqiu.com/article/9CaKrnJXSGs
- Liu, Q. (2021). Controversy and Reflection on the Application of the Principle of Proportionality. *Comparative Law Studies*, 2021(05), 175.
- Ma, J. X. (2016). On the Legality of the Use of Force in Maritime Law Enforcement by Coastal States—Taking the Incident of "Lu Yan Yuan Fishery 010" as an Entry Point. *Hebei Law*, 34(09), 94-103.
- Wei, J. T. (2007). Introduction to the Protocol of 2005 to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation. *China Ocean Shipping*, 2007(02), 80.
- Zhang, Y. Q. (2018). Law Enforcement Issues in the Disputed Maritime Areas. *Comparative Law Studies*, 2018(01), 143.
- Zhao, L. H. (1999). Review of the Tanker Saiga Case (continued)—The Substantive Issues of the Case. *Chinese and Foreign Law*, 1999(06), 105-117.