

Study on the Principles of Attribution of Internationally Wrongful Acts of Unmanned Weapons in the Context of Artificial Intelligence

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Abstract: With the development of artificial intelligence technology, unmanned weapons are more and more widely used in the military field. In the process of the use of unmanned weapons, various violations of international law will inevitably occur. However, due to the special characteristics of unmanned weapons, the use of traditional attribution principles to attribute responsibility to the subjects of unmanned weapons use will produce various difficulties. Therefore, this paper proposes the principles of attribution for the internationally wrongful acts of unmanned weapons, taking into account the characteristics of unmanned weapons, in order to be of reference significance for the attribution of international responsibility.

1. Introduction

With the development of science and technology, unmanned weapons are more and more widely used by major countries in military reconnaissance, armed conflict, force deterrence and other military operations with their low cost, low risk and high cost ratio. Accordingly, the use of unmanned weapons inevitably produces violations of international law, that is, internationally wrongful acts, and international legal responsibility comes along with it. In order to effectively control the misuse of unmanned weapons, it is necessary to attribute responsibility to the subjects who use unmanned weapons to commit internationally wrongful acts, so as to lay the legal basis for the pursuit of international responsibility. However, the causes of international responsibility arising from unmanned weapons are complex and the subjects of responsibility are diverse, which makes it particularly difficult to determine their responsibility. Here, the author studied the principles of attribution of internationally wrongful acts of unmanned weapons, in order to strengthen the attribution of responsibility for wrongful acts of unmanned weapons, clarify the international legal responsibility of relevant subjects, and regulate the use of unmanned weapons.

2. Overview of the Principles of Attribution for internationally wrongful acts of Unmanned Weapons

2.1 The concept of unmanned weapons

There is no authoritative definition of the concept of "unmanned weapons", which literally consists of the words "unmanned" and "weapons". The definition of "weapon" in *Chinese People's Liberation Army Military Language* is "a collective term for instruments and devices that can be used directly to kill and injure enemy living forces and destroy enemy equipment and facilities." The concept of "unmanned weapons" is not defined in *Chinese People's Liberation Army Military Language*, but it defines "unmanned aircraft" as "unmanned aircraft operated by remote control equipment or self-contained programmed control devices. The concept of "unmanned weapon" is not defined in this paper. Thus, this paper defines the concept of "unmanned weapon" as a general term for instruments and devices that can be activated to accomplish specified combat tasks instead of or under the remote control of a human being, and are directly used to kill and injure enemy living forces or destroy enemy equipment and facilities and other targets. Among them, weapons like drones, unmanned ships and ground-based unmanned weapons platforms are the most versatile and widely used unmanned

weapons in current armed conflicts, and have the greatest impact on international law because they are both remotely operated and programmed to act after activation. Therefore, this paper mainly discusses and studies the legal issues related to these weapons.

2.2 Definition of internationally wrongful acts

An international wrongful act, also known as an "international tort", is an act of a state that violates an obligation under international law and constitutes a danger or causes damage to the interests of another state. The conditions for an international wrongful act include: First, the act violates an obligation under international law, such as a violation of the territory, territorial sea and airspace of another state, a breach of a treaty provision, or damage to the person and property of an alien. Second, the act must be attributable to the country [1]. internationally wrongful acts in a broad sense also include international crimes such as aggression, genocide, etc. Here the study of internationally wrongful acts arising from unmanned weapons is based on the concept of internationally wrongful acts in the broad sense, which consists of two parts of responsibility: state responsibility and individual responsibility.

2.3 The concept of the principle of attribution

Attribution of legal responsibility refers to the judgment and confirmation of the legal responsibility of the perpetrator by a specific state organ or an organ authorized by the state in accordance with the law [2]. The principle of attribution is the basic rule of responsibility imputation, which reflects the value orientation of a specific legal system and guides the legislation of legal responsibility on the one hand, and the determination and attribution of responsibility in the implementation of the law on the other hand. Because of the special nature of unmanned weapons, it is difficult to effectively regulate the misuse of unmanned weapons by using the usual principles of attribution of responsibility for international wrongfulness, so special provisions should be made under the international legal framework on the principles of attribution of responsibility for unmanned weapons.

3. Principles of Attribution of State Responsibility Arising from Wrongful Acts of Unmanned Weapons

However, there is no unified opinion in the international community on what principle should be applied to attribute responsibility to the relevant state. Here, the author believes that it is more appropriate to follow the principle of sovereign equality of states and the principle of no-fault responsibility to attribute responsibility to the state.

3.1 Equality principle

The principle of equality means that in an international community composed of sovereign states, all states have equal international personality and all states are on an equal footing before international law. The principle of sovereign equality of states should reflect the following two meanings in the determination of state responsibility for unmanned weapons.

One is equal recognition of state responsibility. In the process of determining the responsibility of the state arising from unmanned weapons, all countries in the world should be treated equally, the rights of all countries should be protected equally, and the legal responsibility of all countries should be determined equally. There should be no distinction based on the difference in the comprehensive strength of the country, the degree of scientific and technological development, the degree of military strength and other factors. No country should have privileges and special interests here, which is the proper meaning of the principle of equality. At the same time, it can also promote countries with an early start in the development of unmanned weapons and more advanced technology to exemplarily comply with relevant international regulations and international treaties, reasonably regulate the development and manufacture of unmanned weapons, and prudently deploy and use unmanned weapons.

The other is that the determination of responsibility should be carried out by international

organizations in accordance with the law. The equal status of sovereign states is the proper meaning of the principle of sovereign equality of states. Therefore, the determination of the responsibility of unarmed states should be carried out by international organizations in accordance with the relevant provisions of international law in an orderly manner, rather than by the powerful countries to unilaterally pursue their own interests, relying on strong national power to forcibly divide legal responsibility, arbitrarily sanction other countries, wilfully undermine the international order and undermine world peace and stability. The principle of sovereign equality of states is the basis for the attribution of state responsibility for unmanned weapons. Only when this foundation of responsibility is firmly established can we talk about how to fairly and reasonably determine state responsibility. Therefore, the principle of sovereign equality of states as the basic principle for the determination of state responsibility of unmanned weapons is particularly necessary.

3.2 The principle of no-fault liability

The principle of strict liability refers to a legal principle of imputation that after the occurrence of accidental damage, regardless of the fault of the aggressor, as long as there is a causality between the aggressor's actions and the results of the damage, the aggressor is liable [2]. In armed conflicts, unmanned weapons are used to commit violations of international law on the battlefield. For the state using the unmanned weapon, once the international dispute involves international responsibility, it is difficult for the victim to prove whether the aggrieved state used the unmanned weapon to commit the wrongful act subjectively with intent or negligence. The victim state is often accustomed to use the subjective negligence as an excuse to evade responsibility to avoid the state responsibility. Here, using the principle of no-fault responsibility for attribution of responsibility can avoid the situation where the aggrieved state evades responsibility, so that the victim or the injured state of the unmanned weapons violation can get the due relief.

In attributing legal responsibility for unmanned weapons to the state using the principle of no-fault liability, it is only necessary to prove that (a) an act committed by an unmanned weapon belonging to a state violates an international obligation and (b) there is a causal link between that violation of the international obligation and the result of the damage, then the state should be held responsible for the violation of the unmanned weapon. This coincides with the provisions on state responsibility in *State Responsibility Articles*. According to *Articles on State Responsibility*, state responsibility is determined without regard to whether the state is subjectively at fault or not, as long as the breach of an international obligation is committed by an act or omission. In international legal relations, the will and conduct of the state, as a subject of international law, are expressed by the organs or individuals that make up the state apparatus. Therefore, whether an organ or individual is in fact exercising state power is a fundamental principle of international law in determining the conduct of a state. In an armed conflict, unmanned weapons, as tools of a state's military organs to achieve military objectives, undoubtedly act under the direction or control of the state or should be. Therefore, the international responsibility caused by international violations committed by unmanned weapons should rightly be borne by the state that uses the weapon. In contrast to the statutory exemptions in no-fault liability, *Articles on State Responsibility* also provides for exemptions for the state by way of enumeration, including consent, force majeure, countermeasures and state of distress or emergency. Only if the State of aggression can prove that the act of aggression was committed as a last resort for one or more of these exonerations, the state of aggression can be exempted from liability.

As a practical application of artificial intelligence in the military field, unmanned weapons are being developed at an extremely fast pace and cast into the battlefield in large numbers, and their lack of human compassion and empathy will make innocent killings unavoidable if they are not strictly regulated. The state, as the main body of the development and use of unmanned weapons, should certainly assume the primary responsibility of restraining and regulating unmanned weapons. Therefore, the imputation of state responsibility for unmanned weapons through the strict no-fault principle is to urge and restrain the countries that develop and use unmanned weapons, promote the strict control of unmanned weapons through legislation of each country, and correctly guide the development direction of unmanned weapons. At the same time, the strict principle of attribution of

responsibility is the most effective protection and compensation for the interests of the victim countries or victims of unmanned weapons violations.

4. Principles of Attribution of Individual Responsibility Arising from Internationally Wrongful Acts of Unmanned Weapons

From the previous discussion, it can be seen that the main reason for individual responsibility of unmanned weapons in armed conflicts is the misconduct of the designers, manufacturers, commanders or operators of unmanned weapons, which leads to international violations such as accidental killing of civilians, indiscriminate attacks, etc. The violations violate the interests protected by the relevant norms or practices of war, and are mainly suspected of war crimes stipulated in *Rome Statute*, which are international criminal responsibility, and the persons responsible may be subject to the penalty of restriction of personal freedom.

4.1 The principle of statutory liability

The principle of statutory liability means that legal liability can only be pre-defined by legal norms, and the method, type and form of accountability must be pre-defined by law [3]. The principle of statutory liability is an important feature of the modern rule of law, and is a concrete expression of the concept of human rights protection and limitation of power in the principle of attribution. This principle is also fully reflected in *Rome Statute*. Article 21 of the statute specifies the law applicable to individual criminal responsibility and how to apply the relevant law. The provisions of Articles 22 and 23 are more representative of the principle of legal responsibility. It is thus clear that the principle of statutory liability is adequately provided for in *Rome Statute* in the form of legal provisions. In the process of using *Rome Statute* to determine the international criminal responsibility of individuals arising from unmanned weapons, it is necessary to strictly comply with the principle of statutory liability, to protect the legitimate rights and interests of the parties concerned, and to prevent the abuse of the exercise of power from causing unreasonable damage to human rights. Therefore, the principle of statutory liability is the basic principle that must be observed in the process of attributing legal responsibility for unmanned weapons.

4.2 The principle of causality

The principle of causality means that when determining and attributing legal responsibility, the causal link, that is, the relationship between the causing and the caused, must be considered first [3]. Traditional international criminal law doctrine holds that since every crime in international law requires a causal link between the act of the perpetrator and its corresponding criminal result in order to find the perpetrator through the specific result. In customary law, the existence of the causality link between the act and the result is also considered as a prerequisite for criminality.

On the one hand, the attribution of unmanned weapon legal liability to individuals should identify whether there is a casual relationship between the individual's extrinsic actions and the result of the damage. In the attribution of legal liability for unmanned weapons, the reason why the unmanned weapon committed the illegal act should be investigated, whether it was caused by the illegal instruction or by its own defect. If an unmanned weapon commits a violation because of a wrong instruction, then the source of the wrong instruction is operator error or commander error order; if an unmanned weapons commits a violation because of its own defect, then the defect is produced by the designer or the manufacturer. Or is it an unmanned weapon violation caused by a principle other than the above that results in damage.

On the other hand, the attribution of legal responsibility for unmanned weapons to an individual requires the identification of a causality between the subjective aspects of that individual's will and mind and the results of the damage. The unity of subjective and objective elements is required for any crime, and the war crimes arising from unmanned weapons are no exception. Criminal liability is imposed only when the result of the harm caused objectively by the harmful actions of the person concerned with unmanned weapons is governed by his or her subjective will. Thus, the subjective element in international criminal law is a prerequisite for criminal responsibility, which is a defined

mental state that the perpetrator of a crime subjectively possesses at the time of the act. According to *Rome Statute* on the subjective elements of crimes, the mental element required for the composition of a crime is intent or knowledge, unless otherwise specified. In conjunction with the provisions of Article 8 of the *Elements of Crimes* in its annex, it is clear that the subjective aspect of war crimes is generally manifested by intent, except for negligence leading to individual criminal responsibility, which is included in Article 30 of *Rome Statute* "when otherwise provided". Therefore, in general, legal responsibility can be attributed to an unarmed individual when the individual commits a violation with subjective intent.

The causality is an important condition for the determination of liability, and is a prerequisite for the reasonable allocation of the illegal responsibility to the individuals concerned. The causality in the process of determining the legal responsibility of unmanned weapons is more complex, involving unmanned weapons themselves, the subjective aspects of the relevant personnel and other factors affecting the determination of causality in the middle, making it difficult to determine the legal responsibility of the relevant responsible person, therefore, the application of the principle of causality should be paid more attention to in the process of attribution of legal responsibility of unmanned weapons to ensure the correct determination of the facts and reasonable allocation of responsibility.

4.3 The principle of self-responsibility

The principle of self-responsibility means that anyone who commits an illegal act or breach of contract should be responsible for his or her own illegal act or breach of contract, and must bear legal responsibility independently [3]. Through the previous discussion, it is clear that the unmanned weapon itself as a "tool" to achieve military purposes can not bear legal responsibility as a legal subject, therefore, in the armed conflict, when the wrongful acts of unmanned weapons generate legal responsibility, the person responsible for the unmanned weapon should bear it, and cannot be exempted from its legal responsibility on the grounds of the autonomous behavior of unmanned weapons. Therefore, in an armed conflict, when the wrongful act of an unmanned weapon generates legal responsibility, it should be borne by the person responsible for the unmanned weapon. At the same time, it should be strictly based on the principle of causality to determine the degree of influence of different responsible persons on unmanned weapons violations and harmful consequences, and then reasonably allocate legal responsibility to ensure that the perpetrators of violations are held accountable and to protect the legal rights and interests of those who are not responsible. Therefore, in the process of attribution of responsibility for unmanned weapons, in order to make the perpetrators of violations get due punishment, no responsibility for the legal protection, so that the responsibility of the determination is not in vain, fair and reasonable, follow the principle of self-liability is necessary.

5. Conclusion

With the rapid advancement of artificial intelligence technology, the legal risk, moral risk and humanitarian risk arising from the use of unmanned weapons have increased. It is necessary to reasonably formulate the principles of attribution that are appropriate to the characteristics of unmanned weapons with a forward-looking perspective, which can be used to guide the attribution of responsibility to the state, individuals and other responsible subjects, and thus regulate the use of unmanned weapons. The regulation of unmanned weapons is related to the survival and development of all mankind, which is a long way to go and requires the joint efforts of the international community. This paper mentions that the principle of equality, principle of no-fault liability, legal liability, self-responsibility and causality for wrongful acts of unmanned weapons are not systematic and comprehensive, and can only serve as an introduction. It is hoped that the international community can discuss the responsibility of the illegal acts of unmanned weapons, so as to clarify the international responsibility, regulate the use of unmanned weapons, and maintain the peaceful development environment of the international community.

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