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WAR DRONES: LEGAL AND BIOETHICAL CONCERNS

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Abstract

This article aims to identify the points of tension byusing drones in military and/or war activities, from the perspectives of international law and bioethics. From the analysis of documents in secondary sources, it has been possible to elaborate a characterization of the main aspects of controversy and conclude that the risk of damage in the use of these artifacts must be subject to reduce human casualties and, for this, it is necessary to deepen the harmonization of bioethical principles regarding the theme.

Keywords

Bioethics, International Humanitarian Law, Weapon, War, Artificial Intelligence.

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Introduction

In the first civilizations, war had a connotation of art, honor, and honor for the defense of peoples, of nations, and the protection of those distinctive principles that summons them. Since ancient times that assumed the character of art and, for this, it was based on principles that, remotely, were the light of the *ius ad bellum.* Societies older than Ancient Greece and Ancient Rome, considered that not every person could become a soldier, only the best, the most skilled, those who assumed the training tending to fight with the respect, dignity, and dedication that their political organization merited, had to be chosen.

But the world wars came, and that practice took a radical turn. Technology made it possible for war to be depersonalizing and one could speak of mass armies, replaceable soldiers, generals that no longer faced combat on the battlefields, but hid in large castles, directing military strategies as if they were a board game. All this made more evident the gap that separates hierarchs from subordinates.

The consequence of the above was to formalize rights on how to wage war, discovering that it was necessary to protect life as an essential right of the individual and, from there on, to erect a compilation of universal rights, so that the idea of humanity would again have a transcendent meaning.

Plausible but not admirable, the Western world gave rise to a new line of legal study based on human rights as if it had discovered something not previously thought. Based on rhetoric bordering on euphemism, without direct acceptance, what was done was to admit the failure of law as a social science. Even today, it is insisted on without bowing its head to the abuses committed.

However, just as a child who is warned, recommended, and prohibited certain behaviors that are harmful to his/her safety, health and physical integrity, the human being continues to ignore these minimum standards of planetary coexistence; mankind continues to tempt the fate of coexistence and invent new artifacts to show how creative the human being is in causing death and destruction of his fellowmen. In that, humanity has shone brightly.

[1] Article translated by Hugo Alves.

Evolution has gone from hand-to-hand combat, to short,medium- and long-range sharp weapons, to firearms in all categories, shapes, quality, size and material, each time avoiding direct contact with one another. The atomic bombs were out of competition to stop thinking about topics such as defense and neutralization, and, thus, show the great creative capacity in making evident the skills of destruction, elimination, and annihilation in all their splendor.

Curious tendency to avoid the individual, because the idea of combat ends up being reduced to its minimum expression. In some way, it amounts to objectifying the other, to ignoring the smallest detail that can establish some emotional sense for that one who is hardly considered, more than an adversary or enemy, a hinance; a token to be removed from the game board.

To that end, creativity has not ceased in its path to patent new mechanisms, artifacts, devices, etc. that achieve greater security for those who activate them and, at the same time, greater lethality for the objective (because in this sense, if they are individuals, it is better not to allude to them as human beings).

Today, the problem is oriented to the application of artificial intelligence in armed conflict and, in that context, the use of drones to achieve a much more effective distancing when attacking and destroying a target.

Much has been said about regulating, limiting, and even prohibiting those weapons that are not balanced and proportionate to the development of war... "humanize" the war, as if at the point of euphemisms, the impact of the warlike act was diminished.

Consequently, within the framework of international law, the hard law issue has allowed normative instruments to emerge in the light of normative instruments, such as the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Considered Excessively Harmful or to Have Indiscriminate Effects (ACC or CCAC), signed in Geneva, Switzerland, on October 10, 1980, understood as an extension to the Geneva Conventions of 12 August 1949.

From that perspective, questions arise linked to prudence for the use of these unmanned weapons.Are they lawful? Do they guarantee the care of the civilian population? How is liability handled in case of violation of the law? If it does not expressly rule on drones, what is their treatment? If they are not used in conflicts, what is the scope of domestic law?

In this regard, this paper investigates the problems involved in the use of drones as a weapon and what is the main concern for them to be admitted from a bioethical point of view. Therefore, it outlines as an academic objective to identify the scope of the biolegal problem involved in the use of drones, their role as conventional weapons and the effects they can cause to the individual, nations, and the world in general.

The textthus starts from the definition of the concept of drone, the questions that the doctrine has made around it, and then exposes the disquisitions around its characteristics and insertion in war scenarios, culminating with reflections taken from film narratives that contribute to the debate in the sense of future concerns about the implications and gaps derived from acceptable use in terms of relevance and effectiveness.

Drones as military devices: more than an autonomy problem

The U.S. military has defined the drone as a vehicle that can travel by land, sea, or air, but controlled remotely or even automatically. Thereis a big apprehension that it can take weapons characterizations and, in short, once the human crew is suppressed, any vehicle can be droneized. They may be subjected to telecommanding or autopiloting; receive names such as"Unmanned Aerial Vehicle(UAV) or"Unmanned Combat Air Vehicle"(UCAV),depending on whether it carries weapons or not. In this case, they have received nicknames such as "aerial surveillance devices transformed into killing machines", or "flying cameras, high resolution, armed with missiles" (Chamayou 2016: 18).

The use of unmanned aircraft for combat has its antecedent in 1849, when the Austrian army attacked the city of Venice with a fleet of unmanned hot air balloons (Rushby 2017: 23); it is also necessary to consider the works of George Cayley in 1909, of the Wright brothers, including the concept of pilotless aircrafts, as well as that of target drone,and, since the 60s the military assumption of the invention under the acronym RPV(Remotely Piloted Vehicle),modified in the 90s by UAV (UnmannedAerialVehicle), then moving on to UAS(Unmanned Aircraft System)(Gertler, 2014).

From a technical point of view, drones are robots,as they can have a certain level of autonomy in their movements; this aspect warns of new ethical problems for their handling and insertion in different activities. If technology can increase this capacity, at the same time the scope of decision-making that should be inserted into its software will have to be questioned. Consider, for example, the risk of coupling the technology of a virtual game to a weapon whose risk of getting out of control may be imminent (Rossini and Gerbino: 8-9).

Regarding legal aspects, the topic is involved with the so-called Law of Air War, which is part of the law of armed conflicts or Hague Law, as well as with Geneva Law or International Humanitarian Law. The first originated at the First International Peace Conference in The Hague (1899), where the world powers approached their gaze to the dire possibilities of air warfare, an appreciation extended until the second event held in 1907 (Villamizar 2015: 93-94).

The first remote-controlled aircraft emerged just before World War I (Grossman 2018: 5), an event that was attempted to be avoided by the Allies by signing the Declaration of 1907, while the major powers omitted to do so. This caused the aviation to be used by the two sides to bomb each other since the regulations were mandatory for the states parties if they faced each other (Villamizar 2015: 94).

In 1922 the Washington Conference on the Limitation of Naval Armaments was held in which a commission of lawyers commissioned a Regulation on Air Warfare that never entered into force. But it was in the heat of World War II that the waring sides attempted to develop drones. Then, in Vietnam, Firebee drones entered the scene, at the behest of the United States of America. It has been since the 90s and the beginning of the 21st century, that it has been achieved, from computer science and remote technology, to turn drones into the sophisticated weapons of today (Villamizar 2015: 94).

Military drones are divided into explicit attack weapons and devices with complementary military uses, the functional characteristics of which are similar, namely:

> *"The engines of unmanned aerial vehicles emit a characteristic sound. These contain bombs and missiles controlled by a laser, but their main tool is contained in the nose. Inside it is a black box that communicates with a satellite. This connection is what allows one to operate the drone over a long distance. At the bottom are distributed three different cameras: one infrared, one for long distances and the last for close-up views. Drones transmit the images captured by their cameras, thus allowing them to monitor territories or attack targets. If the UAV is hit or destroyed by the enemy, the pilot is not in danger, as he is in an air base thousands of kilometers away. It takes two human operators to guide a drone. The pilot will oversee operating the device, and another one will oversee controlling the cameras. If a target is located and it is necessary to attack, the pilot will choose the weapon he will use manually. The operator points the target with the laser, and the pilot shoots at the push of a button"* (Fernández 2017: 6).

Unmanned technology is already widespread and will be very prolific soon. As it expands and increases, the most advanced armies will manufacture drones of high sophistication; on the other hand, states with lower capacity will gain new levels of attack and surveillance and, inevitably, there will be more options for terrorists and insurgents to get theirs (Grossman 2018: 5).

Therefore, in the current context, according to Kelsey Atherton from*Popular Science,*what is included in the concept of drone as a category alludes to any unmanned and remotely piloted flying craft, ranging from something as small as a radio-controlled toy helicopter, to the 32,000 pound or 104-million-dollar Global Hawk (Kreps 2016: 7).

But there is confusion among artifacts that might well fit into that definition; starting by stating that drones are getting smaller and amateur aircraft models have become more sophisticated. For example, these can be equipped with first-person view (FPV) capabilities in which a camera is mounted in front of the aircraft model and flown through a video downlink displayed on a portable monitor or video. The moment this FPV goes beyond the line of sight, the Armed Forces would likely consider it a drone that would fall within its regulatory framework. However, operating within line of sight does not mean that an aircraft is not a drone. Quadcopters are traditionally operated within the line of sight and are commonly considered drones.

Another potential source of misperception is the difference between a drone and a cruise missile. While the Missile Technology Control Regime (MTCR) considers cruise missiles as a type of drone, they are distinct platforms. Although they can be confused with cruise missiles, there are two differences between them:

Table 1 - Based on studies by Sarah Kreps

Drones	Cruise missiles
Can be recovered	They are unidirectional systems
Ammunition is segregated and separated	Ammunition is integrated into its fuselage
In ranged attacks, their range is shorter	In ranged attacks, their range is longer
They are slower	They are faster
Likely to require operational bases	No operational bases required
They are not manned	They are not manned

Source: Sarah Kreps (2016: 8)

From these approaches, one of the great problems arises around the insertion of drones in war. It is about how to harmonize these artifacts with International Humanitarian Law and International Human Rights Law. Several informal meetings have been held in May 2014 and April 2015, within the framework of the United Nations Convention on Certain Conventional Weapons (CCAC), located in the city of Geneva, to discuss this aspect that represents a wide legal vacuum that must be paid attention without further delay (Del Valle 2016: 226).

Lethal Autonomous Weapons Systems (LAWS), as defined by the International Committee of the Red Cross, are:

> *"Any weapon system with autonomy in its critical functions, i.e., a weapon system that can select (search, detect, identify, track or select) and attack (use force against, neutralize, damage or destroy) targets without human intervention"* (Queirolo 2019).

Despite this notion, it has been difficult for the international community to fully identify the figure, especially since it alludes to "emerging technologies", but it has been estimated that they have as a common denominator the ability to select and attack targets "without ongoing human intervention, in an open environment, under unstructured and dynamic circumstances" (Del Valle 2016: 228).

Similarly, in terms of classifications, autonomous weapons manage to be discriminated against in three ways according to the human involvement that may exist in their actions. In the following table, the English denominations are derived from Human Rights Watch's interpretation and those in the second row correspond to the categories used by the United States Department of Defense:

Table 2 - Elaborated from the studies of María Julieta Del Valle

Human-in-the-Loop Weapons	Human-on-the-Loop Weapons	Human-out-of-the-Loop Weapons
Requires a human command to select and attack targets	The system selects and attacks targets, but under the supervision of a human operator	Can select and attack targets without any human intervention
They are semi-autonomous systems	They are autonomous weapon systems supervised by humans	Fully autonomous weapon systems

Source: María Julieta Del Valle (2016: 228)

For Christof Heyns, Special Rapporteur of the Human Rights Council, these systems have remarkable military advantages, as they:

- Offer greater protection of one's own armed forces (saving soldiers' lives and preventing injuries).
- Multiply the force employed.
- Expand the battlefield (facilitate penetration behind enemy lines and can stay in the theater of operations longer; much longer than people).
- Have a shorter reaction time than humans.
- Will never act out of panic or revenge, or racial hatred...
- Will be able, in the future, to employ less lethal force, avoiding unnecessary deaths; hence, technological development can offer, as alternatives, the immobilization or disarmament of the objective (Gutiérrez and Cervell 2013: 29-30).

As it has been observed, although the use of unmanned aerial vehicles in the military field is not new, the use of drones today obeys the idea of technostrategy, promoted since the Cold War, under the premise of reducing fatalities according to the US anti-terrorist policy (Villamizar 2015: 91).

The legal controversy around these artifacts is becoming more important, and especially in that it is argued the need to define a normative support that is clear, valid, and effective as soon as possible, given the enormous gap that the subject implies in a world where asymmetric conflicts are more frequent.

For Jochen Kleinschmidt, beyond orienting the discussion towards autonomy, the controversy must be addressed in other directions, while drones "are not today the most autonomous weapons systems in use" (2015: 21).

Considering this, the divergent positions have not been long in coming; for example, for Judge Lord Thomas Bingham, drones are equivalent to anti-personnel mines and therefore their recognition is not admissible; on the other hand, in the framework of the Annual Congress of the American Society of Law,held on March 25, 2010, Harold Koh, legal advisor of the Department of State, supported argument in favor (Villamizar 2015: 92).

In this constant tension, international law is subjected to the interpretative swing without there still being an environment of legal certainty that clears the uncertain panorama. Therefore, a third position has been guided by Peter Maurer, president of the International Committee of the Red Cross (ICRC), which defends the legality of drones used as weapons, by assimilating them to those that are launched from helicopters or fighters.

It happens that the problem of illegality lies in the contextual study of operations under the framework of IHL, with respect to which it is necessary, of course, to differentiate between combatants and civil society, as well as the respective assets and this is done

with caution; likewise, it is necessary to cancel attacks that cause excessive or disproportionate damage, as well as to avoid with the transport of unconventional weapons and give greater preference to those that improve the accuracy of the attacks in order not to affect collateral damage (Villamizar 2015: 92, 98).

A tenuous doctrinal consensus on the subject has been recognized, highlighting the prevalence of the principle of proportionality, the protection of civil society and the responsibility of the chain of command, as fundamental legal axes to give clarity to the thorny study on the desirability of this modality of armament.

Concerns from bioethics

In accordance with the fundamental principles of bioethics, the problem assumes a tension between the adequate and the inadequate, especially in the case of implications derived from the sovereign expression of states.

It is not possible to estimate that drones will disappear from the war scene; they are here to stay, and, in this sense, they emerge as considerable weapons in future confrontations that, of course, there will be.

However, it is necessary to assess the relevance of a moderate use of drones, about these potential damages that they may cause.

Bioethical interpretation is usually oriented from the concurrence of four essential principles: non-maleficence, beneficence, autonomy, and justice. As it is known, its correspondence with dilematic aspects is usually moderate. In the above case, its scope is complex, especially because of the nuances involved in the possibility of causing damage.

For example, in the face of non-maleficence, the duty is to avoid any attempt on life. In this sense, the use of drones in war conditions would be oriented, in extreme cases, towards the affectation of material things or goods.

Regarding charity – which in a conflict is paradoxical – it is reflected in the prohibition of the use of force that finds its exceptions in "the authorization of the United Nations Security Council to carry out coercive action and the legitimate defense of States" (Ferrari, 2021: 111).

Likewise, justice and autonomy swing on the relativity of events insoil, as they are limited to the sovereign vision of states, an aspect that is a principle, but, at the same time, segregates the factors of incidence of the decisions to be taken.

It is not easy to bring up a precise approach to these parameters of duty, because in the scenario of warlike conflicts, irrationality makes possible any consequence to the detriment of the proper condition of humanity, especially when it is evident how "international law has been brewing in function of war" (Oliveros, 2020: 131).

In the international regulatory landscape, the states that are at the forefront of the regulation of these devices are Australia (an essential reference around private messaging), Ghana (with the most extensive network of drones oriented to social services), China (in terms of health care, derived from the Covid-19 pandemic), USA (which, despite its unseated arms race and the use of drones in military activity since

the 50s, has also used them for citizen protection purposes) and Spain, which in terms of privacy and citizen security is based on Royal Decree 1036 of 2017, issued by the State Aviation Safety Agency (Ortiz and Sánchez 2020: 19). These scopes emphasize a non-war use, since they are oriented towards the benefactor purpose that underlies technology, an aspect that it seeks to improve the living conditions of nations.

The inclusion of drones in this scenario opens multiple possibilities, not only in terms of promoting asymmetric warfare, but also in that, probably, the affront towards human beings begins to diminish. There is a need for a collaborative correspondence between states within the complex scenario of international relations. To do this, it will be necessary to deepen the scope of artificial intelligence supported by prudence, restraint, and caution. Maybe it is asking a lot, but it is an urgent need to consider.

Conclusion

The drone, as an artifact that can be used for military tasks and military confrontations, has become an important option within the tensions that move states to demonstrate their power. One of the main concerns of the use of these is the ability to locate targets at a distance and, even more, the detection subject to an uncertain and, probably, wide autonomy that can generate an imbalance in the abuse of that power.

However, it is estimated that they can also contribute to reducing the deaths of human beings in war, given the impersonal and remote-controlled character that identifies them. Under that gaze, its military incursion is susceptible to justification.

Despite the hermeneutic difficulties involved in studying the problem from the perspective of bioethical principles, it is necessary to formulate new criteria that involve an appropriate use of this technology and thereby avoid catastrophic events to dignify the human condition over war pretensions, to comply with greater rigor, the scope of courtesy, cooperation, and reciprocity, as the basis of international law.

An insistent and permanent call is needed to the international concert of relations between states, to effectively regulate the use of drones to put technology for the benefit of humanity, e.g., in citizen protection work, assistance in health services, messaging work, etc.

In this vein, emphasize the responsibility that underlies the nature of the positions held by heads of state, heads of government, military, political and social leaders to avoid the trivialization of violence whose risks tend to deify Human Rights to the point of trivializing life itself while individuals are considered as mere pieces in war chess games.

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