CONTEMPORARY GENERATIONS OF OFFENSIVE AND DEFENSIVE WEAPONS

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Abstract. The article deals with the problem of distinguishing between offensive and defensive weapons in the context of international security, and its influence on the evolution of wars with particular emphasis on modern times. The nuclear weapon deserves particular attention because of its dual nature – both offensive and defensive, which resulted, among other things, in the development of a strategy of deterrence. What is more, its presence in the arsenals of the great powers causes that international politics is much more prudent, and the classic, territorial concept of security has lost its importance. By analyzing the most important sources of military threats, the author concretizes her reflections on the example of Poland, and its contemporary situation regarding the issues discussed. The main research problem raised in this article is the question – what is the impact of modern weapons generations on international politics in the context of military security?

Keywords: offensive weapon, defensive weapon, weapon diversity, nuclear weapon, cold war.

Introduction

In the common understanding of armed conflicts, important details of the art of war, conducting military operations with a clean profit and loss account are often lost account for the general impression of destruction and the clash of hostile forces. Referring to the basic theory of war, and in particular the attack/defense ratio that each army represents, it is easy to see the dependence, according to which the probability of conflict increases diametrically when one of the parties is strongly convinced of the ease of conquest with low effort. It is not difficult to support this thesis just by a common sense. It is enough to rely on the events of the newest history – the 1980s, when numerous movements for peace inspired by the abovementioned thesis proclaimed that the progressive reinforcement of defensive powers would help maintain the world order and the balance of power between East and West. This concept assumed that high risk of losses incurred by the aggressor puts in question the sense of the offensive. A practical manifestation of this theory was the military doctrine of the Soviet Union under the rule of M. Gorbachev, when it was decided to strongly expand the defensive
potential of Soviet army. In retrospect, it can be said that the defensive military doctrine of both blocks has brought the expected result – no one has attacked. However, the armament is being produced and constantly modernized not only for the purpose of maintaining the status quo and defending the territory. It is possible to use the same weapon for defensive and offensive purposes. This article focuses on explanation of these aforementioned relationships. Author’s analysis of their influence on evolution of wars over the years allows forecasting further evolution of contemporary, as well as future conflicts. The main thesis put forward by the author assumes that the mere fact of having a given type of weaponry is not enough to achieve the desired political or military goals.

1. The distinction between offensive and defensive weapons

The attack/defense relationship described in the introduction determines the ratio of the aggressor’s costs to conduct offensive actions in order to balance the opponent’s defensive power. The greater the difference is, the higher offensive investment is needed, and the greater is the defensive power of the opponent. This in turn is converted on the multiplied attack/defense ratio, the result of which illustrates the real defense capabilities of a given army or country. The above observation leads to further conclusions. Security is seen as a simple resultant of opposing variables – the power of attack and the power of defense in given circumstances, place and time. When offensive forces gain an advantage, then the phenomenon popularly known as the armaments race can be observed. It is dangerous when easy conquest with low cost is feasible. Then, potential aggressor is more encouraged to start warfare. In the case, however, when both the offensive and defensive potential of both sides seem to be similar, or they represent a completely different, difficult to unequivocally compare state, then the chances of peaceful cooperation and coexistence grow. This is also directly reflected in the type of weapon they have. If it serves mainly to defend the territory, then it does not raise objections among neighboring countries. It is different when offensive advantage is developed, allowing for the destruction of the enemy, which for obvious reasons overcomes the dilemma of mutual security. An interesting example depicting the aforementioned case is nuclear weapon, which, even if intended only for defense, also leads to alleviating the security dilemma. Summing up the criteria presented above that affect the offensive and defensive potential of the opponents; it is possible to specify four basic states:

1. Advantages of an attack, in the absence of knowledge about the intentions of others, while armaments are indistinguishable (doubly unstable),
2. Advantages of an attack when the intentions of others are known while armaments are distinguished (unstable),

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1 V. Evers, Cauter of War, Cornell University Press, London, 1999, p. 117-119
3. The advantages of defense, in the absence of knowledge about the intentions of others, while armaments are indistinguishable (stable).

4. The advantages of defense when the intentions of others are known and armaments are distinguished (double stable)\(^5\).

In the context of the above, it should be noted that the most dangerous situation (double unstable) occurs when the offensive and defensive forces are not distinguishable, and there is an advantage of the attack. In other words, when ensuring security is easier through attack than defense, it is difficult to preserve the balance between countries. One can see the paradox in this situation, when the increase of the power of one of the parties is connected with the relative weakness of the opposing states. What’s more, the increase in the power of the former ensures its security to a lesser extent than it poses a threat to the opponents, as they are forced to increase defense expenditures to be able to resist potential aggression. This armament spiral can be supplemented by a situation in which offensive and defensive units are not distinguishable, and both sides develop analogous measures. Then the circumstances become doubly unstable, which favors mutual fear of attack.

Another version of events can be observed in the third variant, when there is no distinguishability of owned weapons; however, there is a defensive advantage, which results in the fact that the increase in the power of the state brings him a relatively greater security than becomes a threat to enemies. Then, the expenditure on reinforcement is much lower, which translates into an increase in the stability of such a situation. The only drawback is the often mentioned lack of distinction between individuals and their attack / defense potential. In such a case, it is difficult to assess the intentions of the state investing in its military potential. The armament race is slowed down, possible expansion costlier, which is why wars are less frequent\(^4\).

The second variant represents a situation in which a clear division into offensive and defensive units happens, which makes it possible to forecast opponent’s intentions, and the attack seems easier than costly defense. Then it should be seen as unstable circumstances because of the likely accelerated armament race and mutual distrust. The solution to this situation may be an attempt to control production or development of weapons, in order to minimize the risk of war\(^5\).

The last option described in the fourth option represents a doubly stable situation mainly due to the clear distinction between defensive and offensive weapons, where defense costs are lower than the attack, and countries can afford the development of defense technologies without a clear impact on the security of neighbors. Then, mutual evaluation of intentions is possible, and the dilemma of security disappears. In such circumstances, the level of security is high. The simplest

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\(^4\) Ibidem.

\(^5\) Ibidem.
attack / defense account could be applied, when a one-sided defensive strategy seems to be the best way out. The summary of the topic discussed, could be a statement that insecurity becomes one of major causes for changes and military development of states. The natural consequence of these activities is an increase in the sense of threat in the region, which contributes to the armament spiral to overcome the potential differences. The solution to a self-propelling military race may be limitations in the development of the offensive weapons.

2. Duality of nuclear weapons

The advancing technological development and the emergence of nuclear weapons have left their mark not only on the ways of conducting armed conflicts but also on international politics. The nuclear weapon deserves particular attention because of its dual nature – both offensive and defensive, which resulted, among other things, in the development of a strategy of deterrence. What is more, its appearance in the arsenals of the great powers causes that international politics is much more prudent, and the territorial concept of security has lost its importance. Despite the obvious, highly destructive effects of the use of nuclear weapons, the literature often refers to them as the means used in the deterrence strategy. It is worth noting that even before the invention and use of nuclear weapons, conventional wars were more frequent than today. The risk of armed conflicts was easier to calculate, and a possible defeat in the battlefield did not mean total failure. What’s more, the benefits of the conquest of new areas contributed significantly to the expansion of the power of state leaders and, consequently, improved business implementation. It was not until the end of the Second World War and the first use of a nuclear bomb by the United States that the power of this weapon was realized. It turned out that the result of warfare is not only the victory or loss but even a total annihilation. Such a vivid picture of the devastation that took place in Hiroshima after 1945 was a proof that the very fact of possessing nuclear weapon was to a large extent a bargaining chip for international politics. This became one of the most important elements of the NATO tactics, and the American umbrella of protection allowed European countries to maintain relative security during the Cold War. Thus, the political pressure from the USSR was strongly limited. According to the researcher, JS Nye, in the eighties, the nuclear arsenal of the US and the USSR consisted of about 50,000 warheads, and each of them exceeded all conventional means used during the operations of the Second World War. Such proportions and firepower are difficult to imagine, seeming even unrealistic. These properties of nuclear weapons cause that its specificity had a significant impact in the shaping of international relations and

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6 Ibidem.
geopolitics after 1945. By transferring the theory of using nuclear weapons to the practical effects of such an event, it is easy to predict the consequences of conflict with its use. Actual defense against a nuclear attack seems impossible and leads to a unilateral disaster involving the total ruin of the state. As it turns out, also the situation of the winner is not positive. The win is occupied by enormous losses in people, infrastructure and the state of the natural environment. Such conditions cannot be accepted by any government or state.

With the appearance of the described nuclear weapon in the arsenals of world powers, a period of “rationalization” of new circumstances took place. A special period was the Cold War, when nuclear missiles were treated as a conventional weapon with increased firepower. Today we know that this approach is not fully appropriate. However, it is impossible to omit the aspect of “adaptation” of the intellectual knowledge and tools from the period before the appearance of nuclear weapons. The deterrence strategy using the latest atomic arsenal represented a strong international turn, especially in diplomatic and military contacts. Despite the assumption that the atomic bomb could not be realistically used in an open conflict between Russia and the US, the mere threat of its possession was a qualitative change in policy. In the event that the deterrence strategy fails, the consequences would certainly be out of the control of all parties to the conflict.

There is an important difference between the perceptions of nuclear bombs in the context of conventional weapons. The latter can be an area of continuous development, improvement, comparison of quality, technologies used or the number of vehicles, rifles, etc. The atomic weapon is treated quite differently. One could say that in an absolute, dummy variable. Only when the enemy can destroy a full atomic arsenal of the opponent with a one, precision strike, it is possible to master the situation and win. In any other case, enabling an equally strong counterattack, any size of strategic forces becomes less important. Thus, the possession of hundreds and thousands of copies of nuclear weapons does not increase the level of security of its owner and does not increase the threat to the environment. By definition, atomic weapons are distinguished as a defensive arsenal. The reason for this is a much higher probability that it will be used by the victim, not the aggressor. In addition, the previously described lack of knowledge about the intentions and resources of an opponent is strongly limited. Possible errors in estimation of the number of heads do not change the basic fact of having them. According to J.J. Mearsheimer, nuclear states are much more prudent in international politics, especially with regard to each other. It is also caused by a greater sense of security.

Researchers underline that the desire to possess nuclear weapons is a natural phenomenon, especially in cases where it is already in possession of the opponents.

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and there is no close ally equipped with such weapons. Other reasons include: the growing strength of the conventional adversary army, the desire to raise their rank on the international arena, or the need to achieve their own goals, even offensive ones\textsuperscript{12}. Referring to the aforementioned recognition among the international community, it is worth noting that the owners of nuclear weapons are members of the UN Security Council\textsuperscript{13}. This is primarily due to the fact that they are able to defend themselves effectively with low financial or military expenses. This creates additional advantages for holders of nuclear weapons, as produced in this way, the balance of forces between the parties allows the development of the economic potential without the need for constant armaments rush and maintenance of large, expensive army\textsuperscript{14}. Continuing, nuclear weapons are much more effective in the category of financial costs, because the same or similar military and political effects are achieved with less effort than in the case of conventional forces.

With the emergence of nuclear weapons in the world’s arsenal, also critical opinions about its impact on world order appeared. One of the propagators of the fall of the world order was J. Herz. According to the researcher, one of the most important guarantors of the existence of statehood is the inviolability of its borders. In the context of purely technical possibilities of destruction brought by nuclear weapons – a far-reaching, global range, unprecedented power and the lack of ability to effectively counteract them, the condition presented by Herz became uncertain. States cannot effectively defend themselves against atomic attacks\textsuperscript{15}. Other researchers propagate a completely different view, proving that the necessity to keep inviolable boundaries results from the concept of a territorial security state, which was strengthened in the consciousness of people after the Second World War. Referring to the words of B. Mabee, a nuclear weapon only strengthens the status quo and the sovereignty of its holder. It also translates into wider world politics and the existence of the state in the international arena. For obvious reasons, having nuclear warheads in its arsenal means that such a state is more respected. It does not have to rely only on the assurances of the allied powers and is able to conduct its own independent policy with the environment. A perfect example is France or China. However, this is not the only positive effect of such modern weaponry. It also plays a significant role in the internal policy of the state, as it provides additional legitimation of the government as a security provider for the nation\textsuperscript{16}.

To sum up, nuclear weapons, due to their dual nature, radically changed not only the way of armed conflicts are conducted but also the international politics. The strategy of deterrence has gained importance by becoming a strong argument in negotiations. An important phenomenon is also the abandonment of earlier

concepts of global order based on the principle of inviolability of borders. Long-range nuclear weapons allow real impact on significant distances with the potentially no own losses. At this stage, it is worth mentioning that nuclear weapons are just one of many examples of dual-use technology. There are also other technologies, in particular ICT systems, reconnaissance, power supply, material engineering and others, which have the vast potential of implementation not only in the military but also in other fields.

3. A strategy of deterrence in the context of defensive and offensive weapons

The arguments for and against nuclear weapons presented above often boil down to the whole policy of deterrence, which in turn often emphasizes the results of wars, not the cause of armed conflicts. The basic assumption is that people, by their very nature, want to live, making inevitable death as a result of hostilities a major element discouraging aggression. This situation is often referred to as “discouraging the adversary to use military force to achieve political goals” through firm retaliation. An inherent element of this type of strategy is the assumption that each state and its government is a rational opponent who makes decisions only through the prism of calculating profits, losses and actual consequences of actions, which makes it natural that he or she chooses the most advantageous options for himself and his interests. In view of the above, the deterrence strategy will only be effective if the adversaries are fully convinced of the possibility of using a retaliatory force by the opponent. Therefore, the necessary element of the deterrence policy is to ensure the possibility and effectiveness of retaliatory action. In addition, any negative impact should also be used together or alternatively with positive incentives, in order to create a synergy effect.

The history and realities of geopolitics show that the method of deterrence can be carried out individually by a given state, or multilaterally, accompanied by allies. An example of a global policy towards multilateral control in many parts of the world is the United States. The presence of their bases in many places on the earth allows controlling the international space and protecting the current world order. In addition, the possibility of using many scattered allied bases means that Americans operate wherever their current state interests lie. This situation has its advantages mainly for the USA, which in spite of the fact that multilateral deterrence exists, in reality mainly the priorities of the states are implemented. For this reason, there are numerous critical claims regarding the multilateral deterrence strategy, which means that unilateral actions are considered the most effective and

the most appropriate method. S. Sagan gives an example of a situation in which
there is a serious threat to the coalition, where divergent interests may also cause
discrepancies. Then the decisions and the willingness of the state – the leaders – will
be stopped and, in a logical sense, they will foster the dissolution of the alliance
in favor of the leader’s own interests.

The specificity of nuclear weapons together with its dualism cause that in many
cases its one-sided distinction can be undermined. As stated earlier, its main task is
to ensure security to the holder by creating a real threat of retaliation in the event
of aggression of adversaries. Additional benefits such as raising the rank on the
international arena or strengthening the legitimacy of power as a defender of the
nation go hand in hand with this statement. However, one should not also over-
look the second possibility of using atomic warheads as a threat on other countries
in order to achieve own political goals. The assumption that all countries appear-
ing in the international arena act in accordance with logic, are predictable and do
not perform actions that are contrary to the rational profit and loss account may
turn out to be defective. If the nuclear weapon is in the possession of impulsive
governments, deprived of logical judgment or prone to heroic conquests, then the
threat to global order is real. Thus, the duality of atomic weapons emerging in this
case causes that its distinction between offensive and defensive may turn out to be
ambiguous. In the light of the above, the question also arises – should we control
the proliferation of nuclear weapons among new states and subsequent owners?
Taking into account the point of view of some researchers, nuclear weapons have
a positive effect on supporting the world order and stability of relations, which
makes research on atomic warheads and possession of them by successive states
a desirable phenomenon, what is more progressive proliferation is an unavoidable
phenomenon over longer time horizon. As mentioned earlier, the development
of the military technology by one of the countries results in necessity to balance
such disproportion by adversaries and neighboring players. This is caused primarily
by the desire, or even the need to preserve own security. A good example of a chain
reaction in this field is illustrated by the introduction of nuclear warheads by China
by fear of the United States. This incident caused India’s fear of the predominance
of the East, which led to the development of a nuclear program in India. It is not
difficult to guess that this event provoked the justified fear of Pakistan, which also
equipped its army in nuclear warheads. Thus, increased proliferation gives rise to
further proliferation.

Despite the above, one can observe a tendency of controlled access to nuclear
weapons by new countries. Current holders do not want to lose their privileged
position towards new buyers. What’s more, it is difficult to unequivocally prove
that the growing availability of the nuclear arsenal will only serve the defense and
will contribute to international stability. The interests of individual countries,

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22 Ibidem.
detailed procedures, mutual prejudices and changes in international policy cause that the method of deterrence is not flawless. In addition, the assumption of rational action by states and their governments would only be true if the citizens were in control of entering the conflict – not the leader. The latter are often led by the desire to conquer or realize their own goals, which makes it difficult to talk only about the rational motives of action. One of the main actors trying to control access to nuclear weapons is the USA, which is particularly strong in the way they treat any unstable terrorist organizations, where the rationality of the decision does not occur. As it turns out, there are also critics of this solution. According to R. Gilpin, total nuclear disarmament or the development of techniques aimed at countering nuclear attacks may bring much more severe consequences than the deterrence policy itself, which, as noted earlier, also contributes to the stabilization of world politics to some extent. On the other hand, the deterrence strategy can be detached from reality through the limited possibilities of decision-makers’ deduction. Due to the spontaneous and complicated nature of international relations, not all effects can be easily predicted. There is also an additional difficulty in faulty reading of intentions of decision makers by other adversaries, which for obvious reasons may have severe results. Ultimately, the concept of rationality of the decision makers may also be faulty. It is impossible to assume that all people on earth with their different cultures will use the same models of behavior and rationality, because what is the most logical for a citizen of a democratic western state may turn out to be completely inappropriate from the point of view of an Islamic fundamentalist. In the view of the above, the deterrence strategy had its strong justification especially during the Cold War. Circumstances conducive to such a turn of events were primarily a binary system of forces. Nowadays, we observe a significant complication of the international situation, while not only two adversaries are involved, but a larger numbers of players with different views, different aspirations and incentives. This makes it difficult to unambiguously assess the situation, characterized by a multipolar system of forces, asymmetry and multidirectional threat. In the period following the Cold War, there was also the development of modern, precise and technically complex conventional weapons. According to the law of rising costs of war, each subsequent generation of weapons is more expensive than its predecessors, but it gives an advantage on the battlefield, even if because of the possibility of using different tactics.

To sum up, the deterrence strategy is based on the presentation of the tragic consequences of war and military retaliation, without referring to the causes of armed conflicts. The basic assumption of its application is that it can only be effective against rational opponents whose decisions are based on a logical calculation of profits.

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and losses. Some researchers emphasize that the possession of nuclear weapons by some states favors the preservation of world order, but inevitable, progressive proliferation can have completely opposite effects.

4. Diversity of weapons and its impact on military security of the world

The characteristics and distinction of weapons for offensive and defensive purposes have their inherent influence on the formation of international policy in the context of military security. It plays a key role in the four security categories identified, for example, in the White Book of National Security of the Republic of Poland – the defense, security, social and economic spheres. Threats of a military nature are most often defined as the entirety of actions undertaken using various means to counteract external and internal threats related to the use of military force in the territory of the state. The aforementioned diversity of the arsenal is not the main determinant of war and peace. One should also not forget about the complexity of side causes, impulses or pretexts for the use of military force in order to implement particularistic aspirations. Consideration should also be given to the extensive immaterial sphere in the form of ideology, political culture, geostrategic concepts and others. One of the many possible causes of armed conflict may be the excessive accumulation of military resources exceeding the real sufficiency of defense. The manifestation of this phenomenon may be dislocations of troops, maneuvers and exercises, which sometimes should be treated as a real military threat. The phenomenon of the armament race, which for the first time took place in the 19th century between the German and British fleets for the primacy in the North Sea, is worthy of explanation, but the strongest recognizable example is the Cold War period known for mass production and storage of weapons by world powers, racing not only in quantity but also in the quality of weaponry. This has contributed to the emergence of new strategies, such as the deterrence policy discussed earlier in the context of nuclear weapons. Despite the fact that the armament race known from the Cold War era is already a thing of the past, ongoing modernization and interstate competition are still real. The sign of modernity is the reorganization of troops and qualitative changes consisting mainly of introducing a precise, technically advanced arsenal. Modern weapons are a source of military advantage due to increased range and power. Examples are: intercontinental missiles, bombs with firepower of megatons, or guidance systems with precision of meters. After periods of tension, the time of peace came, and with it the so-called “peace divi-

29 B. Balcerowicz, Bezpieczeństwo militarne, script, not published, University of Warsaw, 2010, p. 7-10.
dend”, resulting in a significant reduction of expenditures on armaments and the army. Contrary to what one might expect Poland ranks among the leaders of the North Atlantic Alliance member states in terms of defense expenditures in relation to their resources\textsuperscript{30}.

**Summary and Conclusions**

The contemporary generations of weapons undoubtedly influenced the military strategies carried out today. Modern solutions provided new, unprecedented operational capabilities. However, this is not the only result of their existence. New generations of defensive and offensive weapons, a deterrence strategy built on the basis of atomic weapons being a mixture of both categories, and the current international situation started new models of conducting international policy in the context of military security. One of many examples is the deviation from the classic concept of security resulting from the inviolability of borders, or threats coming mainly from opponents located in the immediate vicinity or region. The reason for this may be the possibility of exerting influence over much greater distances by using long-range missiles, reconnaissance, information technology and others.

These considerations are worth narrowing to the example of Poland. The involvement of our country in the structures of the North Atlantic Alliance is undoubtedly a source of raising the overall level of national security. The critics of this assumption argue that the Alliance has never been exposed to an important attempt at cohesion, thus, its real functioning is questioned. In the context of the above, it should be stated that having our own defense potential based on native solutions constitutes equally strong, if not more powerful, security than paper alliances. An important solution from the point of view of Poland is to equip the army with tools allowing for the strategy of deterring potential aggressors. This does not only apply to the issue of long-range weapons, and above all to overcome the possible opponent’s advantage and to reduce the impunity of his actions. An essential complement to the arsenal is therefore a full identification and targeting systems. Advanced missiles are useless if they end up in emptiness. The problem becomes even more complicated when it comes to holistic analysis of intentions, needs and real possibilities. Thus, the development, even if it may be spontaneous, of only one type of weapon, be it offensive or defensive, will not bring the intended results. In the opinion of experts, only comprehensive solutions, including arming or modernization of resources, should include all or the most important, complementary types of weapons\textsuperscript{31}. In the general consciousness, the Russian Federation is considered the main potential opponent of Poland in the open armed conflict. It is, however, worth asking whether it is actually the only opponent capable of invasion. In practice, our

\textsuperscript{30} Ibidem.

country does not have enough strength and resources to effectively oppose Russia, which is why we remain on mercy of our allies. Our defensive capabilities should therefore be sufficient to stop the enemy long enough to give operational time for foreign troops who are going to help.

It is worth referring also to the thesis put forward in the introduction of the article assuming that the mere fact of having a given type of weaponry is not the only and ultimate premise guaranteeing the security of the country. There is one more important issue of the possibility of actually using a weapon deriving from the international obligations (e.g. NATO) and having full autonomy of decision-making and command. Often, it is also forgotten that the deterrence strategy does not take place in a vacuum, and each action will be confronted with counterpointing adversary’s activity. In this perspective, it is clear that regardless of the diversity of weapons, there are also other, no less important factors that should be taken into account when considering the differences between military potential and international politics. In the context of the above considerations, the thesis should be considered right.

BIBLIOGRAPHY

WSPÓLCZESNE GENERACJE BRONI OFENSYWNEJ I DEFENSYWNEJ

Streszczenie. Artykuł porusza problem odróżnienia broni ofensywnej i obronnej w kontekście bezpieczeństwa międzynarodowego oraz jej wpływu na ewolucję wojen ze szczególnym uwzględnieniem czasów nowożytnych. Broni jądrowa zasługuje na szczególną uwagę ze względu na jej podwójny charakter – zarówno ofensywny, jak i defensywny, co spowodowało między innymi opracowanie strategii odstrzalania. Co więcej, jej obecność w arsenale wielkich mocarstw powoduje, że polityka międzynarodowa jest znacznie bardziej rozważna, a klasyczna, terytorialna koncepcja bezpieczeństwa straciła na znaczeniu. Analizując najważniejsze źródła zagrożeń militarnych, autorka konkretyzuje swoje refleksje na przykładzie Polski i jej współczesnej sytuacji w omawianych kwestiach. Głównym problemem badawczym poruszonym w tym artykule jest pytanie – jaki jest wpływ nowoczesnych generacji broni na politykę międzynarodową w kontekście bezpieczeństwa wojskowego?

Słowa kluczowe: broń ofensywna, broń obronna, różnorodność broni, broń nuklearna, zimna wojna.