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Explaining the Perception Gap Between Iran and Western Powers Regarding the Nuclear Program from the Perspectives of Defensive and Offensive Realism

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ABSTRACT

This study provides a comparative examination of the nuclearization process of the Islamic Republic of Iran from the perspectives of Defensive Realism and Offensive Realism. In this regard, using the aforementioned theoretical frameworks, the political, security, and diplomatic analyses of the Islamic Republic of Iran in the nuclear domain are comprehensively investigated. The research first introduces and explicates the key concepts and theoretical foundations of defensive and offensive realism, and then applies these concepts to the analysis of Iran's nuclear policy. The comparative analysis of Iran's nuclear trajectory from both defensive and offensive realist perspectives reveals a combination of security strategies and balance-of-power considerations in Iran's foreign policy. On the one hand, Iran seeks to enhance national security and deterrence against external threats through its nuclear capabilities; on the other hand, given regional and global rivalries, its nuclear policy also incorporates offensive dimensions aimed at power enhancement. Within this context, the analysis of Iran's interactions with the P5+1 countries and other international actors—particularly in relation to nuclear negotiations and agreements associated with the Joint Comprehensive Plan of Action (JCPOA)—is of particular importance. Drawing upon diverse academic sources, historical and legal analyses, and a review of texts related to Iran's nuclear policy, this study concludes that Iran's nuclear behavior reflects a hybrid pattern combining both defensive and offensive approaches, each employed under different conditions and shaped by international and regional variables. Furthermore, the existing body of research in this field exhibits various strengths and weaknesses, which are critically examined in this study. The findings of this research may serve as a new analytical foundation for the assessment of Iran's nuclear policies and contribute to a more refined understanding of its interactions at both international and regional levels.

Keywords: Nuclear Program; Defensive Realism; Offensive Realism

Introduction

Nuclear energy, as one of the most important sources of energy production in the world, has acquired a decisive position in international political and security equations. This form of energy, which is derived from the nuclear fission of uranium or other radioactive materials such as plutonium, has numerous applications in peaceful domains, including electricity generation and technological development (1). Humanity's access to nuclear technology has



produced a fundamental transformation in the international system, to the extent that the second half of the twentieth century has been designated as the “Atomic Age.” Nevertheless, deficiencies in effective control and precise supervision over this technology have led to incidents and crises that have damaged its image in global public opinion (2).

Although the international community has sought to control and limit the military dimensions of nuclear energy through the adoption of various treaties and instruments such as the Treaty on the Non-Proliferation of Nuclear Weapons, due to shortcomings, ambiguities, and the selective implementation of obligations by major powers, these measures have failed to achieve the expected outcomes (3). Within this framework, the International Atomic Energy Agency, as the supervisory body over the peaceful use of nuclear energy, is mandated to guide its members toward peaceful commitments through monitoring and sanctioning mechanisms. Nevertheless, the performance of this institution, particularly in its dealings with certain states—especially the Islamic Republic of Iran—has encountered serious challenges (4). The nuclear program of the Islamic Republic of Iran, which emerged at the international level in 2002, has become one of the most controversial political and security dossiers in the world over the past two decades. Western countries, particularly the United States, have portrayed this program as a threat to global security and, through political, media, and economic instruments, have sought to restrict or halt it (5). In contrast, Iran has emphasized its inalienable right to the peaceful use of nuclear technology and has regarded these actions as manifestations of the double standards and discriminatory policies of Western powers. In this context, a profound gap exists between Iran’s perceptions and those of Western powers regarding the nature and objectives of Iran’s nuclear program. Iran views this program as a means of scientific advancement, energy self-sufficiency, and the preservation of national independence, whereas the West perceives it as a threat to the balance of power and regional security. This divergence in perception is rooted in fundamentally different theoretical assumptions about the nature of power and security, which can be analyzed within the frameworks of defensive and offensive realism.

From the perspective of defensive realism, Iran’s behavior stems from a desire to enhance national security against external threats and to ensure survival in the anarchic international system. In contrast, offensive realism explains the conduct of Western powers, which, in order to preserve their hegemony within the international system, regard any effort by non-aligned states to acquire advanced technologies—including nuclear technology—as a potential threat (6). Consequently, the existing gap between Iran and the West regarding the nuclear program is not merely the result of political misunderstanding, but rather arises from fundamental differences in their conceptions of power, security, and survival within the international system. This study seeks, by relying on the theoretical frameworks of defensive and offensive realism, to explain the perceptual gap between the Islamic Republic of Iran and Western powers concerning the nuclear program and to demonstrate how the divergent security logics and geopolitical interests of the two sides have complicated mutual understanding and rendered the resolution of this dispute more complex.

Research Questions

What are the political, economic, and social impacts of nuclear energy in Iran?

What forms of assistance and, conversely, what types of obstruction have occurred in Iran’s pursuit of nuclear energy?

What objectives has Iran pursued in its efforts to acquire nuclear technology?

Analysis and Critical Examination of Realism

Realism, which is sometimes referred to as the school of power politics, is one of the approaches that for a long period served as the dominant paradigm in the study of international politics. In its classical form, realism is reflected in the work of Thucydides, namely *The Peloponnesian War*, written twenty-seven centuries ago. In the modern European context, thinkers such as Machiavelli (*The Prince*), Clausewitz (*On War*), Hobbes (*Leviathan*), Leopold von Ranke (the primacy of foreign policy), Friedrich Meinecke (the reason of state following the Twenty Years' Crisis of E. H. Carr), and in the United States scholars and statesmen such as Hans Morgenthau, Henry Kissinger, and George Kennan contributed to the development of this tradition. Other realist thinkers include Reinhold Niebuhr, Arnold Wolfers, and Raymond Aron (7).

Although the roots of realism can be traced in the works of these thinkers across earlier centuries, realism as a systematic theoretical approach for analyzing international politics entered the field of international relations in the late 1930s and early 1940s. In the 1960s, realism was challenged on methodological grounds by behavioralists, yet it reemerged in the following decade in the form of neorealism. The importance of realism in the study of international politics lies in the fact that for a long period this field of study was closely intertwined with this theory and that realism played a highly influential role in shaping it (8).

Undoubtedly, realism has been the most significant and enduring theory of international relations. When reference is made to the "mainstream" of international relations, the names of realist scholars typically come to mind. The nearly unparalleled appeal of this theory is due to its proximity to the actual conduct of policymakers in the international arena and its alignment with conventional understandings of international politics. Realists themselves maintain that the importance of their perspective derives from this very correspondence with "international reality," and they regard the existence of a long-standing realist tradition as evidence of the continuity and persistence of the fundamental realities of inter-state politics (7).

Realism, as one of the principal theories of international relations, has historically been subject to numerous critiques. These criticisms have emerged from the limitations and weaknesses of realism in analyzing and explaining international behavior. As a key theoretical framework in international relations, realism faces various critiques that highlight its constraints and underscore the need for more multidimensional and analytical approaches to the study of international interactions. These critiques emphasize that a more comprehensive understanding of complex global realities requires attention to factors such as cooperation, identities, and non-state actors.

Power-Based Interests

According to Hobbesian teachings, utility constitutes the motive of action, and power is the instrument for its realization. In the sphere of social action, statesmen must regulate their conduct to avoid fear and to ensure security. From this perspective, although political representatives and officials may possess highly sensitive and ethical considerations, they must recognize that moral intentions and virtuous considerations do not necessarily guarantee success (9). What is essential in political theory is not the intentions of actors or their ideological or superstitious reactions, but rather the quality of their political reasoning, will, and behavior. In this regard, Morgenthau refers to the policies of appeasement and accommodation pursued by Neville Chamberlain in the years preceding the Second World War and acknowledges that Chamberlain's sincere motives provoked Hitler into war and led to the deaths of millions. Similarly, Robespierre during the French Revolution was deeply religious, yet his idealistic

radicalism resulted in the execution of many revolutionaries, even for the sake of virtue. For this reason, the primary criterion of realism with respect to interests is their objective character. Thomas Hobbes elaborates utilitarianism through the dual concepts of freedom and necessity and regards them as the determinants of all human behavior. Later realists dismiss the moral and benevolent efforts of statesmen as forms of personal inclination. Thucydides argues that the unity of interests is the most decisive factor in relations among states and among individuals. This proposition was subsequently echoed by many thinkers and statesmen, including Machiavelli, Salisbury, George Washington, and Max Weber. Even in the post–Cold War era, such explanations remain prevalent. In this period, the idea of alliance for civilizational dialogue and peace was abandoned after initial formal acclaim, because it was articulated on ethical grounds and failed to yield tangible benefits for its proponents and their subordinates, whereas the concept of a clash of civilizations and coalition-building found greater support for war, with alliances including Russia, Germany, and others. The financial and political costs of these developments demonstrate the enduring primacy of national interest even in the post–Cold War era, a period that is separated from the age of Thucydides by 2,300 years and from the life of Hobbes by 350 years (10).

Analysis of Iran's Regional Position

Iran, as one of the key powers in the Middle East, possesses a distinctive geopolitical position that has transformed it into an influential actor in regional and international developments. Iran's regional position can be examined from multiple dimensions, including geopolitical, economic, military, and diplomatic aspects. This analysis evaluates Iran's role in the region through the lenses of balance of power, geopolitical rivalries, and emerging challenges.

With an area of approximately 1.64 million square kilometers and a population exceeding 85 million, Iran is located in one of the most strategically significant geopolitical regions of the world. Its proximity to the Persian Gulf, the Sea of Oman, and the Caspian Sea, along with its shared borders with fifteen countries, has made Iran a connective bridge between Asia, Europe, and the Middle East (11). One of Iran's most critical geopolitical advantages is its control over the Strait of Hormuz, through which nearly 20 percent of the world's oil supply passes. Control over this strategic passage provides Iran with a significant leverage tool over Western states during periods of crisis (12). Iran shares borders with unstable states such as Afghanistan, Iraq, and Pakistan, a condition that directly affects its national security and has resulted in border conflicts, refugee inflows, and persistent security challenges. Iran has consistently sought to exert influence within these neighboring states in order to prevent potential threats (10). One of the most prominent geopolitical rivalries in the region is the confrontation between Iran and Saudi Arabia. This rivalry, encompassing ideological dimensions (Shi'a versus Sunni) as well as geopolitical competition, has manifested itself in the crises of Yemen, Syria, and Iraq. Saudi Arabia, as a traditional ally of the United States, has continually attempted to constrain Iran's regional influence (13).

Although Iran and Turkey have maintained positive relations in certain areas such as economic and energy cooperation, implicit competition has emerged between the two states over regional issues, particularly the Syrian conflict. Turkey, due to its membership in NATO and its close ties with the West, has at times functioned as a counterweight to Iran (14). Economic sanctions have restricted Iran's access to the global financial system and reduced foreign investment. This situation has caused stagnation in several key industries and a decline in economic growth, while simultaneously pushing Iran toward the development of a resistance economy and expanded cooperation with non-Western states such as China and Russia (15).

Iran's regional position reflects a state endowed with substantial geopolitical, economic, and military capabilities, while simultaneously facing multiple challenges. Due to regional rivalries, economic sanctions, and international pressures, Iran has adopted a hybrid policy combining military deterrence, economic diplomacy, and cooperation with non-Western powers. While Iran's military capacity and regional influence have consolidated its standing in the region, sanctions and economic pressures have created serious challenges for its foreign policy.

Analysis of Iran's Nuclearization Process from the Perspective of Offensive Realism

Iran's nuclear program has constituted one of the most significant issues in international politics in recent decades. This program has consistently been perceived by Western states—particularly the United States and its regional allies—as a threat to international security. From the perspective of offensive realism, Iran seeks to expand its power and regional influence, and in this process it has pursued the development of its nuclear program as an instrument for deterrence, enhanced bargaining leverage, and the alteration of the balance of power in the Middle East (6). Offensive realism, as articulated by John Mearsheimer, is grounded in the assumption that great powers seek dominance and the accumulation of power in the international system in order to maximize their security. Within this framework, states adopt aggressive policies not only for defensive purposes, but also to expand influence and reduce potential threats (6). From this perspective, Iran has developed its nuclear program not merely for deterrence, but as part of a broader strategy to reshape regional power structures and enhance its strategic position vis-à-vis regional and global rivals.

Iran initiated its nuclear program in the 1950s with American cooperation under the “Atoms for Peace” program. In the 1970s, the Shah of Iran pursued the expansion of nuclear power plants and the enhancement of nuclear technological capacity with the objective of transforming Iran into a regional nuclear power in the future (16). Following the Islamic Revolution, Iran's nuclear program was suspended due to sanctions and international pressure. However, during the 1990s, Iran reactivated its nuclear program with the cooperation of states such as Russia and China. During this period, Iran gradually developed uranium enrichment technology and expanded its research activities in the field of nuclear technology (17).

According to offensive realism, Iran has pursued its nuclear program as a means of increasing regional power. In view of external threats, including the U.S. military presence in the Persian Gulf and pressures from Israel and Saudi Arabia, Iran has concluded that only through strengthening its deterrent capacity can it secure its position (6). Iran operates in an environment in which its regional rivals—particularly Saudi Arabia and Israel—enjoy extensive support from the United States. From this standpoint, achieving nuclear capability (or at least approaching the nuclear threshold) has enhanced Iran's bargaining power and reinforced its strategic position in the region (18).

By adopting an assertive posture in response to international pressure, Iran has been able to advance its nuclear program to sophisticated stages. For example, the United States' withdrawal from the JCPOA in 2018 and the intensification of sanctions pressure not only failed to halt Iran's nuclear activities, but prompted Iran to increase its uranium enrichment levels, demonstrating its willingness to resist international pressure (19).

In addition to its nuclear program, Iran has simultaneously expanded its missile program. The development of long-range ballistic missiles constitutes one of the most important components of Iran's deterrence posture against external threats (20). From the perspective of offensive realism, Iran's nuclear program functions as an instrument for expanding regional power and altering the balance of power in the Middle East. This program possesses not only a deterrent dimension, but also forms part of Iran's broader strategy to consolidate influence and increase

bargaining leverage vis-à-vis Western states and regional rivals. Iran's actions in advancing nuclear technology, reducing its commitments under the JCPOA, and sustaining its missile program collectively reflect an assertive orientation in international politics. Consequently, Iran's nuclearization process should be analyzed not merely as a defensive response, but as an integral component of Iran's broader power-maximization strategy.

Iran's Nuclear Program and the Dimensions of Military Power

One of the most important dimensions of Iran's foreign policy in line with offensive realism is the development of the country's nuclear program. As a state with a long historical record in science and technology, Iran has, since attaining nuclear capabilities, adjusted its policies in such a way that these capabilities are employed as an instrument to strengthen its regional and international position. By expanding its nuclear program, Iran seeks to generate deterrent power and thereby prevent any potential attack or external threats.

In this context, Iran believes that possessing a nuclear weapon—or even acquiring advanced nuclear technology—can function as a strategic tool to enhance the country's security and influence at the international level. This policy is not only intended to preserve Iran's military power vis-à-vis regional and global adversaries, but also operates as a bargaining instrument in diplomatic negotiations. Through its nuclear program, Iran has continuously sought to extract political and economic concessions from major powers, particularly the United States (21).

Confronting Global Threats and International Pressures

At the global level, Iran has faced persistent pressure from Western countries, particularly the United States and the European Union. Economic sanctions and diplomatic pressure aimed at halting Iran's nuclear program constitute among the most significant challenges Iran has confronted in recent decades. Nevertheless, from the standpoint of offensive realism, Iran views the escalation of pressure and sanctions primarily as a threat rather than as a constraining factor. In response to these pressures, Iran has consistently emphasized its right to the use of nuclear energy and has argued that no state can deprive Iran of this right. Iran, especially following the 2015 nuclear agreement (JCPOA), under which it temporarily suspended certain aspects of its nuclear activities, openly stated that the agreement was merely a diplomatic strategy—an opportunity Iran could use to strengthen its power and obtain concessions (22).

From the perspective of offensive realism, Iran's foreign policy has consistently aimed at expanding influence and power at both regional and international levels. This policy includes strengthening military forces, expanding the nuclear program, and increasing Iran's influence in regional states such as Lebanon, Iraq, and Syria. As a regional power, Iran has continually sought to withstand external threats and international pressures and, through this resistance, to reinforce its strategic position against rivals and adversaries. According to offensive realism, Iran believes that as an independent actor it must continuously expand its power in order to defend itself against regional and global threats and to achieve its objectives.

A Comparative Assessment of Defensive and Offensive Realism on Iran's Nuclear Program

Iran's nuclear program can be analyzed through different theories of international relations, particularly defensive and offensive realism. These two perspectives, each with its distinct approach, examine Iran's national security and nuclear strategies. Defensive realism prioritizes the preservation of security and the prevention of threat escalation,

whereas offensive realism emphasizes power maximization and the expansion of influence as a means to strengthen security and national interests.

Defensive Realism and Iran's Nuclear Program

Defensive realism, which has been developed by a range of scholars in international relations, maintains that states naturally seek to preserve their security and to prevent external threats. This perspective generally assumes that greater security corresponds to fewer threats, and that a state's pursuit of enhanced military power may trigger arms competitions and intensify threats. From this viewpoint, Iran's nuclear program may initially be interpreted as a defensive measure aimed at preserving security against external threats; however, such efforts can amplify global concerns and lead to increased sanctions and international pressures that ultimately jeopardize Iran's security (23). In effect, within defensive realism, Iran's nuclear program is assessed as an instrument of deterrence and self-defense against external threats, including those posed by the United States and Israel. Iran may have pursued the development of nuclear technology because it perceived external threats—particularly military threats from major powers—as endangering its national security. Accordingly, Iran has sought to strengthen its nuclear capabilities in order to deter potential attacks in the future.

Offensive Realism and Iran's Nuclear Program

In contrast, offensive realism—associated with thinkers such as Hans Morgenthau and John Mearsheimer—argues that states do not limit themselves to defensive postures in order to preserve security and power; rather, they seek to expand influence and power at the international level. From the perspective of offensive realism, Iran's nuclearization may represent a component of a broader strategy to strengthen regional power and extend influence in the Middle East and beyond. According to this view, by possessing nuclear weapons Iran could not only preserve its security but also become a hegemonic power in the region and thereby exert more effective influence in regional and global politics. Particularly under conditions in which Iran competes with actors such as Israel and Saudi Arabia, acquiring nuclear weapons could enhance Iran's strategic position in regional and international calculations. Accordingly, this perspective argues that Iran is pursuing the strengthening and expansion of power through its nuclear program, rather than treating it merely as a defensive measure (24).

Comparing these two perspectives regarding Iran's nuclear program reveals fundamental differences in how security and international strategy are analyzed. From the standpoint of defensive realism, Iran seeks to preserve its security against external threats, and the nuclear program is primarily a deterrent instrument. By contrast, offensive realism portrays Iran as a state seeking nuclear weapons in order to strengthen power and influence within the region. Across different historical periods, depending on domestic and external conditions, Iran has employed elements of both approaches. In some contexts, Iran's nuclear program has been justified as a defensive measure intended to prevent external threats, whereas in other contexts it has been interpreted as an instrument for attaining greater power at regional and global levels. An analysis of Iran's nuclear program through the lenses of defensive and offensive realism highlights its complexity and multidimensionality. Iran has consistently sought to preserve its security against external threats while also using the nuclear program as an instrument to strengthen regional power and expand influence. This combination of defensive and offensive objectives has contributed to the nuclear program becoming one of the most significant and contentious issues in international relations.

Key Differences in the Two Perspectives

The principal differences between defensive and offensive realism in analyzing Iran's nuclear program relate not only to divergent objectives and strategies, but also to how each perspective conceptualizes security and threats. While defensive realism aims to prevent arms races and the threats arising from other states' offensive actions, offensive realism is grounded in power competition and the pursuit of greater influence within the international system.

Defensive realism maintains that Iran views its nuclear program primarily as a deterrent and defensive instrument rather than as a strategy for expanding power or influence globally. This perspective becomes especially salient in the context of external threats from the United States and Israel, which Iran considers serious threats to its national security. Defensive realism seeks stability and the prevention of arms competitions that could generate global security crises. In this approach, Iran's development of its nuclear program is interpreted as necessary to preserve deterrence and maintain a balance of power against its adversaries. According to this view, Iran's objective in pursuing nuclear capabilities is confined to protecting domestic security and preventing external threats, and Iran does not intend to use such capabilities to attain hegemony or expand regional influence (23).

By contrast, offensive realism—particularly as articulated by Hans Morgenthau and John Mearsheimer—holds that states, especially under competitive conditions, seek to expand their power, and that the more they can consolidate power within the international system, the more security they will achieve. From this perspective, by acquiring nuclear weapons Iran could become a hegemonic power in the region and thereby strengthen its standing in global politics. This view encourages Iran, rather than merely stabilizing the status quo, to leverage power to expand influence in the region and to outpace regional competitors such as Saudi Arabia and Israel (6). According to offensive realism, by possessing nuclear weapons Iran would not only become more capable of defending itself against external threats, but would also gain substantial influence over regional and even global political and security developments. Within this approach, Iran's nuclear program is seen not merely as a deterrent tool, but as an instrument for altering the regional balance of power and expanding strategic influence. In this view, Iran's primary objective in developing nuclear weapons is not only the protection of its security, but also the use of nuclear capability as leverage to increase influence and negotiating power in international arenas.

One of the principal differences between these two perspectives lies in how they perceive threats and how they respond to them. Defensive realism generally maintains that military threats should be reduced and that states should instead seek to strengthen their security through international cooperation and the prevention of arms races. In other words, within this approach, Iran's nuclear program is viewed as a defensive necessity rather than an offensive strategy. By contrast, offensive realism holds that states must exploit every available instrument and strategy to expand their power, and that the acquisition of nuclear weapons can assist them in both international and regional competition. Another divergence between these two approaches concerns their treatment of international reactions. While defensive realism contends that Iran should pursue de-escalation and constructive engagement with global and regional powers, offensive realism advises Iran, instead of yielding to global pressure, to continue strengthening its nuclear capabilities in order to improve its standing in global power equations. Thus, whereas defensive realism emphasizes threat reduction and the creation of greater stability in foreign policy, offensive realism underscores power consolidation and dominance over other actors, particularly at the regional level.

Ultimately, Iran's nuclear program can be analyzed from two distinct perspectives, each possessing its own specific characteristics and objectives. Defensive realism emphasizes security and deterrence and views Iran's nuclear program as a necessary measure for preserving security and preventing external threats. In contrast, offensive realism regards Iran's nuclear program as an instrument for expanding influence and power in the region and for strengthening Iran's strategic position vis-à-vis global powers.

Conclusion

In this study, using the two theoretical approaches of defensive realism and offensive realism, the nuclearization process of the Islamic Republic of Iran was examined comparatively. The findings indicate that Iran's nuclear policy cannot be explained exclusively through one of these theories; rather, a combination of both approaches is observable in the behavior of the Islamic Republic. From the perspective of defensive realism, Iran has sought to strengthen its deterrent capacity through the development of its nuclear program in response to external threats, the anarchic structure of the international system, and regional security pressures, such that this program has largely assumed a defensive and protective character against pressure from the United States and Israel. At the same time, from the standpoint of offensive realism, it can be argued that Iran has sought to enhance its position in regional and global power equations and to reshape the balance of power in its favor by expanding regional influence through nuclear instruments. Consequently, the foreign policy behavior of the Islamic Republic in the nuclear domain can be interpreted as operating on the boundary between defensive and offensive logics.

In light of the primary objective of this research—namely, the comparative analysis of Iran's nuclearization process from the perspectives of defensive and offensive realism—the findings demonstrate that Iran's nuclear policies over recent decades have been shaped by the anarchic structure of the international system, security threats, regional balance-of-power dynamics, and the imperatives of survival and deterrence. Based on the data analysis, it became evident that in the early stages, particularly after the end of the Iran–Iraq War, Iran adopted a defensive approach in the nuclear domain. During this period, the main objectives included restoring lost power, deterring external threats, and consolidating national security. In accordance with defensive realism, Iran, operating in an environment devoid of reliable security guarantees, was compelled to strengthen its internal capacities to ensure survival. Over time, however, and especially from the early 2000s onward, notable changes in Iran's behavior became observable that are more readily interpretable through the lens of offensive realism. In this phase, the expansion of nuclear capabilities occurred simultaneously with Iran's growing regional influence in Lebanon, Syria, Iraq, and Yemen. The findings indicate that during this period Iran employed its nuclear program not only for deterrence, but also as a political bargaining tool and as a means of enhancing its geopolitical status. Within this framework, the nuclear program became a strategic lever for consolidating Iran's power position in regional and international equations. Another major finding concerns the impact of sanctions and international pressure on shifts in Iran's behavior. During periods of intensified political and economic pressure by major powers—such as United Nations Security Council sanctions and unilateral U.S. sanctions—Iran accepted certain retreats in its nuclear policies, reflecting rational and defensive behavior aimed at threat reduction and avoidance of military confrontation. Iran's nuclear behavior must therefore be understood in relation to both forms of realism: defensive realism effectively explains Iran's responses to external threats and its efforts to preserve security, while offensive realism elucidates trends such as the pursuit of greater regional influence, enhancement of international standing, and the use of nuclear instruments to increase bargaining power. Accordingly, Iran's behavior reflects a combination of

defensive caution and strategic opportunism that can be coherently analyzed within a realist framework. These findings contribute to a deeper understanding of Iran's foreign policy and the factors shaping its nuclear program, and they provide international policy analysts and decision-makers with an analytical framework that offers a realistic interpretation of Iran's conduct in a volatile and competitive regional and global environment.

John Mearsheimer, one of the most prominent theorists of international relations and the founder of offensive realism, adopts a structural and realist view of the international system. In his analysis, state behavior is largely shaped by the anarchic nature of the international system, where the absence of a central authority compels states to pursue survival, security, and the maximization of relative power. Within this theoretical framework, the nuclear policies of the Islamic Republic of Iran are neither illegitimate nor inherently threatening, but rather constitute a natural, rational, and defensible response to persistent regional and international threats. From Mearsheimer's perspective, states that exist in insecure environments surrounded by hostile rivals are not only entitled but obligated to pursue deterrent capabilities, including nuclear technology, in order to ensure survival and deterrence. Over the past decades, the Islamic Republic of Iran has faced a wide array of direct and indirect threats from the United States, the Israeli regime, and certain Arab governments in the region. The U.S. military presence in neighboring countries, repeated military threats, crippling economic sanctions, and even acts of sabotage—such as the assassination of nuclear scientists—are all factors that, from the standpoint of offensive realism, render Iran's motivation to strengthen its defensive and deterrent capacities both legitimate and rational.

Mearsheimer interprets proxy and direct wars in the region as the result of regional powers' efforts to preserve or alter the balance of power. From this perspective, Iran's recent behavior in response to Israeli aggression represents not expansionism but preemptive defense and an effort to preserve strategic equilibrium in the region. Within the framework of offensive realism, Iran has sought—through support for non-state actors and direct responses to aggression—to convey a clear message to its rivals: Iran is not a passive or vulnerable state, but an independent, powerful, and strategic actor capable of shaping regional security equations. From Mearsheimer's viewpoint, the conduct of the United States and Israel reflects a form of overt hegemonic ambition within the international system, whereby any Iranian effort to enhance deterrent power is labeled a threat, while similar actions by Western allies are deemed legitimate and even desirable. Consequently, Iran's responses to such pressures are defensible not only from a realist perspective but even from the standpoint of international law, insofar as legitimate defense against military threats constitutes a recognized right.

Offensive realism rests on the principle that greater power yields greater security. Within this approach, states strive to increase their relative power in order to outpace competitors. At first glance, Iran's nuclear policy might appear inconsistent with this theory; however, in reality, a positive interpretation of Iran's behavior can also be offered within this framework. From this viewpoint, Iran is a state that has sought, through lawful and legitimate capacities such as indigenous enrichment technology, to consolidate its status as an independent regional power. This effort has not violated international law and has proceeded under the supervision of the International Atomic Energy Agency and within the framework of the Nuclear Non-Proliferation Treaty. Within this analysis, Iran has employed nuclear policy as a means to secure independence, enhance diplomatic bargaining power, and counter the unilateralism of the United States and its allies. Even from the perspective of offensive realism, Iran's conduct appears rational, since in an environment where major powers continuously seek to reshape the regional balance in their own favor, Iran has endeavored to preserve the balance of power and to use its influence to prevent domination by hostile actors.

1. How have the political, economic, and social impacts of nuclear energy manifested in Iran?

a) Political impacts:

The acquisition of nuclear technology has given the Islamic Republic of Iran a symbolic and strategic status in international politics. By relying on its nuclear advancements, Iran has been able to strengthen its geopolitical position and bargaining power vis-à-vis major global powers. At the domestic level, the nuclear issue has become a tool for political consensus, particularly during periods of crisis, when political cohesion around the defense of Iran's "inalienable nuclear right" has increased.

b) Economic impacts:

On the one hand, nuclear technology has created opportunities to reduce dependence on fossil fuels and expand energy production capacity, which in the long term may contribute to the diversification of Iran's energy resources. On the other hand, the international sanctions imposed as a consequence of Iran's nuclear program—especially during the 2000s and 2010s—have had severe negative effects on the Iranian economy, including reduced oil exports, declining foreign investment, rising exchange rates, and stagnation in certain industrial sectors.

c) Social impacts:

From a social perspective, nuclear energy has become a nationalist issue, and in many periods public opinion has defended the nuclear program as a symbol of scientific progress and national independence. At the same time, the economic pressures resulting from sanctions have generated dissatisfaction among certain segments of society, creating a form of social ambivalence regarding the perceived "costs and benefits" of the nuclear program.

2. What forms of assistance and, conversely, what types of obstruction occurred in Iran's path toward acquiring nuclear energy?

During the 1970s, Iran developed its nuclear infrastructure with direct support from Western countries, particularly the United States, France, and West Germany. The Bushehr Nuclear Power Plant was designed during this period, and contracts were concluded for the training of specialized personnel. After the Islamic Revolution, cooperation continued with non-Western countries such as Russia and China. Russia completed the construction and commissioning of the Bushehr power plant in the 2000s. The International Atomic Energy Agency also provided technical and supervisory cooperation to Iran at various stages.

Following the 1979 Revolution and especially from the early 2000s onward, Western countries—particularly the United States and its allies—imposed extensive sanctions and engaged in diplomatic and economic obstruction under the allegation that Iran's program had military dimensions. The assassination of nuclear scientists, cyberattacks such as the Stuxnet virus, and diplomatic pressure aimed at isolating Iran within the International Atomic Energy Agency constitute further examples of obstruction. In addition, the suspension of cooperation by European states and the cancellation of certain technical contracts in the fields of equipment and fuel delayed the development of Iran's nuclear program.

3. What objectives has Iran pursued in its efforts to acquire nuclear technology?

Iran's objectives can be analyzed at three interrelated levels: strategic, technical, and political-symbolic.

a) Strategic objectives:

Iran has consistently stated that the primary objective of its nuclear program is the production of clean, safe, and sustainable energy to meet growing domestic needs. Moreover, achieving mastery over the nuclear fuel cycle—particularly uranium enrichment—in order to reduce dependence on foreign powers in the energy sector has been a central priority.

b) Technical and scientific objectives:

Advancement in nuclear technology has formed part of Iran's broader pursuit of "scientific authority." Iran has sought to join the limited group of states possessing a complete nuclear fuel cycle. The development of indigenous knowledge, the training of domestic specialists, and the establishment of scientific infrastructure have constituted major goals in this domain.

c) Political and symbolic objectives:

Iran's nuclear program has played a significant role in reconstructing national power and strengthening Iran's international standing. In the official discourse of the Islamic Republic, nuclear technology is portrayed as a symbol of independence, national dignity, and resistance to domination. In addition, the nuclear program has functioned as an instrument for enhancing Iran's bargaining power in regional and global negotiations.

The responses to these questions demonstrate that nuclear energy for the Islamic Republic of Iran has not merely been a technical or energy-production project, but rather has evolved into a multidimensional and strategic endeavor with political, security, economic, and social implications. Iran's nuclear program has consistently remained at the center of power competition, resistance to external pressure, and efforts to demonstrate scientific capability, and any analysis of this program must take into account domestic, regional, and international dimensions.

Recommendations

- Adopting a balanced approach between deterrence objectives and the avoidance of provocative actions can reduce international misperceptions and unintended confrontations.
- Understanding the historical, security-related, and psychological roots of Iran's nuclear program and avoiding an exclusively aggressive interpretation of it can help diminish misunderstandings.
- Purely punitive approaches toward Iran's nuclear program have produced counterproductive results; therefore, the combination of intelligent pressure with genuine legal and political incentives should be prioritized.
- Preserving and strengthening multilateral frameworks such as the JCPOA, with revision and updating in accordance with new realities, can serve as an effective tool for the long-term management of the issue.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adhered in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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