

Why Doesn't Iran Want the Bomb?

Written by Torgeir Pande Braathen

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This essay on Iran's nuclear programme seeks to answer the following questions: "It is argued that Iran's nuclear programme is intended to achieve a nuclear weapon capability. Are there plausible, alternative explanations for Iran's nuclear programme? If so, may these alternative goals nonetheless contribute to future weapon capabilities?" With regards to those questions, this essay has made three key findings: 1) Iran is unlikely to have a nuclear weapons programme and is currently unlikely to embark on one; 2) Iran's nuclear ambitions are more likely to be in line with its own official statements than what is commonly recognized in Western governments and in the media; and 3) Iran's civilian nuclear goals are not easily transferable to military objectives, i.e. acquiring nuclear weapons, due to a variety of impediments, risks, and opportunity costs. These obstacles will be outlined in greater detail throughout the essay through the assimilation model, which is the essay's analytical framework.

Iran's nuclear programme has for a long time, and especially in recent years, been subject to much attention, both in media and in the governments of the most powerful states, partly due to the enduring ambiguities that are associated with the programme. In the on-going debates on the topic, much is written on the potential consequences of a nuclear-armed Iran and whether that is a good or a bad thing, in which the latter convinces an overwhelming majority.[1] However, much less is written on whether Iran is in fact aspiring to acquire nuclear weapons. It is the intention of this essay to explore that in greater detail.

This essay will apply the assimilation model to explore to what degree it is likely that Iran is pursuing, or will be pursuing, a nuclear weapons programme. In order to do so, this essay will start from the assumption that Iran would embark on a nuclear weapons programme and then the assimilation model will be used as an analytical framework to explore what the potential opportunities and impediments of a nuclear weapons programme would be. When adding up the potential benefits and impediments of such a programme, it will become evident that it is currently unlikely that Iran will upgrade its civilian nuclear programme to a military nuclear weapons programme. It will further be argued that such upgrading is more complicated, time consuming, risky, and resource demanding than commonly assumed and on that basis it is reasonable to say that a civilian nuclear programme does not necessarily contribute to a nuclear weapons capability. Such a civilian nuclear programme is to a large extent a necessary condition for acquiring nuclear weapons but it is far from a sufficient condition.

Methodology: The Assimilation Model

This essay will use the assimilation model from a *demand-side* perspective, meaning that the focus will be on Iran's motivation for wanting/not wanting to embark on a nuclear weapons programme. It will also use *apgression analysis*, which is suitable for case studies in which there is limited information about internal armament dynamics of the political entity. The progression analysis focuses on the preconditions for a specific armament dynamic and how the project *may* develop. That methodology is suitable for studying Iran's nuclear programme, as one of the defining characteristics of the programme is that of the ambiguity of the programme's purpose due to lack of insight into policy making processes in Tehran. So by studying how a nuclear weapons programme may develop and the preconditions for its success, one will also find the impediments which have to be overcome. The key guiding questions of the assimilation model is therefore: what are the preconditions for success, what are the potential impediments in fulfilling those preconditions, and will the costs of overcoming those impediments outweigh the benefits of the final goal or not?

Why Doesn't Iran Want the Bomb?

Written by Torgeir Pande Braathen

This model is equally useful to study terminated armament projects as potential future armament projects. In the case of Iran's nuclear programme, operationalizing the model implies hypothesising how the armament dynamic would play out and in doing so one gets a clearer picture of the likelihood of whether such a dynamic will take place. In the case of Iran, little information is available on the military doctrine, so as a substitute in this study theories of armament dynamics will be used to hypothesise how norms and threat perceptions will induce or curb Tehran's need for nuclear weapons.

Bases

Material Base

The material base of a political entity consists of two key components: the physical base and the societal base. That is the very foundation of a state's material capabilities and all political decisions on armament will be dependent on the material base. Within the timespan of an armament process, both the physical and the societal base will to a large extent be constant variables as changes within them are confined to long-term planning and resource allocation. For instance, if a political entity decides to embark on a particular weapons programme but does not have the technological base or the know-how, then that particular material base will restrain the options available to the political entity: should it engage in long-term investments in education and technology, should it attempt to import technology and knowledge (legally or illegally) from abroad, or should it abandon the programme all together? In the case of Iran, its civilian nuclear programme is a necessary precondition in its material base for a nuclear weapons programme as it provides important and relevant technology and know-how. It provides Iran with a scientific community based around its nuclear programme and expertise on nuclear physics. But it is important to note that this is only one of numerous necessary conditions, and it is therefore far from a sufficient condition for acquiring nuclear weapons. This section will look closer at Iran's material base (physical and societal base) and its various elements which may enable or impede a nuclear weapons programme if the political decision to do so were taken as a given. But first it will be provided a brief overview of the development of Iran's nuclear programme.

Iran's nuclear programme dates back to 1957 in which Mohammad Reza Shah's government signed an agreement with the government of the US as part of the Atoms for Peace programme in which the US helped Iran launch its civilian nuclear programme.[2] Iran's nuclear programme made great progress through the 1970s until the Iranian Revolution in 1979 toppled the Shah Regime and established the Islamic Republic of Iran with Ayatollah Khomeini as the supreme leader. This event made the US, and other Western partners, withdraw all support of the Iranian nuclear programme, and Iran suspended the programme until the latter part of the Iran-Iraq War, in which the nuclear programme was revived.

It has been argued that there has in fact been a remarkable continuity in the nuclear programme of the Shah and that of the Islamic Republic, and that some of the driving forces behind the Shah's nuclear programme continued to defend Iran's rights by virtue of the Non-Proliferation Treaty (NPT), of which Iran has been a signatory since 1968 as a non-nuclear weapon state, to have an advanced civilian nuclear programme although they heavily opposed the new regime.[3] Throughout the 1990s, Iran began pursuing an indigenous nuclear fuel cycle capability and experimented with uranium conversion and enrichment.[4] In 2002 and 2003, several secret and undeclared nuclear facilities in Iran that were still under construction were revealed and this raised suspiciousness about its nuclear intentions. This led to a series of UN Security Council sanctions which are still in place.

Iran admitted to conducting small-scale enrichment experiments and plans to construct a heavy water production plant, an enrichment facility, a heavy water-moderated research reactor, and a fuel fabrication facility.[5] Due to the revelations, Iran suspended its enrichment and conversion activities in 2003, but resumed some activities from 2005-2010.[6] Currently, disagreements exist over Iran's right to enrich uranium, in which Iran is resolute in stating that it has the right to do so under the NPT on the same basis as Japan, Germany, the Netherlands, Argentina, and Brazil, who are all signatories of the NPT and allowed by the world community to enrich uranium. The US, however, is not accepting Iran this right partly due to lack of confidence in Iran's nuclear intentions, which is an important source in the current stand-off in the Iranian nuclear talks with Iran and the P5+1.[7]

Why Doesn't Iran Want the Bomb?

Written by Torgeir Pande Braathen

Physical Base

Iran is the 18th largest state in the world and is home to 80 million people, and it is among the top five states in the world when it comes to gas and crude oil export and reserves.[8] Revenues from oil and gas have made it possible for Iran to cushion the effects of UN Security Council sanctions. This makes sanctions less of an impediment than it would have been otherwise. It can also be noted that strict sanctions on North Korea did not prevent it from acquiring nuclear weapons. Another relevant natural resource in Iran is uranium, which Iran is currently extracting from its Gcchine mine.

As of February 2014, Iran had extracted more than 40 tons of uranium from Gcchine, in which 10 tons of such material, if that material is converted to uranium hexafluoride and further enriched at enrichment plants, is enough to produce highly enriched uranium for a single nuclear device. However, Iran has volunteered to provide IAEA access to all of its mining activities, although this is not required by Iran under Iran's comprehensive safeguards agreement with the IAEA.[9] Iran is as such voluntarily imposing certain impediments on its potential quest for nuclear weapons, which may indicate that Iran is willing to increase transparency and to more clearly signal intentions.

Societal Base: Political Culture

The Iranian Revolution in 1979 led to the establishment of the Islamic Republic of Iran and its adherence to political Islam, or Islamism. The consequences of the fall of the Shah and ascendancy of more conservative and radical voices in the political establishment of Iran led to an abrupt end to official US-Iranian diplomatic relations, and Iran is currently one of the four states the US is labelling as "rouge" states. The political culture of Iran is an important determinant in the current US-Iranian relationship, which again is shaping the nuclear talks and any prospect for reaching an acceptable compromise between the relevant parties and also in facilitating a more comprehensive inspection regime which will make the production of nuclear weapons material more complicated.

The Iranian top leadership consists of the supreme leader Ali Khamenei and President Hassan Rouhani. The President preceded the far more conservative and US hostile Mahmoud Ahmadinejad, which legacy was a colder relationship to the US and the West. However, President Hassan Rouhani, a Western educated moderate, which was elected president in June 2013, has expressed a greater willingness to engage in talks with the West. This shift in the Iranian leadership in combination with the shift in the American leadership and a change in US policy on Iran from "sticks and carrots" under the Bush administration to Obama's policy of engagement, has arguably had a positive effect on US-Iranian relationships.

However, the effect should not be exaggerated, as it is the Supreme Leader Ali Khamenei who is head of state, commander in chief, and top ideologue. Formally and informally, the executive, legislative, and judicial branches of the government all operate under his absolute sovereignty.[10] Akbar Ganji, an Iranian journalist and dissident, argues that Khamenei's view of the West has softened over the years and is far more nuanced than what it used to be and what is too often stated in western media. Khamenei has on several occasions expressed his admiration of Western culture, in particular Western scientific inventions, art and literature, in which he considers Victor Hugo's *Les Misérables* "the best novel that has been written in history." [11] However, he is clearly opposed to American liberal democracy, which he sees as too materialistic and as "suffering from incurable structural problems and face inevitable decline." [12] But such statements are not too different from those coming from the far left in the European political landscape. Khamenei uses a far more moderate language than the Iranian hardliner clerics whose slogan is "death to America". Khamenei is arguably far more pragmatic and nuanced than the vilified picture that is often painted by Israeli and American neoconservatives. The point is that concerns that Khamenei as a religious leader operates by a different logic than other state leaders and that he is not "rational" are often exaggerated.

Houssein Mousavian, a former high-ranking Iranian official on security policy, says that there have been two schools of thoughts in Tehran since the Iranian Revolution. One believes that Iran and the US can reach a compromise through negotiations based on respect for non-interference in domestic affairs and the advancement of shared interests; the other does not trust the US to be a reliable partner and believes that Washington is neither ready nor committed to solving the disputes between the two countries.[13] Although Iran is a theocracy, one should not

Why Doesn't Iran Want the Bomb?

Written by Torgeir Pande Braathen

assume that the government is entirely unitary and cohesive. And the election of Rouhani as president may indicate that the Iranian people wanted a change from the conservative Ahmadinejad-era, and that there is a greater public support of the more moderate factions in Tehran which may seek greater accommodation with the US and the international community in general and to improve the Iranian economy by increasing transparency of the nuclear programme as a trade-off to lift sanctions. Such increased transparency as well as increased political moderation would be impediments for initiating a nuclear weapons programme. It would make a covert nuclear weapons programme more difficult to sustain and it would arguably face greater domestic political opposition.

When it comes to the official statements from Iran, the Supreme Leader has been very general in his official statements on the nuclear issue while insisting that the Iranian nuclear programme is solely for civilian purposes. However, can elements of the political culture in Iran indicate the willingness of Tehran to pursue a nuclear weapons programme? In relation to that question, much has been written on the *fatwa* supposedly issued by Supreme Leader Khamenei which forbids production, stockpiling, and use of nuclear weapons. A *fatwa* is a religious edict which bears judicial weight in the Iranian constitution. In a speech to Iranian nuclear scientists on February 22, 2012 Khamenei said:

"We do not pursue to build nuclear weapons. In reality, having nuclear weapons is not to our benefit. From the viewpoint of ideology, theory, and the Islamic jurisprudence, we consider this as forbidden and proliferation of nuclear weapons as a wrong decision. We consider the use of such weapons a great sin while stockpiling it is not only pointless, but also harmful and hazardous. Therefore, we will never try to acquire such weapons." [14]

The Supreme Leader has expressed such oral statements at many occasions, but their judicial weight is disputed. For instance, the Supreme Leader has not formally written down these statements, and there is also ambiguity on where the line between a statement and a *fatwa* lies. Iran's official Web page on its nuclear programme [15] states that *fatwas* do not have to be codified as written documents, and that *fatwas* can be oral rulings. The same source also refers to the jurisprudence of the oral *fatwa* against chemical weapons during the Iran-Iraq war in which Iran did not use chemical weapons although Iraq used mustard gas against Iran. [16] Although chemical weapons were not used by Iran, it has later become known that Iran has produced and stockpiled chemical weapons agents but that these agents were not weaponised. Some ambiguity of the nuclear weapons *fatwa* therefore remains, and it seems to be obvious that such *fatwas* have not reassured President Obama considering the lack of agreement between the US and Iran on Iran's right to a civilian nuclear programme as well as the apparent uncertainty in Washington on Iran's nuclear intentions. There is therefore no reason to believe that religious concerns and orally stated *fatwas* are major impediments to the production of nuclear weapons in Iran.

However, *fatwas* can work as part of a rapprochement strategy. Because religious justifications and the expression of *fatwas* prohibiting a nuclear weapons programme have been used widely by the Iranian government in public statements and during negotiations with the West, these justifications and *fatwas* can be used by the Iranian government as a way to make greater compromises during negotiations without losing face. It may offer a way for Iran to make concessions more gracefully, and thereby reducing the political costs at home as there may be some degrees of audience costs involved in making concessions to the US. [17]

The political culture of Iran provides no definite answer to whether Iran is, or will be, pursuing a nuclear weapons programme; however, it provides some useful indicators. It can tell us that increased moderation will amplify the impediments, they will be harder to overcome, and that religious concerns can in fact create some opportunities for the Iranian government to step down from potential nuclear weapons programme while not giving the impression that they are subduing to UN sanctions and US pressure. That there is a possible way to step down is just as important as potential impediments because the lack of a viable "exit strategy" makes the willingness to face the opportunity costs of overcoming impediments much greater.

Educational, Science, and Technology Base

The fact that Iran has had a nuclear programme since the late 1950s, with only a short suspension during the Iran-Iraq War in the 1980s, means that a significant amount of knowledge, science, and technology has been developed

Why Doesn't Iran Want the Bomb?

Written by Torgeir Pande Braathen

for more than half a century. Iran has therefore managed to develop a substantial scientific community around its nuclear programme. Iran is educating students in engineering and nuclear physics who then go on to work at Iran's various nuclear programme facilities. In this regard, Iran is largely self-sufficient in producing skilled personnel to work in the nuclear sector. And if more knowledge and expertise were needed, it would not be impossible for Iran to acquire that from abroad, perhaps most notably from China and Russia which have good relations with Iran as well as having well-established nuclear weapons programmes. If an Iranian nuclear weapons programme would obstruct US interests in the Middle East, such a programme could in fact be welcomed by China and Russia, and their willingness to share information would be more likely. In fact, Russia is already supporting Iran's civilian nuclear programme with technology. In November 2014, Russia agreed to build two new nuclear reactors for Iran with a possibility of six more after that.[18] Prior to the overthrow of the Shah, it was the US who trained and educated Iranian nuclear physicists, but when American and French nuclear support were curtailed by the Iranian Revolution then China and Russia took on the task of educating Iranians on nuclear physics and technology. But this support has supposedly declined in the last 10-15 years, and Iran is now more self-sufficient in that regard.[19]

A key question to ask in relation to Iran's nuclear programme is to what degree does its civilian nuclear programme, which relates to the science and technology bases, facilitate a militarised nuclear programme aimed at producing nuclear weapons? How long will it take for Iran to enrich uranium from 20%, which is what Iran is currently enriching, to 90%, which is weapons grade material, and then to complete the weaponisation process?

In the literature on Iran's nuclear programme, one can make a distinction between the optimists and the pessimists; that is, those who believe that Iran can easily acquire the atomic bomb if it decides to do so, and those who are far more sceptical about Iran's capability to do so. For instance, in 1992 then-Israeli parliamentarian Benjamin Netanyahu said that Iran was only three to five years away from acquiring nuclear weapons, and the same year, Israel Foreign Minister Shimon Peres said Iran would be a nuclear weapon state by 1999.[20] And in 2012, Prime Minister Netanyahu stated in a speech to the UN General Assembly that Iran will be on the brink of a nuclear weapon in less than a year.[21] In this sense, one can say that there has been a tendency of overestimating Iran's ability and willingness to acquire nuclear weapons. Among the pessimists, Uzi Eilam, a former head of the Israeli Atomic Energy Commission, stated in 2014 that Iran is a decade away from acquiring a nuclear deterrent while emphasising that Iran might not be seeking one.[22] Other pessimists refer to the fact that of the ten countries since 1970 that have had dedicated nuclear weapons programmes, only three of them acquired the bomb. Jacques E. C. Hymans argues that weak planning and management by Teheran might be its ultimate obstacle in the quest for nuclear weapons.[23] One can also assume that the extension of negotiations with Iran and the P5+1 with seven months indicates that the parties feel confident that Iran is not within an immediate reach of nuclear weapons and believe that diplomatic solutions are still possible. If there had been a genuine concern that Iran is indeed close to becoming a nuclear weapons state, that willingness would most likely have been much lower.

The ability to produce weapons grade uranium of 90% is a necessary precondition for Iran to acquire nuclear weapons but doing so would inevitably face a number of impediments (which will be covered in the next sections). There is also a great discrepancy in the literature on how quick and effortlessly Iran can do so, but several indicators point to the direction that even if Iran has made the decision to acquire nuclear weapons, it is still not so certain that it would acquire that within the immediate future.

Norms and Threat Perceptions

In the literature on Iran's nuclear programme, several reasons for why Iran would choose to go nuclear have been stated, and these reasons are often used to explain why Iran *would* attempt to acquire nuclear weapons or at a minimum a breakout capability. Those reasons will be outlined and assessed in this section. It will be argued that those threat perceptions are invalid as a justification in explaining why Iran would go nuclear, and that one can make a more plausible opposite argument: that because of threat perceptions and opportunity costs Iran is more likely to refrain from acquiring nuclear weapons.

The arguments that Iran is attempting to acquire nuclear weapons often come from the neorealist canon, focusing on the logic of balance of threat and the action-reaction model. Neorealist arguments assume that the external political

Why Doesn't Iran Want the Bomb?

Written by Torgeir Pande Braathen

environment of Iran can explain the logic behind Iran's assumed desire for nuclear weapons. So what are the objective or perceived circumstances that Iran conceives as threats? The recent toppling of two dictators who had given up their nuclear weapons aspirations, Saddam in Iraq and Gaddafi in Libya, arguably reminded Iran that if obedience to the US is not an alternative, then pursue a credible deterrence system or risk being attacked.[24] Of the "rogue" states that with certainty have attempted to acquire nuclear weapons the last twenty years, North Korea is both the only one to have succeeded and also the only one who has not been invaded by the US.[25] Iran is a non-aligned state and is in an isolated geopolitical position. Many of Iran's immediate neighbours are American allies, like Kuwait, Pakistan, Iraq, Afghanistan, Saudi-Arabia, and of course Israel. And a part of the US Middle East policy has in fact been to build regional alliances against Iran to further isolate its geopolitical position. [26] Hence, Iran expects little support in the event of a potential US-Israeli intervention. According to the neorealist logic, it would thus be rational for Iran to rely on its own self-help by enhancing its internal strength. And If Iran is to draw a conclusion from the case of North Korea, it would be that acquiring nuclear weapons would be the most sufficient means to maximize its security and avoid being attacked.

Neorealists further argue that there are not few actual or potential threats to Iran in its external political environment that Iran assumingly would prefer to equalise in relative terms. The presence of US military forces in Afghanistan and Iraq, which is on Iran's immediate border to the east and to the west, makes the US pre-emptive Middle East policy more credible and Tehran might well fear being the next target. And Israel, one of Iran's greatest rivals, remains an unchecked power with regional nuclear monopoly. Acquisition of nuclear weapons would thus be a plausible means to balance American and Israeli threats, and could probably deter potential attacks.[27] Seen from this neorealist action-reaction perspective, one can see some potential reasons for why Iran might desire a nuclear deterrence capability and this external threat picture may amplify others' beliefs of Iran's nuclear weapons aspirations.

However, these neorealist assumptions are too simplistic in the sense that they assume that the existence of some preconditions for balancing behaviour will almost automatically translate into the political decision to acquire nuclear weapons. It does not take into account the various impediments that will have to be overcome along the way from the point where the political decision to go nuclear is made and all the way to the final destination of "weaponisation". A closer look at these impediments will reveal the potential opportunity costs of a nuclear weapons programme, and it will be argued that these impediments and opportunity costs are working as significant discouragements for Iran to go nuclear.

If Iran were to make the political decision to turn its nuclear programme into a military programme for the purpose of acquiring nuclear weapons, it would have to face at least three major impediments which also involves great opportunity costs. Firstly, if Iran were to acquire nuclear weapons, it would have to enrich uranium at a much higher grade than what it is currently enriching. As the International Atomic Energy Agency's (IAEA) report stated in May 2012, Iran is producing uranium enriched up to 20% at the Fordo plant near Qom in northern Iran,[28] whereas weapons grade uranium must be enriched to at least 90%.[29] It was also reported by IAEA who is currently inspecting the Fordo uranium enrichment plant that nothing alarming was going on at Fordo.[30] The point is that if Iran is to start enriching up to weapons grade uranium, it will have to do it covertly in order to avoid suspicion from the international community and thereby avoid the potential subsequent responses, which may include a tightening of sanctions or even military air strikes from the US and/or Israel.

Enriching uranium covertly is most possibly done by either establishing a secret uranium enrichment plant which the international community and the inspectors from IAEA do not know about, or alternatively Iran could expel inspectors from its current enrichment plants in order to produce weapons grade uranium. The first option is plausible, and it is indeed logically impossible to prove a negative (to prove that Iran does not have such a secret enrichment plant with 100% certainty). However, it would be highly difficult with the current inspection regime which is required under the NPT and if it were to be revealed before Iran reaches weaponisation it would significantly increase the risk of a US-Israeli intervention. To what extent Iran is willing to take this risk is something one cannot know for certain, and it remains uncertain how long time Iran would need to reach weapons grade uranium and how long time it would take for Iran to translate a break out capability into actual weapons. For instance, US intelligence estimated that on the basis of North Korea's break out capability it had acquired nuclear weapons in the 1990s. However, it took North Korea until 2006 to translate break out capability into nuclear weapons capability. [31]

Why Doesn't Iran Want the Bomb?

Written by Torgeir Pande Braathen

As such, it might seem very risky for Iran to have a covert nuclear enrichment plant for an uncertain amount of time when the potential consequences of exposure is that of a military response by the US and others. The second option, to expel inspectors and to resign from the NPT, in order to increase enrichment production at its current facilities is arguably even less attractive for Iran. Such actions may be enough to invoke a much harsher stance on Iran by the international community in the form of sanctions or even some form of military response.[32]

Although no agreement was reached between Iran and the P5+1 in Vienna at 24 November this year and talks were postponed for seven months, diplomatic solutions have far from been abandoned all together. If Iran were to indicate by words and deeds that any forms of diplomatic solutions are out of reach it would have dug itself further into isolation and arguably induce harsher sanctions from the west. This would result in some expensive opportunity costs in the form of being further excluded from trade and cooperation with parts of the international community. Nina Tannenwald argues:

“Ultimately, in delegitimizing nuclear weapons, the nuclear taboo has constrained the practice of self-help in the international system. States are not free to resort to nuclear weapons without incurring moral opprobrium or political costs. National leaders are forced to seek alternative technologies for use in war or defense or else risk being classified as outside the bounds of “civilized” international society.”[33]

Although the deterrence capability of nuclear weapons might be desirable, it is not obvious that this capability outweigh the costs of being alienated from the international community and further confirming the status of being a rogue state. In the long run, the economic hardship that is caused by sanctions may also produce opportunity costs in the sense that it may stimulate domestic opposition to the regime. This makes the arguments about nuclear weapons as symbols of prestige and power seem anachronistic and less credible, as they seem to be based on Cold War logic and very narrow understandings of security.

Alternative Explanations?

So far it has been argued that Iran does most likely not have a nuclear weapons programme and, all things being equal, that Iran is unlikely to embark on such a programme due to various impediments and high opportunity costs. So what, then, explains Iran's nuclear programme? Is it reasonable to believe that the official *reasons* Iran provides for its nuclear programme also are the underlying *cause* of that programme? This distinction is important to make when analysing the official statements of Iran with regards to its nuclear programme. States often give a reason for their actions in order to justify those actions, and those reasons will of course be adjusted to what they think other states will accept and consider as legitimate, but those reasons may be quite isolated and different from the actual *causes* of those actions. Transferring this logic to the case of Iran, is it possible that the official statements of Iran on its nuclear programme are adjusted to what they think the international community will accept and believe and that the actual cause of the programme are something entirely different from the official reasons, or is it possible that Iran's statements are in fact genuine descriptions of its intentions?

Iran's refusal to comply in entirety to international treaties has resulted in UN Security Council sanctions, but Iran is persistently stating that its nuclear programme is solely for civilian purposes. [34] What is interesting about official statements from Iran is that they usually refer to religious, scientific, and economic justifications for not acquiring nuclear weapons. But it is partly the religious nature of the Iranian regime and its classification as rogue state by the US which make the Iranian justifications less trustworthy. The fact that the West sees Iran as different from “us” arguably amplifies suspicion and the lack of trust among them.

This is indeed making negotiations more complicated as the US, in the view of Iran, expects unrealistic reassurances from Iran, while Iran is committed to enjoying the full rights of having a civilian nuclear programme according to the NPT, something which the US is hesitant to accept. That is not to say that this is the only factor complicating the nuclear talks, but it is arguably part of it. The point is that the ambiguity of the aim of the Iranian nuclear programme is not only about material and objective factors, but also about political and ideological differences which fuels distrust and ambiguity. The implications of this is that it is more plausible that Iran's official statements about its nuclear ambitions are more in line with their actual intentions than what is commonly portrayed by Western

Why Doesn't Iran Want the Bomb?

Written by Torgeir Pande Braathen

governments and media. In other words, it is plausible that the Iranian nuclear programme is motivated by civilian purposes, such as electricity production, medicine, agriculture and civilian industry, and not by military aspirations.

But May These Goals Nevertheless Contribute to Future Nuclear Weapons Capabilities?

In relation to that question, it will be argued that a highly functional civilian nuclear programme is indeed a necessary precondition for acquiring nuclear weapons, but such a programme does not automatically lead to a nuclear weapons capability, which will first of all require the political decision to do so and a subsequent weaponisation process which may be time consuming and highly resource demanding. A civilian nuclear programme, which enriches uranium to what is considered legal under the NPT, is far from a sufficient condition for a nuclear weapons capability.

To make a comparison, it is estimated that Japan, which is one of the world's leading civilian nuclear power and which has a much stronger economy than Iran, is not within an immediate reach of nuclear weapons. One estimate says that it would take Japan three to five years and 2.2-3.3 billion US dollars to manufacture nuclear weapons. Japan would also face several obstacles if it were to make the political decision to go all the way to acquire nuclear weapons. Japan would have to enrich weapons grade plutonium, which its commercial power reactors are currently not doing, and to do so Japan would have to end international inspections of its nuclear facilities, withdraw from the Nuclear Non-Proliferation Treaty, and abrogate other nuclear agreements.[35]

This scenario is not very different from how it may play out in Iran as well. Considering that Iran is less economically developed, these impediments, especially the financial costs of a nuclear weapons programme, would be even harder to overcome, and one could also expect a longer time frame than the one suggested for Japan. The dual-use problem of a civilian nuclear programme, if subject to sufficient international inspection and oversight mechanisms, therefore seems less of a problem than other dual-use problems, such as pathogens and toxic chemicals that are harmful and potential weapons in their current state of being. One can say that a well-functioning and advanced civilian nuclear programme fulfills an important precondition for acquiring nuclear weapons, but such a programme does not imply that one is within the immediate reach of nuclear weapon. The assimilation model is therefore useful in clarifying the various impediments that makes the steps from a civilian nuclear programme to the acquisition of nuclear weapons far more complicated than what is assumed by the optimists, or those who believe that Iran is only moments away from a nuclear weapons capability.

Conclusion

This essay has used the assimilation model as an analytical framework to analyse the likelihood of Iran acquiring nuclear weapons. The assimilation model reveals the simplistic nature of the action-reaction model which assumes that threat perceptions lead to decisions which lead to outcomes. But the assimilation model is about looking at the processes between the decision and the potential outcome, and by doing so it makes clearer the impediments involved in a nuclear weapons programme. The assimilation model in this essay has therefore helped illuminating the various factors that play impeding and facilitating roles *if* Iran were to make the political decision to go nuclear.

In doing so, this essay has found that this process is riddled with impediments at several levels which complicates a potential nuclear weapons programme to the extent that in terms of a cost-benefit analysis such a programme is unlikely to outweigh its benefits. The findings suggest that the key impediments are found at the material base and in threat perceptions. More specifically, at the material base, one can see that a civilian nuclear programme is far from a sufficient condition for acquiring nuclear weapons, and enriching uranium up 90% and then to complete the weaponisation process are heavily resource demanding and will take longer time than what is commonly stated by Israel and the US. These impediments are again amplified by threat perceptions, because embarking on such a programme may take an unknown amount of time in which secrecy is a necessary condition for success, but if the secrecy fails Iran can expect harsh punishment from the international community in the form of even stricter sanctions or even military action. This may also jeopardize Iran's civilian nuclear programme and its benefits. Even a successful nuclear weapons programme would face high opportunity costs in the sense that not only is the programme costly and would require a priority of resource allocation, but it will also be at the expense of lifting of UN Security Council Sanctions and at the expense of potential trade and cooperation opportunities.

Why Doesn't Iran Want the Bomb?

Written by Torgeir Pande Braathen

It has therefore been argued that it is indeed quite plausible that there are alternative explanations for Iran's nuclear programme other than a nuclear weapons programme. These alternative explanations would be more in line with Iran's own official statements, that the programme is intended for civilian purposes, such as energy production, medical research and treatment, industry and agriculture. It has then been further argued that these goals may not be as easily transferred into a nuclear weapons capability as commonly assumed. The assimilation model sheds light on the various steps and the impediments that have to be overcome if the civilian programme is to be turned into a nuclear weapons programme. In that regard, it has been illustrated that for Iran to do so, it would involve some major steps and significant impediments. By comparison, it has been estimated that Japan would need 3-5 years to do so, and one Israeli nuclear expert estimates that Iran could be a decade away from acquiring nuclear weapons if Iran were to make the political decision to do so. In other words, a civilian nuclear programme does not in itself contribute to a future nuclear weapons capability in the absence of a political decision to do so and serious political commitment over a significant time period which cannot easily be done covertly.

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