When Words are not Enough: assessing the relationship between international commitments and the nuclear choices of Brazil, India and South Africa

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ABSTRACT This paper seeks to assess whether there is a contradiction between the commitment to non-proliferation declared by Brazil, India and South Africa and their domestic nuclear choices. Despite differences in their international nuclear status, these countries share similar commitments to non-proliferation, at least discursively. However, once the domestic level—more specifically, the historical characteristics of each of these countries’ nuclear paths—is taken into account, a contradiction between their international discourse and their national interests seems to arise. By analysing their nuclear history, this paper asks the following questions: how much have these countries actually been doing in terms of non-proliferation? What are the aims of these countries’ domestic nuclear politics? Is there any contradiction between their international nuclear discourse and their domestic practices?

The increasing international diffusion of power has been redefining the international order. In this scenario the so-called rising powers are increasing their role as stakeholders in many branches of global governance, sometimes contesting the actual international structures that underrepresent their interests. While their growing protagonist’s role is undeniable, they still have relatively less power than the traditional established powers. This asymmetry tends to push them towards multilateral fora and/or coalitions, such as BRICS, and IBSA, which variously bring together Brazil, Russia, India, China and South Africa, through which they try to coordinate and advance their agenda in areas of common interest. In nuclear politics, however, the distribution of capabilities places them in different, sometimes opposed, international power positions. In this matter China and Russia do not figure as emerging powers but as de facto nuclear weapons states (NWS). Among IBSA India is a declared nuclear state, while Brazil and South Africa do not possess any nuclear weapons and are members of the...
Non-Proliferation Treaty (NPT). However, at least in terms of discourse, Brazil, India and South Africa share a similar commitment to non-proliferation, despite differences in their international nuclear status. But, once the domestic level—more specifically, the historical characteristics of each of these countries’ nuclear paths—is taken into account, a contradiction between the discourse of non-proliferation and national interests seems to arise.

This paper analyses the extent to which these countries’ nuclear strategies carried out at the domestic level diverge from the international commitment to non-proliferation that they defend. The focus is on Brazil and South Africa, to the extent that India is a declared nuclear state outside the NPT. However, a comparison between the paths of Brazil and South Africa with the Indian one will be briefly presented as 1) the latter is internationally recognised as a country committed to non-proliferation; 2) it shares with Brazil and South Africa the same political beliefs on important topics of the international agenda under the IBSA forum; and 3) it seeks—like the other two—a permanent seat at the United Nations Security Council (UNSC). The comparison between the cases is also important because it raises some important questions on the messages the NWS, especially the USA, are sending to the non-nuclear weapons states (NNWS) regarding the meaning of nuclear weapons possession.

Brazil’s, India’s and South Africa’s common paths

Until the 1970s Brazil, India and South Africa showed interest in nuclear energy, acquiring nuclear reactors, training personnel and establishing international cooperation strictly for peaceful purposes. From the 1970s until the 1990s their nuclear paths changed significantly towards autonomy, which in practice led each to invest in indigenous nuclear programmes and research on uranium enrichment and fuel reprocessing. Overall their interest lay in nuclear programmes that could give them access to all the possible uses of fissile material. Internationally they sustained critical positions and refused to sign the NPT, considered the main instrument of a discriminatory nuclear regime.

In the 1990s they openly followed different nuclear paths. Brazil brought its parallel programme to light, making it part of its official nuclear programme under international safeguards. India became a declared nuclear weapons state outside the NPT. South Africa terminated its nuclear programme, unilaterally dismantled it and acceded to the NPT. Nowadays, in terms of nuclear affairs, one single aspect could be considered as still holding the three countries together: the international commitment to nuclear non-proliferation. However, by analysing their nuclear domestic strategies, the realities are radically different and sometimes seem to diverge from the principle of non-proliferation itself.

Brazil

The argument fostered in this section is that Brazil’s actual nuclear politics are influenced and driven by the country’s traditional foreign policy aims and political beliefs of autonomy, power projection and prestige. Together these three axes—interpreted in different manners throughout history—have formed a
particular rationale that embeds the nuclear programme in ambiguity. As a
revisionist state Brazil has historically questioned international asymmetries of
power while seeking better international political positions. Because of this, the
country remained outside the NPT for a long period.

The main argument for refusing to sign the NPT was its discriminatory feature
and the two different categories of countries it established: those with and those
without nuclear weapons. Signing the NPT would mean acknowledging not only
a permanent asymmetry of power that was being proposed by the NWS, but also
accepting that Brazil would be part of the group of countries without any
nuclear capabilities. When Brazil finally acceded to the NPT the rationale driving
its decision was that Brazil should not stay outside the treaty because of its
overall commitment to strengthening international norms. At that time, however,
Brazil had already developed its own capabilities in uranium enrichment. Also
it can be argued that Brazil signed the NPT to indirectly gain leverage in its
claims for a permanent seat on the UNSC.

First years

During the years of dictatorship (1964–85) Brazilian nuclear politics became
part of the country’s strategy of international insertion, constituting one of the
major pillars of Brazil’s national interest. In this context the agreement with
West Germany in 1975 (see below) was seen as an entrance to the club of great
powers inasmuch as it would strengthen Brazil’s international position. Symboli-
cally this was perceived as a demonstration of the national capacity to realise
an independent foreign policy in a matter of highly international relevance. The
‘agreement of the century’, as it was considered by Brazilian authorities, was a
long term contract involving not only the construction of eight pressurized water
reactors (PWR) but also the import of related industrial material and the construc-
tion of facilities for uranium enrichment and fuel reprocessing. Above all, it
established the transfer of the uranium enrichment technology that in Brazil was
connected to the discourse on international autonomy. For West Germany the
agreement had a commercial meaning, opening a new market for the German
nuclear industry.

Politically the USA perceived the transfer of technology to a military regime
outside the NPT as a potential hemispheric threat that should be avoided. Com-
mmercially the agreement between Brazil and West Germany represented a loss
for the USA, given that Brazil was until then a traditional trading partner of
Washington. These worries arose during the Ford administration (1974–77) but
acquired concrete contours when Jimmy Carter (1977–81) took office. The
Carter administration pressured Brasilia on human rights violations and con-
demned its lack of democracy. ‘Apparently Washington did not consider Brazil
a “responsible nation” for which political stability was required’. The Brazilian
answer was to terminate the 1952 military agreement with the USA, through
which Brazil received financial support and equipment to modernise its army in
exchange for raw uranium and rare earth elements. ‘The military regime
intended to show the United States that nuclear policy and human rights are
both non-negotiable’, both were domestic sovereign decisions aimed at
avoiding international interference. Simultaneously the USA pressured Germany to cancel the nuclear agreement, while the UK and The Netherlands blocked the transfer of the technology used by the Urenco Group to Brazil.

The result of this international game of push and pull was the maintenance of the agreement but in a form clearly opposed to Brazil’s interests. The technology Brazil received from Germany was still in the research phase, and later demonstrated no commercial viability, whereas the treaty itself was placed under international safeguards, as Germany was already a member of the NPT. What followed this episode was a Brazilian national decision to develop another nuclear programme called ‘autonomous’ or ‘parallel’, under the responsibility of the National Nuclear Energy Commission (CNEN) and the Military. This programme was developed simultaneously with the official one and had the development of an indigenous capability to enrich uranium as its major goal.

Aside from uranium enrichment, the parallel programme aimed at to process fuel elements to produce plutonium, and to develop explosives for tests declared to be peaceful. The three Armed Forces engaged in three different research branches but that carried out by the Navy proved to be the most efficient. It provided Brazil with the capability to enrich uranium and fostered the project for a nuclear-powered submarine. Both accomplishments are at the core of the new Brazilian nuclear programme launched after 2004.

The search for an indigenous technology to enrich uranium aroused suspicions about a possible Brazilian interest in a nuclear weapon, especially in the media and in Congress. The so-called ‘Projeto Solimões’ had the construction of nuclear explosives as its major goal. The motivations behind these interests and the reason why Brazil did not develop nuclear weapons are not yet clear. Brazil had never had any real enemies and South America cannot be considered a region facing security threats, despite some isolated conflicts.

Autonomy, prestige and power projected in terms of influence are certainly among the motivations to be considered as possible explanations behind a Brazilian ‘flirtation’ with nuclear explosives. The domain of uranium enrichment and explosives fabrication technology symbolically meets these three political aims and, in this sense, Brazilian interest could be justified. However, nuclear explosives are not atomic weapons as such, even though one could suggest that a country which engages in this field is half way to building bombs—lacking perhaps a real threat. The absence of an external motivation to pursue an ambiguous and, at the time, suspicious nuclear path suggests that what drove Brazil’s nuclear choices were simply its international aspirations.

This is clearly represented in Brazil’s international postures throughout the period. As mentioned above, since the NPT came into force, Brazil has strongly lobbied against the treaty, considering it discriminatory. Overall the Brazilian international discourse was against what the Brazilian Ambassador to the UN, Araujo Castro, called ‘an attempt to freeze the international distribution of power’ by keeping international asymmetries in terms of the rights to possess nuclear weapons and related know-how.

In accordance with the aforementioned political aims of Brazilian foreign policy, acceding to a treaty like the NPT would be a problem to the extent that such a regime would restrict the country’s possible strategic options. Thus Brazil...
remained outside the NPT so that it could pursue the technologies to enrich uranium under the parallel programme without international bias. Also, at the regional level, Brazil was part of the initiative to create a Nuclear Weapons Free Zone in Latin America originating from the Tlatelolco Treaty of 1967. Despite signing the treaty, Brazil fully comply with it only in the 1990s, thus having no real regional non-proliferation constraints.

Reversing the path

Still at the regional level, the nuclear technological competition with Argentina, which could only symbolically be considered a motivation for any Brazilian flirtation with nuclear explosives, progressively reversed to cooperation. Alongside the development of a parallel programme during the 1980s, Brazil and Argentina started a dialogue about peaceful uses of nuclear energy, which one decade later culminated in the creation of a bilateral agency: the Brazilian–Argentine Agency for Accounting and Control of Nuclear Materials (ABACC).

In 1987 Brazil finally accomplished its aim of acquiring the know-how to enrich uranium. The achievement was made during the Brazilian transition to a democratic regime and suffered the impacts of the new political and economic domestic juncture. Furthermore, the Latin American debt crisis in the 1980s compromised the financial viability of the programme. In 1988 the new Constitution of Brazil was promulgated, emphasising a commitment to the peaceful uses of nuclear energy while arguably still leaving room for peaceful nuclear explosions.

New path

The 1990s were a turning point in Brazil’s nuclear strategies with respect to non-proliferation. The then Brazilian President, Fernando Collor de Melo (1990–92), in 1990 symbolically terminated the parallel nuclear programme that in practice had merged with the official one and was progressively placed under regional and international safeguards. As already mentioned, the first step towards this accomplishment was ABACC, through which a bilateral system for monitoring nuclear activities was created. In 1994 Brazil ratified the Tlatelolco Treaty, accepting its full scope. In 1998 it signed the Comprehensive Nuclear-Test-Ban Treaty (CTBT), removing any ambiguities left in the Constitution regarding the peaceful uses of nuclear energy in Brazil. Finally, in 1998, it signed and ratified the NPT. Also in 1998 Brazil formed the New Agenda Coalition (NAC) together with Egypt, Ireland, Mexico, New Zealand, Sweden and South Africa, calling for progress in nuclear disarmament as required by the NPT.

In the 1990s autonomy, prestige and power projection gave birth to a new rationale. Instead of the contestation of former years, with the emphasis on autonomy, there were now reasons for Brazil to participate in international regimes and to comply with international norms. The overall aim of this change of interpretation was the need to rebuild the country’s international image after two decades of military rule. In this scenario there was little space for or inter-
est in a bold foreign policy and the nuclear programme progressively entered a stage of dormancy.

In the past decade the domestic and international scenarios have been very different for Brazil, something which is reflected in the foreign policy strategies adopted. In this context the nuclear programme re-emerged. In 2004 the then Brazilian President, Luis Inácio Lula da Silva (2003–10), announced his intention to relaunch the nuclear programme, converting it once again into a national programme. In fact, nuclear research and activities never had ceased to exist, despite political changes in the late 1980s and 1990s. The Navy continued advancing research on uranium enrichment and nuclear submarines, and the two power plants—Angras I and II—continued working. Furthermore, ABACC and CNEN continued their activities.

However, in 2004 Brazil’s decision makers decided to emphasise the nuclear programme. The reasons for waking it up are manifold. The strongest and most diffuse relates to Angra III and all the investments so far spent on this project. Second, while the country’s main electricity supply comes from hydro plants and the main energy sources are oil, gas, water and a significant percentage of renewable sources, the general understanding is that Brazil needs to invest in a diverse energy matrix that will meet Brazil’s economic development plan overall.

A third reason to push the nuclear programme forward is strategic and meets Brazil’s traditional three international aims of autonomy, power projection and prestige. More than in a nuclear programme to generate energy, Brazil’s historical interest has been to acquire the uranium enrichment technology that would place the country internationally within the select group of countries with the same capabilities.

The decision the review the programme and give it a status of national programme instead of governmental politics also resulted from the new political and strategic opportunities Lula’s government envisaged for Brazil. The country was to forge its own international pace, rising once again as an interlocutor between developed and developing countries—and as a representative of the latter. This shift in Brazil’s international perspective led to an emphasis on strategic areas—cyberspace, energy, defence, space and nuclear—that could boost its international position. Specifically the revival of Brazil’s nuclear programme is embedded in this rationale. The National Defence Strategy (NDS) and the strategic axes of the Ministry of Science, Technology and Innovation offer two very important, though distinct, tangible platforms through which the nuclear programme meets this rationale.

The NDS is a particularly interesting document. Within it the nuclear programme has a twofold dimension, encompassing goals from development to defence. On the former emphasis is given to advancing or acquiring domestic know-how in every nuclear technology field except those related to non-peaceful uses. On the latter the NDS is mainly focused on nuclear submarines. One important aspect that grabs attention in the document is the fact that the nuclear programme as presented in the NDS does not leave so much room for bilateral cooperation, such as that carried out with Argentina, as the document focuses more sharply on the national domain over technologies acquired from
partnerships with countries or foreign companies, and does not mention joint work in the area.

While the document reaffirms Brazil’s traditional commitment to the international regime of non-proliferation, it is the first attempt to clearly formulate for Brazil a strategy of national defence that contemplates a ‘grand strategy’. The introduction to the NDS states: ‘if Brazil is willing to reach its deserved spot in the world, it will have to be prepared to defend itself not only from aggressions, but equally from threats’. Here the document leaves room for questions on Brazil’s defence strategy in the medium and long term, and on which role a nuclear programme involving the whole uranium cycle could possibly have in it.

Today, however, Brazil’s nuclear programme is best defined as a strategic option. Brazil’s nuclear programme is still clearly driven by the country’s general foreign policy goals regarding power projection and international prestige. Simultaneously the understanding that the country should become a global player calls for a defensive interface that appears in Brazil’s foreign policy as autonomy. In terms of a nuclear programme these aspirations materialise in the form of a comprehensive nuclear programme necessarily involving the entire fuel cycle of uranium enrichment, submarines for dissuasion, and thermonuclear power plants. Brazil does not want weapons but still wants to have a programme that includes all the options uranium can provide.

Thus, Brazil has a modest nuclear programme with the whole enrichment cycle in construction. In this sense the country continues to be a buyer of enriched fuel but in the safe position of having its own programme as a backup. Being a buyer without the capability to enrich uranium would not be an option within Brazil’s rationale. Hence the choice of advancing the nuclear programme is first and foremost a political one. It relates to Brazil’s future aspirations as an international player, emphasises autonomy—as any fuel supply can be potentially interrupted—and opens an ambitious door to enrichment services export should an international nuclear renaissance occur.

In the short to medium term the country seems to be focusing on the indirect gains the nuclear programme can bring. On 1 March 2013 the first facility where the external part of Brazil’s nuclear submarine will be built was inaugurated. On that occasion President Dilma Rousseff declared that, with a nuclear submarine, Brazil was finally part of the select group of countries with this technology; that is, the same group with a permanent seat on the UNSC.

In this current model Brazil’s nuclear programme satisfies national pride while projecting the country as a responsible nuclear nation that could, but does not, engage in proliferation. Instead it advocates the country’s sovereign rights internationally over peaceful uses of nuclear energy while condemning the proliferation of weapons of mass destruction. The 2010 Brazilian and Turkish efforts to find a negotiated solution to the Iranian nuclear impasse with Western countries best illustrates Brazil’s engagement in promoting nuclear energy while denouncing nuclear proliferation.

Concerns about the country’s future intentions can, however, still be raised. As Brazil has the capabilities and the uranium, what it lacks are a reason or real threat to go nuclear. In this sense the truth of the country’s commitment to
non-proliferation could be questioned to the extent that no politics can really predict what future junctures the country will face and what kind of decisions will have to be made about the nuclear capabilities so far developed. At the moment two aspects of the nuclear programme combined suggest its ambiguity and leave room for concerns about possible future uses: the construction of nuclear submarines, against which there are no international safeguards under the International Atomic Energy Agency (IAEA) and the place occupied by the nuclear programme in the National Defence Strategy.

South Africa

Differently from the Brazilian case, I argue that South Africa’s foreign policy is first and foremost driven by that country’s past experiences in nuclear policy. To be more precise, South Africa’s nuclear history has created a path dependence that narrows down the country’s possible nuclear aspirations in the present. While Brazil maintains some ambiguity regarding its future nuclear aspirations, without yet raising real international concerns, South Africa has already played this card. Thus in the present it cannot, or should not, engage in a nuclear programme with unclear concrete purposes or in one that is driven overmuch by national pride or prestige. Today South Africa’s past nuclear experiences partially shape the way the country executes its foreign policy in the matter: more transparency, no ambiguity and assertiveness. In terms of non-proliferation, domestic and international postures are in accordance with each other.

Unique case

The history of South Africa’s nuclear ambitions ends with a surprise: it remains to this day the only country to have ever developed nuclear weapons and, later, to have unilaterally dismantled them and acceded to the NPT. Also interesting to observe is how the nuclear weapons programme evolved from one for peaceful purposes, largely benefiting from the cooperation developed during the 1950s and 1960s with Western countries. South Africa’s turn towards nuclear weapons happened when the Cold War reached the Southern Cone. Combined with apartheid ideologies it offered the motives South Africa’s policy makers needed to seek nuclear weapons, as they were already fostering the required capabilities.

The main characteristic of South Africa’s nuclear weapons programme was its covert dimension. During the entire period it was active the National Party (NP) did not confirm the possession of nuclear weapons, as part of the diplomatic strategy developed around the weapons programme. In this case, then, it is not possible to consider power projection, prestige or autonomy as the only drivers of South Africa’s decision to go nuclear. To these it is important to add aspects such as a peculiar self-perception, domestic and regional instabilities, advanced capabilities and threat perception. Together these motives compose a rationale that more fully captures the complexity of the South African use of nuclear weapons for dissuasion.
Building a rationale for nuclear weapons

South Africa’s leaders self-perceived the country as a strategic ally of the USA, however geographically located among underdeveloped nations. In this scenario its status of regional power and the ultranationalist discourse of the NP justified the country’s interests in nuclear research to the point of having all options available.20 In the 1970s these interests—so far for peaceful purposes—met a growing regional instability that provided enough motivation to develop nuclear weapons.

At the regional level a ‘series of setbacks shattered domestic tranquility and severely eroded the strategic position of the white laager’.21 The regime changes in Portugal triggered the independence of former Portuguese colonies in Southern Africa. Angola’s civil war and the subsequent presence of Cuban troops in the country to support the new Soviet-backed People’s Movement for the Liberation of Angola (MPLA), another pro-Soviet regime in Mozambique, and the independence of Namibia removed a ‘white cordon sanitaire’ around South Africa.22 These combined factors led South Africa’s decision makers to decisively engage in the construction of weapons, delivery systems and test sites. It is worth mentioning the complex diplomatic deterrence elaborated to present the programme to the world should it become necessary.

The public exposure of nuclear weapons was organised in three steps that would be practised in case changes to the regional balance of power occurred. The first phase consisted of sustaining a politically ambiguous position regarding the possession of nuclear bombs; the second phase predicted a partial disclosure of South Africa’s nuclear weapons to traditional allies—the USA and the UK—with the expectation that this would generate a Western intervention in the region on behalf of South Africa. Finally, in the third phase, South African nuclear weapons would be publicly acknowledged in case phase two failed to produce the expected mobilisation of Western countries.23 As the regional context did not deteriorate, South African nuclear diplomacy remained in phase one. Interestingly, and despite any acute threat perception, South Africa’s decision makers had no intentions to really use the bombs, fearing retaliation.24

In terms of capabilities South Africa gained scientific experience in the 1950s and 1960s thanks to international cooperation with Western countries and technical exchanges under the Atoms for Peace and the Plowshares peaceful nuclear explosions programme with the USA.25 Further, the country’s alliance with the West gave it the opportunity to have scientists trained in Europe and the USA. From the latter South Africa also obtained its first Nuclear Research Reactor—SAFARI 1—as a result of an agreement on nuclear cooperation signed between the two countries in 1957. Together these advantages placed South Africa ‘surprisingly enough among the very first nations to be made witting to atomic weaponry when its very existence was still highly classified’.26

During the 1960s the country secretly engaged in research on uranium enrichment. This information was released in 1970 when the then Prime Minister, John Voster (1966–77), announced this accomplishment to Parliament. The intentions then revealed were still for peaceful purposes, albeit surrounded by
ambiguities regarding future use. At the international level South Africa figured among the nations that refused to sign the NPT because of its discriminatory and restrictive treatment towards non-nuclear weapon states. South Africa’s nuclear programme turn towards weapons began in the 1970s, when the capabilities developed until that time encountered motives fuelled by changes in South Africa’s leaders’ perceptions: changes in the Southern African context generated the feeling of imminent regional threat.

The first half of the 1970s was deeply focused on the development of all technological capabilities necessary to assemble nuclear weapons in the short term, should this be necessary. Politically South Africa’s leaders’ threat perceptions were fuelled by a feeling of abandonment and isolation provoked by the deterioration in relations with the USA and, later on, with the UN and the IAEA. The formal decision to build nuclear weapons came after 1978 and ‘by 1981, South Africa could be considered a de facto nuclear state, particularly in the aftermath of two nuclear-like flashes in the Indian Ocean during September 1979 and December 1980, which led to widespread belief that South Africa had conducted one or more nuclear tests’. In the meantime South Africa’s international position towards non-proliferation and its refusal to sign the NPT did not change to the extent that its leaders still perceived the region as an unstable and threatening scenario. By 1988 South Africa’s nuclear arsenal totalled six bombs. In this period, however, the regional situation was undergoing progressive change and the paranoia about an imminent invasion by communist troops had reduced. Simultaneously the international pressure for South Africa’s accession to the NPT increased.

Reversing the path

In the late 1980s the apartheid regime had started reforms that a few years later would lead to its demise. The progressive demilitarisation of the nuclear programme figured among the reforms carried out by the NP. The reasons for South Africa’s rollback are many and interconnected. At the domestic level it was clear to the NP in the late 1980s that a regime transition would take place sooner rather than later, leading the government to initiate reforms. As such, concerns existed regarding the potential access of the African National Congress to the nuclear weapons programme. These concerns were shared by US officials and compose one dimension that explains the dismantlement of South Africa’s nuclear programme. A second dimension relates to the high cost of the programme, which might jeopardise the investments and projects carried out on conventional weapons. It should be noted that South Africa was at that time subject to international sanctions that were progressively shrinking its economy. A third dimension refers to deep changes at the regional level. The withdrawal of Soviet and Cuban troops from Southern Africa and the independence of Namibia ended the threat perceptions that years earlier had triggered the nuclear weapons programme. A fourth dimension relates to the international pressure (especially from the USA) for South Africa to accede to the NPT. Finally, a fifth dimension encompasses the demise of the USSR.
Together these five dimensions formed a new rationale that led South Africa’s policy makers to unilaterally decide to terminate the nuclear weapons programme as its rationale became obsolete. From 1990 to 1992 the whole programme was dismantled. The domestic actors leading the process were the South African government, the South African Air Force, the Atomic Energy Corporation and the South African Defence Force; they developed a plan to safely dismantle the programme without international assistance. The plan involved decommissioning the uranium enrichment plant at Pelindaba, dismantling the six nuclear bombs, destroying the hardware and documents related to the programme, and decontaminating the nuclear weapons production facility to use it for commercial purposes. While positive, this unilateral process is considered as lacking in transparency. In July 1991 South Africa signed the NPT and in September 1991 it signed a full-scope agreement with the IAEA. These were the country’s first steps towards a new international posture based on transparency and commitment to international norms. Afterwards South Africa started to reconstruct its international image by participating in the world from inside its rules and institutions.

New path

After completing the nuclear weapons dismantlement, South Africa’s nuclear strategies radically changed. From a pariah state it became an example of non-proliferation by increasing its transparency, commitment to norms, and activism. After the aforementioned accession to the NPT, in 1993 the then President, Frederik Willem de Klerk (1989–94), publically recognised that the country had assembled nuclear weapons in the 1980s. In 1995 the country became a member of the Nuclear Suppliers Group (NSG) and one year later it signed the Pelindaba Treaty that seeks a nuclear-free zone in Africa. The country also joined the NWS in 1998. South Africa’s decision to reverse its nuclear weapons path gave it an important international status in the activism against proliferation and in favour of disarmament. It first played a diplomatic role as a bridging country between nuclear weapons and non-aligned sates. Later, in the Preparatory Committee for the 2010 NPT Conference Review, it assumed a critical position towards the NWS members considered not committed enough to the obligations assigned to them in Article VI of the treaty. South Africa has also opposed the possibility of making the IAEA Additional Protocol mandatory, which it considered suspicious, even though the country has signed it.

At the domestic level South Africa’s nuclear activities have been in accordance with the international commitment to non-proliferation. The country does not enrich uranium, and counts with only two PWR producing electricity—Koeberg I and II. Its remaining stockpiles of highly enriched uranium (HEU) are under IAEA surveillance and are partially used for the production of medical isotopes at the Pelindaba nuclear research centre. In 2009 South Africa converted its SAFARI 1 research reactor from using HEU to using low enriched uranium...
(LEU) and in 2010 it also concluded the conversion of the targets used in the production of medical isotopes from HEU to LEU.\textsuperscript{38}

Differently from Brazil, South Africa’s recent past shapes its possible domestic and foreign nuclear policies: the government cannot, without raising serious concerns, play the ‘ambiguous’ card anymore. In this sense South Africa’s international nuclear discourse meets its domestic practices, evidencing a reliable commitment to the principles of non-proliferation.

The analysis of South Africa’s nuclear path sheds light onto highly important aspects related to (non)proliferation and offers lessons that can be used in the analysis of other case. First, it provides hints on the complex web of motivations driving the decision to go nuclear; second, it illustrates what can happen when capabilities and political motivations meet real threats; third, it suggests that nuclear weapons do not necessarily equal power and can become an obsolete artefact; fourth, it raises the question of the dangerous potential of sensitive technology transfer based on political alliances; finally, it demonstrate that no nuclear decision is irreversible, but not all nuclear choices are given to every country.

India

The analysis and international treatment of the Indian case raises important questions regarding non-proliferation from the perspective of NNWS. Despite its outsider stance with respect to the NPT and its nuclear weapons tests, India has been progressively regarded as a state committed to non-proliferation, granting it privileges so far reserved to NPT members.

The defence of non-proliferation is a historical trait of India’s foreign policy, yet the country has been a declared nuclear weapons state since 1998. Given that India never signed the NPT, the decision to go nuclear did not violate any international commitments, although international repercussions were negative at the time. While India’s position towards the NPT has not yet changed, the international understanding of its role in nuclear (non)proliferation did.

\textit{India’s nuclear history in brief}

India’s interest in nuclear technology dates back to the end of the 1940s and was strictly related to peaceful uses. Despite strong diplomacy with regard to disarmament and non-proliferation carried out by Prime Minister Jawaharlal Nehru (1947–64), regional geopolitics and the frustrating negotiations on the obligations ascribed to NWS and NNWS in the NPT slowly pushed India towards research on nuclear technologies in the 1960s and 1970s.\textsuperscript{39} The first results arrived in 1974, when India conducted its first nuclear explosives test; the then Indian leader, Indira Gandhi, presented this as a peaceful nuclear explosion, although Western countries interpreted it otherwise, subsequently punishing India with sanctions.\textsuperscript{40}

Despite its capabilities and regional threats, Indian decision makers took another 24 years to develop nuclear weapons as a result of ‘moral doubts, political turmoil, and the censure of the United States and the international
Between 1974 and 1998 India pursued a “nuclear option” strategy. This entailed the capability to assemble nuclear weapons quickly—within hours or days—paired with the expressed intention not to do so until a grave threat to its security presented itself. This was a normative position adopted by India’s leaders to maintain the domestic nuclear choices and international discourses on non-proliferation in as coherent a fashion as possible. Thus, during these 20 years, India’s decision to engage in proliferation was balanced between the geopolitical context—involving not only the presence of a nuclear weapons China since 1964, disputes with Pakistan, and the cold war games between the USA and the USSR in the region—and the domestic rationale, divided between a moral commitment to non-proliferation and divergent, ambiguous interests. Finally, in 1998, under the new leadership of the nationalist Bharatiya Janata Party (BJP), India made public its militarised nuclear path, which in practice had started in 1989.

The international repercussions of the Indian decision to go nuclear were immediate and negative. On 6 July 1998 the UNSC approved Resolution 1172, condemning the tests (as well as the tests carried out by Pakistan the same year), urging both to sign the NPT and the CTBT ‘without delay and without conditions’. The resolution also called upon India (and Pakistan) to:

refrain from weaponisation or from the deployment of nuclear weapons, to cease development of ballistic missiles capable of delivering nuclear weapons and any further production of fissile material for nuclear weapons, to confirm their policies not to export equipment, materials or technology that could contribute to weapons of mass destruction or missiles capable of delivering them and to undertake appropriate commitments in that regard...[and it] encouraged all States to prevent the export of equipment, materials or technology that could in any way assist programmes in India or Pakistan for nuclear weapons or for ballistic missiles capable of delivering such weapons.

Specifically the USA imposed sanctions on India on the basis of its domestic anti-proliferation law. The initially hostile reactions that India received at the international level would a few years later give space for more reconciliatory offers.

The 2000s mark the beginning of a new phase in the nuclear relationship between India and NPT members. The nexus of this change was the India–US Joint Statement on civilian nuclear cooperation, signed in 2005. The document was a historic moment in Indo-US relations in particular, and in the debate on non-proliferation in general. On one hand, it showed a reversal in US understandings and approaches towards non-proliferation. On the other hand, the agreement paved the way for overall changes to India’s nuclear situation at the international level. In 2008 India negotiated a limited agreement with the IAEA, placing part of its civil nuclear programme under international safeguards. Subsequently, in the same year, India received a waiver from the NSG and was allowed to participate in nuclear trade with its members.

This new juncture raised many international questions regarding the scope, utility and continuity of the NPT. While the treaty did not fall apart after
2005, this particular episode and following events did normatively blur the aims of the NPT, to the extent that they suggest the rise of a third category of countries in the nuclear club: responsible nuclear weapons states.\textsuperscript{48} This category would potentially encompass the countries that have weapons and yet remain outside the NPT—because of its discriminatory traits—but still receive the benefits shared by NPT members because the West sees them as responsible states, committed to the non-use of their nuclear weapons capabilities. What messages does this apparently special treatment send to states like Brazil and South Africa which—for different reasons—have chosen to forego their nuclear (weapons) ambitions?

**Final considerations**

This article started with the argument that the world is changing and, within it, new powers are rising. The so-called emerging countries bring together a somewhat heterogenic group of advanced developing economies that do not share similar nuclear status. Disregarding China and Russia, the article showed that there are significant asymmetries within the historical and current situations of Brazil, India and South Africa. While sharing similar discourses on nuclear non-proliferation, their domestic nuclear history and current choices place them in very different international positions.

Considering a spectrum that spans transparency to ambiguity, Brazil is the most ambiguous state, given that its nuclear programme emphasises the development of all strategic options for peaceful purposes. Yet, outside the field of pure speculation, it is not possible to question Brazil’s current commitment to non-proliferation. So far the country has voluntarily realigned its nuclear ambitions, while South Africa has completely abandoned its former military path in the name of non-proliferation. In this sense they can be both considered countries where international discourse and domestic practices are in harmony with each other.

Together with India, Brazil and South Africa have international political ambitions, such as achieving a permanent seat on the UNSC and the reform of the main international institutions that currently underrepresent them. The India–US nuclear agreement and the verbal support president Barack Obama gave to India’s bid for a permanent seat on the UNSC—should it be reformed—sent the others a confused message with respect to what is coherent in terms of non-proliferation:\textsuperscript{49} 1) nuclear weapons seem still to be a marker of power; 2) international nuclear norms are diversely applicable to certain states; (3) politics is first and foremost the rationale driving the decision; and 4) proliferation might not always be a negative outcome.

**Notes**


5 Castro, ‘O congelamento do poder mundial’.


10 Ibid.

42 Ibid, p 3.
43 Kennedy, ‘India’s nuclear odyssey’.

Notes on Contributor

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