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NUCLEAR PROLIFERATION

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A não-proliferação nuclear continuará na agenda internacional durante o ano de 2015. Recordemos 1945 e os 70 anos passados sobre o único uso de armas nucleares na História, em Hiroshima e Nagasaki, bem como o facto de se assinalarem os 45 anos da entrada em vigor do Tratado de Não-Proliferação Nuclear (TNP), que terá em 2015 o ano da sua Conferência de Revisão.

Nas últimas décadas temos assistido a alguns retrocessos ao nível da não-proliferação nuclear, após os sucessos verificados entre o final da década de 1980 e meados da década de 1990. Não obstante as significativas reduções nos arsenais nucleares dos Estados Unidos da América e da Rússia, assistimos no final da década de 1990 à emergência de novas potências nucleares, como a Índia e o Paquistão, cuja relação continua a preocupar a Comunidade Internacional face a um eventual escalar de tensões. O início do século XXI reforçou essa tendência com a revelação de um não-declarado programa de enriquecimento de urânio, levado a cabo pelo Irão, e pela retirada unilateral do TNP por parte da Coreia do Norte.

Considerando este enquadramento estratégico, e tendo presente o impacto que a posse de armamento nuclear tem nas dinâmicas interestatais, tanto a nível regional como global, bem como as desastrosas consequências que tais armas poderão ter caso adquiridas por atores não-estatais, o Instituto da Defesa Nacional dedica este número da *Nação e Defesa* às diversas dimensões do fenómeno de proliferação nuclear.

O número começa com um artigo de Bruno Tetrais, em que o autor reflete sobre a importância do debate sobre a questão nuclear no presente cenário estratégico. Recorrendo a diversos exemplos, passados e presentes, Tetrais considera que a dissuasão do nuclear é ainda um instrumento vital para a prevenção da proliferação, do uso de armas de destruição maciça e, mesmo, de conflitos em larga escala.

Segue-se um artigo que analisa o processo de modernização nuclear em curso em algumas das potências reconhecidas pelo TNP e que, simultaneamente, são membros permanentes do Conselho de Segurança. O autor, Francisco Galamas, aborda inicialmente os processos de modernização nuclear de forma descritiva, elaborando, num segundo momento, sobre os motivos que subjazem a este processo e os riscos que os mesmos acarretam para a estabilidade da relação estratégica entre potências nucleares.

A análise sobre os fenómenos de proliferação nuclear teria, inevitavelmente, de passar por uma abordagem às questões nucleares regionais e à sua inerente dinâmica de segurança. Neste sentido, os três artigos subsequentes centram-se no nuclear iraniano, na crise norte-coreana e nas dinâmicas nucleares no subcontinente indiano (Índia e Paquistão).

No contributo da investigadora Tytti Erästö sobre o programa nuclear iraniano, as suas circunstâncias e tensões, são analisadas as motivações não-militares associadas a este programa. A autora reflete, igualmente, sobre o atual processo negocial entre o Irão e os Estados que constituem o denominado Grupo P5+1.

A crise nuclear norte-coreana é, igualmente, merecedora de uma sustentada reflexão. Esta questão é abordada por Nuno Santiago Magalhães que, no seu artigo, analisa a

incapacidade de dois atores preponderantes na região, a China e os EUA, em criar reais incentivos para que Pyongyang abandone as suas pretensões nucleares.

Segue-se um texto sobre a problemática nuclear no sul da Ásia, onde o relacionamento entre o Paquistão e a Índia tem criado receios de uma escalada de tensão. No texto da autoria de Feroz Khan, são analisados os fatores que têm alimentado essa competição estratégica, nomeadamente a relação Índia-China ou a inferioridade do poder militar convencional Paquistanês face à Índia. Para diminuir uma crescente espiral de desconfiança entre estes Países, o autor defende o estabelecimento de uma paz estruturada e de uma arquitetura de segurança que permita uma relação estável entre os dois vizinhos nucleares do Sul da Ásia.

O acesso de atores não-estatais a armamentos nucleares ou materiais radiológicos é um outro assunto que tem merecido crescente atenção. James Forest e S. K. Aghara refletem sobre esta temática e elaboram uma análise baseada nos fatores concretos e científicos da ameaça. O artigo termina com uma referência aos mecanismos a que a Comunidade Internacional recorre para reduzir o nível da ameaça e o grau de probabilidade de ocorrência de atentados desta natureza.

Os mecanismos legais internacionais de não-proliferação nuclear e os instrumentos para a sua aplicação não poderiam ser esquecidos neste volume. Hassan Elbahtimy e Sonia Drobysz avaliam estes instrumentos quanto à implementação nacional e correspondente verificação, com especial enfâse no TNP e na Resolução n.º 1540 do Conselho de Segurança das Nações Unidas. Os autores enumeram e explicam a aplicação de alguns destes mecanismos legais e a sua exequibilidade.

Tendo presente a ameaça associada à proliferação nuclear, o Instituto da Defesa Nacional pretende que este número da Revista *Nação e Defesa* incentive um maior debate sobre estas temáticas e proporcione um maior conhecimento de uma matéria tão complexa e nem sempre objeto de análises devidamente fundamentadas.

Para a concretização deste número da Revista *Nação e Defesa* foi decisiva a colaboração de vários autores nacionais e estrangeiros, bem como a qualificada coordenação temática do Dr. Francisco Galamas. Quero, por isso, deixar aqui expresso os meus agradecimentos pela disponibilidade manifestada, bem como pelos resultados alcançados.

Assinale-se ainda que a secção extra-dossiê inclui três artigos que abordam outras temáticas de igual relevância. Gilberto Oliveira propõe uma análise comparativa entre as conceções de segurança dentro dos estudos estratégicos e da teoria da securitização, ilustrada pelo caso da crise nuclear iraniana. Dominik Jankowski aborda o atual conflito na Ucrânia e as cinco lições que dele deverão ser retiradas, avançando com quatro recomendações para futura mitigação de ameaças similares à segurança europeia. Por fim, António Horta Fernandes mostra como o saber geopolítico é um saber da modernidade que dificilmente poderia produzir resultados práticos antes do final do século XVIII, explicando por que razão o mundo antigo e o período medieval não são épocas geopolíticas.

Vítor Rodrigues Viana

Nuclear Proliferation

How Relevant is Nuclear Deterrence Today?

Bruno Tertrais

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Abstract

The relevance of nuclear deterrence continues to be questioned in Western countries. However, there are good grounds to say that it continues to be a valid answer to the question of major conflict prevention as well as avoidance of proliferation and WMD use. Nuclear weapons have been effective war-prevention tools: alternative explanations are not satisfying. They have contributed to the reduction of proliferation risks. The costs of nuclear weapons and deterrence remain acceptable. Alternative options are not credible either technically or politically. Finally, nuclear deterrence is a legitimate answer to some of the 21st century's most pressing strategic challenges.

Resumo

Quão Relevante é Hoje a Dissuasão Nuclear?

A relevância da dissuasão nuclear continua a ser questionada nos países ocidentais. No entanto, existem boas razões para dizer que esta continua a ser uma resposta válida à questão de prevenção de grandes conflitos assim como de prevenção da proliferação e uso de Armas de Destruição em Massa (ADM). As armas nucleares têm sido ferramentas eficazes de prevenção de guerras: explicações alternativas não são satisfatórias. Acresce que estas contribuíram para a redução dos riscos de proliferação. Os custos das armas nucleares e a sua dissuasão continua a ser aceitável e as opções alternativas não são nem tecnicamente nem politicamente credíveis. Por fim, a dissuasão nuclear continua a ser uma resposta válida para alguns dos desafios estratégicos mais prementes do século XXI.

In Russia, China, India, Pakistan, North Korea or Israel, the relevance of nuclear deterrence is hardly questioned. However, in Western countries, nuclear deterrence has been the target of criticism on strategic, legal and moral grounds since 1945. In the past decade, the renewed debate on nuclear disarmament has been accompanied by an increase in such criticism. Efforts led by four US statesmen, or the more radical Global Zero movement, as well as various diplomatic initiatives, have been accompanied by a flurry of new, serious academic studies questioning the legitimacy of nuclear weapons. More than ever, nuclear deterrence is attacked by many, both on the Left and on the Right. To the traditional arguments related to the credibility of nuclear deterrence are now added two other factors. First, nuclear weapons, it is argued, have limited value vis-à-vis proliferation and terrorism, and such risks bolster the case for nuclear disarmament. Second, alternatives such as high-precision conventional means and missile defense are said to now be much more effective than they were in the past. This paper refutes these arguments on the grounds that nuclear deterrence has proven to be an effective war prevention instrument, that it is cost-effective, and that today's challenges confirm its relevance.

Nuclear Weapons Have Been Effective War-Prevention Tools

It is by definition impossible to prove that deterrence has worked, and correlation is not causality. But History gives us solid arguments in support of the positive role played by nuclear weapons, especially since our database now covers seven decades.

Firstly, no major power conflict has taken place in 70 years. The role of nuclear deterrence to explain this historical anomaly has been highlighted by leading historians and authors such as John Lewis Gaddis, Kenneth Waltz, and Michael Quinlan. No comparable period of time has ever existed in the history of States. There were two dozen conflicts among major powers in the equivalent amount of time following the Treaties of Westphalia (1648), and several after the Vienna Congress (1815).[1]

Secondly, there has never been a direct military conflict between two nuclear States. Beyond this mere observation, two studies have shown that the possession of nuclear weapons by two countries significantly reduced the likelihood of war between them (Pasley, 2008; Rauchhaus, 2009). Events in Asia since 1949 provide an interesting test case. China and India fought a war in 1962, but have refrained from resorting to arms against each other ever since. There were three India-Pakistan wars (1962, 1965 and 1971) before both countries became nuclear; but since the late 1980s (when the two countries acquired a minimum nuclear capability), none of the two has launched any significant air or land operations against the other.

1 First Russian-Turkish War (1828-1829), War of Crimea (1853-1856), Austro-Prussian War (1856), French-Prussian War (1870-1871), Second Russian-Turkish War (1877-1878).

Thirdly, no nuclear-armed country has ever been invaded. This proposition too can be tested by the evolution of regional crises. Israel was invaded in 1948, on the day of its independence. But in 1973, Arab States deliberately limited their operations to disputed territories (the Sinai and the Golan Heights). It is thus incorrect to take the example of the Yom Kippur war as a "proof" of the failure of nuclear deterrence. Likewise, India refrained from penetrating Pakistani territory at the occasion of the crises of 1990, 1999, 2002 and 2008, whereas it had done so in 1965 and 1971. Another example is sometimes mistakenly counted as a failure of nuclear deterrence: the Falklands War (1982). But this was a British Dependent Territory for which nothing indicated that it was covered by nuclear deterrence.

Fourthly, no country covered by a nuclear guarantee has ever been the target of a major State attack. Here again evidence is hard to give, but can be found *a contrario*. The United States refrained from invading Cuba in 1962, for instance, but did not hesitate in invading Grenada, Panama or Iraq. The Soviet Union invaded Hungary, Czechoslovakia and Afghanistan, but not a single US ally. China has refrained from invading Taiwan, which benefits from a US defense commitment. North Korea invaded its southern neighbor in 1950 after Washington had excluded it from its "defensive perimeter", but has refrained from doing so since Seoul has been covered with a nuclear guarantee. Neither South Vietnam nor Kuwait were under the US nuclear umbrella. Russia could afford to invade Georgia and Ukraine because these countries were not NATO members. A partial exception is the shelling of Yeongpyeong island (2011); but the limited character of the attack and its location (in a maritime area not recognized by Pyongyang as being part of South Korean territory) make it hard to count it as a major failure of extended deterrence.

Alternative Explanations Are Not Satisfying

Some have suggested alternative explanations which all rest, to some extent, on the idea that international society has undergone major transformations since 1945: the development of international institutions, the progress of democracy, the rise of global trade, etc., to which is often added the memories of the Second World War. Thus for authors such as John Mueller, nuclear weapons played only a marginal role in the preservation of peace (Mueller, 1989). The Soviet Union, it is also argued, was a status quo power in Europe which would not have taken the risk of a major war on the continent.

But such explanations are not satisfying. The rise of international trade from 1870 onwards did not prevent the First World War: Norman Angell's "Great Illusion" was a fallacy. The construction of a new global order based on the League of Nations did not prevent the Second. Kenneth Waltz reminds us that "in a conventional world even forceful and tragic lessons have proved to be exceedingly difficult for states to learn" (Waltz, 1990: 743). In the same vein, Elbridge Colby holds that such

cultural argumentation markedly overestimates the durability of historically contingent value systems while seriously downplaying the enduring centrality of competition, fear, uncertainty and power (Colby, 2013). Major powers have continued to use military force in deadly conflicts, especially in the two decades after 1945: "war fatigue" is a limited and rather recent phenomenon. As for democratization, it is obviously a red herring: during the Cold war, the risk of major war was between pro-Western (not all of them democratic until at least the late 1970s) and totalitarian regimes.

No one knows how a non-nuclear cold war would have unfolded in Europe. However, without nuclear weapons, Washington might have hesitated to guarantee the security in Europe ("no nukes, no troops"), and might have returned to isolationism; and without US protection, the temptation for Moscow to grab territory in Western Europe would have been stronger.[2] And as Michael Quinlan puts it, in order to claim that nuclear deterrence was key in the preservation of peace, one does not need to postulate a Soviet desire for expansionist aggression: it is enough to argue that "had armed conflict not been so manifestly intolerable the ebb and flow of friction might have managed with less caution, and a slide sooner or later into major war, on the pattern of 1914 or 1939, might have been less unlikely" (Quinlan, 2009: 28).

Alternative explanations might not even suffice to explain the absence of conflict among European countries: the integration process which began in 1957 and culminated with the creation of the European Union in 1991 might have been much more difficult without the US umbrella (Colby, 2013). Neither are they satisfying regarding regional powers. It is hard to believe that the political, economic and cultural factors mentioned above are enough to explain the absence of a major conventional war involving Israel, India or Pakistan since these countries have become nuclear powers.

Deterrence has limited the scope and intensity of conflict among the major States. If Cold War crises in Europe, as well as wars in Asia and the Middle East, did not turn into global conflicts, it is probably due largely to nuclear weapons. The fear of nuclear war and the precautions taken by decision-makers during the Cold war to reduce the risks of direct conflict have been made clear by a collective study that contradicts Mueller's thesis (Gaddis, Gordon, May and Rosenberg, 1999).[3]

One could go as far as saying that the international stability obtained thanks to nuclear deterrence (in its national and extended forms) has been a form of "global

2 On this, see James Schlesinger (1993). "The Impact of Nuclear Weapons on History". *The Washington Quarterly*, No. 4. Available at http://www.tandfonline.com/doi/abs/10.1080/01636609309477718?journalCode=rwaq20#.VFkBUzSG-Yg.

3 See also John G. Hines, Ellis Mishulovich and John F. Shull (eds.) (1995). *Soviet Intentions 1965-1985*. McLean: The BDM Corporation.

common good". All non-nuclear weapons States benefitted from it during the past 70 years – even though some of them suffered from the indirect conflicts made possible by the stability-instability paradox. Without it, for instance, it is dubious that Asia would have known the peace and stability that allowed for its massive transformation and development, leading to hundreds of millions of human beings being lifted out of poverty. Nuclear weapons may even have hastened the end of the Cold war, by giving confidence to Soviet leaders that the country's survival would be assured even after the loss of the Eastern European *glacis*.

Nuclear Deterrence Also Contributed to the Reduction of Proliferation Risks

No nuclear-endowed country has ever been the victim of a chemical or biological attack. Here, the history of modern Middle Eastern wars is instructive. Egypt had used chemical weapons against Yemen (1962-1967), but failed to do so against Israel in 1967 and 1973. Likewise, Iraq had done the same in its war against Iran (1980-1988), but only fired conventional missiles at Israel during the First Gulf War (1991).

Security guarantees ("nuclear umbrellas") have limited the risk of nuclear proliferation. The role of such guarantees in the prevention of proliferation seems to be well-established.[4] In Europe, from the late 1940s through the 1960s, several countries were tempted to develop nuclear programs, and then gave up in no small part due to the US commitment to defend its NATO allies, including by nuclear means: this was the case for Norway and Germany, but also Sweden. In Asia, the US nuclear umbrella has permitted a dampening of the nuclear temptation in Japan, South Korea and Australia. Of course, the existence of a nuclear guarantee is not always "necessary" or "sufficient" to prevent a State from going nuclear (see the case of France). Still, extended nuclear deterrence has proven to be one of the best non-proliferation measures ever devised.

The Costs of Deterrence Remain Acceptable

Of course, the benefits of nuclear deterrence have to be measured in relation to its actual or potential costs.

Some authors have claimed that crises and low-intensity conflicts have multiplied due to the existence of nuclear deterrence. What has been called the "stability-instability paradox" by Glenn Snyder is a reality. But the number of international conflicts had slowly been declining since 1945. And – leaving Korea and Vietnam aside

4 See Bruno Tertrais (2011a). "Security Assurances and the Future of Proliferation" in James J. Wirtz and Peter Lavoy (eds.), *Over the Horizon Proliferation Threats*. Stanford: Stanford University Press, and Bruno Tertrais (2011b). *Security Guarantees and Nuclear Non-Proliferation*. Notes de la FRS, No. 14/11, Fondation pour la Recherche Stratégique, 10 August. Available at http://www.frstrategie.org/barreFRS/publications/notes/2011/201114.pdf.

if one was to claim that such wars were by-products of nuclear deterrence – was not that a relatively small price to pay for the prevention of major power conflict? It is not incorrect to state that the possession of nuclear weapons may encourage proliferation: for instance, Pakistan became nuclear mostly because India did; the Indian program was largely motivated by that of China; Beijing wanted nuclear weapons because Washington and Moscow did, etc. But apart from the fact that the number of actual nuclear countries has always remained rather low, the history of nuclear programs – in particular those of the past 20 years – shows that conventional superiority is a much greater incentive to pursue nuclear weapons. Thus paradoxically a world in which Western countries would not have nuclear weapons anymore might be – if disarmament had not been accompanied by much stricter international controls – a world in which proliferation might have much stronger chances to develop. Another potential cost of nuclear deterrence is the risk of miscalculation or accident. The risk of accidental nuclear war was the subject of numerous reflections and studies during the Cold war. More recently, a school of thought embodied by the works of Scott Sagan and Bruce Blair has put the emphasis on the risks inherent to complex systems and organizations such as those which manage nuclear weapons (Sagan, 1993).

It remains a fact, however, that no nuclear explosion has taken place in 70 years (other than nuclear tests), and that, for what is publicly known, there not been either an accidental or unauthorized launch, a weapon stolen, or a serious weapon accident. The procedures that guarantee safety and security were simple if not rudimentary during the Cold war, but they are much more robust and effective today in Western countries, and for what is publicly known, rather elaborate in most other nuclear-armed countries. No system is infallible, and there may very well be one day a major nuclear incident; but the probability that such an incident would lead to the actual detonation of a nuclear weapon seems to be vanishingly small. Likewise, the probability of nuclear terrorism seems to be vastly exaggerated.

As far as deterrence itself is concerned, it would be wrong to calculate its inherent risks as one does for complex technological systems: it primarily rests on human reasoning – which itself is far from being infallible, but as Robert Jervis says, it does not take a lot of rationality for deterrence to work (Jervis, 1979).

To claim that "we have been lucky so far", as have many analysts and politicians, is either metaphorical or unverifiable. By contrast, as explained below, statistical studies have shown that the possession of nuclear weapons significantly reduced the probability of war among two countries. Kenneth Waltz does not exaggerate when he claims that "the probability of major war among states having nuclear weapons approaches zero" (Waltz, 1990: 740).

Nuclear pessimism has a long lineage of authors who have been proven wrong. In 1960, C. P. Snow wrote that if a dozen new countries were to build nuclear weapons,

the risk of a nuclear explosion in the next decade would be a "mathematical certainty"(Snow, 1961: 255-262). In 1973, Fred Iklé, one of the most brilliant American minds of the Cold war, who could not see any other explanation for non-use than mere luck, predicted that nuclear deterrence would probably fail before the end of the 20th century (Iklé, 1973: 267-285). There is no reason to take seriously the allegedly scientific previsions made over the past few years, such as that of Martin Hellman (1% risk of failure per year) or that made by the Scientific American magazine (one chance out of 30 for the current decade) (Hellman, 2008; Matson and Pavlus, 2010).

The risk of escalation has to exist if deterrence is to be operative. But if one sets aside the Cuban Missile Crisis (1962) for the Soviet Union and perhaps, to some extent, the Yom Kippur War (1973) for Israel, there does not seem to be any example when nuclear weapons have been really "close" to being employed: neither in Korea (1950), nor at Dien-Bien-Phu (1954), nor in the Formosa Straits (1954-1955 and 1957-1958); neither during the second Berlin crisis (1961), nor during the battle of Khe Sanh (1968), the Ussuri river crisis (1969), the US/North Korea tensions (1969), the "madman" nuclear alert (1969) or the South Asia war (1971). Likewise for the *Able Archer* incident (1983), the Gulf War (1991), or the South Asian crises of 1990, 1999 and 2002. To envision the possible use of nuclear weapons, discuss it with one's advisers, seriously consider it if the crisis was to worsen, possibly make it known publicly (and/or put forces on a higher state of alert), have it planned by military staffs is one thing. To have "the finger on the button" and be on the verge of ordering a nuclear strike is quite another. We will never know if nuclear weapons would have been used if one of these crises had further escalated. But they showed that with very few exceptions, the highest political authorities – of various types of regimes and personality – have been extraordinarily prudent regarding their use.[5]

Most exercises and wargames showed that possessors of nuclear weapons were extraordinarily reluctant to engage in massive nuclear strikes. George Quester, one of the most subtle American analysts of deterrence theory, considers, for instance – after a rigorous analysis of the early days of the Cold war – that ethical motivations were paramount to explain the absence of any US nuclear use when it was in a situation of monopoly (Quester, 2000). Hence the idea of a "nuclear taboo" proposed by Nina Tannenwald for the United States or that of a "tradition of non-use" suggested by T. V. Paul for nuclear-armed countries in general (Tannenwald, 2007 ; Paul, 2009). It is not an exaggeration to claim that the nuclear terror message

5 Henry Kissinger has claimed: "I can't even think of a single occasion when we took measures that were moving consciously toward nuclear war". "Address by Henry A. Kissinger" in George P. Shultz, Sidney D. Drell and James E. Goodby (eds.) (2011), *Deterrence: Its Past and Future*. Stanford: Hoover University Press, p. 66.

conveyed by popular culture (novels, movies, cartoons, documentaries, photographs…) played a role in the consolidation of this taboo.

As for the risk of "inadvertent" nuclear war, this is hardly a credible scenario. Multiple false alarms took place during the Cold war. But contrary to what some journalists and novelists may believe, there is no reason to think that a US or Russian president has ever been close to launching nuclear weapons due to a mere alert. One example frequently cited is that of the 1995 Norwegian sounding rocket launch; the Russian early warning system, at that time in very poor condition, had signaled that it might be a missile. President Yeltsin had been summoned, and the nuclear "briefcase" had reportedly been presented to him. It is possible and even likely that Russia has a "launch-on-warning" posture. But can one seriously believe that Moscow would have launched a nuclear attack (against whom?) just because an unknown object had been launched from Norway, and even before it was ascertained whether the object was going to reach Russian territory (which was not the case)? As for the Cold war false alarms – there were several in the United States in the 1980s, including because of software glitches – they never led a US President to envision a nuclear strike. In the United States, an alert regarding a possible nuclear attack has to be confirmed by two different types of sensors; a threat assessment conference then would decide if political authorities should be contacted.

Likewise, the risk of an "accidental" (non-deliberate) or "unauthorized" strike is considerably exaggerated by disarmament activists. In most if not all countries, to be launched, nuclear forces have to receive a series of complex instructions with multiple verifications. As recalled by a former commander of USSTRATCOM, General Chilton, US missiles are not on a "hair-trigger alert" posture: they are "in the holster" (Grossman, 2009). The nuclear forces of the five NPT-recognized Nuclear-Weapon States have been detargeted, and Asian nuclear warheads are reportedly separated from their launchers. Such procedures have been devised partly so that catastrophist fiction scenarios – which were, it should be said, much more credible until at least the 1960s – could not materialize. Serious incidents regarding the custody of nuclear forces have been reported, but none that ever posed the gravest risk. An American author has interestingly suggested that since 1945, the tens of thousands of persons that have had the charge, at one level or another, of nuclear weapons "must have taken much greater care than is taken in any other situation involving human agents and complex mechanical systems" (Caplow, 2010: 38).

Alternatives to Nuclear Deterrence Are Not Credible

Furthermore, costs and risks associated with nuclear deterrence have to be measured in comparison with possible alternatives. But alleged possible substitutes lack credibility.

As is well-known, conventional deterrence has a long record of failure – in fact, as long as civilization itself. As former UK Prime Minister Margaret Thatcher once reportedly said, there is a monument to its failures in every French village.[6] The *threat* of conventional bombing is not enough to make an adversary desist when the stakes are extreme or vital: even when they are more limited, the crises of the past 20 years – Iraq in 1991, Serbia in 1999, Afghanistan in 2001, Iraq again in 2003 – have shown that it does not always lead adversaries to change their strategic calculus. The reasons are well-known. Besides the intrinsically frightening character of nuclear weapons, due to radioactivity, these weapons have important specific characteristics.

There is still today a large difference – at least an order of magnitude – between conventional and nuclear yields. According to open literature, the smallest known nuclear weapons yields are measured in hundreds of tons of equivalent-TNT (300 tons for the lowest yield of the US B-61 bomb), whereas the most powerful conventional bombs, which were tested during the past decade, are measured at the maximum in tens of tons of equivalent-TNT (a little over 10 tons for the US Massive Ordnance Air Blast, perhaps twice for the equivalent Russian device). For this reason, conventional weapons cost much more for an equivalent effect. Going back to conventional deterrence, even assuming that such deterrence was credible for the defense of vital interests, would be a return to the logic of big battalions. It is far from certain that Western countries – with the possible exception of the United States – would have the means or the political will for the arms races that would probably follow. This difference in yields is particularly relevant when one attempts to maintain a second-strike capability: other things being equal, an SSBN fleet endowed with conventional missiles would be extraordinarily costly. Even more than its nuclear counterpart, conventional strategy relies on the threat of targeted strikes on key assets and centers of gravity. Such a logic places extraordinary demands on intelligence and C3. The amount of energy expended by nuclear weapons makes them "forgiving" (less demanding in these respects). Conventional means today still cannot credibly threaten two particular categories of targets. The most important one consists of hardened targets. Just to give an example: in 1999, NATO failed to disable Pristina's military airport (Ripley, 1999). As the former director of a US nuclear lab reminds us, "some targets are simply too hard to be destroyed by anything less than a nuclear explosion" (Younger, 2009: 122).

Another category is deeply buried targets. In order to neutralize a buried installation (by coupling effect), a conventional weapon would need to penetrate much more deeply than a nuclear one, and in many cases much beyond what is feasible

6 No source was found for this alleged statement, which was reportedly pronounced at a NATO Heads of States and Governments summit (possibly in 1990) but may also be apocryphal.

today.[7] Of course, using nuclear weapons to destroy such installations would pose a well-known problem: fallout could be massive in case of shallow penetration, which could make a political leader hesitate. But let us recall once again that this is about deterrence, not use (the challenge being to persuade the opposing leader that we would not be self-deterred by such a prospect).

The other essential characteristics of nuclear weapons are political. A massive and sustained bombing campaign could, in many scenarios, have a physical effect equivalent to several nuclear weapons. However, as stated above, it is far from obvious that Western public opinion would bear the conduct of such a prolonged campaign, the unfolding of which would be visible 24/7 on television and the Internet. As was seen on several occasions recently – Kosovo, Afghanistan, Iraq, Southern Lebanon, Gaza, Libya… – the media and publics get impatient very quickly, demand fast results and are shocked by collateral damage and targeting errors. (In a major war, domestic sensitivity to collateral damage inflicted to the adversary's population would certainly be limited. But this would play out at the global level, potentially affecting the political context of the war.) And that is without taking into account possible asymmetrical reprisals (terrorism, cyber-attacks…) which could be conducted by an adversary. A conflict can be winnable in theory, but not in practice; and even in situations of obvious conventional superiority, the outcome is never guaranteed. As stated by Kenneth Waltz, "so complex is the fighting of wars with conventional weapons that their outcomes have been extremely difficult to predict" (Waltz, 1990: 734). Once again, other things being equal, nuclear weapons give the political authorities the quasi-certainty of massive but targeted destruction.

Could the threat of a massive regime change operation be enough to make an adverse leader think twice about major aggression or the use of WMDs? This is unlikely. The difficulties of the US-led coalition in Iraq have probably devalued the threat of regime change for at least a generation.

These two specific features of nuclear weapons have clear deterrence benefits.

It is unlikely that technological evolutions on the horizon will make this argumentation obsolete. Peacetime Western superiority is global, not necessarily local. Conventional forces remain time-consuming to mobilize and deploy, and their use often leads to protracted and bloody wars. From a technical standpoint, Elbridge Colby compares the substitution of nuclear weapons by conventional ones to an asymptote curve: to threaten the kinds of targets mentioned above, the difficulties

7 See Christopher Ford (2010). "Conventional 'Replacement' of Nuclear Weapons". New Paradigms Forum, 19 December; and Elbridge A. Colby (2011). "Why We Should Study Developing Nuclear Earth Penetrators - And Why They Are Actually Stabilizing". *Foreign Policy Research Institute*, May. Available at http://www.fpri.org/docs/media/201105.colby_.nuclear.pdf.

become exponential (Colby, 2010). Future long-range precision strike weapons will not alter this. In 2004, a Defense Science Board task force concluded that the United States would not have, by 2030, an intelligence, surveillance and reconnaissance architecture commensurate with the ambitions of the Prompt Global Strike program (Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics, 2004). It is for these reasons that, from the point of view of a former commander of USSTRATCOM, such means cannot replace nuclear weapons even by "ten-for-one" (Chilton, 2010: 25).

Many arguments opposed to the idea of conventional weapons as substitutes for nuclear ones can also be applied to missile defense.

Missile defense can play many useful roles. It reinforces the freedom of action of political leaders, acts as a "deterrent by denial", covers cases where nuclear deterrence does not apply, and can be a damage limitation instrument. But deterrence by denial can never be as powerful as deterrence by retaliation: from the aggressor's point of view, the potential costs of the former are nothing compared with those of the latter. And the damage limitation role of missile defense cannot be applied today to massive threats – nor will it be in the foreseeable future. The cost-effectiveness of missile defense remains questionable. The United States spent more than 150 billion dollars over the past 30 years on missile defense, and continues to spend about 10 billion a year. In concrete terms, this investment has given it 30 Ground-Based Interceptors (an ability to intercept no more than 15 relatively primitive ICBMs), as well as about 100 SM-3 and 30 THAAD interceptors. It is clear that even if it were desirable, the complete protection of such a large territory as the United States by non-nuclear means would remain out of reach.

Finally, even assuming the total coverage of one's territory by defensive modes (anti-aircraft, anti-ballistic- and cruise missiles) in front of a major threat, something that today can only be achieved at a reasonable cost for very small territories such as Israel's, such defenses would not take into account non-traditional modes of employment of nuclear weapons such as terrorism.

The Continued Usefulness of Nuclear Deterrence

Even admitting that nuclear deterrence was effective when we faced a major threat, could it still be as useful in today's strategic context?

The fact that most threats are now more limited does not mean that nuclear deterrence is irrelevant. Vital interests may be threatened in a more limited fashion than was the case during the Cold war. In the sense of nuclear deterrence, "vital" is broader than "survival".

Without nuclear deterrence, Western powers would be much more reluctant to intervene against a nuclear-armed adversary to defend their political or strategic interests, or even to protect populations. Imagine that Libya had completed its

nuclear program: would NATO have intervened to prevent a carnage in Benghazi without the insurance that they would be protected against Libyan nuclear coercion or blackmail? Of course, it is far from being certain that the Alliance would have intervened if Libya had had nuclear weapons (some member States would certainly have opposed a NATO operation); but the point here is that the possession of nuclear weapons as a "counter-deterrent" reinforces the chances of intervention to defend strategic or humanitarian goals.

As for deterrence vis-à-vis major powers, a word of caution is in order. Even those who claim that the possibility of a new major threat in the coming two decades is close to nil have to admit that today's partners can become tomorrow's enemies in much less time than that. Libya is, to some extent, a case in point. So is Russia.

The potential adversaries of Western countries may have value systems different from ours, and exercising credible deterrence *vis-à-vis* them would not be easy. But there is no reason to believe that they are "irrational". Iraq, Iran, Pakistan, North Korea and China have shown that they perfectly understood the logic of deterrence through the threat of retaliation. Most of the regimes that are possible objects of Western nuclear deterrence (Iran, China, North Korea…) have shown throughout their history that they could, just as the Soviet Union had during the Second World War, bear a very high number of civilian casualties during a conflict. In dealing with such regimes, threatening centers of power is not only a moral choice: it is also a rational one.

Regarding the chemical or biological threat that may be posed by regional powers, the experience of the First Gulf War seems to validate the idea that nuclear deterrence can play a useful role. Several countries, including France, the United States and India, explicitly consider that a biological attack, in particular, would entail the risk of nuclear retaliation.

Nuclear weapons also play a residual role to prevent a State from using terrorist means to attack vital interests (such as, precisely, an act of nuclear terrorism). Such a role has been publicly stated by the United States, France and the United Kingdom.

Finally, the nuclear horizon continues to affect the relationships among great powers. It prevents crises among them from becoming direct military conflicts. Russia would probably not have invaded Georgia and Ukraine had these country been covered by a nuclear guarantee. Washington, for its part, might have been tempted to undertake a stronger military reaction had Russia not been a nuclear power.

It is sometimes said that public opinion would not accept the use of nuclear weapons and that Western leaders would be under immense pressure during a major crisis to avoid using them – to the point that they would be self-deterred. The argument is not without merits, but it meets three objections. First, one should not

underestimate the reactions of Western publics to a mass attack – witness Pearl Harbor or 9/11. Second, a nuclear response could be executed in a very short amount of time, and thus once decided would not be subject to public pressure, in contrast with a conventional bombing campaign. Third, what Western analysts believe ultimately does not matter: what matters, of course, is what the adversary believes (though he may believe that "we would not dare").
Finally, extended deterrence remains fully relevant to limit proliferation risks: the demand for security guarantees is as strong in North-East Asia, and stronger in the Middle East, than it was during the Cold war.

The Enduring Legitimacy of Nuclear Deterrence
One can also claim that the very legitimacy of nuclear deterrence has been bolstered in the past 20 years – or, at the very least, that the evolutions of the political and strategic context have not delegitimized it.
From the point of view of customary law, the legality of the possession of nuclear weapons can be said to have been confirmed by the unanimous extension for an indefinite duration of the NPT (1995), by the vote of resolution 984 (1995) of the UN Security Council on security assurances, and by the conclusion of several new treaties establishing nuclear-weapon-free-zones, with protocols to be ratified by the Nuclear Weapons States.
The fact that all the new nuclear-armed nations have adopted – at least rhetorically – doctrines of deterrence, and the continuation of nuclear restraint (the absence of any operational use), have also reinforced the taboo or tradition of non-use which exists regarding nuclear weapons.
An acute regional nuclear crisis would certainly lead to an immediate intervention of major powers – as was seen in 1990, 1999 and 2002 in South Asia – or even, had nuclear weapons been used, to military action to "quench the nuclear fire". Again, the risk of fast escalation to the extremes is never zero: but it is weaker than it was in the past.
Technological progress with regard to accuracy and intelligence collection (as well as MIRVing) has led to the adoption in Western countries, of more discriminate targeting strategies, and to the abandonment of their most powerful, "city-busting" weapons. Such countries, which also benefit from conventional superiority in relation to most of their adversaries, were also able to give up for good the temptation of seeing nuclear weapons as a means to compensate for conventional imbalances, and thus associated nuclear deterrence with "extreme circumstances of self-defense" (an expression used by the 1996 ICJ advisory opinion). The development of missile defenses reinforces that trend.
At the same time, drilling machines have become cheaper and more efficient: the burial of sensitive installations, which can be much more easily threatened by

nuclear weapons than by conventional ones (with the caveats mentioned above), seems to be a long-term trend.

The argument according to which, in the early 21st century, a political leader would not dare to use a nuclear weapon due to public pressure – especially in a society where information is widely and immediately disseminated – can actually be turned on its head. As stated above, a nuclear strike would be almost instantaneous and thus less subject to opinion pressure than a conventional bombing campaign would be; and, again, we should not underestimate the possibility that our publics would be the first to cry for blood. As for the fear of being dragged in front of an international court, one can doubt that it would weigh heavily on a leader whose country has just been the target of a massive or horrendous aggression (besides the fact that he or she would probably remain legally immune in his or her own country).

In short, many of the arguments traditionally used to challenge the legitimacy of nuclear deterrence tend to increasingly lose their credibility: deterrence is less and less about threatening cities; the characteristics of modern weapons would make their use less indiscriminate than in the past; the risk of escalation to the extremes is lower than it used to be; one can better defend against a nuclear attack; and indirect conflicts are less numerous than in the past.

Other arguments can bolster the domestic legitimacy of nuclear deterrence policies. First, in the past 20 years the decrease in nuclear arsenals has been accompanied by a continuation of economic growth: thus the percentage of national wealth devoted to nuclear deterrence is lower – at least for Western countries and Russia – than it was 30 or 40 years ago. Second, for countries which are ageing (which will soon be the case for a majority of nuclear weapons possessors), or in which the demand for social protection will increasingly weigh on national budgets, it will be possible to present nuclear deterrence as a relatively low-cost form of national security insurance. The argument according to which decreasing defense budgets should imply a transfer of nuclear expenses to conventional forces (often heard in Europe) could be reversed: without going back to the Cold war logic of nuclear weapons as a means to compensate for conventional deficiencies, it could be claimed that societies that, in the long run, may lose some of their abilities to intervene around the world to defend their interests will need at least to have the capacity to protect their core vital interests at all times.

Final Remarks

Nuclear deterrence is comparable what Winston Churchill said about democracy: the worst possible war-prevention instrument with the exception of all the others. It could be considered a temporary, but effective, as well as legally and morally acceptable way to prevent war among major powers, or aggression against their allies, until democratic peace comes.

That said, the enduring acceptability of nuclear deterrence should not be considered a given. It is a fact that political, intellectual and religious elites tend to be less immediately convinced of its relevance today. Uncontrolled nuclear proliferation would lead many officials and analysts – it is already the case in the United States – to consider that its risks outweigh its benefits. *A fortiori* should a major nuclear event occur such as a severe nuclear crisis, an act of terrorism or a deadly accident: such an event could have such a psychological effect that it might lead, *volens nolens*, to a generalized move towards abolition. It is also to be noted that in the longer run, the continuation of nuclear arsenal reductions might lead to the temptation of going back to the targeting of cities – thus raising anew some old ethical dilemmas.

Likewise for its efficiency. For instance, today potential adversaries of Western countries – which often consider the latter as being "weak" – might be less convinced of their determination to defend themselves than the Soviet Union probably was.

Thus in the coming decades, nuclear weapons will only be able to play a major role in the preservation of global peace and security if political leaders pay attention to factors that could affect the acceptability and effectiveness of deterrence. This is especially the case since the images of Hiroshima and those of atmospheric testing are beginning to fade from collective memory. It is not impossible that nuclear weapons may lose, over time, their terrifying character; the ultimate paradox of the nuclear taboo would be that it ends up generating its own destruction.

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The Motivations Behind the Nuclear Modernization Programs of the P5

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Abstract

Over the last years, the Nuclear Nonproliferation Treaty (NPT) recognized nuclear powers (P5) have substantially invested in modernizing their nuclear arsenals. Even considering the need for replacement of some of the nuclear platforms, analysis demonstrates that the development and deployment of new military systems – like the missile shield or hypersonic systems – has created a strategic domino effect on other nuclear powers, namely Russia and China. This article intends not only to describe some of the nuclear modernizations programs currently being implemented by the P5 but also the strategic motivations behind the latter.

Resumo

Motivações dos Programas de Modernização Nuclear dos P5

Nos últimos anos, as potências nucleares reconhecidas pelo Tratado de Não-Proliferação Nuclear (P5) têm investido substancialmente na modernização do seu arsenal nuclear. Mesmo tendo presente a necessidade de substituir algumas das plataformas nucleares, é percetível que o desenvolvimento e a operacionalização de novos sistemas militares – como o escudo antimíssil ou sistemas hipersónicos – criaram um efeito dominó estratégico sob outras potências nucleares, como a Rússia e a China. Este artigo almeja não só descrever alguns dos programas de modernização nuclear em fase de implementação, por parte dos P5, mas também aborda as motivações estratégicas por detrás dos mesmos.

Introduction

In 2010, the United States (US) and Russia signed the New START, with the purpose of diminishing the number of nuclear warheads and launchers until February 2018. Although the two countries with biggest nuclear arsenals have been making significant reductions over the past decades, recent data demonstrates another trend related to nuclear weapons. Both Washington and Moscow are modernizing their arsenal and the other permanent members of the Security Council are following suit. More importantly, all of these countries have publically mentioned the importance of their nuclear arsenals for their current day threats and Defense strategies.

As most publications describe the modernization process, it should also be seen as paramount an analysis focusing on the strategic drivers behind the latter. Additionally, a Review Conference of the Nuclear Nonproliferation Treaty (NPT) is scheduled for 2015 and such modernization programs are suitable topics for debate. Other countries are also in the midst of upgrading processes on their nuclear delivery vectors – such as North Korea, Pakistan and India – but for the purposes of narrowing the scope of this article no mention will be made to the latter.

US Nuclear Modernization Program

Over the last 20 years, the US has significantly decrease the number of nuclear warheads, an effort that had its biggest reductions under the George H. Bush and George W. Bush Administrations (Kristensen, 2014a). The redundancy of a high number of nuclear weapons as Russia no longer has been able to keep up with a nuclear arms race and the need to uphold nuclear arms control agreements also made with this former superpower were some of the pointed reasons supporting Washington's decision. Notwithstanding such efforts, the US has – at the same time that continues to decrease the quantity of nuclear weapons – initiated substantial investments on its strategic nuclear triad.

The US nuclear modernization plan seeks to extensively upgrade all the nuclear systems, namely strategic missiles, nuclear ballistic missile submarines (known as SSBN), strategic bombers, warheads and support industrial infrastructures. As planned, this program is set to endure for 30 years and to cost $200 billion in just the first 10 years of its duration as the overall costs may rise to $1 trillion (Kristensen and Norris, 2014a: 88). Some analysts have questioned the US financial capability to support such expensive modernization program considering other identified priorities by the military apparatus (Wolfsthal *et al*, 2014). Notwithstanding such criticisms, the objectives of the modernization programs have been clearly outlined: increase the precision of the weapons, expand the options against underground facilities, diminish the released radioactivity and create interoperable warheads so to enable the use of the latter by a wider range ballistic vectors.

In order to achieve these programs, investments are being made in two separate ways: life-extension programs (LEP) and developing new nuclear delivery platforms. As the LEP intends to modernize existing nuclear weapons platforms and grant additional years for its operational use, the second program aims to develop new nuclear weapons platforms to permanently substitute the currently used vectors.

For intercontinental ballistic missiles (ICBM), the US will at the short/medium term modernize elements of the Minuteman III. Since 1998, for example, several programs have been undertaken to replace the propulsion systems (including the missile's solid fuel), the rocket engine, the target REACT system, the warhead and the navigation system (Woolf, 2014: 12-14). In fact, over the last years, the Minuteman III has received US$ 7 billion in LEP so to keep these strategic vectors operational until 2030 (Arms Control Association, 2014).

As these ballistic platforms receive their upgrades, opinions have gathered to address the need to outline the post-2030 ICBM forces. Different options were identified. One of the options entails the maintenance of the Minuteman III ICBM until 2075 without any upgrades. Another possibility envisions the maintenance of this ICBM until 2075 but including necessary upgrades. Finally, a third option looks at the possibility of producing a silo-based Minuteman III substitute. Different variations of this last option were also considered either in a road-mobile and rail-mobile based versions (Woolf, 2014: 16).

The replacement for the current ICBM model is already being contemplated by the US Air Force, which is likely to be named Ground-Based Strategic Deterrent (GBSD) but whose major details are yet unknown. While no final decision is taken, a hybrid vector merging a new design with some already used elements of the Minuteman III is also seen as a credible hypothesis. More specifically, the team may maintain the basic structure of the presently used ICBM while inserting a new rocket motors and target-guidance systems. A major feature of the new ICBM may be its mobility as the design team will try to make it mobile platforms compatible, especially for trucks or especially designed trains. If confirmed, such option would strengthen the US second strike capabilities as it increase the odds of survivability of this nuclear platform against a hypothetical first strike. Still, one of the most anticipated upgrades for the GBSD ICBM is its accuracy as it would allow US forces to destroy the highly protected targets (such as underground facilities or heavily reinforced ICBM silos) with just one warhead instead of using a multitude of them (Grossman, 2014). Furthermore, by opting with just one warhead the US would be, at the same time, abiding to the New START agreed limitations.

Recently, an analysis by the RAND Corporation on the US's ICBM forces concluded that the financial efforts to produce a new ICBM will double or triple the costs compared to other options that rely on the progressive modernization of the currently used systems (Caston *et al*, 2014). Albeit the putative financial burden behind the

development a new nuclear intercontinental delivery platform, the head of U.S. Strategic Command, Admiral Haney, has stated that a new ICBM is needed as continuous upgrades of the Minuteman III capabilities are unlikely to meet future security needs (Grossman, 2014). In order to address those security requirements, the US Air Force planning aims to replace 450 Minuteman III ICBM with 420 GBSD ICBM by 2030.

The maritime vector of the nuclear triad will also be modernized. The Ohio-class submarines operational use has been extended until 2027, after which the US Navy will begin the replacement of these vessels for new nuclear ballistic missile capable submarines (SSBN)at a rate of one per year. Known as the SSBN(X) or the Ohio Replacement Program, the new SSBN development project has already begun but the production will only begin in 2019 so to begin entering the fleet in 2029. The total cost of the SSBN(X) is expected to stay between $97 and $102 billion for twelve new submarines that will replace the current fleet of fourteen Ohio-class SSBN (Woolf, 2014: 22). The SSBN(X) is likely to have a 40-42 years of service life and will possess 16 submarine-launched ballistic missile (SLBM) launch tubes (O'Rourke, 2014).

Another objective of the US Navy is to upgrade the currently used Trident IID-5 SLBM. Efforts were led to modernize this ballistic missile with the purpose of extending the Trident IID-5 use until 2042. The modernization process will not focus solely on electronics as it aims to upgrade the D-5 warhead as well. Additionally, the warhead used in the D-5 SLBM has been also subjected to a LEP in order prolong its lifetime for an additional 25 years (Osborn, 2014a).

Nuclear bombers will undergo improvements as well. The US Air Force has decided to invest $10 billion on needed modifications for the B-2 bomber over the next few years so to keep it in service until 2058. Upgrades in this stealth bomber, for instance, include a new receiver to withstand the electromagnetic pulse of a nuclear explosion (Campbell, 2014). In September 2011, it was decided that the B-52H – another US nuclear bomber – would also receive upgrades, including advanced satellite links so to prolong its service life until 2044. To arm these bombers, a new nuclear cruise missile is also under development albeit the currently used AGM-86 Air-Launched Cruise Missile (ALCM) is also being improved to last until 2030. With the new Long Range Stand-Off (LRSO) cruise missile these bombers are intended to be able to deliver their nuclear weapons without having to expose themselves to modern air defenses (Freedberg Jr., 2014). Other purposes surrounding the development of the LRSO include the ability to penetrate and evade modern integrated air defense systems while targeting "strategic targets in support of the USAF's global attack capability and strategic deterrence core function"(Hemmerdinger, 2014). Additionally, by using lower yield warheads, the LRSO permits the US political and military decision-makers a higher degree of flexibility in case of nuclear response necessity (Kristensen, 2014b).

Modernization work will be done in the B61 gravity bomb as well. According to the US National Nuclear Security Administration, the B61-12 bomb upgrades are aimed to extend the service life of this nuclear weapon for an additional 20 years, in a project that had a cost of around $8 billion (Robinson-Avila, 2014). The integration of the B61-12 nuclear bomb in NATO's arsenal will begin in 2015 and will likely endure until 2018. F-16, Tornado and F-25A aircrafts will be some of the chosen platforms for this weapon when delivered to the "Dutch, Italian, Turkish, and possibly Belgian air forces" (Kristensen, 2014c). This upgraded model of the B61 will be more accurate which in turn will enable the use of lower yield warheads, a similar posture permitted by the nuclear cruise missiles. The downside of resorting to nuclear bombs is the required proximity to the target that may jeopardize the aircraft's physical security.
Finally, the US Air Force intends to develop a new strategic bomber, the Long-Range Strike Bomber (LRS-B), to replace the B-2 bombers. Although much of the details surrounding this new bomber are yet unavailable, it is anticipated that it will include features such as stealth manned and unmanned flight, nuclear capability, the ability to fly across the globe in hours and to carry emerging or future weapons. Initial plans predict the acquisition of 80 to 100 LRS-B at a price tag of $550 million per unit (Osborn, 2014b).

Russian Nuclear Modernization Program

Similar to the US efforts, Russia already began the nuclear modernization of its strategic triad mostly to offset the US and NATO conventional military superiority. Although the most significant steps have been taken since 2013, Moscow has initiated the replacement and upgrade of its nuclear weapons platforms years earlier while keeping a simultaneous development process for new ones.
On the ICBM front, the Russian Strategic Missile Force (SMF) will replace older vectors like the SS-18, SS-19 and the SS-19 with the post-Cold War Topol-M SS-27 and RS-24 Yars (also known as SS-27 Mod 2) until 2022. But Russia is developing new ICBMs as well. For instance, a new and lighter version of the RS-24 Yars, known as RS-26 Rubezh, has already been tested and is expect to be deployed over the next years with a modified warhead and improved accuracy. The Rubezh ICBM is expected to replace the Topol-M SS-27 and the RS-24 Yars in the future. Russia also plans on producing a new ICBM, named Sarmat, to substitute the aging SS-18 Satan. According to the information available, the Sarmat ICBM will be a silo-based liquid-fueled missile capable of carrying MIRV warheads over 10 thousand kilometers and likely to be deployed around 2020 (Global Security, 2014) (Kristensen, 2014d). Before any deployment, the Sarmat ICBM will need to undergo a series of tests as the Russian liquid-fueled missiles were traditionally built in Ukraine and the Russian ability to develop these sort of missiles needs additional validation (Kristensen and Norris, 2014: 78-79).

Considering the modifications currently taking place in the Russian strategic missile forces, analysts predict that its ICBM structure is likely to be comprised by five variants of the solid-fuel SS-27 (silo and mobile-based SS-27 Mod 1, the silo and mobile-based SS-27 Mod 2 and the RS-24 Yars) as well as with the new liquid-fuel Sarmat ICBM. Although there will be less ICBMs in the new missile structure, it is predicted that – until 2024 – 70% of them will have MIRV warheads installed which will represent a substantial increase from the current 36% of ICBMs with MIRV capability (Kristensen, 2014d). This modification may have an impact on the strategic balance with other nuclear powers – such as the US – mostly because by adding warheads to a single vector, Russia increases the incentives to a first nuclear strike.

The maritime branch of the Russian nuclear triad will also be modernized. Over the last years, Russia has relied on SSBNs as a strategic platform for a naval second strike capability. The SSBN fleet has consisted of eight submarines, out of which six are Delta-IV class and two are Delta-III class. As Moscow intends to upgrade the Delta-IV SSBN, so they can endure an additional 10-15 years, the Delta-III SSBN is scheduled for decommission. Considering the need to replace these naval platforms, Russia has been developing the fourth generation Borey-class SSBN. In 2013, two have already been deployed to the Russian Navy SSBN force with a capacity for 16 SLBM each. With the anticipated addition of six more Borey-class SSBN to the Russian Navy, this configuration for a sea-based nuclear deterrence is planned to last until 2040 (Weitz, 2014).

In terms of naval platforms' ballistic missiles, in 2007, the Russian Navy has deployed the liquid-fuel Sineva SLBM to Delta-IV SSBN. The Sineva is capable of carrying between 6 to 12 warheads of 150 kilotons yield each or 4 warheads of strategic yield and has a range of over 11 thousand kilometers. Four years later, this particular SLBM was renamed Liner and heavily modified in order to include MIRV capability and other missile defenses evading technologies (NTI, 2011). Another SLBM currently under development by the Russian Armed Forces is the Bulava. Weighting 37 tones, this vector has suffered eight test failures over the past years, making it necessary for additional sea trials in 2015. The Bulava is a three stage solid-fuel SLBM with a range of 8 000 kilometers and capable of carrying 6 to 10 hypersonic 100-150 kiloton nuclear warheads (Jordan, 2014).

Finally, Russia is modernizing its Air Force ability to deliver nuclear weapons. Currently, the Russian Air Force has three different nuclear bombers: the Tu-22M3, Tu-160 and the Tu-95. Both of them are capable of using ALCM like the Kh-55 or gravity bombs. But Moscow has decided to develop a new nuclear capable ALCM, the Kh-102. Capable of delivering a single 250 Kilotons nuclear warhead this particular vector is being developed in order to replace the currently used Kh-55 in the near future. Although shrouded with uncertainty, some information claims that this missile will have a range between 2000 to 3500 kilometers (Missile Threat, 2013).

Efforts are also being carried in the development of a new strategic long range bomber known as PAK-DA. Scheduled to enter service in 2023, this new sub-sonic bomber will include stealth features and is anticipated to replace the currently used nuclear bombers (de Larrinaga, 2014).

Considering the two thousand "non-strategic" nuclear weapons possessed by Russia, the modernization of their delivery means is also being under consideration. A new fighter-bomber, the Su-34 "Fullback" with tactical nuclear weapons capability, has been delivered to the Russian Ministry of Defense to substitute the currently used Su-24M Fencer. Other platforms for tactical nuclear weapons have been recently deployed, namely the Severodvinsk-class submarine with a new cruise missile, Kalibr, that may be nuclear capable. Finally, the SS-26 Iskander-M tactical missiles, also a viable mean to deliver a tactical nuclear warhead, were developed to replace the SS-21 tactical missiles (Kristensen, 2014e).

Similar to what happened in the US, questions have emerged about the Russian economy capability to support the large investments required by the military modernization process, including the costs on nuclear modernization and development. Moscow aims to spend $500 billion until 2020 and an additional similar program has been announced for 2016-2025. In the light of these numbers, the Russian Minister of Finance has claimed that the country's economy cannot support investments of such dimension. Furthermore, the currently-enforced Western countries sanctions coupled with the inflation and declining oil prices have further hampered the Russian economy growth perspectives and raised eyebrows on the financial feasibility of the ongoing nuclear modernization efforts (Bodner, 2014).

Chinese Nuclear Modernization Program

Parallel to the ongoing military modernization led by the USA and Russia, China's military apparatus is also modernizing its nuclear arsenal. The two decade old nuclear renewal process aims at not only improving land, sea and air nuclear platforms but to increase (although marginally) the size of the nuclear arsenal as well. In fact, China is the only country of the P5 to expand the number of its nuclear weapons.

In terms of ICBM, Beijing is pursuing solid-fuel and mobile strategic missiles so to reinforce its second strike capability and credibility. Over the last years China has relied on DF-31 and DF-31A ICBM to support the already existing silo-based liquid-fuel ICBMs. The development of the DF-31 began in 1970 but operational requirements made it necessary design modifications in the 90's. While it is seldom to find reliable information about this vector, some accounts suggest that it is MIRV capable although Chinese authorities will prefer the single warhead version with penetration support mechanisms. The DF-31A is an upgrade version with an extended range that varies between 10 000 - 14 000 kilometers (depending on the

payload) which puts the US territory within the range of these vectors (Missile Threat, 2014). Notwithstanding the declared operational status in 1999-2000, China might produce a new ICBM, with MIRV capability, as a reinforcement of the Chinese deterrence capability (Office of the Secretary of Defense, 2013: 6).

In 2014, the Pentagon confirmed that China is developing a new ICBM which had another flight test in December of 2014. Already acknowledged by the Chinese authorities, the DF-41 will likely be a solid-fuel road-mobile ICBM with 12 000 kilometers range and MIRV capability, to a maximum of ten warheads per missile (AFP, 2014; Gertz, 2014a).

Another unconfirmed hypothesis encompasses the development of a new intermediate-range ballistic missile (IRBM). Known as the DF-26C, this mobile and solid-fuel IRBM could be the future substitute of the DF-21 (Gertz, 2014b). Beijing is also believed to be developing hypersonic nuclear capable delivery means. In August of 2014, news emerged on a (allegedly unsuccessful) second flight test of WU-14, a hypersonic glide vehicle, to be later linked with strategic nuclear weapons systems (US-China Economic and Security Review Commission, 2014: 291; Gertz, 2014c).

When considering maritime-based nuclear assets, the Chinese leadership has been spending substantial resources in sea-deterrence capabilities in order to develop a naval credible second strike capability for the first time in the country's History. For that matter, the Chinese Navy has been developing the Jing-class SSBN, including the three already operational Jing-class (type 094) with the purpose of adding one or two Type 094 SSBN to the SSBN fleet until 2020. Although recent, sources claim the latter to have poor SSBN standards, detectability issues and nuclear propulsion problems placing their effectiveness well below the currently used US and Russian SSBN. To solve those complications, including noise reduction devices to better prevent detection, China has started to plan a next-generation SSBN, the type 096 Tang-class submarine.

SSBN capabilities only matter if there are vectors that can reach the opponents territory and the development of the JL-2 SLBM by the Chinese military apparatus aims to do so. Although lacking reliable information, US estimates that the JL-2 range varies between 7 000 to 7 400 kilometers, which prevents it from reaching the continental US (8 400 kilometers) or Washington DC (11 000 kilometers) if launched inside Chinese territorial waters. Like other nuclear capable missiles, MIRV capability has also been another analyzed possibility for the JL-2 SLBM. Experts have expressed different opinions on the number of warheads that a "MIRVed" JL-2 might possess but they all agree that China already has the sufficient know-how to implement such technology (Skypek, 2010).

Still, the lack of any known joint JL-2 SLBM in a Type 094 SSBN test makes it unlikely that both systems are yet operational. Furthermore, even if operational, to reach the US, these Chinese submarines would need to sail deep into the Pacific

where the US has substantial anti-submarine capabilities. Due to the current noise levels derived from the Chinese SSBN, this would allow an easy detection by the US naval forces which in the end would prove to be a very fragile strategic option (Kristensen, 2013). China is also believed to be planning a new SLBM, JL-3, presumably to have an 11 000 kilometers range, MIRV warheads and achieve operational status by 2020 (Skypek, 2010: 118).

Nuclear platforms capabilities have been targeted for modernization by the Chinese Air Force as well. The People's Liberation Army received in June 2013, 15 new nuclear-capable bombers (Xian H-6K) deriving from the H-6 bomber but with upgraded engines allowing it to reach 3 500 kilometers. The elimination of the bomb bay from this nuclear bomber was another factor behind the extension of this bomber's range. Moreover, the H-6K are capable of launching the new nuclear long-range cruise missile (CJ-10k), the first long-range LACM produced by China. By uniting the range of the new Chinese bomber and the CJ-10K (1500 and 2000 kilometers), China may be able to have a combined 5 000 kilometers nuclear strike range allowing it to reach Guam, Alaska or Hawaii from Chinese territory(Keck, 2013). Furthermore, according to the US Air Force Global Strike Command, Beijing may be also testing a new nuclear capable cruise missile, the CJ-20, a variant of the already existing CJ-10 (US-China Economic and Security Review Commission, 2014: 312; Barnes, 2013).

Additional efforts are being taken in the development of a new long-range bomber capable of reaching 12 000 kilometers and will likely be based on the US B-2 Spirit bomber. Such endeavor may be undertaken in collaboration with Russia, according to the director of the aviation industry department at the Russian Ministry of Industry and Trade (Want China Times, 2014; Gertz, 2013).

The Chinese People's Liberation Army has also invested in the command and control and communications capabilities of its more dispersed nuclear forces, mostly due to increasing reliance on ICBM mobile platforms and the likely initiation of SSBN deterrence patrols (Office of the Secretary of Defense, 2013: 31-32). Yet, China's nuclear doctrine has not shifted from the traditional "No-First Use" policy – a doctrine that envisages the use of nuclear weapons solely as a response against a previous nuclear attack– whose foundations still rely on the survivability of its nuclear arsenal against a first strike. With this purpose in mind, it is perceptible that the Chinese nuclear modernization process is aimed at improving its command and control, delivery capabilities and credibility with the purpose of assuring nuclear retaliation (Kulacki, 2011).

French Nuclear Modernization Program

Like the three previous countries, France also has an ongoing process of nuclear forces modernization, including submarines, airplanes, missiles and warheads so

to extend their service life until 2050. With a 300 nuclear weapons stockpile and an yearly budget of $4.5 billion, Paris currently lies the foundations of its *force du frappe* in two main components: sea-based nuclear forces and aircrafts with nuclear weapons capability. Both components are going through a decade long modernization process. The sea-based deterrence forces are based on the four operational SSBN with the 5 000 kilometer range SLBM, the M45. Yet, since 1992 that the French authorities felt the need to develop a new SLBM model, named M51 (Federation of American Scientists, 2000).

With penetration aids and a range of 6 000 kilometers – that can be extended to 8 000 kilometers if a lighter payload is chosen – the M51 will suffer continuous design modifications until its final version which will be deployed in 2020 (Freedman and Tertrais, 2009: 10). The first version of this SLBM (M51.1) relies on the TN75 warheads, with a 100Kt yield, and was placed in the *Le Terrible* SSBN. Other M51 versions are still in the development phase (whose versions will be named M51.2 and M51.3) and will likely replace the previous M51 version over the next few years. Both models are planned to be operational in 2015-2018 and 2020, respectively. One of the most significant changes in these two latter models will be the introduction of the new Tête Nucléaire Océanique (TNO) warhead. In the meantime, as the latest upgraded models of the M51 are yet to be deployed, France has already began developing the concept for the M6 SLBM (Collin, 2013).

Regarding the air nuclear delivery platforms, the French Air Force operates two nuclear-capable aircrafts: the Mirage 2000N K3 and the Rafale F3. For nuclear-type missions, the former will be continuously replaced by the Rafale F3, until the end of the decade. In 2010, the Rafale F3 was upgraded in order to carry the new Air-Sol Moyenne Portée Amélioré (ASMP-A) nuclear cruise missile. The ASMPA is solid fuel missile with a range of over 500 kilometers and will carry the new Tête Nucleaire Aéroportée (TNA) warhead (Air Force Technology, 2013).

United Kingdom Nuclear Modernization Program

Though in the midst of a nuclear weapons stockpile reduction process, the United Kingdom (UK) is also undergoing a process of nuclear modernization. From the current 225 nuclear weapons, the British leadership aims to reduce this stockpile to 180 nuclear devices until the first half of the next decade (Kristensen, 2014e). Out of these 180 warheads, around 120 will be operationally available until 2030 (Russia Times, 2014b). In terms of LEP, the warheads used in these ballistic missiles are likely to have been upgraded in order to extend their service life until 2040. This process was supported by the US based on the 1958 US-UK Mutual Defence Agreement that permits the transfer of technology for nuclear weapons between both countries (Kristensen, 2011). Still, the UK nuclear arsenal currently relies solely on four Vanguard-class SSBN each one carrying 16 Trident

II D5 SLBM, as the WE.177 nuclear bomb was retired from the British military arsenal in 1998.

A 2006 White Paper from the British Ministry of Defence (MoD) recommended the maintenance of nuclear weapons with the purpose of maintaining a sea-based minimum nuclear deterrence capability (The Secretary of State for Defence and The Secretary of State for Foreign and Commonwealth Affairs, 2006). To do so, the UK began to plan for a nuclear weapons and platforms modernization initiative, named the successor programme that, if fully implemented, will include the replacement of the Vanguard-class SSBN for new nuclear weapons capable submarines. With an anticipated cost around £15-20 billion, the programme will envisage a new submarine (named Successor), new warheads for the Trident II D5 SLBM warheads and support infrastructure (Mills and Brooke-Holland, 2014). But although this modernization process is likely to be implemented, it is improbable that any structural decision affecting the British nuclear arsenal is made prior to 2016 (Grossman, 2014b).

Nuclear Modernization Motivations

The most likely reason behind these modernization efforts is linked to the expiration of these vectors' service life, or in some cases to their technological redundancy, as most of them are Cold War remnants. In the case of the US, the LEP are badly needed to maintain the efficiency of the delivery platforms and prevent them from becoming outdated. For example, the Minuteman III ICBM was initially deployed in 1970 and is expected to last until 2030. Even considering all the upgrades made, it still is a 40-year old design with decades old command and control infrastructure (Vanderschuere, 2013). Russia's Nuclear Forces suffer from the same problem. The Russian ICBM have a 30-40 year service life period which has already expired and some missiles have initiated its decommissioning process, like the SS-18, SS-19 and the SS-25. Similar actions will be taken for the Russian Delta-III SSBN. The Delta-IV SSBN is likely to be modernized so to endure an additional 10 to 15 years, while the new Borey-class SSBN fleet does not come into fruition (Weitz, 2014a). Furthermore, the Tu-95 MS nuclear bombers, built in 1950's, are expected to be replaced by the new Russian nuclear capable aircraft, named PAK-DA.

Other nuclear weapons countries face analogous challenges. The UK, for instance, will need to make a decision on its SSBN fleet as they were built between 1986 and 1999 and the end of their service lives will begin shortly after 2020 (Klotz, 2013). Both China's need to replace some of its older DF-5 ICBM versions for newer models, such as the DF-31A or the still under test DF-41, as well as France's modernization efforts, to maintain its nuclear arsenal credibility until 2050, are strong examples on the need substitute older platforms of nuclear forces (Rover, 2014).

Another important factor behind nuclear modernization programs is the US purpose of maintaining nuclear superiority over its two main nuclear opponents –

China and Russia. Although we have been witnessing a 20 year hiatus from any Great-power enmity, the reality has bluntly showed that nuclear weapons are the most powerful weapons in the planet and an equivalent of enormous geostrategic value (Kroenig, 2013). As China power projection capabilities improve significantly, especially in terms of second strike capability, and Russia devotes substantial financial resources to its nuclear forces, US political and military stakeholders see it necessary to maintain a nuclear capabilities gap with its opponents, even if solely in qualitative terms. A quick look into the 2014 Quadrennial Defense Review tells us that the US Nuclear Forces need to have the "ability to project power by communicating to potential nuclear-armed adversaries that they cannot escalate their way out of failed conventional aggression" (Department of Defense, 2014: V). To achieve this purpose, maintaining a nuclear capability superiority is paramount.

Furthermore, if the US wishes to maintain a global presence, including scenarios with other nuclear weapons powers, preserving Alliances with non-nuclear countries will inevitably imply extended deterrence commitments to the latter for stability maintenance purposes. Such strategy will only be seen as viable if the US nuclear capabilities are understood as capable to not only protect its Allies - resorting to, for instance, to missile defenses – but also to deter and retaliate against an attacker. As the 2010 Nuclear Posture Review clearly states "U.S. nuclear weapons have played an essential role in extending deterrence to U.S. allies and partners against nuclear attacks or nuclear-backed coercion by states in their region that possess or are seeking nuclear weapons" (Department of Defense, 2010: 31). Any failure in doing so, will eventually not only undermine the US's credibility towards its Allies but risks igniting a regional nuclear arms race.

Also pointed out as catalyst for some of the nuclear weapons platforms' modernization is the deployment of antimissile interceptors systems. Washington and Moscow, in 1972, signed the Anti-Ballistic Missile (ABM) Treaty that limited the placement of missile interceptors to just one location. This agreement was based upon the notion that the available systems were too expensive and technologically unsophisticated to pursue considering the countermeasures available, such as MIRV warheads and other decoys. Additionally, the lack of missile defense systems coupled with mutual assured destruction permitted by both nuclear arsenals allowed for a strategic stability between both States as well as prevented a quantitative and qualitative nuclear arms race. As the development of "deterrence by denial" systems was seen as detrimental for the stability, the ABM Treaty provided an important tool to further guarantee stability between both superpowers (Schaffer, 2014).

In December of 2001, the Bush Administration announced that the US would unilaterally withdraw from the ABM Treaty due to the menace of "terrorist or rogue-state missile attacks" and to protect the US and its allies from the latter

(Bush, 2001). At the time, President Bush also announced the need to implement a ballistic missile shield in Europe (known as European Interceptor Site) and, in 2007, the placement of the missile interceptors systems began to be formally negotiated with Poland and Czech Republic. A year later, in 2009, the then recently elected President Obama abandoned the Bush Administration missile defense plans for Europe and revealed an altered version, named European Phased Adaptive Approach (EPAA).

Regardless of the modifications made in the EPAA version of the missile shield structure, Russia continued to demand legal binding guarantees stating that the interceptors placed in Europe are not aimed at the Russian nuclear weapons. Furthermore, Moscow also requested to be present in a future joint missile shield structure as a partner. Other requests included, for instance, a limitation on the number of interceptors placed in Europe and missile defense sites as well as restrictions on the speed of the deployed interceptors (Péczeli, 2013).

In this particular aspect, Moscow believes that interceptors, like the ones placed in the Aegis-equipped (the SM-3 IIA or the SM-3 Block IIB) can undermine the Russian second strike capability due to their capability to interrupt an ICBM trajectory. Notwithstanding such claims, a model developed by a researcher at RAND calculates that interceptors placed in the Polish site cannot eliminate the Russian strategic nuclear vectors. Still, the Obama Administration decided to cancel the placement of the SM-3 Block IIB in Europe as well as the Precision Tracking Space System sensors program that could reduce the response time of Aegis-ship placed SM-3 Block IIA interceptors so to hit ICBM for the sake of preserving a stable US-Russia strategic relationship (Sankaran, 2013).

Albeit these decisions, Russia has decided to pursue an upgrade of its nuclear arsenal so to allow its strategic vectors to overcome any NATO missile defense capability. In fact, both the Russian 2010 National Security Strategy and the 2014 revised National Military Doctrine clearly state that the deployment of "strategic missile defence systems" is considered one of the main threats that Russia is currently faced with (Russian Federation, 2010) (Weitz, 2014b).

When looking at all the nuclear modernization efforts made so far, it is perceptible that much of these endeavors aim to diminish any impact the missile interceptors may have on the Russian strategic arsenal. For instance, Maneuverable Reentry Vehicle (MARV) warheads were added to the Topol SS-27 ICBM to decrease the interception capabilities of any placed missile defense systems. Similar options were made for the Liner SLBM which was already tested with MIRV warheads and other missile defense countermeasures, such as electronic jammers. Additionally, the recent RS-26 Rubezh test has been announced by the Russian authorities to have the capability to surpass the "*modern (…) prospective American missile defenses*" (emphasis added) (Russia Times, 2014a). With analogous purposes,

Russian hypersonic delivery vehicles are currently in the development stage (US National Air and Space Intelligence Center, 2013).

Efforts are also being devoted by Russia in the realm of missile defense. Since 1999, that Russia is developing a land "highly mobile fifth-generation air-defense and anti-ballistic missile defense system"(S-500 Prometheus) planned for deployment in 2016 (Russia Times, 2014c). This latter system will be capable of intercepting missiles at an altitude of 200 kilometers while sea-based ballistic missile defense endeavors have also been undertaken as a naval version of the S-500 is expected to be ready for deployment in 2016 (Honkova, 2013).

Looking at the development of missile defense systems through the Chinese point of view shows that this system also had an impact on the military leadership. Over the last years, a number of missile defense systems have been deployed in East Asia due to the fears linked to the North Korean ballistic missile development and testing. Seven Aegis-equipped destroyers with SM-3 interceptors are already supporting Japan's missile defense efforts that include Patriot Advanced Capability-2 (PAC-2) missile defense systems as well. Due to some limitations of the PAC-2 systems, Tokyo will look into the possibility of resorting to a Terminal High Altitude Area Defense (THAAD) and land version of the Aegis system so to create a four-layer missile defense structure (Japan Times, 2014). For similar reasons, South Korea has already acquired PAC-2 interceptors and is currently developing the Korean Air and Missile Defense (KAMD) which will include several missile intercepting equipment (Galamas, 2014).

As regional efforts gather to counter the ballistic missile threat from Pyongyang, China has the clear perception that any regional missile defense structure aimed at North Korean missiles could affect China's strategic arsenal as well (Entous and Barnes, 2012). For example, over the last months of 2014, Beijing criticized the USA for placing X-band early warning radars and other missile defense equipment in East Asian countries. Such capabilities could be, according to Chinese officials, highly detrimental for the stability and mutual trust in the Asia-Pacific region (Rajagopalan, 2014).

To address such situation, some of the nuclear modernization options taken by China have been though to counter the current and future regionally deployed interceptors. The Chinese military apparatus have been working on MARV and MIRV warheads, decoys, chaff, jamming and other types missile defense countermeasures (Office of the Secretary of Defense, 2013: 31). The development of the new DF-41 ICBM with MIRV warheads serves as another example, among others, of missile defense countermeasures development by the Chinese Armed Forces.

Another important factor driving both the Russian and Chinese nuclear modernization processes is the Counterforce Revolution of the US military capabilities, particularly the Prompt Global Strike (PGS) system. If the PGS is fully developed,

including its hypersonic platforms, it will give the possibility to the US military planners to strike any target on the planet in one hour with high levels of precision. Because these weapons travel at such velocity, it is very difficult to track or eliminate them with the current defense systems. In fact, the US nuclear forces improvement of counterforce capabilities is clearly outlined in the objectives behind the nuclear modernization as previously mentioned. Besides, when high velocity and precision delivery platforms enter the nuclear deterrence formula it is important to bear in mind that the stability of the latter is highly permeable to any nuclear policy shifts that imply increased emphasis on counterforce targeting.

Fearing that a preemptive hypersonic weapon attack can eliminate nuclear weapons platforms – such as silo-based ICBM – both Moscow and Beijing are making some modifications to their nuclear forces so to better tackle this possibility. Taking advantage of its enormous strategic depth, Russia, for example, announced that it will re-implement rail-mounted ICBM in order to guarantee the survivability of the nuclear forces and reinforce its second strike capability (Panda, 2013). The announcement came directly from the Russian news agency declaring that this system, named Barguzin, will remain operational from 2018-19 to 2040 and will be able to carry six Yars or Yars-M ICBM (Russian News Agency «TASS», 2014). The S-500 Prometheus anti-ballistic missile defense system is another good example as it was announced to resort to two new missiles (the 77N6-N and the 77N6-N1) capable of hitting targets flying at hypersonic speeds (around seven kilometers per second) (Missile Threat, 2013).

Going on a similar path, China also decided to reinforce its second strike capability. The recently tested DF-41 ICBM is predicted to be road-mobile so to evade any preemptive strike attempt while a hypersonic missile, the Wu-14, is already in the test phase. US officials claim that the purpose of this vector is to allow China to have US defenses penetration capability (Lau, 2014). Finally, reports sustain that China is developing tunneling technology in order to expand its underground strategic nuclear facilities. Such technology will not only permit the underground use of mobile ICBM but also the installation of rail-mobile ICBM (Gertz, 2014d).

These options clearly demonstrate that both Russia and China feel that missile defense and PGS technology and capabilities may undermine their nuclear second strike capabilities. As mentioned earlier, the Chinese nuclear doctrine is based on a "No-First Use" policy that solely relies on second strike capabilities. Any technologies that may undermine the assurance of nuclear retaliation or the survivability of the nuclear forces to a preemptive nuclear strike will be met – without surprise – with nuclear weapons and vectors upgrades and modernization.

In the specific case of Russia, the issue of international prestige must also be taken into consideration. Throughout the years, the national pride and strategic culture of Russia has been closely linked to its great power status. Thus, the ability to be at the

forefront of military technological developments is important for Russia in a time that the US is significantly upgrading its nuclear arsenal.

Final Remarks

In a year that the State Parties of the Nuclear Nonproliferation Treaty (NPT) will meet to evaluate its implementation, it is important to look at the nuclear arsenals of the NPT recognized nuclear weapons States. Although the number of nuclear weapons has significantly decrease over the last 30 years, the destabilizing effects of nuclear weapons risk being felt if additional measures for transparency are not taken.

The US, albeit its decision withdraw from the ABM Treaty, has taken some nuclear doctrine stabilizing decisions. For instance, by diminishing the number of warheads on its ICBM and choosing road-mobile ICBM for its future arsenal, the US are decreasing any incentives for a first strike option. On the other hand, the worldwide implementation of missile defenses – regardless of their actual technical necessity – and its focus on counterforce doctrines had the detrimental effect of creating a qualitative nuclear arms race in other nuclear powers, namely Russia and China.

The main issue behind the qualitative improvements that both Moscow and Beijing are doing in their arsenal is that it was reverse effects than those that are desirable. By placing MIRV warheads on several of their delivery means they are actually creating incentives for a preemptive strike which is the opposite of what is desirable for a strategic stability dynamic between nuclear powers. Furthermore, the nuclear proliferation phenomenon – either in its horizontal or vertical aspect – "feeds" on itself. Any shifts on the nuclear arsenals or related defense capabilities will automatically have repercussions on other nuclear powers arsenals, risking creating a nuclear arms race.

The main difference between the current nuclear arms race we are currently witnessing and the one occurred during the Cold War lies on the fact that the number of vectors is no longer the main focus of the nuclear powers. In fact, they are demonstrating a deeper concern with second strike capabilities and defense systems countermeasures, which can be more dangerous as this particular competition is only limited by technological innovation capabilities. For instance, even though the new US nuclear capabilities have not yet materialized, Lockheed Martin is already anticipating and researching – partly funded by the US Department of Defense – methods to address the threat of hypersonic missiles, which are already under development in Russia and China. Moreover, it has been upgrading the range of the THAAD missile interceptor system so to increase nine to twelve times the current coverage as well as it is devoting efforts to augment the velocity of THAAD's interceptors (Weisgerber, 2015).

But the World must face the harsh reality that nuclear weapons – due to its strategic importance – are here to stay and nuclear arsenals improvements will continue to

be sought by the States as an important factor to gain military advantage. Situation will only get worse as the number of countries possessing such weapons increase and the world community cannot address the regional security reasons behind those nuclear weapons programs. Bearing in mind the detrimental effects that such can provoke it is paramount that the NPT's recognized nuclear powers address the security concerns behind the quantitative and qualitative improvements of nuclear weapons programs, preferably within diplomatic multilateral *fora.* Any other courses of action are unlike to produce better outcomes than the latter solution.

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Looking Beyond the Bomb: the Non-Military Drivers of Iran's Nuclear Ambitions

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Abstract

This article analyses the dilemma of mistrust in the conflict over Iran's nuclear program. The related tendency to view the other side's intentions in the worst possible light has contributed to the Western fixation with the Iranian bomb, leaving little room for alternative explanations. Here it is argued that the lack of serious attention to the non-military drivers of Iran's nuclear ambitions has inhibited understanding of the country's respective lack of trust in US intentions, thus making it harder to address Iranian concerns. Cynical assessments of Iran's intentions have also contributed to the danger of self-fulfilling prophesy by increasing the likelihood of military action and thus highlighting Iran's need to keep open the option of developing a nuclear deterrent. In addition to shedding light on the Iranian perspective, the article reflects on the dilemma of trust from the Western perspective, applying insights from political psychology. It also looks at how the seemingly inescapable downward spiral of mutual mistrust began to be reversed in 2013, and considers the prospects for a comprehensive deal.

Resumo

Para Além da Bomba: Indutores Não-Militares das Ambições Nucleares Iranianas

Este artigo analisa o dilema da desconfiança presente no conflito que incide sobre o programa nuclear do Irão. A tendência para ver as intenções do outro lado à luz do pior cenário possível contribuiu para a fixação Ocidental face a uma bomba nuclear iraniana, deixando pouco espaço para explicações alternativas. Este artigo argumenta que a ausência de uma consideração séria pelas motivações não-militares por detrás das ambições nucleares do Irão tem inibido a compreensão sobre a desconfiança que existe neste país face às intenções dos Estados Unidos da América, tornando mais difícil de abordar as preocupações iranianas. Avaliações céticas sobre as intenções do Irão também contribuíram para o perigo de profecias negativas, dado que aumentam a probabilidade de ação militar e reforçam a necessidade do Irão em manter em aberto a opção de desenvolver uma dissuasão nuclear. Para além de tentar demonstrar a perspetiva iraniana, o artigo reflete também sobre o dilema de confiança oriundo da perspetiva Ocidental, aplicando perceções de psicologia politica. Por fim, analisa como a alegada inevitável espiral de desconfiança mútua começou a ser revertida em 2013, e considera as perspetivas para um acordo abrangente.

Introduction

The dispute over Iran's nuclear program has for the most part seemed to defy all attempts at diplomatic solution. The crisis began to unfold in 2002 and it escalated particularly since 2006, with Iran stepping up its controversial uranium enrichment program and the other side imposing sanctions and issuing military threats. Reflecting a persistent Western tendency to take Iran's nuclear weapons ambitions for granted, many at the time saw sanctions as the only alternative to 'an Iranian bomb or the bombing of Iran' (Sarkozy, 2007).

However, the more recent diplomatic progress in the nuclear talks between Iran and the five permanent Security Council members and Germany (the so-called P5+1) suggests that that the previous interpretation of the situation was based on overly cynical assumptions. In this article it is argued that such assumptions, as well as the related tendency to ignore the non-military motivations behind Iran's nuclear program, have inhibited understanding of Iran's respective lack of trust in Western intentions. It thus starts from the assumption that the problem of mistrust in the dispute over Iran's nuclear program is mutual, and that tackling of this problem has only become possible when each side are serious about acknowledging and addressing the other's key concerns. Insights from political psychology are applied to understand the related diplomatic challenges. The article also looks at how the dynamics of mistrust began to be reversed in 2013, explaining the positive change largely in terms of increasing Western sensitivity to Iranian concerns.

While also engaging with the Western suspicions about Iranian intentions, the article mainly seeks to shed light on the less-known Iranian concerns and on how they explain the country's insistence in maintaining its uranium enrichment program. The starting point here is that any speculation about Iranian intentions is prone to misperception without a genuine attempt to understand the country's nuclear policy on its own terms. In addition to the dynamics of mistrust, prestige and military considerations are also seen to explain Iranian nuclear policy. While this article therefore does not deny that there is a military rationale behind Iran's nuclear program, this is not regarded as the predominant driver of that program. Furthermore, when highlighting the role of prestige in connection with the nuclear dispute, this is linked with Iran's quest for nuclear self-sufficiency and the need to save face in the nuclear confrontation, rather than the standard association between prestige and nuclear weapons.

The paper begins with a background discussion, recalling key events in the dispute over Iran's nuclear program. It then discusses the non-military rationales behind the country's nuclear ambitions, highlighting mistrust and prestige considerations. This is followed by an explanation for the Western suspicions and the related lack of attention to Iranian concerns. The next part, in turn, explains the recent diplomatic success in terms of an increasing hopes regarding the possibility of a mutually

acceptable end goal. The paper ends with an identification of obstacles that continue to cast a shadow on the prospects of a comprehensive solution.

Background

Although the US and Israel had suspected Iran of having had a secret nuclear weapons program since early 1990s (Peterson, 2011), the current international dispute started only in 2002, with revelations about undeclared nuclear activities in the country. In 2003 Iran admitted that it had an undeclared uranium-enrichment facility and a heavy-water reactor. Although the Non-Proliferation Treaty (NPT) does not prohibit its members from having such facilities, the fact that Iran had not reported them, as well as experiments on enrichment, was seen to go against the country's obligations. While the US argued that this constituted noncompliance with the NPT and called for an immediate referral to the UN Security Council, the Europeans preferred the route of negotiation.

In May 2003, Iran made the US a secret offer for comprehensive bilateral negotiations—proposing to address not only the nuclear but also other major issues of concern between the two countries that had been at odds since the 1979 Islamic Revolution. However, the offer was turned down by the Bush administration, which had recently placed Iran on its 'axis of evil' (Parsi, 2007: 248). In effect, the UK, France, and Germany (the so-called EU3) began to pursue the negotiations with Iran. They reached a deal whereby Iran agreed to suspend its uranium enrichment activities for the duration of the negotiations, to allow extensive inspections, and to resolve outstanding issues related to with past undeclared activities with the International Atomic Energy Agency (IAEA). The EU3 for their part, in a Communication on November 26, 2004, committed themselves to providing Iran with "guarantees on nuclear, technological and economic cooperation and firm commitments on security issues". Absent US involvement, however, the EU was hardly in a position to deliver the proposed incentives. At the same time, the 2005 presidential elections in Iran created pressure to show that the enrichment program had not been completely halted. In March Iran came up with a proposal whereby it would freeze industrial-scale enrichment while beginning "enrichment with five hundred centrifuges at its pilot plant", under close monitoring by the IAEA (ElBaradei, 2011: 144). By this time, however, the EU3 had moved closer to the US position that there should be "not one centrifuge running in Iran" (ElBaradei; 2011: 192-195), leaving little common ground to continue negotiations.

In effect, Iran resumed the suspended activities, and the Europeans finally gave their support to the finding of non-compliance and referral to the UN Security Council involvement (Sauer 2007). The Security Council issued a Presidential Statement on March 29, 2006, calling for Iran to "take the steps […] which are essential to build confidence in the exclusively peaceful purpose of its nuclear program".

While Russia and the IAEA chief still proposed that Iran be allowed to run limited enrichment operations, President Bush argued that Iran "can't be trusted with enrichment" because "enriching uranium is a step toward having a nuclear weapon" (Bush, 2008). Combined with Iran's insistence on its right to enrichment, this position effectively ruled out any further negotiations.

In 2006 the P5+1 took over the nuclear diplomacy with Iran, although in practice there were no talks until mid-2008 due to the US precondition that Iran first suspend its nuclear activities. Diplomacy thus meant pressuring Iran to accept the June 2006 package of proposals, which promised negotiations on various incentives if Iran would agree to suspension, address outstanding issues, and accept more intrusive inspections. Given Iran's refusal to comply, the Security Council issued its first resolution on the country in July 2006, followed by several rounds of sanctions starting in December 2006.

The inauguration of President Obama lead to first serious talks in October 2009. Rather than the demand for suspension, the talks focused on a confidence-building deal whereby Iran would send most of its low-enriched uranium (LEU) abroad for reprocessing, and receive highly enriched uranium in return. The failure of this first confidence-building attempt - together with Iran's subsequent announcement that it had started enriching up to 20 per cent - led to the fourth UN sanctions resolution. This was followed by unprecedentedly harsh US and EU sanctions on Iran's Central Bank and oil industry in 2011-2012. The fruitless negotiations in 2012 and spring 2013 focused mainly on Iran's enrichment up to 20 percent and at Fordo.

The election of Hassan Rouhani as Iran's new President in summer 2013 brought about an unprecedented exchange of reconciliatory gestures between Tehran and Washington. The subsequent talks that began in October led to an unprecedented breakthrough on 24 November 2013, as the parties agreed on interim deal known as the Joint Plan of Action (JPOA). The deal, which is to be followed by a comprehensive agreement, involves restriction and enhanced monitoring of Iran's nuclear activities and limited sanctions relief by the P5+1. More specifically, under the agreement Iran has committed itself to freezing uranium enrichment and neutralizing the stockpile of uranium enriched up to 20 percent Tehran also promised to refrain from installing and using additional centrifuges and to open up its nuclear facilities to daily inspections. In addition to the previous offer of sanctions relief on gold, metals and petrochemicals as well as spare parts and repairs for Iran's civilian aircraft, the P5+1 concessions also included the US suspension of sanctions on Iran's auto industry and partial unfreezing of Iranian assets abroad (Joint Plan of Action, 2013)

Initially a six-month confidence-building process, the JPOA has been extended twice in July and November 2014. The current deadline for a comprehensive agreement is in June 2015. In parallel with the search for a political agreement, Iran and

the IAEA are working to resolve outstanding issues concerning the potential military dimensions (PMD) of activities that took place prior to 2003. The IAEA's ability to reach a 'broad conclusion' on this issue is undermined by its lack of expertise in weaponization (Rauf and Kelley, 2014) and Iran's reluctance to give out sensitive information (Dahl, 2014).

The Non-Military Rationales behind Iran's Nuclear Policy: Mistrust and Prestige

Like many other countries, Iran relies on nuclear energy to meet growing energy needs and to release more oil for exports. It also uses the technology for medical, agricultural and other industrial purposes. Unlike most others, however, Iran has also decided to enrich uranium, thus seeking to produce its own nuclear fuel. This choice lies at the core of the nuclear dispute, as enriched uranium could also be diverted to military use. Proliferation concerns about this duel use technology have been enforced by the country's previous lack of transparency and claims about PMD. While the IAEA is still struggling to verify the accuracy of related evidence, US intelligence agencies have concluded that Iran had a nuclear weapons program until 2003. That they also concluded that halted that program and "is less determined to develop nuclear weapons than we have been judging" (National Intelligence Estimate, 2007) further highlights the need to understand which rationales, apart from the military ones, explain Iranian nuclear policy.

The Need for Civilian Nuclear Energy

When Iran's nuclear program started in the 1970s, it received broad Western support. At the time, key US administration officials not only "endorsed Iranian plans to build a massive nuclear energy industry, but also worked hard to complete a […] deal that would have given Tehran control of large quantities of plutonium and enriched uranium". In 1976, the US President also signed a directive that allowed Iran to have a complete nuclear fuel cycle, including uranium enrichment. The rationale was to help Iran "prepare against the time […] when Iranian oil production is expected to decline sharply" (Linzer, 2005).

The civilian logic behind Iran's nuclear program have remained unchanged until this day, with the distinction that energy needs have grown. Since the 1970s, Iran's population has doubled, leading to increased consumption and what a 2009 IAEA report calls "an incremental trend of energy intensity". The same report states that, due to "the limitation of the existing technologies […], it is not expected that renewable[s] play a major role in Iran's electricity system in near future", making the nuclear option as "the most competitive to fossil alternatives" (IAEA Country Nuclear Power Profiles/Iran, 2009)

In line with these assessments, the Supreme Leader Ali Khamenei on 4 November 2005, has argued that "[w]e want some of our unrenewable resources to remain for

the coming generations" and "[w]e do not want our country to run out of oil over the next 20 or 25 years". Khamenei, on 9 March 2006, also said that, "in today's world, scientific strength is key to economic and political strength", and if Iran "fails to possess a nuclear energy-generated power system, it will face with many problems".

The Quest for Nuclear Self-Sufficiency

Although Iran's civilian nuclear energy needs are rarely disputed today, this was not always the case. After the 1979 revolution, the US reversed from its previous policy of supporting Iran's nuclear program to undermining attempts to develop it further. As a result, Iran's requests for cooperation with previous Western partners were refused, or cooperation soon ended. For example, a Spanish company with whom Iran signed a deal to complete the construction of the Bushehr power plant cancelled the plans, referring to US pressure and proliferation concerns. Ultimately, Russia was left as Iran's lone nuclear partner in finishing the construction the country's first power reactor, based on a deal made in 1995 (Koch and Wolf, 1998) As for the clandestine development of uranium enrichment technology, in this effort Iran received crucial assistance from A. Q. Khan's network (IAEA, 2004).

Iranian officials have argued that the development of nuclear fuel production capacity, as well as the need to do this in secret, had to do with the difficulties in accessing the international nuclear market (Zarif 2007: 81-82). Adding to this experience were the delays in the reactor construction and subsequent fuel shipments from Russia in the 2000s. Although Russia explained the delays in terms technical difficulties, they seem to have been part of a collusion whereby Russia, in Garth Porter's words, agreed "to squeeze Iran on its nuclear policy" in exchange for "political-military concessions from the United States". He further argues that "[t]he experience with Russia… hardened Iran's determination to be self-reliant in nuclear fuel fabrication" (Porter, 2014a)

Paradoxically, the US relaxed its previous position at the start of the current crisis in early 2000s: instead of opposing any kind of a nuclear program, it began to argue that Iran should not enrich uranium. As President Bush said, on June 19, 2006, the desire of Iranian people "to make... greater progress, including the development of civilian nuclear energy... is a legitimate desire" but adding up in July 4, 2008, they "can't be trusted with enrichment". For Iran, however, giving up enrichment-related activities would have meant perpetuating the country's dependence on unreliable foreign partners and thus risking the entire program. As written in Iran's response to the P5+1 package of proposals in June 6, 2006, "[r]epeated breaches and noncompliance by European countries and the United States of their undertakings under the NPT as well as their contractual obligations in cooperation and transfer of technology […] and lack of international

guarantees in non-interrupted provision of fuel has left no option except to move to produce part of the required fuel domestically.

Although Iran has overcome a major technological hurdle by succeeding in uranium enrichment, it should be noted that this has not yet made the country self-reliant in fuel production. The process includes the likewise complicated task of turning LEU into fuel assemblies which Iran has yet to master. The only functioning power reactor in Bushehr, as well as the additional ones that Russia agreed to build in November 2014, thus rely on Russian fuel. Iran nevertheless hopes to be able to master the manufacturing of fuel assemblies in the near future (Porter, 2014b).

Iranian View of Suspension as the Goal, Rather than Means to Negotiation

While Iran has made clear that it will not give up enrichment, the country's position regarding the suspension of related activities has varied depending on political circumstances. As noted above, Iran was more forthcoming during the talks with the EU3 (and in the context of the current talks under the JPOA). In retrospect, however, Iranian officials referred to their experience with the EU3 as yet another factor enforcing their suspicions about the other side's intentions. In December 23, 2006 and according to the current Iranian foreign minister and nuclear negotiator Javad Zarif, the reason why the talks with the EU3 went nowhere was that "the United States, and apparently the EU3 - in spite of what they told us" wanted "a binding commitment [for Iran] not to pursue fuel cycle activities". Khamenei, in turn, explained that he had to personally put on end to the [Iran-EU3] process because, if Iran's "retreats had continued… today there would be no nuclear advances and no scientific dynamism and innovation in the country" (Khamenei, 24 July, 2012).

The suspension of enrichment became a red line particularly after it was made legally binding through the first UN Security Council resolution. Iran rejected the Council's demands as both politically motivated and illegal, pointing out that neither uranium enrichment nor reprocessing are restricted by the NPT. From the Iranian perspective, it seemed that the other side was more interested in isolating and undermining the Iranian regime than solving the nuclear problem. (Khazaee, 3 March, 2008). Instead of proliferation concerns, the key problem, from the perspective of Khamenei, is the US opposition "to the identity […] influence and power of the Islamic Republic", and by its desire to turn Iran into "a weak, abandoned, isolated, […] and humiliated nation" (Khamenei, 3 November, 2013). Reflective of the persistence of this suspicion in the context of the present diplomatic progress, Khamenei on February 8, 2014) also recently said that "American politicians […] would not hesitate even for a moment to destroy the foundation of the Islamic Republic" if they could. Such remarks highlight that the core problem in the nuclear confrontation is the conflict between the US and Iran. Although an

in-depth discussion of this issue is beyond the scope of this paper, the related dynamics of mistrust are discussed further ahead.

Prestige: Glorification of Resistance and Nuclear Self-Reliance

In the course of the nuclear confrontation with the West, Iran's nuclear policy has become deeply aligned with national identity. As Homeira Moshirzadeh (2007: 529-533) argues, this is illustrated by the prominence of the discourses of 'independence', 'justice', and 'resistance' in the nuclear rhetoric. The *discourse of independence*, she explains, is based on memories of the Persian Empire; 'historical victimization by invaders', and the more recent history of manipulation by Western powers. It is in the vocabulary of this discourse that Iran's quest for nuclear self-sufficiency is articulated. Second, the *discourse of justice* derives partly from Iranian religious tradition, and partly from emancipatory ideals related to sovereign equality. It can be seen in the Iranian rejection of double standards and its appeals to its inalienable rights under the NPT. As for the third *discourse of resistance*, Moshirzadeh (2007: 536-537) notes that it began to define the nuclear issue only after 2005, as radical conservatives came to dominate the domestic scene, and as international pressure on Iran increased. This discourse highlights Iran's "non-submissive identity" which does not surrender to pressure. It is therefore not surprising that it emergence coincided with the imposition of the UN Security Council resolutions. During this time, resistance to the P5+1 demands turned into a virtue in the Iranian rhetoric. Accordingly, the subsequent hardships came to be viewed as sacrifices that further highlighted the symbolic value of Iran's nuclear achievements. At the same time, the nuclear dispute came to be framed as the latest manifestation of the old confrontation between the West and the Islamic Republic.[1]

The linkage between nuclear policy and national identity has obviously created political constraints limiting Iran's ability to make concessions in the nuclear talks. As President Rouhani put it in September 19, 2013, "mastering the atomic fuel cycle and generating nuclear power is as much about diversifying our energy resources as it is about who Iranians are as a nation". On the other hand, however, the same political constraints should also alleviate Western proliferation concerns: as part of the government's efforts to rally domestic support and gain international recognition for its nuclear policy, Iran has taken a firm stand against nuclear weapons by repeatedly denouncing them as un-Islamic. For example, according to Wyn Bowen and Matthew Moran (2014: 40) the international pressure following the public exposure of Iran's nuclear activities since 2002 "placed barriers in the way of pro-

1 As the former Foreign Minister Mottaki argued on March 24, 2007, "[j]ust as the Iranian nation paid a heavy price for the nationalization of its oil industry and its eight years of sacred defense, we realize that we must now be prepared to pay the price for our dignity and our independence".

gress towards the bomb", as Iran was "forced to fully engage with the peaceful nuclear narrative at the domestic level".

Western Fixation with the Bomb as Part of the Dynamics of Mistrust

Despite providing a sound alternative explanation for Iran's nuclear policy, the above-discussed rationales are rarely given serious attention in Western assessments on Iranian nuclear intentions. One reason for this is the historical amnesia about the past policy of technology denial, which is omitted from most accounts on the Iranian nuclear confrontation. This has led to an inclination to view the enrichment program itself as sufficient evidence of nuclear weapons ambitions. Even when Iran's bitter experiences with international nuclear partners are acknowledged, however, they tend to be dismissed as a 'cover story' (Erästö, 2014).

Ultimately, the Western tendency to view Iran intentions in the worst possible light can be traced to the same root cause that explains Khamenei's cynicism about US intentions: namely, the US-Iranian conflict. John Limbert (2009: 184 and 188), for example, has argued that, since the Iranian revolution, the US and Iranian perceptions of each other have been dominated by "mythology, distortion, grievance, and stereotype". The mutual enmity has been perpetuated by domestic politics: as Trita Parsi (2012: 6) notes, "too many forces [both in the US and Iran] calculate that they can better advance their own narrow interests by retaining the status quo, or the predictability of enmity is preferred to the unpredictability of peace-making".

The negative perceptions that dominate assessments of each side's intentions can be conceptualized in terms of what political psychologists call a 'cognitive' and 'motivated' bias. According to Robert Jervis (2006: 650-651), the former refers to the basic fact that "people tend to see what they expect to see"; they are predisposed to view a proposition as plausible when it is consistent with their more general beliefs, and that such "judgments of plausibility can be self-reinforcing". Motivational bias, on the other hand, means that "[b]eliefs may be rationalizations for policies as well as rationales for them". While Parsi's above quote implies a calculated efforts to demonize the other to serve particular interests, the concept of motivated bias refers to the "hesitancy to recognize painful value trade-offs, the... need for people to see that their policies will work, the impact on beliefs of goals and feelings of which people are unaware, and the propensity of people to infer their own beliefs from how they behave" (Jervis, 2006: 652-653).

Jervis (1968: 458-459) also explains that "the dilemma of how 'open' to be to new information is particularly central in decision-makers' attempts to estimate the intentions of other states". That dilemma is even more pronounced when assessing the intentions of adversaries, as actors "often feel they are 'playing it safe' to believe and act as though the other state were hostile in questionable cases" (Jervis, 1968: 475). Similarly, Deborah Welch Larson (2004: 42) notes that in international

politics "[d]istrust is often prudent, given the high costs of being betrayed, uncertainty about others' motives, and material incentives to lie or cheat". She also points to the difficulty of correcting misperceptions in such situations, as "[d]istrust inhibits one from engaging in the very behavior that might disprove it". Instead, "[b]eliefs that the other is untrustworthy color interpretation of his or her behavior", which is likely to get interpreted in a way that supports the existing beliefs. (Larson, 2004: 44-45) Such avoidance of political risks arguably goes a long way in explaining both sides' aversion to making significant concessions throughout much of the nuclear confrontation.

There are nevertheless certain well-known dangers to misperception related with excessive mistrust, the most obvious being self-fulfilling prophesy: by basing their actions on the logic of mistrust, decision-makers themselves engage in behavior which is likely to be perceived as threatening by the potential adversary, who then responds in a negative way (Larson, 2004: 47). Indeed, one of the most worrying aspects of the nuclear dispute arguably is the threats of military action against Iranian nuclear facilities that have been made based on a vague definition of what exactly would trigger such an attack: rather than preventing Iran's nuclear advancement, such a policy can be seen to have confirmed the wisdom of nuclear hedging[2] from the Iranian perspective.

However, bearing in mind what was said above about domestic constraints, it is highly unlikely that Iran would embark on a crash nuclear weapons program unless as a last resort in a time of war. One must also keep in mind the international repercussions of 'breakout'[3], as this would trigger not only a military response, but also likely put an end with nuclear cooperation with Russia. Finally, as a country whose revenue largely relies on the export of oil, Iran can ill afford any further international isolation.

Cracking the Wall of Mistrust

This part, looks at how the seemingly inescapable downward spiral of mutual mistrust began to be reversed in 2013. The change is explained in terms of a learning process whereby both sides acknowledged the need to reduce ambiguity about their own intentions.

2 Ariel Levite (2002) quoted in Bowen and Moran (2014) defines hedging is a "strategy of maintaining, or… appearing to maintain, a viable option for the relatively rapid acquisition of nuclear weapons, based on an indigenous technical capacity" to do so.

3 Although *breakout* is often used to refer to the time it would take to produce enough nuclear material for a nuclear bomb, Rauf and Kelley (2014) point out that traditionally it has meant "a sudden and unexpected move that gives [a state] a strategic advantage".

Failure of 'Confidence-Building' until Spring 2013

As noted before, in 2009 the diplomatic track was added to what had until then been an exclusively coercive approach by the P5+1. In line with Obama's campaign pledge to negotiate with Iran 'without preconditions', the P5+1 implicitly withdrew from previous demands regarding suspension and focused on limiting Iran's production and stockpiles of enriched uranium. The opportunity for this arose with Iran's request to the IAEA for higher enriched fuel that the country needed for medical purposes. In effect, the US, Russia, France, and the IAEA (the so-called Vienna group) proposed that 1200 kg of the Iranian LEU would be shipped to Russia for further enrichment, and then sent to France to be turned into fuel.

Despite the promising beginning, no agreement was eventually reached. In contrast to the original understanding that all LEU be removed at once, in the second meeting Iranians, appealing to their "lack of trust and their past experience", asked "to receive the fuel, manufactured from some other source of LEU", after which they would "release their own stockpile of enriched uranium" (ElBaradei, 2011: 307). This was to avoid waiting for a year for the other side to deliver the fuel. As a compromise, ElBaradei suggested that the IAEA would keep the Iranian LEU until the other side delivered their part. The fact that Iran also refused this possibility can be explained in terms of the polarization of Iranian domestic politics following the June 2009 election crisis, for now even moderates criticized the deal to damage Ahmadinejad (ElBaradei, 2011: 309).

When Iran subsequently began producing uranium enriched up to 20 percent on its own, the talks consequently focused on this activity and resulting stockpiles. In 2012 and spring 2013, Iran was asked to give away or neutralize those stockpiles and to suspend enrichment up to 20 percent, and also to halt all activities at the underground Fordo enrichment plant - a facility which Iran built in secret during the nuclear crisis as an insurance against military threats from Israel and the US (Erästö, 2014). In return, the P5+1 offered to help Iran build a new light water reactor; to deliver spare parts for its civilian airplanes; and, in the spring of 2013 at Almaty, Kazakhstan, to give modest relief from sanctions on trade in gold, metals and petrochemicals (Rozen, 9 June, 2013).

Iran viewed the above offers as imbalanced. As a former Iranian diplomat, Seyed Mousavian (2012: 191) explained at the time, the P5+1's were asking 'diamonds in return for peanuts'. An anonymous Iranian official, in turn, told the author in summer 2013 that the P5+1 2012 offer of spare parts and repairs for aircraft in exchange for Iranian nuclear concessions was "just crazy". A document in the same official's possession highlighted that the P5+1 were obliged under the NPT to deliver the elements that they were now offering as incentives. The document also noted that, in contrast to the strict demands made upon Iran, the wording of Western incentives was vague, serving to further "deepen the distrust and

uncertainty on the Iranian side" (Erästö, 2014). Arguably, the most significant gesture of confidence-building that was missing from the P5+1 proposals was the readiness to recognize Iran's right to enrichment. This would have provided a crucial indication about where the diplomatic process was heading: in the absence of such recognition, Iran had reason to suspect that nothing had really changed and that the P5+1 would just push for further concessions without genuine reciprocity.

Explaining the Success of the 2013 Interim Deal

There were, of course, several reasons for why the P5+1 refused to acknowledge Iran's right to enrichment. First, this was a question of principle as such recognition went against the P5+1's previous positions. Second, there was the persistent Western belief that coercion, rather than reciprocal concessions by the P5+1, would generate Iranian flexibility at the bargaining table. This belief reflects the asymmetric nature of the conflict: the Western position as the stronger party and the enforcer of law seemed to enable bargaining without significant concessions of their own. Third, there were formidable domestic obstacles in the US to explicitly accepting Iran's right to enrich. As the former American member of the P5+1 negotiating team, Robert Einhorn, explained to the author in summer 2013: "politically for the US it's not very easy to accept a domestic enrichment program in Iran," especially "before the Iranians had given any indication that they're prepared to accept real limitations" to their program. He also expressed the concern that this might embolden Iran to claim "an unqualified right to enrichment". At the same time, however, Einhorn explained that "[i]t's coming to the point where it would be advisable to explain to the Iranians what the end state would be" and "give [them] an indication of where this is heading" (Erästö, 2014). As it turned out, this was precisely what happened in the next round of talks: as part of the agreement on the JPOA in November 2013, the parties outlined the contours of a comprehensive deal, whereby the P5+1 explicitly stated their readiness to accept uranium enrichment in Iran. As indicated by Einhorn and another US official interviewed in summer 2013, this change of approach had to do with the acknowledgement that the previous P5+1 approach had not produced results (Erästö, 2014).

The JPOA can be seen as a result of learning on both sides. The preceding change in the P5+1 approach could be understood in terms of an adjustment in what Shmueli *et al* (2006: 212) call the 'Power, social control, and conflict management frames': as they argue, such frames are "amenable to shifts as stakeholders experience the failure of unilateral, power-based approaches and the potential of collaborative ones". On the Iranian side, the crucial change took place in the 2013 Presidential elections. The overwhelming victory of the moderate Rouhani reflected broad consensus in Iran that the confrontational style of President Ahmadinejad was not

helping. The resulting change in Iran's international image, in turn, made it easier for the US to justify its new approach and also to begin bilateral rapprochement with Iran. This process, together with the diplomatic efforts launched by the JPOA, has challenged many deeply-held negative assumptions on both sides. Most importantly, it has reinforced a positive reading of the situation, according to which at least the US administration seems to have prioritized non-proliferation over undermining the Iranian regime, and Iran might be more interested in nuclear self-sufficiency than the development of nuclear weapons.

Remaining Pitfalls for Diplomacy

Despite the significant progress on confidence-building described above, the process of reaching a comprehensive agreement to the dispute over Iran's nuclear program is still fraught with difficulties. Although exact details of the ongoing talks are not available at the time of writing, key issues of contention seem to be the level of enrichment in Iran, the timing of sanctions relief, as well as the duration of the comprehensive deal.

According to reports, Iran ultimately wants to have a large commercial enrichment program of 190 000 centrifuges but is prepared to accept the necessary transparency measures and safeguards, and also to keep enrichment to current levels (10,000 centrifuges) for nearly a decade. In line with the country's long-term goal of self-sufficiency, these plans are based on the assumption that the country will be able to completely master fuel production by the time that the comprehensive agreement expires. However, as Einhorn notes, this might not be a realistic goal. He writes that the Iranian expectation of being able to fabricate "highly specialized Bushehr fuel in such a short time period would be a huge technical challenge", whereas Russian fuel is "the more economical and safer choice" (Einhorn, 2014). Russia has promised to provide the fuel to the functioning reactor at Bushehr at least until 2021, and for two additional reactors until the end of their lifetime (Porter, 2014b), leaving Iran only with the limited need to produce its own LEU for a few research reactors.

At least for the duration of the comprehensive deal, the Obama administration has determined that it could live with a breakout time of maximum 6-12 months, on which basis it reportedly seeks to limit Iran's current program to a few thousand centrifuges for two decades. During this time, Iran would continue to rely on Russian fuel supplies. Interestingly, reports on the P5+1 positions normally do not refer to the time after the deal, leaving open the possibility that they could ultimately accept an Iran with an industrial-scale enrichment capacity. However, this is unlikely as long as Western thinking continues to be governed by breakout times: as Einhorn (2014) notes, the kind of industrial-scale capacity that Iran aspires for would mean that it would be able to produce enough material for one nuclear bomb in only a few weeks.

How valid are the current concerns on each side? The US focus on breakout times is based on the worst-case expectation that Iran will renege and embark on a crash program to produce a nuclear weapon. As argued in this article, this is an unlikely scenario. Even if one would find the interpretation of Iran's intentions presented here unconvincing, it is clear that the transparency measures built in a comprehensive deal would enable the early detection of any irregular activity by Iran, in which case the US and Israel would launch military action before Iran even had the time to build its first bomb. Reflective of the political nature of mistrust, the US and the rest of the international community has little concerns over Brazilian and Japanese enrichment programs over which they have much less oversight. The US position is therefore not understandable strictly from a non-proliferation perspective. Instead, it must be seen in terms of the need for consistency with previous positions, as well as an attempt to get the approval of allies and hardliners in the US Congress for a potential comprehensive deal.

As noted above, the Iranian position is also not completely logical, as the country will in any case continue to rely on Russian fuel at least in the near future. As far as the problem from the Iranian perspective has to do with the issue of holding on to current enrichment capacity, this would seem to be a position largely dictated by the need not to lose face domestically[4]. On the other hand, this position can be viewed as an insurance policy against uncertain future. After all, it is widely known that the P5+1's ability to deliver their part of the deal is undermined by reluctance by the US Congress to lift the sanctions against Iran's oil industry and Central Bank. Adding to Iran's uncertainty is the P5+1's apparent insistence to link the lifting of UN Security Council sanctions to the resolution in the IAEA process on PMDs, for there are no guarantees on how this process will end (Rauf and Kelley, 2014). If Iranian concessions were not reciprocated by sanctions relief, Iran would surely also back down from its commitments under any deal. This, in turn, could lead to unpredictable political circumstances, possibly also affecting Russo-Iranian nuclear cooperation. In such a situation, something close to the current enrichment capability could provide Iran with leverage to ensure uninterrupted cooperation with Russia, and to continue the pursuit of nuclear self-sufficiency.

Conclusions

This article has sought to explain Iran's insistence on maintaining its uranium enrichment capacity mainly in terms of mistrust and prestige, with particular focus on the former. In addition, it has explained why, for the most part of the nuclear dispute, Iranian concerns were not fully appreciated in the West. On the one hand, the tendency

4 Khamenei, on July 7, 2014, said that Iran needs 190,000 centrifuges in the long term.

to take the country's nuclear weapons ambitions for granted seemingly did away with the need to explore alternative explanations. There was also little reflection on the way in which previous Western actions—most notably the US policy of technology denial—influenced Iranian decisions. On the other hand, the lack of attention to Iranian concerns can be explained in terms of the asymmetric nature of the conflict: by virtue of their role as Security Council permanent members, the P5 for a long time assumed they could simply coerce Iran into compliance with their demands.

For both sides, expecting the worst and framing the situation accordingly has seemed prudent both in terms of minimizing the risks inherent in disproving mistrust, and by helping to garner support for controversial policies. The problem with worst-case assessments, however, is not simply that they do not represent the whole picture, but they can also distort and shape reality by creating a self-fulfilling prophecy. Arguably based on awareness of related dangers, in later years of the crisis the parties have sought to adopt a more pragmatic approach by reducing ambiguity about their own goals and by giving the benefit of the doubt to the other side. The most crucial step in this regard was arguably taken in 2013, as the P5+1 recognized Iran's right to enrichment. The resulting diplomatic process has challenged many deeply-held negative assumptions, suggesting that the conflict is not irreconcilable.

Although both sides have come a long way in addressing each other's concerns, old thinking patterns continue to cast a shadow on the prospects of a comprehensive solution. As long as such solution is not reached, the danger of a relapse to mutually reinforcing negative dynamics remains. This article associated much of remaining pitfalls for diplomacy with domestic politics in the US and Iran. These key dispute parties feel the pressure of appearing consistent with their previous positions. On the one hand this is a question of principle, but on the other hand based on practical considerations: If the P5+1 appear to give up too much, they will not get the necessary support for the deal from the US Congress and Israel. The fact that such support is far from guaranteed in any case can be seen to add to the Iranian reluctance to cut down its centrifuges, as they can be an insurance against an uncertain future.

What, then, are the prospects for a comprehensive deal? Compromise on centrifuge numbers should not be impossible to solve because positions on either side do not reflect any immediate concerns. The issue of sanctions relief, however, seems problematic. As the US Congress might seek to undermine any deal, it would be advisable to start sanctions relief from Security Council resolutions, as this is not dependent on Congress approval. Given the uncertainties with PMD issue and its irrelevance for the future, this process should be dissociated from UN sanctions. Iranian cooperation in response to the lifting of UN sanctions and those US sanctions under executive power could ultimately pave the way for removing oil and Central Bank sanctions even without Congressional opposition, for Europeans could always withdraw their support for them.

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The Resilience of Pyongyang's Nuclear Weapons: A Structural Perspective

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Abstract

The DPRK has been able to hold on to its militarized nuclear program despite the unanimous criticism of other regional actors in Northeast Asia. This is especially relevant when it comes to the US and China, two giants that constitute DPRK's main foe and ally, respectively. This essay explains why, despite their vastly superior structural positions, the United States and China have not been able to put an end to Pyongyang's nuclear program, a goal shared by both countries. It is suggested that in the ongoing scenario of structurally-induced competition, both Washington and Beijing have not been able to produce promises and threats that are credible enough to lead to disarmament. The resilience of Pyongyang's nuclear weapons comes down to the fact that, due to that lack of credible promises and threats, the expected payoff for North Korean leadership in terms of political survival is higher if it retains its nuclear weapons.

Resumo

A Resilência das Armas Nucleares de Pyongyang: Uma Perspetiva Estrutural

A Coreia do Norte tem prosseguido o seu programa nuclear militar apesar de unânimes críticas feitas por outros atores regionais no Nordeste Asiático. Tal torna-se especialmente relevante quando encontramos duas grandes potências, como os Estados Unidos da América (EUA) e a China, nesse grupo de atores, respetivamente o principal adversário e aliado norte-coreano. Este artigo explica o porquê, apesar das suas posições estruturais superiores, da incapacidade dos EUA e a China em cessar o programa nuclear norte-coreano, um objetivo partilhado por ambos. É sugerido que no corrente cenário de competição estruturalmente induzido, Washington e Pequim, ainda não foram capazes de emitir promessas e ameaças que sejam suficientemente credíveis para levar ao desarmamento. A resiliência das armas nucleares de Pyongyang deve-se ao facto de, devido à ausência de promessas e ameaças credíveis, o retorno esperado pela liderança da Coreia do Norte em termos de sobrevivência política é maior caso esta mantenha armamento nuclear.

Introduction

The Democratic People's Republic of Korea's (DPRK) Pyongyang has been a strategic headache for regional actors in Northeast Asia due to its militarized nuclear program. It is estimated that Pyongyang possesses between 6 and 10 plutonium-based weapons with a limited capability of miniaturization and long-range deployment (Nikitin, 2013; FAS, 2014). Step by step the regime has been able to develop a military nuclear program which at least is solid enough to cast the deterring shadow of doubt over the governments of other states. Regardless of actually being a paper tiger or the real deal, the DPRK is able to politically use its program against other states and moreover it constitutes one more damaging exception for the nuclear non-proliferation regime. Hypothetically, this denuclearization could be achieved due to the pressure of domestic actors or due to the constraint by international actors. The scenario of domestic-driven denuclearization in the DPRK is highly improbable because of the control exerted by the regime, so the most feasible scenario of denuclearization is the one where the Pyongyang is constrained by more powerful states. In this structural context, North Korean denuclearization should supposedly have been achieved ages ago due to the fact that the most powerful unit in the international system – the United States – and the most important ally of the DPRK – China – are seeking that outcome. However that was not the case. Hence, perhaps the major puzzle regarding the nuclear game of the Korean peninsula is Pyongyang's ability to build and sustain a nuclear program in a context of extreme structural weakness in regard to the world's greatest power and to the most formidable rising one.

The United States is DPRK's most threatening foe and possesses the world's greatest material capabilities, whereas China is Pyongyang's fundamental ally and the strongest native actor in East Asia. In this sense, the question one must ask is how a struggling small player like the DPRK could develop a nuclear program against a foe with vastly superior coercive power and against an ally whose aid is essential for its survival. This brief essay addresses such structural puzzle, thus solely examining the effects of power distribution and leaving aside the domestic dimension of North Korean politics as well as non-structural international factors. The essay does not examine the full dynamics of Pyongyang's denuclearization conundrum, it does not present new empirical evidence, and it is far from being a description of the evolution of Pyongyang's nuclear program. Rather, the essay focuses solely on a structural analysis that shows precisely why power distribution is a determinant condition in explaining why the DPRK has been able to retain its military nuclear program. It is argued that the DPRK has been able to develop nuclear weapons because, due to structural incentives that have fostered a regional rivalry, the United States and China cannot woo nor coerce it into disarmament. On the one hand, the United States is not willing to formally

guarantee the survival of Pyongyang's regime and China is not powerful enough to do it. On the other hand, Pyongyang is aware that the United States is not willing to fully impose disarmament and that China is not ready to let the regime fall for the sake of disarmament. All in all, the resilience of the DPRK as a nuclear actor may be explained as a problem of lack of credible promises and threats.

Northeast Asian Structure of Power after the Cold War

Power, treated here as the set of military and economic capabilities of a state, is a determinant factor in explaining the relations between the main units in the international system. This means that the structure of power – the distribution of capabilities among systemic units (Waltz, 1979) – continues to play a fundamental role, whether a driving or at least a permissive role in regard to international outcomes. The end of the Cold War meant that the United States became unarguably the most powerful actor in Northeast Asia but by no means a hegemon – a state powerful enough to fully impose its preferred outcomes. North American supremacy in the region, at both military and economic levels, was challenged by the fact that Russia has remained a nuclear competitor and, especially, due to China's rise.[1]

There are many perceptions in the literature about the type of polarity in the current international system, perhaps because the old lack of agreement on what constitutes power and on how to measure the number of poles (Mansfield, 1993: 108) still persists. Some literature suggests that the system has been unipolar since the collapse of the Soviet Union, simply because the United States is the unit in the system that possesses an incomparably overwhelming set of military and economic capabilities (Monteiro, 2011/2012: 9). Others talk about bipolarity, mostly in terms of the dyad United States-China and with alternatives such as the dyad United States-European Union (Dempsey, 2012; McCormick, 2007). Lastly, some literature suggests that the international system is multipolar, mostly due to the continuous relevance of Russia and the rise of countries such as China and India (Peral, 2009). I will not dive into that conceptual discussion in the literature and instead I will simply assume that Northeast Asia's system is a multipolar one skewed towards unipolarity. There are three main powers present in the system – China, Russia, and the United States – and the latter possesses evidently superior capabilities.

Russia is evidently a player in the region but due to its weak economy and focus on Europe it loses regional relevance when compared to China and the United States, obviously including its relevance in solving the North Korean nuclear puzzle despite the efforts of Vladimir Putin to woo Pyongyang (The Guardian, 2014). The United States is not a unit native to the system but it is present due to

1 See military data in IISS and economic data in IMF (1989-2013).

the alliances with Japan and the Republic of Korea (ROK), signaling its commitment with a robust military presence in those countries. Hence, though not possessing territories in Northeast Asia, the United States is a regional actor and surely the most powerful one. The United States possesses the strongest military forces in the world and remains by far the country with the highest nominal GDP. China is a unit totally "native" to Northeast Asia – with its central territory located there – with a strong military deterrence capability that is incrementally being improved. Moreover, it possesses the largest population in the globe and a growing economy that became on par with the American one in terms of Gross Domestic Product – Purchasing Power Parity (GDP - PPP). China faces strong domestic challenges and as a result there is uncertainty about its ability to continue rising in the future, but what one knows for sure is that Beijing's current power capabilities are vastly superior to those of other native units in Northeast Asia. Therefore, the most powerful actors in Northeast Asia are an external unit that remains on top of power rankings and a rising native unit that has achieved enormous material progress in the last decades.

In this context, the United States has not been able to control political outcomes in the region as a hegemon would supposedly do. For example, the political regimes in Russia, China, and North Korea remain abhorrent in the eyes of Washington, to a greater or lesser extent; regional economic organization is not the one preferred by Americans; and, of course, the DPRK has become a nuclear proliferator that poses a direct security challenge and contests an international regime that suits the foreign policy goals of the United States. Hence, rather than a hegemon, Washington is merely an offshore balancer with the fundamental goal of containing China through the bilateral military alliances with Japan and the ROK (Mearsheimer, 2006).

In this context of regional multipolarity skewed towards unipolarity, the position of the DPRK became one of extreme weakness. The implosion of the Soviet Union implied the end of military protection, political support, and economic assistance. Moreover, the combination of communism's loss of legitimacy, the death of Kim Il-Sung, crumbling economic structures, and extreme famine, increased the probabilities of regime implosion in the mid-1990s. An alternative to the Soviet Union would provide a structural cushion to Pyongyang that permitted to avoid such collapse. However, that alternative did not seem to exist in the 1990s because China was occupied with its own regime's problems. It was this scenario that made the development of nuclear weapons so essential for North Korean leadership.

The Benefits of North Korea's Nuclear Program

The basic interest of any political leader is to remain in office – regardless of other material or ideational interests she or he may be interested in pursuing – and

foreign policy choices – such as the development of nuclear weapons – are made primarily in the pursuit of that political survival, with such choices being affected by international and domestic incentives (Lake and Powell, 1999; Bueno de Mesquita *et al*., 2003). In this essay I examine precisely the fundamental role of one type of incentive – the structure of power. Given the assumption of political survival, the benefits of foreign policy actions should be essentially assessed in regard to that goal, not other interests such as *raison d'*État, political ideology, or morality. In this sense, the development of a military nuclear program by the DPRK results from the strategic calculation of costs and benefits for its leadership in a context where its survival has been threatened (Kim, Roehrig and Seliger, 2011). In a nutshell, all North Korean leaders – Kim Il-sung, Kim Jong-il, and Kim Jong-un – have been holding on to their nuclear program because it is a very useful tool to maintain their regime alive.

Pyongyang incurred in high costs by developing its nuclear weapons, both in terms of trade-offs between domestic allocation of resources and international sanctions. Firstly, though the creation of a nuclear force ultimately permits a decrease of defense costs in states that seek to keep essentially a defensive posture – operational nuclear weapons permit a decrease of costs with conventional forces – the development of a nuclear program implies a transitional period in which extra expenses with a nuclear program co-exist with regular expenses with conventional forces. Hence, while it does not possess a fully operation nuclear force, the DPRK needs to increase military expenditure and, consequently, decrease the amount of resources available to satisfy domestic groups that are essential to keep the regime away from implosion. Secondly, the development of nuclear weapons against the non-proliferation regime implied international sanctions against Pyongyang, which have damaged the country's already weak economy. Under the current context of international politics the DPRK could not hope for a tacit support or a bilateral acknowledgment from the United States – as Israel and India, respectively – and China is a rising power more interested in stability than in openly revising one of the main tenets of international order. Since domestic trade-offs and international sanctions were virtually inevitable, Pyongyang obviously developed nuclear weapons because the expected benefits of those weapons outweighed those two types of costs. To be specific, there have been three main types of benefits: military deterrence, economic-political blackmail, and domestic leverage.

In the first place, nuclear forces offer an obvious capability of deterrence to the DPRK. By deterrence I mean the potential ability to inflict costs that are higher than the benefits of attacking the DPRK. Even if in the current international context there is no threat of invasion by the ROK and the United States, the possession of nuclear weapons is an assurance that such invasion will not occur in case those circumstances change. Pyongyang's conventional forces surely offer a strong deterrence

against the ROK and the United States, given the potential damage they could cause in the South and to American forces stationed there. However, there are circumstances under which those conventional forces could hypothetically become unable to serve as deterrence tool. Namely, material could deteriorate; enemy forces could become technologically able to prevent Pyongyang's retaliation; or the political decisions of Pyongyang could simply be considered intolerable and prompt a military intervention by the United States-ROK, despite the retaliation costs of Northern conventional forces. Consequently, the logical step for Pyongyang was to build up its deterrence capability by developing nuclear weapons. North Korean ability to deploy strategic or tactical nuclear weapons obviously changes the calculations of Seoul and Washington by heavily increasing the costs of an invasion (Ham and Lee, 2013).

If pure strategic calculation were not enough to strongly convince North Korean leaders about the utility of nuclear weapons for regime survival, the examples of Iraq, Libya, and Ukraine provided evidence of such utility. All these countries were associated with nuclear programs that for different reasons ended up disappearing and their regimes were ultimately damaged by such disappearance. The cases of Saddam Hussein in Iraq and Muammar Gaddafi in Libya must have been particularly frightening for the Kims, but Ukraine also offers a valuable lesson in terms of military deterrence. Russia invaded its borders and blatantly supports separatists, a behavior that would be unlikely to occur in case Ukraine had kept its nuclear weapons.

Secondly, nuclear weapons also provide benefits in terms of economic-political blackmail of countries interested in disarmament. Economic blackmail became necessary due to the DPRK's structural economic shortcomings, besides ending up compensating for the domestic budgetary trade-offs and for the costs imposed by international sanctions. North Korean economy is obsolete, with an estimated GDP of 14.4 billion USD and a nominal GDP per capita of 583 USD (UN, 2012). The problem for Pyongyang is that it is risky to opt for a Chinese-style type of reform, reconciling political authoritarianism with economic openness. The risk derives from the fact that, contrarily to China, there is no strong national identity in the DPRK and an informed North Korean society might demand Korean reunification under Seoul due to socio-economic incentives. Though the lives of the majority of North Koreans would surely not be easy in Southern cities, their expectations of well-being would be clearly superior in a reunified Korea than in the current situation, where only the elite minority in the *Songbun* system may be said to be minimally satisfied. Therefore, rather than implementing the necessary economic reforms, Pyongyang has been attempting surgical measures of openness that have not produced the necessary effects in terms of economic recovery. Under economic despair, illegal activities and economically blackmailing other countries become

tempting mechanisms to obtain international revenues. Nuclear weapons increase the capability to use the latter mechanism. Since the early 1990s North Koreans have been using a cyclical strategy of crisis-reconciliation in order to extract economic concessions from its neighbors and the United States without actually dismantling the nuclear program. The bilateral negotiations with the United States and the multilateral Six Party Talks serve as evidence. Despite the fact that its negotiating partners have not always been behaving accordingly to the agreements, the DPRK has been actively pursuing a strategy that is supposedly not dependent on how the other parties behave. Firstly, a crisis is necessarily generated by progress in the nuclear program; secondly, Pyongyang opts for a reconciliatory tone and bilateral or multilateral negotiations are conducted in order to extract concessions in exchange for the end of the program; thirdly, refusing to dismantle the program, North Koreans end up partially or totally defecting in regard to their commitments, preferably after extracting some or all economic concessions negotiated in the agreements.

As for political blackmail, it may range from getting support in international forums up to a bargaining chip in a scenarios of potential regime change. Let us exemplify those ranges in the continuum of political blackmail. In regard to international forums, for example nuclear weapons can be used to push Beijing to support decisions that favor Pyongyang, even if intertwined with punishing decisions designed to mildly pressure the regime to denuclearize. In respect to a bargaining chip in regime transition, one may ask to what extent nuclear weapons can decrease the probabilities of regime change driven by domestic factors. Nuclear weapons cannot ultimate stop a process of regime change driven by a coup or a revolution but they can prevent international incentives for such scenarios and ultimately promote a personal bargain for leaders in case of regime change. For instance, the United States or the ROK could subsidize an alternative leadership or promote covert operations designed to incite popular rebellion but DPRK's nuclear weapons decrease the probabilities of doing so. Specifically, nuclear weapons increase the risks involved in such scenarios, since the desperate leadership of a collapsing regime – especially if leaders are feeling hopelessly trapped – may decide to use those weapons against the ones that are perceived to promote that collapse.

The third benefit refers to domestic political leverage, in which the Kims and their entourage have sought to consolidate domestic power by wooing both elites and masses with their ability to develop a sophisticated military program inserted in a policy of military primacy – *Songun* (Magalhães, 2013). Though usually examined as a monolithic regime, Pyongyang has its own elite power struggles and leaders' office is not taken for granted. Both Kim Il-sung and Kim Jong-il had to deal with competition during their tenures. Moreover, as one may infer from existing information about the executions of top officials such as Jang Sung-taek, Kim Jong-un's

grip on power is not flawless because purges are still required to consolidate it. In this sense, leaders in Pyongyang need to demonstrate to politico-military elites at the Workers' Party of Korea and the Korean People's Army that they are the best solution to provide the private goods essential to them and, consequently, that an alternative leader will not fare as well in keeping elites satisfied. To develop a military nuclear program against global opposition is surely a demonstration of political endurance and astute application of resources, allowing leaders to convince elites that without them the latter's well-being will likely decrease.

Concerning the masses, the Kims have been using a strategy of control that combines a mythological narrative of political legitimacy with adamant repression. The development of nuclear weapons surely fits into the traditional North Korean narrative of wise leaders that diligently strive to equip the country with the tools to resist foreign imperialism. In the case of repression, the successful development of nuclear weapons contributes to the image of North Korean leaders as powerful actors that are also able to successfully deal with any popular attempts of contestation, hence decreasing the expected utility of potential revolutionaries.

In sum, in a context of structural inferiority, economic-political weakness, and necessity to prevent domestic challenges to its authority, leadership in Pyongyang found it beneficial to develop nuclear weapons, despite the costs it implied. The United States and China have been seeking to dismantle the North Korean nuclear program by imposing political and economic costs to the regime with the goal of outweighing the benefits of nuclear weapons. These attempts must be examined in light of the preferences of Washington and Beijing in regard to the political status of the DPRK.

The US and the Rogue Hermit

American policy towards Northeast Asia in general and the DPRK in particular has certainly suffered alterations across the administrations of George Bush, Bill Clinton, George W. Bush, and Barack Obama (Cha and Kang, 2003; Pardo, 2014). However, I assume that the main preferences of Washington have not been affected by leadership change: there may be nuances but the fundamental policy tenets remain unaltered. Namely, the presence of the US in Northeast Asia is intended to promote three fundamental goals interests. Firstly, the United States aims to prevent the rise of a regional hegemon. Secondly, Washington seeks to politically and economically influence its allies. Thirdly, the United States seeks to promote the political and economic transformation of states whose institutions are not normatively close to the American ones and as a result extend its alliance network. It is in this context that the policy of the US towards the DPRK is analyzed here.

The United States would ideally prefer that the DPRK vanished, but in a gradual manner. A gradually unified Korea would simultaneously mean the disappearance

of a rogue hermit regime that posed challenges to the United States and the strengthening of a valuable ally. To be specific, the optimal scenario in respect to the DPRK would be a gradual absorption by the South that resulted in the military, political, and economic expansion of American interests in the region. In this ideal scenario, Washington would witness the disappearance of North Korean nuclear weapons and be able to deploy its forces up to the borders of China and Russia; the disappearance of a formally communist regime would politically delegitimize the Chinese political model; and a gradual absorption would imply a minimization of reunification costs along with investment opportunities in the Northern part of the peninsula, both in terms of material and human resources.

The existence of a rogue North Korean regime is not totally negative for the US, since it helps Washington to legitimize its military presence in the region and, consequently, to promote its regional goals. This strategic usefulness, along with the short term costs of a Korean reunification, was enough to surpass the benefits of Pyongyang's sudden collapse. However, the development of nuclear weapons has certainly increased the benefits of regime collapse and opinions favoring such scenario have increased (Terry, 2014; Haass, 2014). The North Korean regime is obviously not a necessary condition to justify American presence in Northeast Asia, in the same sense that NATO remained present in Europe despite the fall of the Soviet Union. All in all, the DPRK is still tolerable and Washington continues to prefer a scenario of gradual absorption of the North by the South, but a sudden collapse would not be a disaster for American interests in the region. This means that the highest valued preference of the US is a scenario of DPRK's gradual absorption by Seoul, followed by sudden regime collapse, status quo, and pro-Pyongyang reunification.

The fact that absorption is the highest valued preference does not mean that the United States is going to actively pursue it. In fact, the current policy of the United States – "strategic patience" – may be said to be one that favors political *status quo* more than gradual absorption or sudden collapse. Gradual absorption would be achieved by actively stimulating or forcing political, social, and economic openness, whereas sudden collapse would be promoted through military interventions, covert actions, or imposed isolation. In practice, Obama's strategic patience is not actively contributing to any of the two scenarios above. This may be explained by the simple fact that, due to the expected behavior of other actors, to actively promote gradual absorption is a risky move that is not likely to work and, on the other hand, to promote a sudden collapse implies much more costs than benefits. Gradual absorption is risky because the fall of Pyongyang always implies the possibility of a conventional or even nuclear last act of desperation in case the process does not go according to the program. A peaceful German-type process of absorption – I do not consider it a collapse due to the incremental links between the two German

states before 1989 – is likely to fail in Korea. Moreover, it would probably not work due to China's support and North Korean ability to survive in quasi-isolationism. As for sudden collapse, the risks of military retaliation would be enormous, involving not only great costs for American forces in the Korean peninsula but also unthinkable human and material costs to the ROK – which explains why Seoul is obviously not willing to pursue such strategy of collapse. In case the United States opted for pursuing such strategy the negative backlash would be enormous not only in terms of direct human and material losses but also in regard to the reactions of foes and allies. In effect, China and Russia would surely react negatively, whereas the ROK and Japan would surely seek to find an alternative to their alliances with the United States. For all these motives, the United States has opted for a discreet policy that seems more in accordance to regime *status quo* rather than pro-Seoul absorption or regime change, since Washington is putting pressure on Pyongyang to disarm without actually threatening its existence. The same weapons that Washington is seeking to destroy are the ones preventing it from having a more active role in promoting absorption or collapse.

China and the Inconvenient Ally

As in the case of the United States, China's ultimate political goals in Northeast Asia translate into specific preferences about the political status of North Korea. I suggest that such preferences also remained the same across the different post-Cold War leaders – Jiang Zemin, Hu Jintao, and Xi Jinping – though the country's policy towards North Korea has suffered alterations dictated by strategic adaptation to domestic and international conditions (Duchâtel and Schell, 2013; Rui and Xiaoke, 2013). The main regional goal of China is hegemony but its leaders have been aware that its hegemonic potential is not yet translated into concrete power capabilities and, as a result, China's rise must remain discreet and regional stability must be a priority. In this context, I claim that China's most valued outcome would be the absorption of North Korea[2], Korean reunification led by Pyongyang, *status quo*, gradual absorption by Seoul, and sudden collapse leading to pro-Seoul reunification. Unfortunately for China, the pursuit of the first outcome would encompass prohibitive costs for Beijing and the second is extremely unlikely. Hence, Beijing must focus on maintaining the *status quo* rather than gradual absorption and collapse, even if current relations between the allies is one of cold suspicion. It is based upon this premise that China has been dealing with North Korea's nuclear program.

The relation between China and North Korea has been fluctuant. Despite the statement that they are "close as lips and teeth", these countries have not always

2 That absorption would be based upon Chinese historical claims over the kingdom of Koguryo, a fundamental polity in the Korean peninsula from centuries 1st BC to 7th AD (Chen, 2012).

been in the best of terms, as the current relations between Xi and Kim Jong-un illustrate. Beijing played a fundamental role in keeping North Korea alive during the Korean War but the following decades witnessed a deterioration of their relationship. Most importantly, during the 1990s China was far from being the supportive ally that Pyongyang required. Beijing was busy dealing with its own political, social, and economic challenges and the salvation of Pyongyang was not the priority. With the consolidation of its hybrid regime that reconciled political communism and economic capitalism, China became able to protect a regime that had managed to survive.

Beijing became the essential ally of Pyongyang, providing military protection, political support, economic partnership, and material aid. At military level China and the DPRK are bound to support each other due to the Mutual Aid and Cooperation Friendship Treaty of 1961. Politically, Beijing has played an important supporting role on behalf of Pyongyang. That role has been illustrated by the majority of Chinese positions at the UNSC. Though China acquiesced in sanctions and has vehemently opposed certain policy choices of Pyongyang at bilateral level, the bulk of its positions remain pro-DPRK. For example, Beijing has played an essential role in blocking increased sanctions and in preventing other damaging dynamics from hitting the DPRK. A case in point of the latter case is the recent protective behavior of Beijing at the UN regarding human rights violations in the DPRK (Sengupta, 2014). Concerning the economy, China is the largest partner of the DPRK due to its overwhelming weight at the level of trade and investment (Duchâtel and Schell, 2013: 17-40). Lastly, Beijing is essential in providing material aid to Pyongyang. There are is no official data that may quantify that aid with precision but it has been widely estimated that the Chinese play a fundamental role in keeping North Korean economy afloat, especially at the level of energy and food. Whether one is talking about direct transfers or subsidized exports, China's material support seems to be fundamental for, at least, regime stability.

In this context, China could in theory produce a fatal blow to Pyongyang's regime, but to do so would be irrational, regarding the preferences of Beijing. Hence, when politicians, diplomats, and observers refer that the leverage of the Chinese over the North Koreans is limited, it seems more a matter of strategic constraint forced upon Beijing rather than its actual capability to coerce Pyongyang. Beijing is simply seeking to maintain status quo, not its preferred outcome but surely the one with highest possible payoffs.

Unable to Disarm: Non-Credible Promises and Threats

Having examined power distribution in Northeast Asia and the positions of the DPRK, the United States, and China, it is now possible to pinpoint why two giants have not been able to prevent or reverse the nuclearization of such a weak actor.

Given the preferences and strategies of Washington and Beijing, Pyongyang has chosen a policy of nuclearization because its payoffs are superior to those associated with accepting their promises or backing down due to their threats. I suggest that such calculations are based upon the fact that the promises and threats of the United States and China are not credible. On the one hand Pyongyang is aware that Washington and Beijing have strong incentives to defect in regard to their promises, while on the other hand North Koreans are also aware that both countries have strong incentives not to implement the punitive measures with which they explicitly or implicitly threaten the DPRK. This means that the DPRK does not trust the promises and is not afraid of the threats.

Let us start with the promises. There are two main promises made explicitly or implicitly by the United States and China. The first is that Washington will fulfil its part of a denuclearization bargain, while the second is that China is willing to militarily protect North Koreans if they choose to denuclearize. The first promise is not credible because it is not in Washington's interests to fully keep it, while the second one lacks credibility because China is not likely to be able to fulfil it.

In the case of Washington it is simply not profitable to keep all promises included in a grand denuclearization bargaining. As soon as Pyongyang denuclearized and its ability to re-nuclearize became compromised, the United States would lose the incentive to make all the political or economic concessions present in a bargain. Denuclearization by North Koreans would necessarily be perceived by Americans as a sign of weakness and, as a result, would propel the latter to a strategy of promotion of a gradual absorption of the North by Seoul. It would not likely be an explicit defection but rather an implementation of promises impaired by second tier details or delays, like the implementation of the Agreed Framework of 1994 illustrates. Moreover, clean concessions would not only reward a regime that misbehaved but they would also be an invitation for violations of the non-proliferation regime by blackmailing countries. On the other hand a clean defection would also be negative, since it would decrease the credibility of the United States as a negotiating partner in processes of denuclearization.

In the case of China it falls short of its promise to offer security guarantees to Pyongyang, despite the treaty that binds them. Pyongyang is certainly a useful ally and China is interested in deterring an American attack against the DPRK. However, Pyongyang is likely to have extreme doubts about that commitment. China is not strong enough to survive a full-blown military conflict with the United States, though it would be able to inflict heavy costs to the Americans. In this sense, Beijing is only likely to use its military resources against the United States in case an essential national interest is at stake. Notwithstanding the relevance of Pyongyang, it does not feature in the list of top Chinese national interests. During the Cold War West Germans had similar doubts about the nature of American commitment in

regard to a hypothetic invasion of West Berlin by the Soviet Union, which was basically an understandable but flawed fear due to the credibility of Washington's commitment in Europe. China is not a military peer of the United States as the Soviet Union was and Pyongyang's survival is not as relevant for Beijing as the survival of West Germany was for Americans. Therefore North Koreans are surely right to fear a lack of commitment from the Chinese, whose ability to protect Pyongyang from an American military attack is highly limited.

Concerning threats, the United States and China are explicitly and implicitly threatening North Korea with regime collapse as a result of nuclearization. Washington signals such threat through the coordination of an international attempt to isolate the DPRK and, given its capabilities, the United States actually constitutes a permanent threat due to its ability to militarily defeat Pyongyang and to support covert operations – which could range from assassination of leaders to less drastic measures such as the recent supposed interference with the North Korean access to the internet (Cheng and Nam, 2014). As for Beijing, it has reportedly been trying to put Pyongyang under pressure by playing the "end-of-support card", reminding North Koreans that China plays a fundamental role in their economy. Both threats lack credibility.

Starting with American threats, the one lacking more credibility is the implicit threat of a military attack. The United States obviously has the ability to impose a military defeat to Pyongyang as a consequence for nuclearization but it would not do so due to the abovementioned overwhelming human, material, and political costs. Hence, the intention of the United States is clearly not to militarily attack Pyongyang as long as certain red lines – such as deployment or transfer of nuclear weapons – are not crossed. Secondly, the threat of collapse through international pressure lacks credibility due to the closed nature of North Korean economy and the protection given by China. The United States claims that the DPRK needs to be integrated in the international community in order to survive, since the consequences of international isolation could be devastating for its social-economic fabric. However, current sanctions or similar ones are simply not punishing enough to drive North Koreans to a socio-economic crisis serious enough to threaten the regime. Lastly, the implicit threat of covert operations leading to regime change is also not credible due to the lack of political will. As previously mentioned the United States is not willing to risk regime collapse in a scenario including North Korean nuclear weapons.

As for China, it prefers a nuclear North Korea to a collapsed one, which means that Pyongyang is aware that fundamental aid cannot be interrupted. Consequently, though Beijing may criticize Pyongyang and even punish it occasionally, North Koreans seem to suppose that the Chinese will not push them off the cliff. There have been rumors about a temporary interruption of aid after a nuclear test but the

likelihood that China will end up playing a game of chicken with the DPRK is low. This explains why Chinese are risk-averse in regard to North Korea, whereas Americans are relatively risk-taking when it comes to punishing Pyongyang for its nuclear program.

Why are those promises and threats not credible? I suggest that the lack of credibility is fundamentally justified by the competitive Sino-American dynamics generated by power distribution. The existence of an offshore balancer and a potential hegemon implies a grand competition in which the mischievous behavior of smaller states may be tolerated for the sake of higher rewards. Washington and Beijing are more concerned about their main regional goals – balancing and hegemony, respectively – than with the denuclearization of the DPRK. Regional stability ends up being even more valued by the United States and China due to a context of high economic interdependence, which means that regime collapse is even less valued by both countries. In sum, Pyongyang has been able to walk between raindrops due to the strategic space created by Sino-American competition in a context of interdependence that begs for regional stability.

Conclusion

The DPRK's power is vastly inferior to the United States and China but it has been able to develop a nuclear program against their will. The role of nuclear weapons in the survival of Pyongyang's regime cannot be emphasized enough, in terms of security, economy, and domestic politics. Since Pyongyang is not able to be internationally accepted as a nuclear actor, its basic options would either be to disarm and be mildly rewarded or to keep the nuclear weapons, be mildly punished, and promote regime sustainability in the medium-term. The United States and China are not able to produce positive and negative incentives that are strong enough to make disarmament more profitable for the DPRK. This means that Washington and Beijing are not able to produce credible promises that decrease the sense of fragility of Pyongyang's leadership nor to produce credible threats that make Pyongyang feel that keeping the nuclear arms puts the leadership at stake. Consequently, North Korean leaders have opted for developing nuclear weapons.

In this context, assuming that the regime of Pyongyang stays in the current state of cohesion and that power distribution remains unaltered in Northeast Asia, one should conclude that the likelihood of disarmament is low. Unless an unlikely scenario of domestic threat to the regime forces Pyongyang to reach for a grand disarmament bargain with its American foe, its Chinese ally, or both, North Koreans are not likely to get rid of their nuclear weapons. Obviously, in this case one can suggest that Pyongyang may not disarm because ultimately both the United States and, especially, China are not interested in allowing regime collapse and thus they would end up intervening even without disarmament. Nevertheless rationality is

bounded and, in this scenario of extreme political distress for Pyongyang, the probabilities for disarmament seem to increase even if that decision would not actually be substantially rational, considering particularly the risk-averse position of China and resulting propensity to protect the regime's stability. In fact, in a scenario where leaders face imminent demise but have the opportunity to trade short-term costs for long-term ones, one may suppose that their risk propensity increases and a bargain will seem a better option. Assuming that Washington or Beijing could have a relevant impact in solving the imagined regime crisis, a North Korean leader that faces an imminent economic implosion, an internal coup, or even a popular rebellion is more likely to opt for a bargain rather than risk waiting for favorable foreign decisions that may come late or not come at all, since miscalculations may also occur on the other side. However, those three types of scenarios seem unlikely. North Korean economy seems to be growing incrementally, there are no evident leadership alternatives to Kim Jong-un, and political control over masses continues solid.

Therefore the conditions for a grand bargaining seem absent and consequently one should expect Kim Jong-un to continue developing the country's military nuclear program. Such development will continue to focus on nuclear material and deployment systems, which implies further testing. Hence, further nuclear or missile testing should not come as a surprise, especially in a period where the regime has not been able to go back to bilateral or multilateral negotiation tables and is under pressure due to human rights violations. On the contrary, those tests are the logical corollary of the DPRK's strategy and solely reflect the inability of international actors to successfully disarm it, particularly the United States and China.

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Security Dilemma in South Asia: Building Arsenals and Living with Distrust

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Abstract

India and Pakistan are engaged in a subtle strategic competition and a gradual arms race where technological innovations, military modernizations, and growing nuclear arsenals are raising the stakes for stability. India's military investment is driven by a strategic rivalry with China, but the pace of development finds Pakistan increasingly vulnerable to exploitation; to reduce the level of disparity, Pakistan turns to China, and though willing and able to bolster Pakistan's strategic capability, the assistance is not enough to enable Pakistan to meet multiple conventional force contingencies. Islamabad therefore depends even more on nuclear weapons to offset its force imbalance with India. In this classic security dilemma, where competition is intensifying and mutual distrust is swelling, the potential for an outbreak of military crisis in South Asia is increasing. The situation demands a structured peace and security architecture to initiate détente and ensure stability between the two nuclear-armed neighbors. Without such an agreement, the consequences of an unchecked India-Pakistan security competition could reverberate beyond South Asia into the Asia- Pacific and Middle East regions.

Resumo

O Dilema de Segurança no Sul da Ásia: Reforçando Arsenais e Vivendo com a Desconfiança

A Índia e o Paquistão estão envolvidos numa subtil competição estratégica e numa gradual corrida de armamentos onde inovações tecnológicas, modernizações militares e crescentes arsenais nucleares aumentam os riscos para a estabilidade. O investimento militar indiano é alimentado pela rivalidade estratégica com a China mas o ritmo de desenvolvimento torna o Paquistão crescentemente vulnerável; para reduzir o nível de disparidade, o Paquistão vira-se para a China – apesar desta estar disponível e ser capaz de aumentar a capacidade estratégica paquistanesa – esta assistência não é suficiente para permitir ao Paquistão lidar com as diversas contingências das forças convencionais. Desta forma, Islamabad depende cada vez mais das armas nucleares para contrabalançar os desequilíbrios de forças com a Índia. Neste dilema de segurança clássico, onde a competição se intensifica e desconfiança mútua aumenta, o potencial para a emergência de uma crise militar no Sul da Ásia aumenta. A situação pede uma paz estrutural e uma arquitetura de segurança para iniciar uma *détente* e garantir uma estabilidade entre dois vizinhos com armas nucleares. Na ausência de tal acordo, as consequências de uma competição securitária Índia-Paquistão sem restrições podem ir além do Sul da Ásia e afetar as regiões do Médio Oriente e Ásia-Pacífico.

Introduction

The strategic picture in South Asia remains grim and worrisome. Nearly 17 years have passed since India and Pakistan overtly displayed their nuclear capability to each other and the world, yet stability or a détente between the two neighbors remains elusive. Rather than pursue lasting peace, India and Pakistan have become hostage to negative perceptions and melodramatic fixations that have exacerbated a regional security competition.[1]

Faced with series of international sanctions and diplomatic isolation in the wake of the 1998 nuclear tests, India and Pakistan assured the world that they would each pursue a minimum deterrence posture, avoid a debilitating arms competition, and take steps behooving of responsible nuclear stewardship. The international community believed, as did the domestic audience in both states, that the benefit of nuclear weapons in South Asia was to dissuade and deter conflict and enforce an Indo-Pakistani détente.

In contrast to that vision, mutual mistrust has deepened in both capitals despite the establishment of operational nuclear deterrents. Kashmir remains unresolved and a flashpoint for conflict, and the rise of religious extremism is reaching dangerous levels. Pakistan in particular is facing a grim situation; terrorists target not just the state institutions and military within the country, but have also struck repeatedly in India and Afghanistan.[2] Acts of terrorism have brought several times India and Pakistan to the brink of war as allegations of Pakistan's sponsorship for the acts have been levied by India.[3] Equally, Pakistan alleges India's abetment of insurgency in Pakistan's Baluchistan province, where a secessionist movement has increased in fervor and violence.

Individually, each struggles with its own issues. India is a rising power that seeks parity with its mightier neighbor China, even though it has been unable to resolve conflicts with its immediate neighbors—especially Pakistan. Meanwhile, Pakistan endures both political instability and violent extremism that has metastasized aggressively in the past few decades. Pakistan also competes with India while balancing the cost of building-up strategic arsenals against the persistent threat of military contingencies on its borders with India and Afghanistan.

1 This essay contains author's personal views and does not represent U.S. Department of Defense, the Naval Postgraduate School (NPS) or the Pakistani government.

2 At the time of this writing, a major terror attack on an Army Public School that killed innocent school children has resulted into an unprecedented resolve in the country to deal with the scourge of terrorism and violent extremism.

3 In 2001–02, attacks on India parliament building and in November 2008 a daring terror assault in several locations in Mumbai was allegedly traced back to Pakistani territory which precipitated major military crises.

The security competition between the two has lately intensified into a true nuclear arms race. India and Pakistan are both expanding fissile material production and introducing a suite of new nuclear-capable delivery systems, such as short-range battlefield nuclear weapons, sea-based variants, and higher-ranging ballistic missiles.[4] Nuclear force developments and increased military procurements by both are not expected to lessen anytime in the foreseeable future, an eventuality that will only worsen the Indo-Pakistani mistrust in the coming years. In sum, after nearly seven decades of enduring rivalry, India and Pakistan are embroiled in a self-perpetuating vortex of security competition that is driving South Asia closer to the brink of a nuclear conflict.

Outside of this regional stability dilemma, global power politics has recently shifted to three distinct regions: the Asia-Pacific, as United States "pivots" to the Far East; the Middle East, where violent extremist threats such as *Daish*, or Islamic State in Levant (ISIL), have emerged to compete for recruitment and terrorist hegemony with established groups like Al-Qaeda; and the Crimea/Ukraine region, where Russia has reasserted its muscle, resulting in a major crisis in 2014.

These tensions at the global system level are likely to have trickle-down effects in South Asia; in particular, the Asia-Pacific rebalance will inadvertently incentivize the Indo-Pakistani nuclear arsenal race. As China increases its defense spending in response to America's pivot to Asia, India is consequently driven to develop and modernize its own strategic and conventional forces, including *Agni* intermediate-range ballistic missiles (IRBMs) and *Sagarika* submarine-launched ballistic missiles (SLBMs). The reverberations of these actions continue as Western powers, encouraging strategic congruity with "containing" China's rise, feed India's strategic ambition and tacitly endorse India's military modernization and nuclear proliferation activities.

This policy is creating a classic security dilemma: India's military's investment finds Pakistan increasingly vulnerable to exploitation; Pakistan turns to China, which responds by bolstering Pakistan's strategic capability, but still lacking the resources to compete with India's conventional military advantage, Islamabad depends even more on nuclear weapons to offset the imbalance.

For nearly four decades, India and Pakistan have defied global norms and the nonproliferation regime. Both states openly challenged this international commitment to reduce the existence of nuclear weapons by overtly demonstrating their

4 Since the 1998 nuclear tests, Pakistan has introduced eight nuclear-capable delivery systems, and India has responded with nine of its own. For both sides, missiles are becoming faster, deadlier, and more precise. Pakistan is improving its uranium extraction technology, boosting its fissile material production rates. Nuclear forces are moving to sea, by way of missile submarines, for example the INS *Arihant*. In addition, Indian ballistic missile defenses are coming online.

respective nuclear capabilities in 1998. Since then, both countries have been developing operational deterrence force postures, new doctrines, and improved command and control systems, and soon, both countries will complete the third leg of the nuclear "triad" by fielding sea-based delivery systems. In a recent edited volume, a well-known and widely respected South Asian scholar, Michael Krepon, states that India and Pakistan now possess more nuclear weapons delivery vehicles - including families of cruise and ballistic missiles - than the United States and Russia (Krepon, 2013: 9).

On its part, the international community in the past, and especially in the wake of the 1998 tests, had explicitly desired to avoid an unhealthy arms race between India and Pakistan. But there never was any visible involvement of major powers to prevent the upward spiral of India-Pakistan nuclear postures.

More recently, however, Western governments have displayed a different attitude towards South Asian nuclear capability. This is evidenced by the lucrative nuclear cooperation deal that was offered to India by the United States. Problematically, the denial of the same deal to Pakistan, the other nuclear weapons capable nation, left the region with little incentive to resolve conflicts. The mixed messages sent by the international community to the two nations, locked in a fully developed nuclear arms race, add yet another layer to the instability dilemma in South Asia. Integrating the two states (and Israel) into the global non-proliferation regime is crucial for regional security and long-term international security in the 21st century.

This paper has three sections. The first section gives an overview and assessment of the trajectories of South Asia's strategic postures. The second examines the geographical asymmetries as well as the evolving doctrines and its impact on command systems. The final section analyses the political and security dynamics that are causing tension and generating military competition. Finally, this paper concludes by offering some suggestions that could set stage for eventual peace and détente.

An Assessment of Strategic Trajectories in South Asia

India carried out its first nuclear device test in 1974, dubbing it "Smiling Buddha." New Delhi's characterization of this nuclear test as a "peaceful nuclear explosion" had few believers—especially across the border in Pakistan. After suffering defeat in the Bangladesh war, Pakistan, under the direction of President Zulfiqar Ali Bhutto, began an uncompromising pursuit of the nuclear bomb. Faced with stiff resistance from Western nuclear technology suppliers and legal obstacles from an emerging non-proliferation regime, Pakistan resorted to procuring essential nuclear components by any means, legitimate, or illicit.[5]

5 A comprehensive history of Pakistani nuclear program is covered in Feroz Hassan Khan (2012). *Eating Grass: The Making of the Pakistani Bomb*. Stanford: Stanford University Press.

For the next quarter of century, India and Pakistan produced fissile material and developed delivery capability at a steady pace. Both denied existence of a military nuclear program until 1998 when each conducted nuclear explosive tests and declared themselves as nuclear capable states. As the new century dawned, both states had a few dozen weapons in their inventory, although operational employment capability was nascent at best. Within a year of the tests, however, India and Pakistan were involved in a short war on the Line of Control (LoC) in the northern areas of the disputed Kashmir region (Kargil Crisis). Like other engagements in the past, this military crisis was eventually diffused through U.S. diplomatic intervention but not until after an intense short battle that caused hundreds of casualties. This unfortunate short war gave birth to innovative military doctrines and set South Asia on a pathway of adversarial policy and further crises.[6]

In the first decade after nuclear tests, the region saw unprecedented acts of terrorism and more military crises. During the same period, international focus on South Asia intensified after the September 11, 2001 terror attack in the United States. U.S. and NATO forces became deeply mired in military operations in Afghanistan as part of the "Global War on Terror."

In the post 9/11 environment, four major events and policy shifts made a huge impact on the strategic dynamics in the South Asian region. First, in 2001–2002 India and Pakistan came close to a full-scale war following militant attacks on the Indian parliament building in New Delhi. This act of terrorism touched off a 10-month standoff that was again diffused with intense U.S. diplomatic intervention. Second, in 2004, the A.Q. Khan nuclear proliferation network was busted, which placed Pakistan in the international spotlight and irreparably damaged its reputation. Third, within a year of that dramatic episode, the U.S. offered an exceptional nuclear deal to India, allowing civilian nuclear trade, while retaining its military's program.

The deal was legislated into U.S. law in 2008 by the Hyde Act, which indirectly conferred de-facto recognition of a non-Nonproliferation Treaty (NPT) member to maintain and enhance its military nuclear program. The Hyde Act alienated Pakistan, which at the time, was a front line state in the war against terror in neighboring Afghanistan. Finally, in November 2008 another spectacular terrorist attack, this time in Mumbai, was traced back to Pakistan and wrecked any prospects of peace and stability in the region. This incident derailed five years of backdoor peace negotiations that had begun in 2003 between India and Pakistan.

These four events propelled Indo-Pakistani rivalry into a deeper mistrust. As the United States began to reprimand Pakistan both publicly and privately, security

6 For a comprehensive study of Kargil War see Peter R. Lavoy (ed.) (2009). *Asymmetric War in South Asia: The Causes and Consequence of the Kargil Conflict.* New York: Cambridge University Press.

anxieties in Pakistan reached new levels. In 2011, a series of incidents heightened Pakistan's sense of isolation and brought U.S.-Pakistan relations to an all-time low: the murder of Pakistani citizens by a U.S. intelligence contractor; a spectacular raid deep inside Pakistan that found the most-wanted man Osama bin Laden hiding in plain site; and a November border incident in which 24 Pakistani officers and men were killed in a mistaken U.S attack from Afghanistan.

A Race for Fissile Material Stocks

Pakistani nuclear bureaucracy is convinced that the fissile material gap with India is widening, even more so after the U.S.-India nuclear deal. It believes that India could divert its domestic uranium resources toward the military nuclear program while uranium fuel imported to the civilian component will compensate for the energy requirements.[7] Furthermore, Pakistan claims that India took the lead in fissile material production in 1974 while Pakistan faced nonproliferation obstacles and had to defy international efforts before it could acquire fissile material production capability. These perceptions, along with an evolving Indian military doctrine, have galvanized Pakistani fissile material production. Pakistan simply dismisses the notion that it maintains the fastest growing arsenals in the world. In reality, both India and Pakistan have stepped up fissile production capacities, in part, as psychoses of strategic competition but also to meet the fissile material requirements of the induction of new delivery systems in their respective arsenals.[8]

At the time of the 1998 tests, Pakistan had only one plutonium production reactor at *Khushab*, but as of 2015, three more are functioning and a fourth is soon to be commissioned. Pakistan is famously known for its prowess in producing highly enriched uranium (HEU) since the early 1980s. By now, Pakistan has expanded its HEU program with new-generation gas centrifuges (P-3 and P-4) that have been installed at *Kahuta* while also increasing the uranium hexafluoride production capacity at the chemical plant complex at *Dera Ghazi Khan*.[9] Open-sources estimate

7 Under the terms of the deal, India was required to separate its civil and military nuclear installations and submit the civil sites to IAEA safeguards. In return, India was granted permission to import nuclear fuel and technology despite being non-party to the NPT. This meant that India could now divert indigenously produced fuel to military uses.

8 According to the 2013 *SIPRI Yearbook*, the Indian arsenal comprises 90 to 110 warheads. Estimates in 2012 put India's highly enriched uranium (HEU) stockpile at 2.4 ± 0.9 metric tons, and its weapons-grade plutonium stockpile at 0.54 ± 0.18 metric tons. "Summary," in *SIPRI Yearbook 2013: Armaments, Disarmaments and International Security*. Stockholm: Stockholm International Peace Research Institute, 2013); "India," International Panel on Fissile Materials, 4 February 2013, available at http://www.fissilematerials.org/countries/india.html.

9 Author's interview with Dr. Javed Mirza, former head of Khan Research Laboratories (KRL) for the book *Eating Grass: The Making of the Pakistani Bomb* in June 2007.

that as of 2012, Pakistan produced 3 ± 1.2 metric tons of HEU and 0.15 ± 0.05 metric tons of plutonium—enough to produce one to two dozen weapons per year (International Panel on Fissile Materials, 2013). Other sources indicate that Pakistan is currently believed to have 90–110 warheads (Kimball and Collina, 2014).

With the fourth plutonium production reactor coming on line, Pakistani fissile production capacity will rise even further. Pakistan also has the option to produce composite or hybrid warheads with deuterium-tritium boosters. Because Pakistan does not enjoy the benefit of external uranium supplies—like India—the possibility exists for a crunch in uranium supplies caused by demand from both civil and military program requirements. This has driven increased exploration of uranium ores within Pakistan's territories. Pakistan's annual production of natural uranium is also likely to receive a boost once newly discovered uranium mines at *Shanawa* are operational.[10]

Given these developments and it sense of discrimination after the American nuclear deal to India, Islamabad opposes the commencement of international negotiations on a Fissile Material Cut-off Treaty (FMCT) and has instead demanded that negotiations include the accountability of the fissile stocks of all stakeholders—what it calls a Fissile Material Treaty (FMT). Pakistan contends that the FMCT fails to address the asymmetry of existing stocks and would freeze Pakistan's disadvantage vis-à-vis India.[11]

Quest for Strategic Triad

India has embarked on an ambitious strategic modernization program. Its strategic forces are developing capabilities to project power. Prime Minister Manmohan Singh inaugurated the first nuclear powered boat, the *Arihant*-class ballistic missile submarine (SSBN), in July 2009 at Visakhapatnam and declared that India was joining the elite club of nations equipped with nuclear submarines (Economic Times, 2009). This was followed by trials and tests of SLBMs such as the 700km-range K-15 *Sagarika*, whose development trials were said to have been completed in January 2013 (Defence News India, 2013). India also has plans to field the K-4 IRBM, which is designed to launch from the *Arihant*-class SSBN and carry a 1,000kg nuclear warhead. Each *Arihant*-class submarine would be able to c*arry*

10 Shanawa was expected to open in 2014, which will increase the annual capacity from approximately 36 to 54 metric tons. International Panel on Fissile Materials (2010). *Global Fissile Material Report 2010: Balancing the Books: Production and Stocks*, available at http://fissilematerials.org/library/gfmr10.pdf, p. 127.

11 For details, see "The South Asian Nuclear Balance: An Interview with Pakistani Ambassador to the CD Zamir Akram" *Arms Control Today*, December 2011, available at http://www.armscontrol.org/act/2011_12/Interview_With_Pakistani_Ambassador_to_the_CD_Zamir_Akram.

12 K-15 missiles, which would later be replaced by the 3,500km-range K-X. Three Arihant-class SSBNs are currently under construction—one at Visakhapatnam and two in Vadodara, India (Naval-Technology, 2013).

Another major program is the 5,000km *Agni-V,* a solid-fuelled and intercontinental ballistic missile (ICBM) that is slated to be operational by 2015. The Indian scientists have also claimed that *Agni-V* would be equipped with multiple independently targetable reentry vehicles (MIRVs) that are capable of penetrating enemy missile defenses (Pandit, 2012). In the spring of 2013, India conducted flight tests of the 290-km range, supersonic submarine-launched cruise missile (SLCM) *BrahMos*. Indian scientists declared that the system would be "ready for fitment on submarines in vertical launch configuration." (Press Trust of India, 2013). Along with these offensive long-range delivery systems, India is also actively developing ballistic missile defenses (BMD).

On the other side of the border, Pakistan's strategic force trajectory is towards shorter- and medium-range accuracies, as well as development of countervailing capabilities that complicate India's conventional force modernization plans, penetrate missile defenses, and force India to undertake unacceptable risks. Pakistan does not seek power projection but, rather, a regional stalemate. The current inventory comprises various short-range and medium-range ballistic and cruise missiles.[12] Pakistan is also developing a sea-based deterrent. In 2012, it formally inaugurated its Naval Strategic Forces Command. The sea-based delivery is reported to likely comprise Agosta-class submarines armed with nuclear-tipped cruise missiles.[13]

The aforementioned delivery systems will sooner or later get into a deployment cycle, especially once sea-based deterrent are employed on deterrence patrol in the Indian Ocean. Furthermore, India's pursuit of BMD for its command and commercial centers will putatively challenge the Pakistani nuclear deterrent capability in a future crisis. Pakistan is likely to embark on countervailing strategies, which will include both active and passive measures. This response may well include the increase of Pakistan's ballistic and cruise missile stocks and may even drive the development of MIRV capabilities to penetrate Indian defenses. The South Asian fissile and missile race could pose new challenges to the fragile stability in South Asia. Overlaid with these emerging capabilities are factors such as asymmetric

12 The types of missiles are the following: Hatf-1A Hatf-II (*Abdali*), Hatf-III (*Ghaznavi*), Hatf-IV (*Shaheen*-1, *Shaheen*-1A), Hatf-V (*Ghauri*), Hatf-VI (*Shaheen*-2), Hatf-VII (*Babur*), Hatf-VIII (*Ra'ad*), and Hatf-IX (*Nasr*). For further details see Feroz Hassan Khan (2012). *Op. Cit*., p. 250.

13 For details of Pakistan's strategic forces, see Hans M. Kristensen, and Robert S. Norris (2011). "Pakistan's Nuclear Forces, 2011". *Bulletin of the Atomic Scientists*, 67, no. 4, available at http://bos.sagepub.com/content/67/4/91.full.pdf+html.

geography, regional power structures, and evolving military doctrines in the region that complicates strategic stability.

Geographical Asymmetries and Evolving Military Doctrines

South Asia's strategic geography changed after the 1971 war when a united East-West Pakistan was dismembered. This was a watershed event in the history of the region as it constituted a second partition of the subcontinent and also changed the character of strategic rivalry in South Asia.[14] The results of the war cemented the Pakistani perception that India was bent on destroying Pakistan, and it gave credence to the belief that if presented with the opportunity, India would use its stronger conventional force to finish the task. The Indian demonstration of nuclear capability in 1974 then completely tilted the strategic imbalance in favor of India. This status was unacceptable to Pakistan. Not only would Islamabad subsequently doggedly pursue nuclear capability, it would also come to master asymmetric war—this latter convention occurring thanks to Pakistan's adjacent position to the Soviet invasion of Afghanistan and the response of Western-backed forces "jihad" against communism.

After the defeat of the '71 War and under duress, Pakistan signed a peace accord with India at Simla in 1972. This led to a decade's worth of relative peace between the two countries, but three events changed the regional dynamics and transformed security landscape by the early 1980s: the Islamic revolution in Iran; the Soviet invasion of Afghanistan; and the return of Prime minister Indira Gandhi—who had led India to victory in 1971 war—to political power in India.[15] The first two events allowed General Zia-ul- Haq's military's government to exploit Pakistan's geopolitical significance as the international community looked for partners to contain both crises.

As for Mrs. Gandhi's India, it began showcase a new political and military tact to deal with Pakistan that at the time was spearheading a global jihad against the Soviet Union in Afghanistan. New Delhi revived its strategic partnership with the Soviet Union, while the Indian military commenced a new strategic plan to engage Pakistan in a conventional war that would further weaken the smaller force and preemptively destroy Pakistan's nascent nuclear program. This thinking was com-

14 Pakistan was born with insecure and contested border and with two wings separated by thousand miles of India in between its two fronts with India and western porous border with Afghanistan, which created multiple fronts to defend. With East Pakistan now independent Bangladesh, Pakistan had only one front to defend with India.

15 Mrs. Indira Gandhi's political party was ousted from power in the 1977 election after she had declared a controversial emergency. For the first time in India, a different political party was set up, and it lasted until 1980.

monly referred to as the Sunderji doctrine.[16] But India's strategic aims could not materialize because of the regional and global circumstances, and by the end of the 1980s, a nuclear weapons program was budding in Pakistan.

The beginning of the 1990s saw the end of the Soviet Union, and as the dissolving Soviet Union retreated out of Afghanistan, the regional circumstances changed significantly. The early 90s also saw the Kashmir uprising at its peak with full support from Pakistan, and as U.S. interest in the region diminished with the Soviet retreat, both Pakistan and India came under nuclear sanctions and pressure to roll back their nuclear programs. By the end of the century, with both India and Pakistan conspicuously nuclear capable, the nature of war had sub-conventional or proxy dimensions intertwined with the conventional implications, all overlaid with nuclear deterrence.[17]

In theory, the advent of a nuclear deterrent ought to have created a semblance of strategic balance. But rather than bringing stability, a short intense war occurred in Kargil in the summer of 1999, dashing any prospect of peace. In 2001, a 10-month military stand-off tested the presence of the nuclear deterrent after alleged terrorists from two Pakistani-based organizations (*Lashkar-e-Taiba* and *Jaish-e-Mohammed*) attacked the Indian parliament building in New Delhi.[18]

The 2001-2002 crisis also tested India's military concept of limited war under the nuclear umbrella. The military mobilization concept originally conceived in the 1980s was somewhat redundant. India's political leadership ordered the army to mobilize and threaten Pakistan in retaliation of the attack on the Indian parliament, but its mobilization took several weeks to reach the border allowing Pakistan to

16 The architect of strategic thinking was India's army chief General K. Sundarji, who first reorganized India's army military and created such offensive force designed to fight a swift battle to sever Pakistan in two and destroy the country's nascent nuclear capability. The Indian army conducted several exercises in the mid-1980s to perfect this concept, one of which resulted in a major military crisis in 1986–1987 (Exercise *Brasstacks*). In the 1980s, Pakistan and the United States were jointly waging an asymmetric war in Afghanistan to defeat the Soviet occupation. Therefore, Pakistan was in a state of war at its western border when the Indian military initiated *Brasstacks*.

17 India and Pakistan have a history of waging asymmetric war against the other, which involves use of proxies or abetting secessionism since the two became independent countries. Since 1947-48, all wars fought between the two involved uses of sub-conventional elements wherein exploiting domestic instability combined with the conventional military invasion. Pakistan tried in 1965 but failed to attain objectives; India successfully exploited Pakistan's internal chaos in East Pakistan before invasion in the 1971 War. In the 1980s, Pakistan refined sub-conventional strategy after a decade of Soviet invasion of Afghanistan with the help of United States and other Western powers. Pakistan then applied its mastery when Kashmir secessionist uprising surfaced after the Soviets were defeated in Afghanistan

18 All militants that attacked the Indian parliament in December 2001 were killed in the fire-fight.

quickly counter-mobilize due to shorter lines of communication from peace garrisons to battlefield locations. The Indian military remained on the border for 10 months while political leadership could not decide on approving military operations across the border. By then, once again, Pakistan was playing a front-line role in America's war on terror in Afghanistan. Pakistan could neither be isolated diplomatically nor could Indian leadership risk a nuclear war. Pakistan showcased its nuclear prowess by flight-testing some of its nuclear-capable ballistic missiles. The new realities had outmoded the erstwhile Sunderji doctrine. India's military planners now began to contemplate new ways of fighting a limited war against nuclear-armed Pakistan.

The new Indian approach, dubbed as the military doctrine of "Cold Start," proposed both rapid mobilizations to undercut Pakistani mobilization and limited operation in order to keep below the Pakistani nuclear threshold. The doctrine's end-state is war termination before the international community could intervene. India's proactive military operational concept envisaged heavy use of firepower combined with air operations, ground operations, and a naval blockade of the solitary Pakistani port of Karachi. Over a decade since the 2002 standoff, the Indian army has been reorganizing its army formations into division-sized forces known as Integrated Battle Groups (IBGs). These IBGs are purpose built to strike across the international border at short notice. The IBGs would also create space for follow-on forces to undertake limited exploitation via shallow maneuver, while inflicting maximum destruction of Pakistani military. Indian planners assume that speed of operations and a shallow ingress will not allow Pakistan to bring its nuclear deterrence into play.

Pakistan then commenced a refinement of its own military doctrines to respond to India's innovation. Pakistan reinforced its garrisons at vulnerable locations, created quick reaction forces that could rapidly deploy, and improved and constructed a series of obstacles to delay and channelize India forces. In 2011, the Pakistan army released a doctrine called "Comprehensive Response" that elaborated its predicament in the following words: "With the possibility of Pakistan being drawn into a war at very short notice, all formations organize their administrative and routine activities in a manner that effective combat potential can be generated within 24 to 48 hours from the corps to unit level and two to three days at the Army level." (Pakistan Army Doctrine and Evaluation Directorate, 2011: 43-44). In addition to decreasing its own mobilization timelines, Pakistan could also launch a tactical offensive to take its battle into Indian territory either preemptively or as riposte to Indian attack.

While both India and Pakistan refined their conventional doctrines, Pakistani strategic planners were working to integrate their conventional force plans with nuclear force plans. Pakistan's predicament was its vulnerability to India by a geographical handicap of shallow depth. Additionally, Pakistan's main lines of communication

were close and vulnerable to an Indian offensive, a weakness that the original Indian doctrine was slated to exploit. But by end of the first decade of the twenty-first century Pakistan was facing multiple insurgencies of its own, especially on its Western borders, where its troops were drawn into counterinsurgency operations in the tribal areas. Pakistani defenses against India were weakening as forces from the Indian border and Line of Control in Kashmir were drawn to the border with Afghanistan. Pakistan then sought to find answer to its strategic predicament. One option was to integrate nuclear weapons into conventional war plans.

In the spring of 2011, still facing inherent geographic handicaps in a conflict with India, Pakistani military planners found an answer to the India's Cold Start doctrines. In April 2011, Pakistan tested the *Hatf-IX/Nasr*, a 60km-range, road-mobile short-range ballistic missile (SRBM), also dubbed as Nasr. The press statement accompanying the introduction of this new system by Pakistan's Inter-Services Public Relations (ISPR) directorate stated that *Nasr* "carries nuclear warheads of appropriate yield with high accuracy, shoot and scoot attributes."[19]

Pakistan had made it clear that India's Cold Start doctrine would result into meeting a nuclear weapon in the battlefield and that the onus of lowering of the nuclear threshold rests with the India. In theory, the introduction of tactical nuclear weapon (TNW) would deny India the space to prosecute a conventional war under the nuclear overhang. India then introduced its own SRBM, *Prahaar* with a test that followed within months; however, India did not declare its system as explicitly carried nuclear warheads but kept it ambiguous. Later, its scientific organizations declared that *Prahaar* was to replace the aging *Privthi* missiles that were first introduced in the 1980s. *Prahaar* has 50–150km-striking range and is likely having dual-use mission given India's claims to have tested compact warhead designs (Raghuvanshi, 2011).

The induction of battlefield nuclear weapons in South Asia opened up the litany of questions of the Cold War era whose clear answers were never found. Some five or six decades back when weapons as Davy Crocket and nuclear artillery were deployed in the mix of conventional forces in the East-West conflict, NATO forces weighed the deterrent effect of such weapons against the operational and logistic dilemma they faced. The appearance of short-range nuclear capable delivery systems in the battlefield poses imminent threats inducing preemptive strikes from the adversary. Second, TNW forward deployment in the proximity of conventional defenses complicates articulation of command and control (C2). Conversely, an assertive C2 makes the deployed weapon relatively safe from accidental use but less battle effective and more vulnerable, once out of the peacetime storage. More

19 Pakistan Inter-Services Public Relations Directorate, Press Release No. PR94/2011-ISPR, April 19, 2011, available at https://www.ispr.gov.pk/front/main.asp?o=t-press_release&id=1721.

importantly, the vulnerability of the weapons in the field warrants extra security measures to protect them, which then compromises the requirements of camouflage and concealment. These are some of the deployment and employment challenges of operational integration of conventional and nuclear forces, especially with the induction of short-range nuclear capable system into the mix.

Doctrinal Asymmetry

India and Pakistan adapted differing nuclear doctrine. Unlike Pakistan, India has an official nuclear doctrine of no first use (NFU). India's NFU has several qualifiers such as its right to retaliate massively if Indian forces were attacked with nuclear weapons anywhere -whether its own or on foreign territory. India would also retaliate with nuclear weapons if chemical, or biological weapons were used against Indian forces. Pakistan decided to showcase its command and control apparatus and decided it was not necessary to declare a doctrine. Pakistani official position is to keep the right of first use open. Islamabad does not believe in the credibility of India's massive retaliation threat against nuclear attack. In addition, Pakistan's nuclear doctrine is deliberately ambiguous and it's belief that the more imprecise nuclear thresholds are the greater are the chances of complicating and paralyzing Indian conventional military plans.

Furthermore, the closest Pakistan has come to declaring the parameters of its nuclear use doctrine was in an interview in which SPD Director-General Khalid Kidwai declared four general conditions that would contribute to Pakistani decision for nuclear use. Pakistani official declared that Pakistan would consider use of nuclear weapons, if India: (1) conquers a large portion of territory; (2) destroys large portions of Pakistani armed forces; (3) strangles the economy; or (4) threatens regime survival through domestic destabilization.[20] From the Pakistani officials statements it can be clearly discerned that the foremost aim of Pakistani nuclear doctrine is to deter a conventional force attack against Pakistan and that it would retain all options - including use of nuclear weapons as a last resort- to ensure its national integrity and survival.

This doctrinal mismatch between India and Pakistan has potential risks. India's assumption is that should it start a limited war by sending IBGs across the international border, Pakistan would be deterred for fear of punishment because in the event of Pakistani nuclear use India would "massively retaliate" - thus Pakistan would be unable to think of employing nuclear weapons. In contrast, the Pakistanis dismiss the credibility of India's massive retaliation policy. Pakistan believes India

20 Khalid Kidwai (Pakistan's former Director-General of the Strategic Plans Division), interview by the Landau Network-Centro Volta, February 2002, available at http://www.pugwash.org/september11/pakistan-nuclear.htm.

would not be able to consider such a disproportionate response against low yield tactical strikes. After all, India and Pakistan lie on the same subcontinent and both have the ability to retain enough survivable weapons to retaliate. As both sides believe in second strikes capacities, neither side feels it has reasons to back away. With increasing arsenals and modernizations of systems, neither country is ready to give up or back down.

The Drivers of Competition

At the root of this nuclear and doctrinal competition is mutual mistrust. Several factors have contributed to such an outcome. Pakistan's strategic anxieties compounded when the busting of A. Q. Khan network lead to international scorn. To add insult to this injury was the increased U.S.-India strategic partnership that included an exceptional nuclear deal. At the regional level, there was virtually no progress in any meaningful arms control and confidence-building measures that could bring in some semblance of peace and security. India found no incentive to deal to cut any slack for Pakistan. While series of terror attacks continued in both countries, attacks in India that could be traced back to Pakistan became a sore sticking point for India to keep up pressure on Pakistan. India continues to demand that Pakistan dismantle terror networks and bring to justice all perpetrators—especially the ones involved in the 2008 Mumbai terror attack. Pakistani is suffering itself as terror attacks with impunity continues in the country at the time of this writing and the judicial system in Pakistan cannot provide speedy justice in the absence of full cooperation and evidence from India. With the recent change of government in India that has enabled a right-wing Hindu party in power, Pakistanis have little hope that any step they could take would satisfy India.[21] The regional strategic environment in the end remains politically charged and ever prone to sudden crisis.

The Nuclear Deal

Pakistan was placed under international spotlight and infamy when it's chief scientist, Dr. Abdul Qadeer Khan, was found in the center of the international proliferation ring that was busted in the Fall of 2003. A. Q. Khan was the head of the Pakistani centrifuge program, and he admitted to his role in the illicit network that provided nuclear technology to several countries, including Iran, Libya, and North

21 India cancelled peace talks with Pakistan last summer (2014) on the grounds that Pakistan had carried out dialogue with Kashmiri leaders prior to the talks. Since then there is no dialogue at any level; meanwhile, tensions on the Kashmir Line of Control have increased and often turn violent, especially when Pakistani military is conducting operations on the Western frontiers against Taliban.

Korea. Pakistan has never recovered from the fallout of the A. Q. Khan saga. For over a decade now, Pakistan has persistently denied any official complicity and has tried hard to overcome the scarlet letter of the A. Q. Khan proliferation network. Pakistan has willing shared its investigations with international community though it did not allow access to outside interrogation of A. Q. Khan, which it is unlikely to grant given that he is seen as national hero and that he still holds classified information about Pakistan's nuclear program. Despite Pakistani help to dismantle the network and having taken significant steps to tighten its nuclear security regime, it image remains tainted of the baggage of the network.[22]

Pakistan's struggle to recover from the fallout of the A. Q. Khan debacle only compounded when its archrival and fellow proliferator India was showered with an exceptional and lucrative nuclear deal. Just a year after the unfolding of the A. Q. Khan network, President George Bush offered India a nuclear deal with the United States. Three years later, this deal was legislated in Washington as the Hyde Act 2008. India was granted a waiver from the export controls of the Nuclear Supplier's Group (NSG), which permitted India to freely import nuclear fuel and technology for civilian purposes, while freeing up its domestic uranium resources for India's military's program. As for its terms, India agreed to open its civilian sites to inspection from International Atomic Energy Agency (IAEA) but not its military sites that are permitted to operate. This controversial deal implied a de facto recognition of non-NPT member.

India was seemingly rewarded because its image of external proliferation was clean, but in reality the deal was aimed at providing significant nuclear business for United States and other Western suppliers.[23] India's status as an emerging power with democratic credentials and its rivalry with China are long-term reasons for this special treatment. The consequence of this deal was alienation of Pakistan and China and setting up the precedence and added incentive for further cooperation between the two. Pakistani calculations of India's fissile stocks were significantly altered. Islamabad contends it is now compelled to step up production of fissile material and now is opposed to the negotiations of a Fissile Material Cutoff Treaty. Pakistan wants a similar deal what it calls "mainstreaming" Pakistan into the nuclear world order, but the United States has persistently refused to oblige Islamabad's wishes.

As Indian diplomacy gears up towards getting membership in the Nuclear Suppliers Group NSG, Pakistani frustration and anger is on the rise. Pakistan has made it

22 See the latest National Threat Initiative (NTI) Index of 2014.

23 Proponents of the U.S.-India nuclear deal cite India's "clean" nonproliferation record but deliberately ignore or gloss over India's abuse of Atoms for Peace that resulted in the 1974 nuclear test and set the chain of proliferation.

clear the unacceptability of such a position. Pakistan believes this move will kill Pakistani chances of becoming member of the club. It is hoping China and some other members would not allow this discrimination. Additionally, the Pakistanis claim that they have paid the penalty for the A. Q. Khan folly and it is time to move forward. They are asking for criteria-based approach to membership in export control regimes rather than providing membership based on political favoritism. Western disregard of Pakistani sense of isolationism is counterproductive in strengthening global non-proliferation regime. The consequence of this policy is that Pakistan, with advanced nuclear capabilities, is left out of the nuclear system. Furthermore, as it increases its arsenals, there is no regional or local architecture that dampens the competition because India has no incentive to engage in any CBMs or restraint talks with Pakistan.

Absence of Meaningful CBMs or Arms Control Architecture

After the nuclear tests in 1998, there were concerted efforts to bring some restraint agreement in the region. United States spearheaded an effort in 1998-99 but that effort failed to engage India into strategic restraint agreement. India was dismissive because it believes China is India's nemesis and India is global player and would not be tied to the region. Nevertheless, both countries found common grounds on at least one promising political framework that was signed by India and Pakistan in Lahore in 1999 known as the Lahore Agreement. The Lahore Declaration of February 1999, for example, was a celebrated bilateral agreement in which India and Pakistan promised to resolve disputes peacefully in good faith, improve bilateral dialogue, and avoid nuclear provocation; however, three months later, Pakistani soldiers snuck across the line of control in Kashmir and occupied abandoned Indian posts, sparking the Kargil War. Several attempts to revive that spirit were made but have never reached fruition.

By and large, South Asia has a long history of developing confidence-building measures but was always shy of serious arms control issues. All peace related dialogue has remained in a state of limbo since the 2008 Mumbai attack. There lingers a persistent belief that CBMs are ineffectual for easing crisis and dissuading conflict. India and Pakistan do not have any agreement to limit conventional force expansion, nor is there any desire to limit delivery system development or fissile material production.

Conclusion

South Asia continues to defy the global trends and their competition is a major challenge for international security. Some 40 years back when the nonproliferation regime was in nascent stages, both countries interpreted the global norm as a challenge to national security with India calling it global nuclear apartheid. Now,

India and Pakistan are seen in different leagues. Their respective nuclear programs and motivations are at variance, much more intense than anytime in history and the fundamentals of their motivations are much different than when the two commenced their nuclear journey.

While nuclear arsenals and delivery means are increasing with innovative doctrines replacing redundant ones, the India-Pakistani relations remain tense and conflicts unresolved. The intense involvement of the United States after 9/11 is shifting away from South Asia towards rebalancing to the Asia-Pacific and other global contingencies. This development will have a cascading effect on South Asia. China will continue to remain the focus, and it is already investing heavily in its strategic weapons system development, including modernizing its missile systems and naval outreach. Moreover, India is reacting to China with its military investments, which has an impact on Pakistan. Facing multiple threats from within and lacking resources to match India's military buildup, Pakistan is relying heavily on nuclear weapons. The security dilemma on the subcontinent continues to intensify. This trend could only reverse if and when visionary leadership emerges that could see the dangers of this security dilemma.

Seemingly there is no initiative to ease Indo-Pakistani strategic conundrum. The plethora of CBMs is merely on the books, but there is no robust arrangement for bilateral strategic restraint. The author has proposed several arms control proposals in recent publications.[24] One such opportunity for rudimentary arms control measure still exists if and when Indians and Pakistanis would come to the bargaining table. Pakistan and India can decommission their aging and obsolete SRBMs (the *Hatf-I* and *Privthi-I*, respectively). If both could jointly agree to disassemble these missiles in a transparent manner, this could constitute as first baby step of inspiring new level of mutual confidence and serve as a harbinger for future arms control in the region.[25]

Some hopes were pinned on New Delhi and Islamabad, but rather sadly, the new leadership in India and Pakistan has shown little or no urgency to reach out to the

24 See for example Feroz Hassan Khan (2012). "Prospects for Indian and Pakistani Arms Control and Confidence Building Measures" in Henry D. Sokolski (ed.), *The Next Arms Race*. Carlisle Barracks, PA: Strategic Studies Institute, pp. 357- 386. Also Feroz Hassan Khan (2013). "Strategic Restraint Regime 2.0" in Michael Krepon and Julia Thompson (eds.), *Deterrence Stability and Escalation Control in South Asia*. Washington, DC.: Henry L. Stimson Center, pp. 161–174.

25 For a detailed analysis, see Feroz Khan and Gurmeet Kanwal (2011). "Building Trust in South Asia through Cooperative Retirement of Obsolescent Missiles". Centre for Land Warfare Studies, September 4, available at http://www.claws.in/Building-Trust-in-South-Asia-through-Cooperative-Retirement-of-Obsolescent-Missiles-Gurmeet-Kanwal.html. Also see Zachary Davis (2013). "The Yin and Yang of Strategic Transparency" in Michael Krepon and Julia Thompson (eds.), *Op. Cit.*, pp. 175–85.

other. Far from political will or desire to take risks, there is no visible diplomatic overture at the time of this writing. The international community has a huge stake in bringing the destabilizing trends in nuclear-armed region and in the construction of peace and security architecture that could bring conflict resolution between these nuclear-armed rivals.

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Nuclear and Radiological Terrorism: A Manageable Threat

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Abstract
The threat of a nuclear or radiological terrorist attack has become a consistent theme in news reports and popular media. But a comprehensive analysis reveals a real but limited threat, one that is manageable through intelligence, vigilance, and effective security culture. This article describes the limited parameters of the nuclear and radiological terrorist threat, and then describes various ways that the international community, nations and institutions are helping reduce the likelihood of such an attack.

Resumo
Terrorismo Nuclear e Radiológico: Uma Ameaça Gerível

A ameaça de terrorismo nuclear ou radiológico tem constituído um tema regular nos meios de comunicação social. Não obstante, uma análise abrangente revela uma ameaça real embora limitada, capaz de ser gerida por Serviços de Informações, ações de vigilância e uma cultura eficaz de segurança. Este artigo descreve não só os parâmetros limitados da ameaça do terrorismo nuclear e radiológico, como posteriormente expõe as diversas formas a partir das quais a comunidade internacional, Nações e instituições contribuem para uma diminuição da probabilidade de um ataque desta natureza.

Introduction

In June 2014, the U.S. Senate Homeland Security and Governmental Affairs Committee held a hearing about the status of radiological security in the United States. The comments and debate focused primarily on the findings of a Government Accountability Office (GAO) report about the need for additional actions to increase the security of U.S. industrial radiological sources (GAO, 2014). Politicians and public commentators in America pounced on the alleged inadequacies of the Obama administration's security policies, predicting that doom and destruction was just around the corner. And recent highly publicized thefts of radiological source material in other countries underscored the concerns raised at the Senate hearing.

For example, in December 2013, an armed group in Mexico stole a truck containing cobalt-60 pellets (a radiological source used in hospital radiotherapy machines), generating headlines for several days until it was found abandoned in a field (Simpson, 2013). In May 2014, authorities in Ukraine apprehended a group of militants smuggling a radioactive source (thought to be uranium-235) in a makeshift container (Global Security Newswire, 2014b). In July, a truck transporting a container of iridium-192 (frequently used for industrial imaging purposes) was seized by thieves in a Mexico City suburb, but recovered a day later (Global Security Newswire, 2014a). And also in July, Sunni militants in Iraq seized 88 pounds of "low grade uranium" from a university in the northern city of Mosul.

However, in none of these cases were civilians in imminent or real danger. In the thefts in Mexico, the thieves very likely didn't even know what they were stealing (Romo, Parker and Castillo, 2013). And according to Olli Heinonen - the former chief inspector of the International Atomic Energy Agency (IAEA) - the low-grade uranium stolen by the Iraqi militants was unsuitable for use in a so-called "dirty bomb," which uses conventional explosives to spread radiation (Cowell, 2014). To be sure, there are reasons for concern and vigilance. The IAEA has investigated more than 20 cases of theft or loss of nuclear materials each year.[1] As IAEA spokeswoman Gill Tudor notes: "any loss of regulatory control over nuclear and other radioactive materials is a cause for concern" (Cowell, 2014). But a balanced, well-informed analysis of the threat is critical for devising successful responses to complex security challenges like terrorism and nuclear proliferation. In truth, despite the dramatic headlines and posturing of some politicians, the threat of

1 For example, see the summary compiled by Max Fisher and Richard Johnson for *The Washington Post*, published on December 5th, 2013, compiled from data provided by the IAEA Incident and Trafficking Database and Nuclear Threat Initiative. Available at http://www.washingtonpost.com/world/a-look-at-recent-nuclear-material-incidents/2013/12/05/c6f3edb6-5e17-11e3-be07-006c776266ed_graphic.html.

nuclear and radiological terrorism is both limited and manageable, for a number of often overlooked reasons that we will describe in this article.

To frame a more balanced analysis, we can begin with the U.S. Department of Defense's new *Strategy for Countering Weapons of Mass Destruction*, released in June 2014, which "seeks to ensure that the United States and its allies and partners are neither attacked nor coerced by hostile actors with weapons of mass destruction" (U.S. Department of Defense, 2014). The strategy articulates three primary areas of effort: preventing acquisition of WMD, containing and reducing the threat of existing WMD, and responding to WMD crises effectively. This timely document notes that the U.S. will "accept risk in areas where WMD use is implausible, infeasible, or would have limited effects so that resources can be focused on enhancing flexible response capabilities tailored to the most likely and operationally significant threats" (U.S. Department of Defense, 2014). Decades of scientific study on the effects of nuclear and radiological weapons has resulted in a clear understanding of what the most "operationally significant threats" are. However, the question of "most likely" has been subject to far more conjecture and speculation than factually-informed analysis.

Thus, in this article we examine the various technical, strategic and tactical dimensions of this question, concluding that radiological terrorism is considerably more likely than nuclear terrorism, and that the possibility of a radiological terrorist attack is limited within very narrow parameters. A terrorist group would require a perfect (and very rare) mix of resources, strategic rationale, opportunities and luck in order to successfully cross the radiological weapons threshold. Moreover, there are thousands of agencies, with hundreds of thousands of analysts and field agents, working every day to prevent such an attack. This is not an argument for complacency, but rather, an appeal to place the nuclear and radiological threat into a more appropriate - and less hyperbolic - perspective.

Nuclear and Radiological Weapons: A Quick Review

To begin with, not all commentators on these issues seem to understand that nuclear weapons and radiological weapons are much different from each other. Nuclear weapons are both extremely powerful and complicated to construct and store, especially by a non-State actor. They require fissile material - highly enriched uranium (HEU) or weapons-grade plutonium-239 - which can release massive amounts of energy in an uncontrolled chair reaction. Other candidate fissile materials considered potentially viable for nuclear weapons use include neptunium-237, americium-241 and reactor-grade plutonium. It is important to note that these fissile materials must be very pure and highly enriched (greater than 90 percent) for weapons use. Fissile materials are used in nuclear reactors at much lower enrichments (3-5 percent), where carefully controlled levels of fission produce energy for

cities around the world. Nuclear reactors and nuclear weapons are fundamentally different in design. Nuclear weapons are designed to harness the release of fission energy for destructive purposes.

There are two basic kinds of nuclear weapon designs – gun-type and implosion. The former uses two carefully shaped concentrations of HEU, and a conventional explosion forces one into the other causing a chain reaction. Implosion weapons are far more difficult, requiring extremely precise engineering to ensure that all the small conventional explosive charges surrounding a sphere detonate at exactly the same nanosecond in order to compress the core of plutonium inside (otherwise, the device would function like a balloon popping, in which the plutonium core would be blown out of the device instead of causing the chain reaction).

Obviously, the key to nuclear weapons is the fissile material. Because access to HEU and plutonium-239 is constrained and regulated, states and terrorists face an enormous challenge acquiring this essential ingredient. As Graham Allison so eloquently argued a decade ago, the implications for global security are simple and clear: without fissile material, you cannot have a nuclear weapon (Allison, 2004). The difficulty in gaining access to fissile materials, as well as the very complex (and expensive) nature of these weapons in general, help explain why today only eight countries (China, France, India, North Korea, Pakistan, Russia, the UK, and the US) are officially recognized as nuclear powers (Israel is an additional, but "unofficial" nuclear power). Additionally, there are another 25 countries with more than 1 kg of weapons-usable nuclear material. Meanwhile, there are 186 other countries in the world who do not have nuclear weapons, and nearly all of those countries will never have them.

Compared to the fissile material needed for nuclear weapons, radiological sources are far more prevalent throughout the world. Radioisotopes - materials that emit radiation as they decay - are used in medicine to treat a wide array of cancers and other diseases. They are also found in various kinds of measurement instruments used in research and in a wide range of industries. Some radioisotopes can be used in weapons to make people sick through radiation exposure, depending on their half-life (the time during which the isotope decays, which determines the amount of radioactive energy released). Further, the radioactive source would need to be in a certain form to be useful in a weapon: think pellets, powder, or liquid, rather than the metals in which radioactive sources are sometimes stored.

In contrast to the nuclear weapons described above, there are no officially declared radiological weapons stockpiles. Within the past two decades, only one country - Iraq, under Saddam Hussein - pursued a radiological weapons program, and it was abandoned after the government came to realize that the enormous costs involved in making and maintaining such weapons would yield only modestly useful benefits. Further, according to a recent National Defense University report, no new

technological developments regarding radiological weapons are foreseen (Caves and Carus, 2014).

Understanding the key differences between nuclear and radiological weapons is a necessary first step toward meaningful analysis of today's security challenges. A military-caliber nuclear weapon, stolen or otherwise acquired from a nation's stockpile, is considered by most analysts to be a highly unlikely terrorism scenario. This means there are three most likely types of weapons for terrorists to consider, listed here in order of decreasing complexity and difficulty: an improvised nuclear device (IND), a radiological dispersal device (RDD), or a radiological emission device (RED). As noted earlier, any kind of nuclear device requires fissile materials. Even a group of highly skilled, engineering-savvy terrorists might be able to fabricate a rudimentary gun-type weapons casing, they still face tremendous difficulty acquiring the right amount of fissile material, and in a form which allows them to manipulate and shape it to fit their weapons design. In contrast, a RDD requires radioactive materials of a suitable amount and in a format that can be dispersed via a conventional explosive, sprayer, or so forth.

And the least complicated of these types of weapons is the RED, which simply requires a type of radioactive source in virtually any form that can be placed discretely in a location which (the terrorists would hope) will over a period of time lead to radiation sickness among the victims before the weapon is discovered and disabled or removed. But even here, an RED requires the right kind of radioactive source: it must decay fast enough to produce high levels of radioactivity, but not become depleted so quickly that the victims are not exposed to enough radioactivity to cause the intended damage; it can be metals or liquids or other format, but must be in a shape and size that will not attract suspicion from the target; and it must be in a form that can be handled effectively by the terrorists and delivered to the target. Thus, even the simplest kind of radiological weapon is significantly complicated and difficult to deliver effectively.

To sum up, the technical aspects of these weapons are unique and extremely reliant on access to specific substances that are highly regulated and controlled. In recent years, a wide variety of books, movies and television shows have often portrayed terrorist groups easily acquiring and detonating a nuclear or radiological weapon. But the reality is that most terrorist groups could not—and in fact, most do not even want to - cross the nuclear or radiological weapons threshold.

The Terrorist Threat

At the outset, it must be emphasized that there have been very few terrorist plots involving radiological or nuclear weapons, and to date none of them have been successful. There is an extensive history of terrorist attacks over the past 120 years, perpetrated by a wide spectrum of groups and individuals: anarchists, left-wing

and right-wing extremists, ethno-nationalists, religious extremists (including Zionists, Islamists, and violent opponents of abortion), environmental extremists, and many others. And yet, only a tiny fraction of these attacks have involved any kind of chemical, biological, radiological or nuclear (CBRN) materials. Further, as John Parachini has observed, even the rare incidents that involved the use of these kinds of weapons have hardly threatened mass destruction (Parachini, 2014).

According to the historical record, no terrorist group has even come close to having a nuclear weapon. Further, across the entire spectrum of terrorist, insurgents and other armed groups, only a small handful of militants in Chechnya have managed to assemble a rudimentary radiological weapon. During 1995 and 1996, Chechen militant leader Shamil Basayev made a series of threats to detonate radioactive containers in Russian cities, to target nuclear facilities in Russia, and even to explode a nuclear device. To support these ominous threats, he provided videos and photos displaying containers of radioactive materials (likely cobalt-60, cesium-137, or strontium-90), and told a Russian television network where to find a container of cesium-137 he had arranged to have buried in Moscow's Izmailovskiy Park (Bale, 2012). However, all of this fear-mongering and threats came to nothing: as of this writing, no radiological weapon has ever been successfully used by a terrorist or other violent non-state actor.

Of course, one could argue that the historical record is a poor judge of the future, given the extraordinary scientific and technical advances we see around us each year. Thus, to better understand the contemporary terrorist threat involving these weapons, we must examine the intentions of a particular terrorist group, and then examine the capabilities of that group (Forest, 2012). What we find in doing so is that among the hundreds of terrorist groups around the world, only a very small handful have any possible link to a radiological or nuclear threat.

Terrorists differ broadly in terms of intentions, resources and capabilities. We know a great deal about the intentions of terrorists because they tell us, through their ideological propaganda, what they want, and why they feel that violence is the only way they can get it. Terrorists use violence as a means to an end. They have objectives and goals, articulated in their ideologies, and believe that these can only be achieved through the use of violence. In most instances, the pursuit of power is central to their cause: power to shape the political future, power over a piece of territory (*e.g.*, ethno-national terrorists), power to assert racial dominance over others (*e.g.*, right-wing terrorists), power to change national policies (*e.g.*, anti-abortion, environmental, animal rights extremists), and so forth. When we unpack the details of terrorist groups within each of these ideological categories, we find that terrorists generally do not kill for the sake of killing. Further, analysis of terrorist manuals and interviews with incarcerated terrorist leaders reveal a common pattern of worrying about counterproductive violence. From the IRA to Hamas to al-Qaeda,

we have seen terrorist group leaders condemn or try to reign in operatives whom they felt were engaged in activities that were so violent, they were jeopardizing the group's efforts to recruit and muster support among a target constituency.

Analysis of the broad spectrum of terrorist groups, both historical and contemporary, reveals that most terrorist groups have no interest in weapons of mass destruction, opting instead for more conventional weaponry in their attacks. Only a small handful have shown any indication that they would ever want a nuclear or radiological weapon. From this perspective, we come to understand more clearly, why concerns about radiological and nuclear terrorism may be exaggerated.

The important point to make here is that commentators who would have you believe that all terrorists are the same do not have a solid understanding of terrorism. To formulate effective counterterrorism efforts, especially pertaining to radiological and nuclear terrorism, we must understand who might want such weapons, and why. From decades of research on this question, most scholars and government analysts have concluded that only a very small proportion of the world's terrorists have any interest in crossing the radiological or nuclear threshold. Of these, most have similar tendencies: a religiously-based, typically apocalyptic ideology in which massive destruction creates an opportunity for a better world; a charismatic leader; a high level of paranoia; and a commitment to innovation and physical risk taking (Dolnik and Forest, 2012). Think Aum Shinrikyo (the Japanese cult responsible for the 1995 Sarin gas attack in the Tokyo subway) rather than any of the most well-known terrorist groups like Hamas, Hizballah, FARC or the IRA.

For a terrorist group considering any kind of attack, a considerable number of strategic, tactical and operational questions must be answered. For example: What kind of weapon do we want to use, and why? How will we acquire all the necessary materials? How will we afford it? Who in our group has the knowledge to construct this weapon? Where will we construct this weapon, and where will we store it securely until the time of delivery? How will we deliver the weapon to the target unhindered? Where? How can we test the weapon to see if it will actually work as planned? These and many other questions must be answered by the terrorist group as their plot unfolds. Bad decisions at any point along the way will jeopardize their chances of success.

The choice of weapon obviously impacts the nature of these questions. Whenever a terrorist group devotes its time, money and other resources toward an attack plan, they want to maximize the likelihood that their objectives will be achieved. And yet, terrorist groups are limited by what their members are capable of doing. Further, more complex terrorist plots have lower chances of success. Thus, a difficult and complicated nuclear or radiological weapons is seen as less desirable than the suicide bomb vest that has been tested and proven effective by terrorists in Sri Lanka, Lebanon, Iraq, Afghanistan, Israel and many other countries.

Properly handling and storing nuclear or radioactive materials is dangerous and requires sophisticated knowledge and skill, but virtually no terrorist groups have attracted competent radiological technicians or nuclear engineers. Further, even if a group does manage to overcome the significant technical challenges to build what they believe to be a viable nuclear or radiological weapon, they will likely be unable to test the weapon to ensure they have the correct design or delivery mechanism—again, raising the possibility that their attack plan will fail. In a sense, terrorist groups are somewhat risk-averse: their fear of failure can be a constraining factor in their decision-making. This is an often overlooked facet of terrorism threat analysis, one that should give us optimism about the future when it comes to nuclear and radiological terrorism.

Overall, there are many kinds of technical challenges associated with radiological and nuclear weapons, and these challenges influence a terrorist group's decision-making about whether to invest resources in trying to develop (or acquire) and use them. A group may want to use a nuclear weapon, but since no terrorist group to date has demonstrated the capability to make a nuclear weapon, their only other option is to acquire or steal one from a state. But under what conditions would a state give or sell a nuclear weapon to a terrorist group? While some hardcore right-wing politicians in the U.S. would have us believe otherwise, Iran, North Korea and Pakistan are governed by people who think strategically, and there is no doubt they understand that it would never be in their country's self-interests to willingly allow a terrorist group to have one of their nuclear weapons. The consequences of doing so would be catastrophic—not just for the victims of the terrorist attack, but also for the country that provided such a weapon. Given the sophistication of modern forensic science, states and terrorists have to consider the issue of attribution: following an attack involving a nuclear weapon, it is virtually assured that the international community will be able to identify the origin of the fissile material and the associated weapon. Condemnation and punishing attacks in retribution are highly likely.

It is doubtful that the leaders of any country – or their military leaders (which are more likely to have direct control over their country's nuclear arsenal) – can be considered suicidal. So, it strains credulity to imagine any country's leaders believing it would be in their best interests to provide a weapon to a terrorist group. Alternatively, could a nuclear weapon be stolen and then detonated by a terrorist group? The only likely scenario would require a significant amount of insider assistance, not only to acquire the weapon but also to bypass the safeguards used on all nuclear weapons worldwide. Combined with the fact that all nuclear-armed countries are determined not to let terrorists acquire and use one of their nuclear weapons, the odds are stacked against this kind of scenario. The possibility of theft or illicit trafficking of nuclear material is far more likely, and historical records

show that there have been a number of incidents reported worldwide. As mentioned earlier, only a small number of countries have significant quantities of fissile materials. The facilities and materials in these countries are under strict safeguards and security regulations. There are enduring concerns about fissile material security in some countries due to political and economic instability, as well as inconsistency and lack of a global security standard. For example, numerous incidents of theft and illicit trafficking were reported between 1991 and 1999 in Russia and former Soviet Union states. The theft of nuclear material is partially related to security concerns associated with radiological sources, as discussed in more detail below.

In comparison to the threat of nuclear terrorism, a radiological terrorist attack is considered more likely. To begin with, there is a far more plentiful array of radiological sources used in medicine, research and industry worldwide. In the United States alone, radiological source materials are used by nearly 800 companies in over 1,400 facilities (Roth, 2014). A majority of these involve machines that use iridium-192 or cobalt-60, both considered "high risk" radiological source materials because they emit higher levels of radioactivity than most others. A U.S. government report released in June found that facilities using "high-risk industrial radiological sources" face challenges in (1) securing mobile and stationary sources (including radiography cameras used to test pipeline welds) and (2) protecting against an insider threat (GAO, 2014). An earlier report, released by the U.S. government in 2012, also identified weaknesses at U.S. medical facilities that use high-risk radiological sources, such as cesium-137 (GAO, 2012).

The most likely pathway to a terrorist attack involving a radiological weapon involves theft of a radiological source, and the most likely scenario in which such a theft could occur involves the assistance of someone employed at a facility where radiological sources are used. It is impossible to determine whether private sector facilities are less secure than government facilities, or vice versa. This is why rules that apply to workers at a government facility are the same for workers at private sector facilities. There are several types of scenarios in which a terrorist group could ensure the cooperation of an insider at a radiological source facility. There could be coercion (*e.g.* extortion, or holding a family member hostage), bribery, ideological indoctrination, or deception, among many others. The fundamental concerns associated with insider threat are relevant to both fissile and radiological material. Security at these facilities is obviously paramount to confronting the threat of radiological terrorism. There are also scenarios in which radiological source materials are seen as potentially vulnerable while in transit from one facility to another. The security concerns with fissile materials in transit are limited because the quantities and protocols are significantly different when compared to radiological sources.

And yet, similar to the nuclear weapons challenges identified earlier, the odds are stacked against the rare terrorist group that may have interest in acquiring these

radiological source materials for use in a weapon. If you were the leader of such a group, you would need a significant amount of information on the facility where you might want to steal a radiological source; expertise on the proper storage and handling of radiological sources; detailed information on the size, weight, format (is it a powder, metal, liquid?), and other attributes of the radiological sources at the facility; and of course, information on the security procedures at the facility that are meant to ensure access to the radiological source for only authorized personnel. Further, the terrorists would need one or more individuals willing to take enormous risks in attempting to steal and handle radiological source material, and yet intelligent enough to evade security and not draw attention to themselves. If the theft was successful, the group would need a safe means of transporting the stolen radiological source to another location, one where it could be stored and manipulated into some kind of weaponized form - without the authorities and their radioactivity detectors tracking the group's activities and disrupting the plot.

It is true that detailed instructions and schematics for constructing radiological weapons can be found on the Internet in multiple languages. A relatively intelligent, skilled person equipped with these instructions, the right tools, and other resources may actually be able to design and construct the basic components of a weapon. But where will they find a radioactive source in a powdered form (for example), which could be dispersed in either an intentional release in a building's HVAC system or in an exploding "dirty bomb"? Many radiological sources used in medicine are in the form of pills, and radiological sources used in industry are often in the form of metals. Without a radiological source in the right physical form – powder, liquid, pellets, etc. – and emitting the right levels of radioactivity, the weapon would be incomplete. For example, the 88 pounds of low-grade uranium stolen in July from a university in Iraq was not really a weapons-related threat. As noted earlier, low-grade uranium is not useful for a nuclear weapon. Further uranium has a very long half-life, and thus the radiation it emits is very weak and would have a negligible effect if used in a radiological weapon (Oswald, 2014).

Meanwhile, as the terrorist plot grows in complexity, it requires the involvement of more individuals, risking the operational security of the group. The more people who know of a terrorist plot, the more likely one of them could become an informant for the police or government authorities. In sum, a variety of technical, strategic, tactical and operational challenges underscore the point made earlier: the more complicated the plot and the weapon, the less likely the chance of success. These challenges, coupled with the ideological and strategic constraints noted earlier, help explain why the true nature of the radiological or nuclear threat is limited to very few terrorists worldwide. Understanding the constraints faced by terrorists in the realm of nuclear and radiological weapons, in turn, can help us craft more targeted and effective counterterrorism and counterproliferation measures.

Strategies for Countering the Threat of Nuclear and Radiological Terrorism

The goals of the international community in dealing with this challenge are relatively straightforward: (1) deny the terrorists access to nuclear and radiological material, and (2) convince the terrorists that the use of such a weapon would be counterproductive to their ideological and strategic objectives. The second goal involves various forms of deterrence described in a recent report by the U.S. National Defense University: an unambiguous capacity to impose unacceptable costs on WMD-armed adversaries, an ability to attribute WMD attacks, and an ability to counter a WMD attack (*e.g.* through missile defense and homeland security measures) (Caves and Carus, 2014). Terrorists can indeed be deterred—we simply have to understand what the terrorist group holds dear, what it values most, and then demonstrate a capacity to have a negative impact on that (Kroenig and Pavel, 2012; Shapiro, 2013).

Much is being done in the realm of countering extremist ideology that is meant to deter a terrorist group from exploring the potential of nuclear or radiological weapons. But as Graham Allison succinctly noted over a decade ago, the most crucial area of effort is in preventing access to nuclear and radiological materials (Allison, 2004). Prevention requires a multifaceted effort that includes: (1) establishing security standards for all materials and sources, (2) reducing inventories, (3) detecting illicit transport through a global detection architecture and (4) human resource management – continuous training and monitoring the emotional and psychological well-being of those who have access to nuclear and other radiological material. There are a variety of national, regional and global efforts underway to address these issues. Perhaps the most well-known and globally reaching institution is the IAEA, established in 1956 to accelerate and broaden the peaceful use of nuclear energy, and to ensure - through inspection and verification - that the signatory countries of the Nuclear Nonproliferation Treaty (NPT) uphold the safeguards arrangements. The IAEA Department of Safeguards oversees the implementation of safeguards throughout the world. The safeguards system establishes legally binding agreements between nations and the IAEA pursuant to the commitments made under international and regional nonproliferation agreements. At the time of this writing there is no single authority or a legally binding agreement that comprehensively addresses the security of nuclear and radiological materials.

The role of the IAEA in ensuring security of the nuclear material is limited. For example, the safeguards agreements only apply to civilian facilities, in order to detect potential diversion of material for weapons use by a member state. They are not designed to provide physical security measures for the safeguarded facilities. The agreements also allow nuclear-weapon states to designate certain facilities as eligible for IAEA safeguards while excluding other facilities. Finally, the authority and budgetary resources of the IAEA constrain its ability to serve as

the comprehensive nuclear security watchdog for nuclear and other radiological materials worldwide.

The IAEA and its member states have taken steps to support the effort that reduce the overall threat of nuclear and radiological terrorism. For example, the stockpiles of highly enriched uranium (HEU) and weapons-grade plutonium were initially the only materials considered by IAEA as materials of concern for nuclear weapon. In the early 1990s, Neptunium-237, Americium-241 and reactor-grade plutonium were also considered as materials that could be used for the fabrication of nuclear weapon. There has also been a growing recognition of the need to provide comprehensive security for industrial and medical radiological sources. The inventories of radiological sources are much more diverse in their composition and are found in a wide range of facilities around the world. Theoretically, some isotopes would be more useful than others for a radiological weapon. For example, Strontium-90, Iridium-192, Cesium-137 and Cobalt-60 are widely believed to pose a significant threat, due to their availability and their physical/chemical characteristics. These isotopes, along with many other potential candidate materials for radiological weapon, are used globally for research, medical applications, and industry. As a result, the protection, monitoring and reporting of illicit activities related to radiological sources has been a major challenge.

In 1995 the IAEA established an information system - the Illicit Trafficking Database (ITDB) - that archives incidents of illegal trafficking and unauthorized access of materials outside of regulatory control, as reported by participating countries.[1] As of December 2013, 125 countries participate in the ITDB program, collectively providing an authoritative source of information on the scope of the challenge worldwide - as IAEA Director General Yukiya Amano noted in 2013, "Over a hundred incidents of thefts and other unauthorized activities involving nuclear and radioactive material are reported to the [IAEA] every year" (Nuclear Threat Initiative, 2014: 6). Overall, the availability of materials, the lack of uniform border controls and detection architectures, and the diversity among the perpetrators engaged in these illicit activities illustrate the complexity of the problem.

The world's interest in nuclear energy has grown tremendously over the past decade. Nuclear power currently provides 16% of the world's electricity. There are 437 nuclear power plants installed in 31 countries, and an additional 68 are under construction in 15 countries, including Belarus, Indonesia, Jordan, Thailand and the United Arab Emirates. Approximately 60 countries have announced plans to adopt or increase the share of their nuclear power to meet their growing energy needs. Supporting expanded access to nuclear power must be balanced against the security concerns identified in this discussion.

In 2002, the IAEA Board of Governors approved a concerted Nuclear Security Plan along with a voluntary funding mechanism, the Nuclear Security Fund. Further

Nuclear Security Plans were approved in 2005 and 2009. More recently, the IAEA proposed and approved the Nuclear Security Plan 2014-2017. Through these efforts, the IAEA has identified a number of issues to address, cybersecurity, nuclear forensics and a need for a well-developed nuclear security culture and a comprehensive nuclear security system. Another international initiative is the 1980 Convention on the Physical Protection of Nuclear Material (CPPNM), which - along with its 2005 Amendment - is the only international legally binding agreement for the physical protection of nuclear material. The CPPNM is limited only to civilian nuclear material and does not include military or other non-civilian materials. These two broad categories of materials include nearly 85 percent of the global stocks of weapons-usable nuclear material that can be found in different forms at broad range of use and facilities.

Other international efforts to address nuclear and radiological security include the three Nuclear Security Summits - in Washington (2010), Seoul (2012) and The Hague (2014) - which brought heads of state from around the world together to address the dangers of nuclear and radiological materials proliferation. During these summits, world leaders committed to developing a global nuclear security architecture and reducing the stockpiles of nuclear and radiological materials. In addition to the removal of special nuclear materials and improved physical security at a number of facilities worldwide, the international efforts of the last half decade have also resulted in bilateral and multilateral agreements of cooperation on training and sharing of best practices.

Many nations have pursued their own bilateral and multilateral efforts to reduce global inventories of nuclear and radiological materials and to improve their security in response to terrorism concerns. During the 1990s and 2000s, Congress provided funding (via the Nunn-Lugar initiative) to help secure materials and facilities in former Soviet Union nations. Through its Global Threat Reduction Initiative, the U.S. has also led the effort to secure nuclear materials globally, set new security standards, and pursue partnerships with many countries to lock down sensitive materials. There are still concerns about certain facilities around the world that have less-than-adequate security of its nuclear materials, but the commitment to addressing these concerns has remained constant over the last several years.

There is also a significant need for nuclear security education and training. In addition to various programs offered by the IAEA, the organization also worked closely with experts and academics from member states to produce a guidance document for the development of educational programs in nuclear security. Finally, the IAEA hosts the International Nuclear Security Education Network, a partnership between IAEA, education and research institutions involved in nuclear security–related human resource development programs. In addition to IAEA efforts, non-profit organizations—like the world-renowned Nuclear Threat Initiative, the Institute for

Science and International Security, and the Center for Arms Control and Nonproliferation—have contributed to policy and public education, while a variety of academic institutions, like Harvard University's Belfer Center for Science and International Affairs and Stanford University's Center for International Security and Cooperation, have become influential sources for policy analysis and scholarship on nuclear and radiological security. At the University of Massachusetts Lowell (UML), two new initiatives - the Center for Terrorism and Security Studies (CTSS), and the Integrated Nuclear Security and Safeguards Laboratories (INSSL) - bring together subject matter experts with other global institutional partners for a variety of educational and training activities, including one-day workshops or week-long professional development courses on topics such as nuclear security culture, information security and cyber security, insider threats, international legal frameworks, radiation detection strategies and techniques, transportation security, nuclear and radiological forensics, and crime scene management. There is a need for both training that will fill knowledge gaps, and education—sustained programs that will establish a cohort of nuclear security experts as the demand for this expertise continues to grow globally.

As evident from this list of topics, nuclear security (and nuclear safeguards) is by nature a multidisciplinary field, requiring expertise in a variety of technical and social science disciplines. Practitioners in this field need to understand fundamental nuclear physics and engineering, material science, risk assessment, computational techniques, modeling and simulation, information technology, measurement techniques, and detector development. Those technical topics should be combined with social science topics such as political science, international relations, international law, energy policies, and regional studies. Faculty in UML's School of Criminology and Justice Studies are working closely with the faculty in the university's Nuclear Engineering program - whose radiation laboratories, nuclear research reactor, and strategic partnerships with Canberra Laboratories (the world leader in radiation detector development) - on development and delivery of education, training and research programs focused on nuclear security for the U.S. and international participants.

Specific research activities within INSSL include developing next generation radiation detectors that allow capabilities for field identification of radioisotopes, enhanced nuclear materials accountancy and surveillance techniques; equipping autonomous robots with detector systems that can communicate remotely and provide spectral information, GPS coordinates, and other information useful for efficient safeguards verification activities; and advanced computational tools for simulations of multiple scenarios for experimental validation. Together, these efforts at UML reflect the ways in which academic institutions are contributing to developing critical human resources for nuclear security, and by extension aiding in the global response to reduce the threat of nuclear and radiological terrorism.

Conclusion

From the global to the national to the institutional levels, there are many efforts and initiatives working in tandem to address the concerns of nuclear and radiological security. These efforts, in turn, are making it increasingly difficult for any terrorist group to believe they could successful conduct an attack using a nuclear or radiological weapon. Admittedly, the challenge is still a daunting one: according to a recent report by the Nuclear Threat Initiative, "there are nearly 2,000 metric tons of weapons-usable nuclear materials (highly enriched uranium, separated plutonium, and the plutonium content in mixed oxide fuel) stored at hundreds of sites around the world; some of those materials are poorly secured and are vulnerable to theft or sale on the black market" (Nuclear Threat Initiative, 2014). But as nations, international organizations, universities and other entities contribute to a comprehensive response to this threat, developing and sharing best practices in nuclear security and safeguards, optimism about the future is warranted.

Of course, security concerns involving nuclear or radiological weapons have become a part of our daily lives. The public sees daily representations of this threat in news reports of one kind or another, as well as in movies and television shows. However, these are sources of information in which drama is often emphasized at the expense of factual accuracy. As a result, the public discourse about the threat of nuclear or radiological terrorism is infused by a significant amount of misunderstanding and unfounded panic. Unfortunately, we see a similar pattern in the uninformed rhetoric of some political leaders as well. Yes, the threat of a nuclear or radiological terrorist attack is real, and if such an attack ever happens it would certainly have terrible consequences. However, while a sense of urgency is warranted, we must acknowledge all the limitations and caveats that are often overlooked in the public discourse. Importantly, most terrorists actually have not shown interest in these kinds of weapons. Further, it is highly unlikely that any nuclear-armed state would actually give or sell a nuclear weapon to a terrorist group. Radiological sources are more plentiful, and thus a radiological weapon is more likely than a nuclear one, but here too there are many limitations and parameters which constrain the threat.

The technical and operational challenges of making a nuclear or radiological weapon are extremely complex. Even if a terrorist group could overcome those difficulties, the central challenge remains of acquiring enough of highly constrained and regulated radiological or nuclear materials, and in the right form, for their weapon. In general, the global stockpile of nuclear materials is relatively small, and the worldwide locations and uses of those materials are accurately known, but this is not true for radiological materials. Efforts on the part of IAEA, countries, academe and the private sector will lead to new insights and more effective approaches to addressing these security issues. These efforts must include the

development of nuclear security human resource development programs that are globally accessible. As more countries seek to develop peaceful uses of nuclear and radioactive materials, it is essential that they adopt nuclear security and safeguards into their plans.

In the end, there is no easy solution to the threat of nuclear or radiological terrorism. But the cumulative effect of the efforts described here - among many others - make it increasingly difficult that any terrorist group will have access to the essential materials for a nuclear or radiological weapon. The global movement to improve security and safeguards will make it virtually impossible for a terrorist group to successfully cross the nuclear or radiological threshold.

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The Verification and National Implementation of International Instruments for Nuclear Non-Proliferation and Security

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Abstract

Collective international efforts to address and mitigate the risk of nuclear misuse have resulted in an expanding body of instruments that can be called the global nuclear regime. This article examines the role played by some of the major international instruments in the nuclear field particularly the Treaty on the Non-Proliferation of Nuclear Weapons and UN Security Council Resolution 1540 in addressing nuclear proliferation and security. In particular, it introduces and explains the concepts of verification and national implementation as important components of nuclear control regimes and addresses the role they play in ensuring that states are abiding by their international obligations. Specifically, the article examines some of the verification mechanisms and national implementation measures developed for these instruments, and discusses how they operate.

Resumo

A Verificação e a Implementação Nacional de Instrumentos Internacionais de Não-Proliferação Nuclear e *Security*

Os esforços conjuntos internacionais para lidar e mitigar o risco de má utilização nuclear resultaram numa expansão do número de instrumentos que são apelidados de regime nuclear global. Este artigo examina o papel assumido por alguns dos principais instrumentos internacionais na área nuclear, em particular o Tratado de Não-Proliferação Nuclear e a Resolução nº1540 do Conselho de Segurança das Nações Unidas na gestão da proliferação e segurança nuclear. Concretamente, introduz e explica os conceitos de verificação e implementação nacional como importantes componentes dos regimes de controlo nuclear e aborda o papel que estes têm para garantir que os Estados cumprem as suas obrigações internacionais. Examinam-se ainda alguns dos mecanismos de verificação e medidas de implementação nacional desenvolvidas por estes instrumentos e a forma como operam.

Introduction

Efforts to control the destructive potential of nuclear technology started shortly after the scientific and technical breakthroughs that highlighted the benefits but also risks associated with the use of nuclear energy. Collective international efforts to address and mitigate the risk of nuclear misuse have resulted in an expanding body of instruments that can be called the global nuclear regime. This constitutes a wide array of instruments including treaties, protocols, UN resolutions, formal and informal arrangements and codes of conduct that are both growing in number and sophistication. The ultimate purpose of these instruments is to impose some order on the risks associated with the use of nuclear energy. Two issues in particular gained prominence internationally: nuclear proliferation and nuclear security.

Horizontal nuclear proliferation refers to the spread of nuclear weapons to new countries resulting in an increase in the total number of states in possession of these weapons. This has been identified as an international problem very early on in the nuclear age and various international efforts have been directed at addressing it (Goldblat, 2002: 148). The Treaty on the Non-Proliferation of Nuclear Weapons (NPT), which entered into force in 1970, is widely considered as the most prominent international non-proliferation instrument.

However, it predominantly addresses states while, to a large extent, ignoring the role of non-state actors in nuclear proliferation. Public revelations of clandestine nuclear supply networks did much to focus the attention on the problem. In 2004, the Security Council therefore acted to plug this perceived gap. It adopted resolution 1540 which addresses the threat caused by the illegal access, trafficking and proliferation by non-states actors of nuclear, biological and chemical (NBC) weapons, as well as their means of delivery and related materials.

Nuclear security "focuses on the prevention of, detection of, and response to, criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities" (IAEA, 2013: para. 1.1).[1] Such malicious acts could involve attempts by a terrorist group to make a nuclear explosive device with nuclear material, or an improvised radiological dispersal device with a radioactive source, thereby contributing to the proliferation of such weapons. Other acts which nuclear security measures aim to combat, include theft, sabotage, illicit trafficking or illegal transfer of nuclear or other radioactive material. The adoption of UN Security Council Resolution 1540 (UNSCR 1540) can be considered as an important breakthrough moment in how the international community address the challenges of keeping nuclear materials and facilities

1 "Associated activities" are "the possession, production, processing, use, storage, handling, disposal or transport of nuclear material or other radioactive material" (IAEA, 2013: 11).

secure.[2] Other instruments addressing various aspects of nuclear security are also relevant for the objectives of the resolution.[3]

This article examines the role played by some of the major international instruments in the nuclear field particularly the NPT and UNSCR 1540 in addressing nuclear proliferation and security. In particular, it introduces and explains the concepts of verification and national implementation as important components of nuclear control regimes and addresses the role they play in ensuring that states are abiding by their international obligations. Specifically, the article examines some of the verification mechanisms and national implementation measures developed by these instruments, and discusses how they operate.

Verification of International Instruments

What is Verification and What Role Does it Play?

Verification can be defined in a general way as the establishment of truth or correctness by examination or demonstration. Mechanisms of verification have been developed in many fields and they are used in different varieties in auditing, academic peer-reviews, courts and many other activities where evidence collection is systematically pursued to reach an independent judgement about something that is presented as a fact.

2 It should be noted that UNSCR 1540 focuses on nuclear weapons which utilize nuclear material but does not explicitly address the proliferation of radiological dispersal devices which utilize radioactive material. Nuclear security, however, aims to prevent, detect and respond to acts directed not only at nuclear but also other radioactive material.

3 The 1980 Convention on the Physical Protection of Nuclear Material and the IAEA Code of Conduct on the Safety and Security of Radioactive Sources are explicitly mentioned in the preamble of UNSCR 1540. Other relevant instruments include the 2005 International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT), the 2010 Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation, the 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation as amended by the Protocol of 2005 to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation, and the 1988 Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf as amended by the Protocol of 2005 to the Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf. For a detailed presentation of the relevant instruments for nuclear security, see for instance IAEA (2011). "*The International Legal Framework for Nuclear Security*". *Nuclear Law Series No.4*. Vienna: IAEA; C. Stoiber (2010). *Nuclear Security: Legal Aspects of Physical Protection, Combating Illicit Trafficking and Nuclear Terrorism*. In Nuclear Energy Agency, ed. 2010. Author?? *International Nuclear Law: History, Evolution and Outlook, 10th Anniversary of the International School of Nuclear Law*. Paris: OECD Publications, pp. 219-242.

Verification has, over time, become a common practice in international affairs and developed into one of the main issues in the field of arms control and non-proliferation. Whether during negotiations, drafting or implementation, verification occupies a prominent place in all stages of arms control (Gallagher, 1997:138-140). The reason behind the growing salience of verification in arms control and non-proliferation is not hard to imagine.

The end of the Cold War resulted in a considerable expansion of bilateral and multilateral arrangements and agreements that addressed the vast stockpiles of weapons then deemed excessive in Post Cold War order (Nye, 1989: 51-55). However, because states consider armaments and military capabilities as central to their national security, having access to verification became increasingly important to ensure that no party is cheating and in the process gaining some military advantage over other abiding parties (Meyer, 1984: 111-24). While verification was practiced during the Cold War and may even have much older roots in earlier arms control practices, it was the fast expansion of arms control in the 90s and disappearance of Soviet objections to on-site inspections that opened the door wide open to significant expansion in international verification activities. (Dunn *et al*, 1990: 198)

A group of governmental experts convened by the UN defined arms control verification as the 'process in which data are collected, collated and analysed in order to make an informed judgment as to whether a party is complying with its obligations.' (UN, 1995: 15) For verification to be credible, it requires an impartial and objective assessment of available evidence through a rigorous process to reach a final judgement. Traditionally verification has been done either by common arrangements between parties to an agreement or delegated to an international organisation like the International Atomic Energy Agency (IAEA) or the Organisation for the Prohibition of Chemical Weapons (OPCW). In all cases, the underlying assumption is that whatever a country declares should not be taken at face value but should be subjected to examination.

In this context verification serves three main functions. It provides tools to detect non-compliance of states with their obligations (UNIDIR, 2003: 2-3). Effective verification regimes emphasise the importance of accurate and timely detection to limit any advantages that can be accrued from cheating. In addition to detection, verification also has a deterrence function. If cheating will be detected and announced, states might choose to hold to their obligations. In addition to the above, verification allows states to demonstrate their compliance in an open, official and systematic way which can build confidence in the value of cooperation between states.

Verifying Non-Proliferation: the Case of the Nuclear Non-Proliferation Treaty

The nuclear non-proliferation treaty is one of the most widely adhered to international treaties and for many years has become a central component of the international

nuclear order. The treaty entered into force in 1970 after a long process of negotiations in the previous decade and is widely acknowledged to rely on three pillars: nuclear non-proliferation, nuclear disarmament and peaceful nuclear cooperation (Dhanapala, 2010: 6)

To verify the non-proliferation obligations of the Treaty, Article III requires non-nuclear weapons states to apply nuclear safeguards. To that end, and over the years, a sophisticated system for verification has developed to address the non-proliferation obligations under the treaty.

The IAEA was entrusted as an independent international organisation to verify the non-proliferation under the NPT. The IAEA was established in 1957, long before the NPT entered into force, and already had a limited system of safeguards that was developed in the context of the rise of interest in nuclear technology and trade in the 50s (Fischer, 1997: 243). The NPT significantly expanded this system and introduced the concept of 'Comprehensive Safeguards'. They were called 'comprehensive' because of the break they made with earlier safeguards applied by the Agency and that were restricted to certain facilities, items or materials.

States under comprehensive safeguards undertake to establish an internal system to account for and control nuclear material and designate a national authority for this purpose. For the purpose of safeguards, such material includes enriched uranium, plutonium and uranium-233 all of which can be used as fissile materials for nuclear explosive devices (IAEA, 2007: 8). Internal accounting measures also cover natural and depleted uranium. Using the information collected by their internal systems of accountancy, states then provide the IAEA with periodic reports on their nuclear holdings and according to a defined schedule.

It is the task of the IAEA then to check the information provided in state declarations to look for discrepancies and inconsistencies. The IAEA also routinely sends inspectors, according to specified procedures, to examine nuclear material balances and that nuclear facilities are of the design declared and reported by the state and operate accordingly. State declarations and IAEA inspections form the core of nuclear non-proliferation verification activities.

Over the years, new instruments were added to the safeguards tool box to enhance the effectiveness and the efficiency of safeguards. In 1974, a protocol was conceived to reduce the verification burden for states with limited nuclear infrastructure which was amended in 2005 and called 'Small Quantities Protocol.' In 1997, the IAEA introduced the 'Additional Protocol' which provided the IAEA with additional legal authority to enhance its verification activities through increased reporting and enhanced access for agency inspections (Hirsch, 2004: 140).

A process of examination and evaluation of state reports and inspection outcomes follows and ends with the IAEA drawing conclusions on the state of nuclear activities in each country and depending on which safeguards instruments a state has in

place. Strong assurances are provided for states with both comprehensive safeguards agreement and an additional protocol in force. When no discrepancy or inconsistency is discovered by the IAEA, it reports that no nuclear material was diverted to military purposes and the absence of undeclared material. For countries with only a comprehensive safeguards agreement (CSA) in force, the agency provides more limited assurances that cover only non-diversion of declared materials (IAEA, 2011: 11).

IAEA safeguards are considered one of the most important international verification regimes in practice but it is one that is not without its challenges. The early nineties was a time when some shortcoming of the regime became clear. Despite IAEA safeguards, Iraq and North Korea's nuclear weapons programmes went largely undetected (Rockwood, 2002: 125-126). This was one of the reasons why the Agency developed enhanced verification tools including the Additional Protocol. Currently, differences about Iran's nuclear capabilities continue to highlight the sensitivity and challenges that face effective implementation of safeguards.

Furthermore, some of the safeguards tools remain underutilized due to political sensitivities or convenience. CSAs gives the IAEA the right to invoke 'special inspections' when there are grounds to suspect prohibited activities are taking place in undeclared locations. Over almost four decades, this tool has only been invoked twice (Acton *et al*, 2009)

Further development and evolution of safeguards seems to continuously bring into light the tension between the sovereignty of nation-states and the need for greater access and transparency that are needed for effective verification. Controversies surrounding how open source information can be used by IAEA in its verification activities and differences over introducing state level approaches to safeguards are clear examples of these tensions. Yet despite the challenges and differences, IAEA safeguards continue to play a major and important role in bringing up, addressing and managing compliance to the non-proliferation obligations under the NPT.

Monitoring Implementation of Nuclear Security Obligations: the Case of UNSCR 1540

Resolution 1540 was significant in many ways. The resolution's adoption under Chapter VII permits the Security Council to use its enforcement powers to give effect to its decisions in the resolution. Moreover, by requiring states to enact certain domestic legislation, the resolution has used the legislative rather than the more commonly-used executive function of the Council (Buffer *et al*, 2008: 71) However, how can states, the UN Security Council or the international community ensure that obligations brought about by the resolution are being carried out by all states?

In absence of a dedicated international body that can take up this task, resolution 1540 established a special committee called the 1540 Committee. Operative paragraph four of the resolution identifies as the main task of the Committee its duty to report to the Council on the state of implementation of the resolution. This provides for a mechanism to monitor the state of implementation of the resolution and provides the Council with the tools through which it can later determine compliance (Crail, 2006: 360). The Committee includes all members of the UN Security Council and is assisted in its work by the UN Secretariat and a group of international experts.

The Committee's initial mandate was for two years reflecting a predisposition for a short-term ad-hoc monitoring mechanism. However, through subsequent resolutions the mandate of the Committee was extended until 2021 and its role in supporting and assisting implementation became increasingly prominent.

The resolution asks all states to submit national reports to the Committee about their implementation of the resolution. To harmonise these reports, the Committee produced a set of reporting guidelines. National reports are later collected, collated and analysed by the Committee (UN, 2006: 8).

For its internal purposes the Committee produced a matrix which operationalises the various obligations under the resolution into distinct practical activities (Allen *et al*, 2007: 7) The Committee then uses information contained in national implementation reports in addition to publicly available information to identify what steps were taken by each country and where the gaps might still exist. (UN, 2006: 8) In some cases, the Committee would ask a state to clarify or update the information it provided in its national report making the process of data collection and assessment interactive.

General conclusions derived from these activities are later reported to the Security Council for consideration. The Committee submitted reports that addressed monitoring of implementation to the Security in 2006, 2008 and 2011. Since 2011 the Committee provides annual reports to the Council on the state of implementation of the resolution.

While the Committee plays an important role in monitoring implementation and providing assistance to states, some can argue that its role falls short of traditional verification as for example practiced by the IAEA and other organisations. The Committee assesses and reports on information it receives from states in their national reports but so far has nothing like the intrusive inspection mechanisms available for other regimes and which enable a thorough implementation assessment.

National Implementation of International Instruments[4]

What is National Implementation and Why is it Important?

National implementation follows a "self-evident" principle according to which "a state which has contracted valid international obligations is bound to make in its legislation such modifications as may be necessary to ensure the fulfilment of the obligations undertaken" (PCIJ, 1925: 20). It may consist in adopting more than a general constitutional clause making relevant international legal obligations directly applicable in national law: the instruments for non-proliferation and nuclear security require the adoption of detailed provisions and "are only enforceable at the national level if they are effectively implemented through laws and regulations" (Spence, 2012: 97).

While national implementation is an obligation, there are also considerable benefits to be gained from it. With appropriate legislation in place, in line with international requirements, states can investigate, prosecute and punish any offences involving nuclear and radiological weapons, as well as their related material. That may in itself serve as a deterrent against such acts. Also, with appropriate laws and regulations, states can exercise proper control over nuclear and other radioactive material and radioactive sources, including their production, storage, use, transport, import and export. By putting legislative measures in place, national security and public health and safety will thus be enhanced.

National Implementation of the Nuclear Non-Proliferation Treaty

The implementation of the NPT and related safeguards obligations encompass three main types of measures: *prohibitions*, *implementation of safeguards agreements* (in particular a system of accounting for and control of nuclear material) and *export and import controls.*

Articles I and II of the treaty prohibit a number of activities which states undertake not to commit. They could additionally decide to criminalize those activities in their national laws. For nuclear-weapon states, those include the transfer to any recipient of nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and assisting, encouraging, or inducing any non-nuclear-weapon state to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices. Non-nuclear-weapon states should prohibit the

4 Parts of this section are a condensed version of the following article: S. Drobysz (2014). "A New Legal Tool for States: the National Legislation Implementation Kit on Nuclear Security" in Mariano Manóvil (ed.), *Nuclear Law in Progress: Derecho Nuclear en Evolucion, XXI AIDN/INLA Congress – Buenos Aires 2014*. Buenos Aires: Legis Argentina, pp. 569-592.

receipt of nuclear weapons or other nuclear explosive devices as well as the receipt of control over such weapons or devices directly, or indirectly; the manufacture of nuclear weapons or other nuclear explosive devices; and the seeking or receipt of any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

The application of safeguards obligations, as provided for in Article III.1 of the NPT, comprehensive safeguards agreements and additional protocols, requires the adoption of a legislative and regulatory system "providing for oversight and management of nuclear material and activities" (IAEA, 2012: 9) and enabling the IAEA's verification activities. The national legal framework should clarify what safeguards apply to, by defining "nuclear material" in line with the CSA. Further, it should provide for the following elements: creation of a national authority responsible for the proper application of the safeguards agreement, a system to account for and control nuclear material, licensing requirements for the use, handling, transfer and other activities involving nuclear material, obligations of the licensees with respect to safeguards implementation such as the maintenance of records, performance of measurements of nuclear material, submission of reports. Additionally, arrangements for supporting and facilitating verification activities conducted by the IAEA should be provided for.[5]

Finally, Article III.2 of the treaty forbids states parties to provide to any non-nuclear-weapon state source or special fissionable material, or equipment or material especially designed or prepared for the processing, use or production of special fissionable material for peaceful purposes, unless the source or special fissionable material is subject to the safeguards. Comprehensive safeguards agreements and additional protocols also require states to report certain exports and imports. The national legal framework should therefore comprise specific export and import legislation, including appropriate lists of material, equipment and technology subject to export and import controls, as well as provisions for the licensing of exports and imports.

National Implementation of UNSCR 1540 and other Nuclear Security Instruments

The measures to be adopted by states under UNSCR 1540 and other nuclear security instruments can be presented under two main pillars: on the one hand,

5 On the national implementation measures for safeguards, see IAEA (2012). *Guidance for States Implementing Comprehensive Safeguards Agreements and Additional Protocols.* Service Series No. 21. Vienna: IAEA, p. 9; VERTIC (2013). *National Implementation Measures for the 1968 Nuclear Non-Proliferation Treaty (NPT).* VERTIC Fact Sheet 5; C. Stoiber *et al* (2003). *Handbook on Nuclear Law*. Vienna: IAEA; C. Stoiber *et al.* (2010). *Handbook on Nuclear Law, Implementing Legislation.* Vienna: IAEA, Chapter 12.

prohibitions and criminalization of acts related to the proliferation of nuclear weapons to non-state actors, the illicit trafficking of nuclear and other radioactive material and nuclear terrorism as well appropriate criminal proceedings for those offences, and on the other hand, measures for the *prevention* of the commission of such acts.

But first, key terms such as "non-state actors", "nuclear material", "radioactive material", "radioactive sources", "nuclear facility" should be defined in the national legal framework, as they determine the scope of application of the national implementation measures. The definitions must be in line with what the resolution and conventions provide for.

Penal measures should then be adopted too. Operative paragraph 2 of UNSCR 1540 requires all states, in accordance with their national procedures, to "adopt and enforce appropriate effective laws which prohibit any non-state actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear (…) weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them". Other international instruments for nuclear security additionally provide for specific offences and adequate penalties.[6] The national criminal procedure should enable the effective investigation and prosecution of the offences, and provide for specific international cooperation measures.

Another set of national implementation measures aims to prevent the commission of prohibited activities, under the terms of operative paragraph 3 of UNSCR 1540, that requires the establishment of *domestic controls* to prevent the proliferation of nuclear weapons and their means of delivery, including by establishing appropriate controls over related materials. Such domestic controls encompass measures similar to those adopted for the implementation of the NPT and safeguards agreements. They start with the national regulation of activities involving nuclear material, other radioactive material and radioactive sources. That includes the establishment of a competent authority responsible for the regulation of nuclear activities.[7] A licensing system to ensure that no person can carry out activities involving nuclear material, radioactive material or radioactive sources without a license should also be put in place, as well as measures for the verification of compliance with applicable requirements.[8]

6 See for instance the 1980 Convention on the Physical Protection of Nuclear Material and its Amendment (Articles 7(1)), and the International Convention for the Suppression of Acts of Nuclear Terrorism (Articles 2 and 5).

7 As required for instance in Article 2A (2)(b) of the amended CPPNM.

8 See in that sense Article 2A (3), *Fundamental Principle C* of the CPPNM/A; paragraphs 19 (c) and (h), 20(h), 22(i) of the Code of Conduct.

International instruments for nuclear security also require that measures be adopted to account for and protect nuclear (see UNSCR 1540, operative paragraph 3 (a) and (b)) and other radioactive material. Regarding nuclear material, Article 2A (1) of the amended Convention on the Physical Protection of Nuclear Material provides that each state party shall "establish, implement and maintain an appropriate physical protection regime applicable to nuclear material and nuclear facilities under its jurisdiction". Article 8 of the International Convention on the Suppression for Acts of Nuclear Terrorism contains a similar obligation regarding radioactive material, providing that "for purposes of preventing offences under this Convention, states parties shall make every effort to adopt appropriate measures to ensure the protection of radioactive material, taking into account relevant recommendations and functions of the International Atomic Energy Agency."

Finally, the export, import, transit, trans-shipment of nuclear and other radioactive material should be regulated, as required for instance by operative paragraph 3 (d) of UNSCR 1540 and Article 4 of the CPPNM.

Process and Challenges of National Implementation

A number of measures thus need to be adopted in the national legal framework to give full effect to the international instruments for nuclear non-proliferation and security. Doing so nevertheless requires significant efforts and can prove very challenging even for the most capable national governments.

The complexity of the international legal framework itself complicates the task. Contrary to other fields of international law, nuclear non-proliferation and security are not governed by one single convention but by multiple instruments. States will therefore have to put considerable effort into identifying relevant instruments and obligations and consolidating them. Moreover, the complex framework can generate "issues of consistent interpretation and effective implementation by national authorities and international organisations" (Stoiber, 2010: 240).

National circumstances must also be taken into account. There is not a "one size fits all" process to follow to adopt the wide range of national implementation measures discussed above. States may decide to adopt a single standalone and comprehensive nuclear law, multiple nuclear-related laws, or follow a diffused approach leaving implementation across various laws and regulations including penal codes, laws on export-import, laws on the transport of dangerous goods, laws on health, etc.

A "diffused" approach to national implementation, however, may add to the problem of harmonization, by increasing the risk of inconsistency, repetition and "confusing cross-referencing of provisions in different laws" (Stoiber, 2012: 12).

Additionally, as nuclear legislation concerns a number of different legal and technical areas, many actors are usually involved in the drafting process and they do not necessarily have the same level of understanding of the issues at stake; coordination of their participation can be difficult to organize (Stoiber, 2012: 13). Other obstacles to national implementation, identified by the IAEA with regard to the CPPNM Amendment, include the possible "deficiency in the legal and technical expertise and financial resources needed, particularly, for the full and effective implementation of the Amendment, such as legislative drafting" (Johnson, 2014: 552). The Agency also noted, "although many CPPNM States Parties support the Amendment in principle, a need to deal with other more pressing priorities was highlighted" (Johnson, 2014: 552). The same holds true for other instruments for non-proliferation and security.

Conclusion: Strengthening Verification and Implementation

International instruments play an important role in controlling sensitive and dual-use technologies to ensure that these technologies are only dedicated to peaceful uses. They create global frameworks through which common threats and risks can be mitigated and addressed. The NPT and UNSCR 1540, discussed in this article, are prominent examples of how these instruments have evolved into sophisticated and complex international regimes. They create legally binding commitments for the non-proliferation of nuclear weapons and the prevention, detection and response to criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities.

Yet, the ability of these instruments to achieve their full promise depends in large part on the development of effective verification and implementation measures that translate international norms and commitments into accountable actions. The development of effective and impartial international verification capabilities that are regularly updated to incorporate the latest in verification technologies is vital to ensure that cases of non-compliance are detected in a timely and accurate manner or even deterred before they occur. New notions of state sovereignty should accommodate increasing intrusiveness of international verification. It is also the responsibility of the international community to insist on high standards of verification that emphasize objectivity, professionalism and lack of political bias. More efforts also need to be directed to compliance-determining and enforcement mechanisms to ensure that verification conclusions are acted upon in a swift and unequivocal way to enhance the credibility of these international instruments.

Full and effective implementation of instruments for non-proliferation and nuclear security is a long-term task.[9] States face different challenges when implementing international obligations. Their efforts can be hampered by the complex and evolving nature of the international legal framework itself. The lack of adequate resources and the existence of other pressing national priorities may also be obstacles to effective implementation. Relevant international, regional and sub-regional organizations as well as non-governmental organizations have a crucial role to play in helping to address such obstacles. They provide assistance services but have also developed many tools, including model laws, to help implement international instruments related to nuclear non-proliferation and security[10], and their use should be encouraged. Building reliable international verification capabilities and addressing national implementation gaps are both essential components for any effective international framework for nuclear non-proliferation and security.

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9 This was highlighted by the 1540 Committee in its *Report of the Committee established pursuant to Security Council resolution 1540 (2004)*, UN Security Council document S/2011/579, para. 134. For a brief and recent overview of the status of implementation of UNSCR 1540, see Y. Balci (2014). "UNSCR 1540: The State of Implementation", Statement to Chatham House event on *UNSCR 1540 Ten Years On: Challenges and Opportunities*. London, United Kingdom, 5 November 2014. Available at http://www.vertic.org/media/assets/Presentations/UNSCR1540_Statement_5nov14.pdf.

10 See for instance VERTIC-Indonesia (2014). *National Legislation Implementation Kit on Nuclear Security*. Available at http://www.vertic.org/pages/homepage/programmes/national-implementation-measures/nuclear-and-other-radioactive-material/legislation-drafting-tools.php; VERTIC (2014). *Legislative Guide to National Implementation of UN Security Council Resolution 1540 (2004)*. Available at http://www.vertic.org/pages/homepage/programmes/national-implementation-measures/un-security-council-resolution-1540/legislation-drafting-tools.php; UNODC (2014). *Transport-related (civil aviation and maritime) Terrorism Offences, Counter-Terrorism Legal Training Curriculum*. New York: United Nations; UNODC (2009). *Model Legislative Provisions against Terrorism.* Available at http://www.unodc.org/unodc/fr/legal-tools/model-treaties-and-laws.html; C. Stoiber *et al.* (2010). *Handbook on Nuclear Law, Implementing Legislation.* Vienna: IAEA.

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Extra Dossiê

A Segurança Internacional nos Estudos de Estratégia e na Teoria da Securitização: Uma Abordagem Comparativa Ilustrada pelo Caso da Crise Nuclear Iraniana

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Resumo

Este artigo propõe uma análise comparativa entre as conceções de segurança dentro dos estudos estratégicos e da teoria da securitização, ilustrada pelo caso da crise nuclear iraniana. Ao confrontar essas diferentes abordagens à segurança, o artigo tem quatro objetivos: em primeiro lugar, examinar de que modo cada abordagem enxerga os problemas de segurança; em segundo lugar, analisar como elas funcionam como ferramenta de análise; em terceiro lugar, identificar as suas afinidades e diferenças; e finalmente, verificar até que ponto é possível algum diálogo entre elas.

Abstract

International Security in Strategic Studies and Securitization Theory: A Comparative Analysis Based on the Iranian Nuclear Crise

This article proposes a comparative analysis between security conceptions within strategic studies and securitization theory, illustrated by the case of the Iranian nuclear crisis. By confronting these two different approaches, the article has four objectives: examine how both perspectives conceive security problems; analyse how they function as analytical tools; identify their affinities and differences; and verify to what extent it is possible some dialogue between them.

Introdução

A Estratégia, tal como sintetiza a emblemática formulação de Clausewitz – "a guerra é a continuação da política por outros meios" (1976: 177) –, tem o seu foco conceptual centrado na relação entre guerra e política. Essa relação é obviamente complexa e uma discussão sobre a melhor forma de a definir pode suscitar longos e polémicos debates que fogem aos propósitos deste artigo. Para os efeitos da análise aqui proposta, importa compreender a Estratégia como o processo que "converte poder militar em efeitos políticos" (Kane e Lonsdale, 2012: 2). Nesse sentido, a sua articulação enquanto área de estudos vai além das fronteiras das ciências militares e penetra o campo disciplinar das ciências políticas, em particular o das Relações Internacionais e do seu subcampo dedicado aos estudos de segurança internacional.

É, pois, sob a ótica das Relações Internacionais que este artigo focaliza a Estratégia, partindo da sua tradicional afinidade com a abordagem dominante na disciplina – o realismo – para confrontá-la, num segundo momento, com uma das perspetivas críticas mais influentes no âmbito dos estudos de segurança no pós-Guerra Fria: a Teoria da Securitização. A Estratégia e a Teoria da Securitização concebem a segurança a partir de duas perspetivas bem distintas: se para os estudos estratégicos a segurança define-se em termos de capacidades militares e defesa do Estado (e, nesse sentido, a segurança é algo objetivo a ser alcançado através da mobilização de recursos humanos e materiais e do desenvolvimento de ações e mecanismos capazes de gerir ou eliminar as fontes objetivas de insegurança do Estado), para a teoria da securitização, de outro lado, a segurança é uma construção social e define-se de forma intersubjetiva através do discurso político. Dessa segunda perspetiva, nenhuma questão é dotada de uma 'essência' ameaçadora que lhe permita, objetivamente, ser considerada um problema de segurança; em vez disso, as fontes de insegurança ou ameaças são socialmente construídas através de um tipo particular de discurso que, em última instância, tenta reproduzir a lógica da guerra. Do ponto de vista da securitização, portanto, um problema de segurança só nasce a partir do momento em que é articulado através do discurso das elites (políticas, militares, culturais, científicas, económicas, etc.) como uma grave ameaça à sobrevivência de um determinado objeto (por exemplo o Estado, a soberania nacional, a democracia, a economia, o meio ambiente, as fontes de energia) contra a qual medidas extremas são justificáveis (em geral o uso da força). Pode-se dizer, desse ponto de vista, que o termo 'segurança' funciona como uma espécie de 'rótulo' do discurso político que, ao ser aplicado a qualquer tópico (incluindo aqueles não relacionados às tradicionais questões militares), produz efeitos práticos na sua gestão: cria uma situação de emergência e submete a questão a um grau de prioridade tão elevado que a sociedade passa a aceitar o seu tratamento através de medidas de exceção. É esse processo discursivo e socialmente compartilhado de construção de ameaças e de justificação de medidas extremas na sua gestão que se chama securitização (Wæver, 1995; Buzan *et al*., 1998).

Ao confrontar essas duas diferentes abordagens à segurança, este artigo tem três objetivos: em primeiro lugar, examinar de que forma cada uma delas enxerga os problemas de segurança; em segundo lugar, compreender como elas funcionam como instrumento de análise; em terceiro lugar, verificar as suas afinidades e diferenças. Buscando atingir esses objetivos, o artigo segue estruturado em quatro secções. A primeira faz uma síntese sobre a forma como os estudos de Estratégia e o realismo são associados para constituir a abordagem à segurança dominante nas Relações Internacionais. A segunda secção discute a 'viragem construtivista' em curso nos estudos de segurança desde o fim da Guerra Fria, destacando a emergência da teoria da securitização da Escola de Copenhaga. A terceira secção ilustra essas abordagens (a estratégico-realista e a securitização) com base em duas análises distintas sobre o caso da crise nuclear iraniana. Uma secção conclusiva faz uma síntese comparativa das duas abordagens aqui discutidas e procura responder até que ponto é possível um diálogo entre elas.

A Convergência entre Realismo e Estratégia nas Relações Internacionais

O realismo nas Relações Internacionais e o pensamento estratégico compartilham algumas referências clássicas – Tucídides e Maquiavel por exemplo – de onde absorvem noções basilares como as de sobrevivência, poder e interesse nacional. Reforçadas pela conceção trágica da natureza humana e pelas noções de poder e anarquia herdadas de Hobbes, essas ideias fornecem a base sobre a qual Morgenthau – uma das referências seminais do pensamento realista nas Relações Internacionais – constrói a sua representação fotográfica sobre a essência da política entre as nações: a "luta pelo poder" (Morgenthau, [1948] 1993: 5 e 10). Nessa fotografia – onde cada Estado aparece como unidade de referência autónoma dentro de um conjunto anárquico de múltiplos Estados com interesses potencialmente antagónicos – a luta pelo poder segue uma dinâmica de confrontação e competição que os realistas chamam de balança de poder. Em sua versão mais básica, essa dinâmica assume o seguinte padrão: de um lado, um Estado 'A' com uma política imperialista em relação a um Estado 'B' tenta aumentar o seu poder numa extensão tal que lhe permita controlar as decisões de 'B' e, com isso, levar a cabo a sua política de dominação; de outro lado, o Estado 'B' tenta igualmente aumentar o seu poder numa proporção tal que lhe permita resistir às pressões de 'A' e, com isso, frustrar as intenções imperialistas do seu antagonista. Essa dinâmica de poderes entre os Estados segue uma espiral crescente com dois resultados possíveis: a manutenção da estabilidade, ainda que contingente e sujeita a constantes reavaliações, ou a guerra (Morgenthau, [1948] 1993: 189).

Essa permanente luta pelo poder e os conceitos que daí surgem para explicar a guerra ou o tipo de estabilidade possível entre Estados submetidos à inevitável condição de anarquia – balança de poder, dilema de segurança, alianças, dissuasão, bipolaridade,

estabilidade hegemónica, etc. – são temas que dominam a teoria e a prática das Relações Internacionais após a Segunda Guerra Mundial, unindo um grupo influente de autores que se propõe pensar a política internacional 'tal como ela é'. Em que pesem as particularidades e subtilezas que os distinguem – especialmente as que separam os realistas clássicos (Morgenthau, Aron, Neibuhr, Kennan, Kissinger, Herz, Wight e outros) dos neorrealistas (principalmente Waltz) – as suas reflexões são geralmente fiéis ao mesmo núcleo: os Estados, seus interesses definidos em termos de poder e, dadas as implicações da anarquia, a sua permanente insegurança. Do ponto de vista realista, portanto, são as implicações da luta pelo poder e a busca de segurança pelos Estados que dão à política internacional, bem como ao seu campo específico de estudos, uma identidade própria (Terriff *et al.*, 1999: 38).

Essa visão de que o 'Estado é o lobo do Estado'[1] e a espiral de insegurança que daí emerge perante a possibilidade de que o mais fraco tenha a sua sobrevivência ameaçada pelo mais forte fazem com que a concentração de poder, medida em termos de capacidades militares, assuma um papel central na agenda realista. Perante a inexistência de uma autoridade global, cabe aos Estados cuidarem de si próprios, o que em termos realistas significa: "estejam sempre preparados para a guerra" (Fierke, 2005: 3). Sob esse aspeto, o realismo e o pensamento estratégico tornam-se particularmente próximos. Ainda que essa convergência não se prenda necessariamente à dimensão militar – na medida em que o poder de um estado também se expressa em termos de recursos naturais e tecnológicos, população, geografia, formas de governo, lideranças políticas, ideologias e outros aspetos não militares – o facto é que na fotografia realista do mundo a guerra é determinante e, em última análise, é a ameaça real ou potencial do uso da força que define as relações entre os Estados dentro de um sistema anárquico (Terrif, 1999: 63-64). Dessa perspetiva, mesmo quando os realistas – e também os estrategistas – privilegiam os fatores económicos, políticos ou ideológicos nas suas análises, em última instância é no potencial de conversão desses fatores em instrumentos de força pelos Estados que eles estão a pensar.

A convergência entre o realismo e o pensamento estratégico, porém, não resulta apenas das suas afinidades conceptuais e a história dessa aproximação mostra um quadro fortemente condicionado pelas dinâmicas políticas próprias da Guerra Fria, pelo imperativo tecnológico nuclear, pelo debate metodológico nas Relações Internacionais e pela institucionalização da Estratégia como agenda de investigação legítima no estudo da segurança internacional. Desse ponto de vista mais sociológico do que meramente conceptual, Buzan e Hene (2009: 66-100) traçam um panorama abrangente da convergência realismo-estratégia, começando por destacar que a Estratégia, enquanto área de interesse no domínio das Relações Internacionais, só se cristaliza no

1 Parafraseando aqui a clássica frase utilizada por Hobbes para definir o estado de natureza do homem sob a condição de anarquia: "o homem é o lobo do homem".

decorrer da Guerra Fria. Segundo os autores, esse movimento de cristalização emerge nos EUA, e em menor extensão na Europa, através da interação entre especialistas em assuntos militares e académicos das ciências sociais com o objetivo de formular políticas voltadas para os problemas resultantes das armas nucleares e dos desafios colocados ao Ocidente pela União Soviética. Essa interação, claramente encorajada pelo governo americano através de financiamentos destinados aos estudos académicos na área da Estratégia, abre espaço para a *expertise* civil dentro de um universo tradicionalmente centrado na experiência militar. Para além desse aspeto, algumas dinâmicas internas do próprio debate académico contribuem para essa convergência: nos anos seguintes ao fim da Segunda Guerra, o realismo coloca no núcleo dos seus esforços o compromisso de fazer das Relações Internacionais uma ciência (Fierke, 2005: 6); na mesma época, os estudos estratégicos já estão na vanguarda nessa direção, demonstrando uma familiaridade com os métodos científicos (positivismo, quantificação e teoria dos jogos) que, em certa medida, indica aos realistas o caminho a seguir (Buzan e Hene, 2009: 89). Essa afinidade caminha para a sua 'idade de ouro' entre os anos 1955 e 1965, na medida em que os estrategistas se legitimam e se institucionalizam através do estabelecimento de cursos e centros de estudos estratégicos dentro das universidades, do florescimento de publicações científicas e da construção de agendas de investigação, obtenção de financiamentos e divulgação dos seus resultados enquanto investigadores reconhecidos como especialistas em 'segurança' no domínio disciplinar das Relações Internacionais (Buzan e Hene, 2009: 91-98).

A consequência dessa convergência, segundo Buzan e Hene, é que o debate nas Relações Internacionais durante a Guerra Fria "torna-se praticamente todo devotado aos estudos das armas nucleares e da rivalidade bipolar" e a conceção de segurança compartilhada pelos realistas e estrategistas torna-se de tal forma institucionalizada que a maior parte da bibliografia produzida na época "sente-se desobrigada da necessidade de discutir o conceito de segurança" (Buzan e Hene, 2009: 67). Embora os Estudos para a Paz (*Peace Studies* ou *Peace Research*) tenham tentado desafiar esse paradigma de segurança ao assumir uma preferência normativa pela paz[2], o que se pode observar dentro de um grande quadro, tal como notam Buzan e Hene, é que os estudos estratégicos e grande parte da agenda de investigação dos

2 Os Estudos para a Paz observam que o conceito de paz sempre foi de menor importância dentro dos estudos estratégicos. Ainda que a paz possa ser considerada o objetivo último da Estratégia, ela nunca foi desenvolvida como um conceito central e independente; ao contrário, a paz sempre foi entendida num sentido subordinado como sendo uma consequência da ausência da guerra, como uma condição da vitória ou como uma situação contingente e precária resultante da balança de poder. Num sentido alternativo, os Estudos para a Paz propõem uma teorização da paz em si mesma, valorizando-a por seus próprios méritos e defendendo uma mudança de foco para o conceito de paz em vez do tradicional foco na segurança. Para uma síntese dos Estudos para a Paz durante o período da Guerra Fria ver Terriff *et al*. (1999: 65-81); Buzan e Hene (2009: 101-155).

estudos para a paz, nomeadamente aquela dedicada ao conceito de paz negativa e ao controlo de armas, constituem no período da Guerra Fria uma só conversação: apesar das discordâncias e dos antagonismos declarados quanto às prioridades, posições políticas e formas de definir os problemas, estrategistas e investigadores para a paz respondem, grosso modo, ao mesmo tipo de problema – como alcançar a segurança no contexto da confrontação nuclear bipolar – e, nessa direção, sobrepõem-se muitas vezes, seguem balizas similares, buscam um padrão de institucionalização paralelo e compartilham praticamente a mesma pretensão de cientificidade (Buzan e Hene, 2009: 153-154). Do ponto de vista dos estudos de segurança, portanto, a Guerra Fria é um período relevante não apenas como um momento histórico particular, mas principalmente como o contexto que permite cristalizar uma conceção dominante de segurança internacional, forjada na interseção entre o realismo e a Estratégia, que só será radicalmente desafiada a partir dos últimos anos da década de 1980.

A 'Viragem Construtivista' nos Estudos de Segurança no Pós-Guerra Fria e a Teoria da Securitização

Ainda nos últimos anos da Guerra Fria, muitas das assunções do paradigma estratégico-realista da segurança começam a ser desafiadas. Conforme sintetiza Fierke (2005: 13), após décadas de inimizade, as duas superpotências passam a atuar como amigas, mostrando que as identidades dos Estados não são fixas; ao mesmo tempo, as duas potências iniciam processos de desarmamento, derrubando assim a assunção realista de que, num sistema anárquico, armar-se é sempre a opção mais racional do Estado; além disso, as abordagens estratégico-realistas não conseguem antever o fim da Guerra Fria, nem explicar o seu desfecho pacífico, apesar de todo o aparato explanatório neopositivista desenvolvido para produzir generalizações e previsões. Com os seus modelos e teorias sendo questionados, muitas das 'verdades' fixas e universais deduzidas pela comunidade estratégico-realista a partir da confrontação militar este-oeste evaporam, dando origem a um período de desorientação onde "a função, o prestígio e o financiamento de todo o edifício dos estudos estratégicos" passam a ser colocados em questão (Buzan *et al.*, 1998: 3).

Neste contexto, começa a abrir-se um espaço para uma abordagem constitutiva da guerra e das mudanças na relação entre os Estados. Isto significa que, ao contrário da epistemologia causal que está na base do paradigma estratégico-realista, as abordagens constitutivas assumem a impossibilidade de conhecer a política internacional na sua materialidade através da identificação de relações de causa e efeito objetivamente observáveis, capazes de levar a regularidades, generalizações e previsões sobre a segurança internacional. Conforme explica Fierke (2005: 7), é óbvio que o mundo material existe fora da mente do sujeito, mas o seu conhecimento não pode ser alcançado nesse estado de pureza. Por outros termos, o mundo e o sentido

que ele assume são sempre constituídos dentro do processo de interação entre os sujeitos do conhecimento e entre esses sujeitos e os objetos do mundo. É esse tipo de relação constitutiva que está na base do construtivismo social. Desse modo, em vez de buscar uma abordagem cientificista baseada em relações causais e generalizações objetivamente identificadas na estrutura internacional para explicar a relação entre guerra e política (tal como prevalece no paradigma estratégico-realista), as abordagens

constitutivas começam a valorizar a construção de identidades (amigo/inimigo, interno/externo, nacional/internacional) e a investigar como essas identidades se constituem mutuamente através das interações entre os agentes (não apenas os Estados, mas também os atores não estatais e os subnacionais) e as estruturas da política internacional (Fierke, 2005: 13).

Partindo de uma variedade de teorias sociais – teoria crítica, pós-modernismo, pós-estruturalismo, feminismo, etc. – as abordagens constitutivas começam a ver a política internacional como uma 'construção social', ou seja, passam a aceitar os princípios construtivistas de que "as estruturas da associação humana são determinadas primariamente por ideias compartilhadas em vez de forças materiais" e que "as identidades e os interesses dos atores são construídos por essas ideias compartilhadas em vez de serem dadas pela natureza" (Wendt, 1999: 1). É com base nessa posição que Wendt desafia uma das assunções centrais do realismo ao afirmar que a "anarquia é o que os Estados fazem dela" (1999: 313), não existindo nada que se pareça com "uma lógica da anarquia *per se*" (Wendt, 1999: 308). Com essa afirmação, o autor quer dizer que a anarquia não obedece a nenhuma lógica pré-fixada, mas pode gerar diferentes lógicas, mais competitivas ou mais cooperativas, dependendo das escolhas específicas dos Estados. Por outras palavras, os atores da política internacional não possuem uma natureza ou uma identidade fixa; ao contrário, eles relacionam-se de modos diferentes, moldando as suas ações em função da maneira como constroem um sentido de amizade ou de inimizade nas suas interações. Desse ângulo, a lógica anárquica do sistema internacional, a eterna desconfiança entre os Estados, a espiral de insegurança que daí emerge e a inevitabilidade da guerra não mais podem ser vistas como um modelo fixo ou uma reprodução objetiva das relações entre os Estados. Se essas relações são socialmente construídas, as tentativas de buscar uma 'essência' ou uma fotografia fiel e perene da estrutura internacional – e, com base nessa fotografia, explicar as causas da guerra, a relação entre guerra e política e as dinâmicas da segurança internacional – não mais conseguem ser sustentadas.

Essa 'viragem construtivista' no estudo da política internacional tem impactos relevantes no debate sobre a segurança no pós-Guerra Fria, contribuindo para abrir o leque de abordagens para inúmeras correntes que, invariavelmente, passam a defender os seus pontos de vistas particulares como alternativas ao paradigma

estratégico-realista dominante nas Relações Internacionais (Baldwin, 1995; Booth, 1991; Buzan, 1991; Buzan *et al*, 1998; Campbell, 1992; Huysmans, 1998; Kaldor, 2000; Lipschutz, 1995; Tickner, 1995; Wæver, 1995; Williams, 1998; Wyn Jones, 1999). Embora esse movimento de revisão do conceito de segurança não seja convergente – ao contrário, as abordagens são influenciadas por uma diversidade de perspetivas críticas que variam de um polo 'moderno' mais conservador até um polo 'pós-moderno' mais radical – pode-se afirmar que alguns elementos são transversais ou compartilhados em certa medida pelos autores: em primeiro lugar, as questões de identidade e cultura são vistas como aspetos chave na compreensão da relação entre segurança e política; em segundo lugar, teorias sociais e teorias da linguagem são mobilizadas para produzir uma crítica radical ao caráter militarista e cientificista do paradigma estratégico-realista (Burgess, 2010: 2).

Nesse contexto, um debate conhecido no âmbito dos estudos de segurança internacional pela expressão 'alargamento *versus* estreitamento' ou 'tradicionalismo *versus* não-tradicionalismo'[3] ganha corpo no final dos anos 1980 e, principalmente, na primeira metade dos anos 1990. Nesse debate, a posição estratégico-realista da segurança – centrada no foco militarista e nuclear da Guerra Fria – passa a ser desafiada por diversos autores que defendem o alargamento do conceito de segurança para além dos estreitos limites da posição tradicionalista, a fim de contemplar as crescentes preocupações com as questões de identidade, da criminalidade transnacional e das agendas económicas e ambientais da segurança (Buzan *et al*, 1998: 2). Esse debate politiza o conceito de segurança (Snyder, 1999: 7), expandindo o seu foco para uma multiplicidade de possíveis sentidos. No polo expansionista, os analistas consideram que as ameaças militares têm a sua relevância diminuída no pós-Guerra Fria e que o conceito de segurança deve ser alargado para incluir uma série de aspetos não tradicionais – como criminalidade, terrorismo, epidemias, pobreza, desastres naturais, migrações, etc. – que, segundo eles, se tornam cada vez mais importantes e ameaçadores do ponto de vista global do que os clássicos problemas da segurança militar. No polo tradicionalista, de outro lado, um dos argumentos centrais em defesa da manutenção do foco da segurança no seu objeto clássico – o fenómeno da guerra – é o risco de que a expansão excessiva do conceito leve à "destruição da coerência intelectual" dos estudos de segurança como um todo e à perda da capacidade de formular políticas voltadas para a solução dos importantes problemas associados ao estudo das ameaças e ao uso e controlo da força militar (Walt, 1991: 212-213).

Procurando levar em consideração esse alerta tradicionalista, mas assumindo, ao mesmo tempo, uma posição não-tradicionalista, expansionista e construtivista da

3 Designadas em inglês pelos termos '*wide* versus *narrow*', '*broadening* versus *narrowing*' ou '*tradicionalism versus non-tradicionalism*'.

segurança, um grupo de autores vinculados ao Instituto de Estudos para a Paz da Universidade de Copenhaga propõe, em meados dos anos 1990, uma reconceptualização da segurança, designada pelo termo securitização. Essa reformulação contribui para o debate expansionista ao ampliar o campo da segurança para além do tradicional setor militar, identificando pelo menos mais quatro setores onde os problemas de segurança podem ser construídos: ambiental, económico, político e societal (Buzan *et al*., 1998). Ao mesmo tempo, porém, essa reconceptualização coloca um limite nessa expansão ao conservar, no núcleo teórico da securitização, a forma tradicional da segurança, ou seja, a lógica formal da guerra.

Inicialmente proposto por Wæver (1995) e subsequentemente incorporado ao trabalho coletivo da chamada Escola de Copenhaga (Buzan *et al.*, 1998), o conceito de securitização busca responder a seguinte questão de partida: o que faz de alguma coisa um problema de segurança? (Wæver, 1995: 54; Buzan *et al*., 1998: 21). Segundo a Escola de Copenhaga, as abordagens objetivas voltadas para o estudo das ameaças concretamente observáveis no mundo real (como é o caso do polo tradicionalista) e as abordagens subjetivas dedicadas ao estudo das ameaças tal como são percebidas na mente dos atores (dando ao conceito de segurança infinitos sentidos) não respondem satisfatoriamente a essa questão, pois não captam as interações intersubjetivas que são próprias do processo de construção social da segurança, processo esse que é discursivo e pertence exclusivamente ao domínio da política (Buzan *et al*., 1998: 30-1). Desse ponto de vista, "a qualidade da segurança não pertence à ameaça, mas à gestão da ameaça" (Wæver, 2011, 472), o que significa dizer que o problema de segurança é socialmente construído a partir do momento em que uma ameaça é articulada dentro do discurso político como um perigo iminente contra o qual medidas excecionais são necessárias. É nesse sentido, portanto, que a segurança não pode ser considerada uma qualidade essencial da ameaça, mas sim de um tipo particular de gestão de problemas, baseado na evocação de uma situação de emergência e na justificação de respostas extremas, normalmente associadas ao uso da força e à quebra dos procedimentos políticos normais, reproduzindo de certa forma a lógica extrema da guerra (Buzan *et al*., 1998: 23-26).

O processo de construção desse sentido de excecionalidade e urgência é articulado do ponto de vista teórico partindo da ideia de que a securitização é um ato de fala (*speech act*), o que implica dizer que o ato de proferir alguma coisa segundo os jogos de linguagem próprios da segurança, em si mesmo, é o que torna essa coisa um problema de segurança. Empregando a terminologia própria da Escola de Copenhaga, esse processo intersubjetivo de construção da segurança pode ser assim sintetizado: ao declarar que um referido objeto (Estado, soberania, meio ambiente, energia, alimentos, paz, etc.) está diante de uma ameaça extrema (Estado inimigo, terroristas, piratas, traficantes de droga, imigrantes, epidemias, etc.), um ator securitizador (elites governamentais, militares, culturais, científicas,

económicas, etc.) passa a reclamar o direito de adotar medidas de emergência (em geral a coerção ou o uso da força), a fim de garantir a sobrevivência do objeto em questão. Essa declaração, porém, não é suficiente para configurar a securitização; ela indica apenas um movimento que precisa ser percebido e aceite como legítimo por uma audiência relevante. Essa audiência não se confunde, necessariamente, com a opinião pública geral e, dependendo do objeto de referência, a aceitação de um público restrito, relacionado ao objeto ameaçado, é suficiente para que a securitização seja concretizada. Em suma, afirmar que a segurança é um processo intersubjetivo quer dizer que ela se define através da interação entre sujeitos, ou seja, através de atos discursivos negociados entre o ator de securitização e a audiência (Buzan *et al*., 1998: 26).

Desse ponto de vista, a segurança é o produto de uma prática autorreferencial: é dentro do discurso político que um problema de segurança é construído e não necessariamente porque existe uma ameaça concreta, material, observável e mensurável no mundo real (Buzan *et al*., 1998: 24). Isso não significa que os aspetos externos ao discurso sejam irrelevantes. Ao contrário, tais aspetos exercem uma função importante na medida em que influenciam a aceitação ou a rejeição do movimento de securitização pela audiência. Por exemplo, os atos de fala sustentados por um elevado capital social do ator securitizador (traduzido por sua posição de autoridade e poder, como é o caso dos governantes, líderes militares, elites culturais, científicas e económicas, etc.) ou relacionados a condições historicamente associadas à noção de ameaça (como tanques estrangeiros nas fronteiras, catástrofes naturais, etc.) são mais fáceis de serem aceites pela audiência do que os atos de fala desvinculados de qualquer referência objetiva ameaçadora ou pronunciados por agentes desautorizados ou desprovidos de qualquer *status* de poder (Wæver, 2003: 15). Isto não quer dizer, porém, que estas condições objetivas desafiem o caráter intersubjetivo da teoria da securitização. Segundo a Escola de Copenhaga, tais condições, em si, não são suficientes para configurar uma securitização e devem ser encaradas como condições que facilitam os atos de fala, ou seja, como condições sob as quais os discursos de segurança funcionam com maior ou menor eficiência (Buzan *et al*., 1998: 32).

Embora a securitização se tenha tornado numa das abordagens mais influentes no âmbito dos estudos de segurança na última década, a Escola de Copenhaga não tem sido imune a uma série de críticas dentro do próprio polo expansionista, particularmente de autores que defendem "um alargamento mais radical" do conceito de segurança (Buzan e Hansen, 2009: 215). De facto, a Escola de Copenhaga adota uma posição cautelosa em relação à expansão indefinida do conceito de segurança. Segundo Wæver, o rótulo 'segurança' é indicador de um campo específico de práticas e não deve ser confundido com o senso comum do termo: "historicamente, a segurança é o campo onde Estados se ameaçam uns aos outros, desafiam a soberania

do outro, tentam impor a sua vontade sobre o outro, defendem a sua independência" (Wæver, 1995: 50). Deste modo, mesmo reconhecendo que o campo da segurança não é estático e que a "forte identificação militar dos velhos tempos" já não é mais a mesma, Wæver observa que a tradicional "imagem dos 'desafios à soberania' e a noção de defesa" (Wæver, 1995: 50) continuam a determinar a forma como as elites políticas evocam o termo segurança para designar problemas que, mesmo não sendo militares, ainda assim são vistos como uma ameaça à sobrevivência da ordem política em vigor (Wæver, 1995: 52-3). Segundo Wæver, portanto, manter o debate sobre a segurança ancorado na sua problemática tradicional é uma questão de coerência. É essa âncora que permite "repensar e reconstruir o conceito de segurança" sem cair numa discussão sem sentido e estranha aos "jogos de linguagem" que são peculiares ao campo da segurança como um todo (Wæver, 1995: 50-1). Com base nessa assunção, a ampliação do conceito de segurança proposta na teoria da securitização – de modo a englobar as ameaças construídas não só no setor militar, mas também nos setores político, económico, societal e ambiental (Buzan *et al*., 1998: 7) – não perde de vista que a lógica do jogo continua a ser derivada do tradicional discurso de segurança nacional: "urgência; poder do Estado reclamando o legítimo uso de medidas extraordinárias; uma ameaça vista como um perigo potencial à soberania" (Wæver, 1995: 51).

Apesar dessa clara opção por um aparato conceptual relativamente tradicional no núcleo da teoria da securitização – o que, não raras vezes, tem provocado acusações de que a securitização se aproxima mais da tradição estratégica do que das posições defendidas nos estudos críticos de segurança (Booth, 2005: 271) – a Escola de Copenhaga argumenta que a manutenção dessa 'forma' relativamente conservadora da segurança não fragiliza a sua posição crítica; ao contrário, constitui um fator de força pois permite questionar as estruturas tradicionais de segurança (elites estatais, comunidade estratégica, comunidade de inteligência, etc.) e as suas dinâmicas (militarização, estados de emergência, vigilância, etc.) usando os seus próprios jogos de linguagem (Wæver, 1995: 50-1). Em última análise, são essas instâncias e dinâmicas tradicionais de construção de ameaças e proposição de medidas excecionais que a Escola de Copenhaga pretende criticar quando atribui um valor negativo à securitização e adota uma preferência normativa pelo movimento inverso, a dessecuritização. Segundo Wæver, ao tentar equacionar os problemas sociais dentro do binómio "ameaça-defesa", o processo de securitização é um passo que antecede a produção de mais violência (2003: 23). Portanto, "de uma perspetiva de resolução de conflitos", diz Wæver, "a direção adequada parece ser a dessecuritização em vez da produção de mais segurança", ou seja, fazer com que a questão deixe de ser enunciada dentro de uma lógica de guerra para ser reintegrada a uma agenda política normal (Wæver, 2003: 13). Ao tirar a questão das pressões impostas pela emergência, esse movimento inverso tende a apontar para

soluções mais pacíficas, criativas e democráticas (Wæver, 2003: 10). É, pois, dentro dessa opção normativa pela dessecuritização onde reside o maior potencial crítico da teoria da securitização. E a eficácia dessa crítica resulta, justamente, da sua capacidade de ser formulada e percebida sem fugir dos códigos tradicionais da segurança, sem diluir ou descaracterizar o conceito de segurança ao ponto de impedir um diálogo com o *mainstream*.

Estratégia *versus* Securitização: O Caso da Crise Nuclear Iraniana

Desde o início dos anos 2000, o programa nuclear iraniano tem atraído a atenção internacional, assumindo cada vez mais os ares de uma crise entre o Ocidente e o Irão. Enquanto os Estados Unidos, Israel e a União Europeia condenam esse programa, desconfiando de uma possível agenda oculta com fins militares, o Irão insiste em afirmar que a sua capacitação nuclear tem um propósito exclusivamente pacífico e se destina a atender as suas necessidades de geração de energia. Em dez anos de negociações frustradas e incompreensões de ambas as partes, a crise tem sido marcada, do lado ocidental, por acusações de falta de transparência do Irão em relação ao seu programa de enriquecimento de urânio e implantação de um apertado regime de sanções contra o país, liderado pelos Estados Unidos e aprovado pelo Conselho de Segurança das Nações Unidas; do outro lado, o Irão sente-se exposto a padrões ambíguos do regime de não proliferação nuclear que se tem mostrado tolerante com Estados não signatários e detentores de arsenais nucleares como Israel e Índia, enquanto acusa a República Islâmica, um Estado signatário, de violar as obrigações do Tratado, apesar das suas reiteradas alegações quanto ao propósito pacífico da sua tecnologia nuclear (Hayes, 2009; Pieper, 2013). Nesse contexto, os fracassados esforços de diplomacia nuclear não têm conseguido evitar um crescente nível de tensão, de modo que a questão nuclear iraniana, hoje, caminha para uma das posições mais elevadas da agenda de segurança internacional.[4]

A fim de exemplificar as diferentes conceções de segurança discutidas neste artigo, o caso da crise nuclear iraniana é examinado, nesta secção, sob as lentes do paradigma estratégico-realista e da teoria da securitização. Considerando os limites e o propósito deste artigo, não se pretende realizar um estudo de caso original e exaustivo sobre o tema, mas apenas ilustrar, com base em estudos já realizados por outros autores, as perspetivas de segurança aqui discutidas. Desse modo, a primeira ilustração toma por base um artigo de Waltz (2012), uma das referências centrais do neorrealismo nas Relações Internacionais, onde a crise nuclear iraniana é abordada

4 O recente relatório sobre ameaças globais produzido pela Comunidade de Inteligência dos Estados Unidos e encaminhado ao Senado daquele país (IC, 2013) coloca as armas de destruição em massa, nomeadamente os programas nucleares do Irão e da Coreia do Norte, como uma das maiores ameaças globais da atualidade.

do ponto de vista da balança de poder militar entre Israel e Irão e, portanto, dentro do paradigma estratégico-realista da segurança; a segunda ilustração apoia-se num trabalho de Hayes (2009), onde a questão nuclear do Irão é comparada à da Índia à luz do aparato conceptual e metodológico da teoria da securitização da Escola de Copenhaga. Esses exemplos, integrados à exposição teórica das secções anteriores, constituem a base sobre a qual será posteriormente realizada a síntese comparativa proposta neste artigo.

"O Poder Implora para ser Balanceado": Waltz e uma Abordagem Estratégico--Neorrealista da Crise Nuclear Iraniana

Segundo Waltz, o foco da instabilidade no médio oriente não é o Irão, mas Israel. Em nenhuma outra região do mundo, explica o autor, "um Estado nuclear solitário e sem controlo existe"; portanto não é a ambição nuclear do Irão, mas sim o monopólio nuclear de quatro décadas de Israel o que mais tem contribuído para a crise atual (2012: 3). A manutenção desse *status* é obviamente vantajosa para Israel, o que explica a sua disposição para usar a força contra qualquer Estado que tente quebrar o seu monopólio, conforme fez em 1981 contra o Iraque, em 2007 contra a Síria e ameaça fazer agora contra o Irão. Mas é preciso observar, continua Waltz, que a capacidade que Israel tem demonstrado para bombardear impunemente potenciais rivais se tem convertido numa disposição dos seus inimigos para a obtenção dos meios necessários para evitar a continuidade desse desequilíbrio. Nesse sentido, argumenta o autor, as atuais tensões não devem ser vistas como "os estágios iniciais de uma crise nuclear iraniana relativamente recente", mas sim "como os estágios finais de uma crise nuclear de décadas no médio oriente que só irá acabar quando a balança de poder militar for restaurada" (Waltz, 2012).

Essa polémica posição, justificada por Waltz dentro do modelo de análise estratégico-realista típico da Guerra Fria, é diametralmente oposta à abordagem praticamente unânime dos governos e comunidades estratégicas ocidentais que, nos últimos anos, têm dedicado parte significativa dos seus esforços em debater sobre qual a política mais adequada para frear as ambições nucleares iranianas. De modo geral, esse debate tem-se desdobrado nas seguintes posições básicas: uma resposta militar, incluindo a opção de um ataque preemptivo às instalações nucleares do Irão (Mahapatra e Tourangdam, 2011; Ramberg, 2010); uso da diplomacia coerciva e de um regime de sanções contra o Irão (Alam, 2011); contenção do Irão através de uma estratégia de dissuasão (Korb, 2010); ou busca de resolução pacífica da crise através de uma diplomacia de confiança (Pickering, 2010). Waltz não cita nem coloca seu argumento como contraponto a alguma dessas posições particulares, mas da sua perspetiva neorrealista (e portanto centrada na estrutura do sistema internacional e na distribuição de poder entre as suas unidades, os Estados) não há dúvidas de que é a esse debate que ele se dirige quando faz a seguinte afirmação: o

perigo de um Irão com armas nucleares é exagerado e infundado porque a discussão em torno da questão tem sido "distorcida por preocupações mal colocadas e pela falta de compreensão sobre como os Estados geralmente se comportam no sistema internacional" (Waltz, 2012: 4).

Uma das distorções apontadas pelo autor é o facto dos governos dos Estados Unidos e Israel e da maioria dos analistas ocidentais retratarem o regime iraniano como irracional, argumentando que a lógica da dissuasão não se aplica num contexto de 'insanos mullahs'. O temor ocidental, desse ponto de vista, é que a obtenção de um arsenal nuclear permitiria que o Irão se aventurasse num ataque nuclear contra Israel, mesmo que isso representasse uma retaliação massiva e a destruição de tudo que o regime iraniano mais preza. Porém, salienta Waltz, a política iraniana é conduzida por "ayatollahs perfeitamente sãos que pretendem sobreviver como qualquer outro líder" e que, apesar de adotarem uma "uma retórica inflamatória e de ódio", não demonstram "qualquer propensão à autodestruição" (Waltz, 2012: 4).

Outra distorção apresentada por Waltz é que, mesmo entre os analistas que aceitam a racionalidade da política iraniana, a preocupação persiste em função da possibilidade de que o arsenal nuclear acabe funcionando como um escudo, levando o Irão a atuar de forma mais agressiva ou a aumentar o seu apoio ao terrorismo, inclusive com o fornecimento direto de armas nucleares aos terroristas. O problema desse tipo de preocupação, argumenta o autor, "é que ele contradiz o registo histórico de todos os Estados dotados de armas nucleares desde 1945": ao alcançarem a bomba, esses países passaram a sentir-se mais vulneráveis pela possibilidade de se tornarem "alvos potenciais aos olhos das maiores potências" e nada indica que o "Irão venha a mudar esse modelo" (Waltz, 2012: 4). Quanto à transferência de armas nucleares para terroristas, a complexidade tecnológica de tal operação e a crescente capacidade que os Estados Unidos tem desenvolvida para identificar a fonte de material físsil, levam Waltz a crer que o Irão não se arriscaria nessa empreitada e, a exemplo dos outros Estados nucleares, "manteria completo controlo de seu arsenal" (Waltz, 2012: 4).

Um terceiro foco de preocupação infundada dos analistas, segundo Waltz, é o receio de que a obtenção da bomba pelo Irão desencadeie uma corrida nuclear na região. Sobre esse aspeto, o autor relembra que Israel construiu seu arsenal nuclear num contexto de guerras com muitos dos seus vizinhos nos anos 1960. Desse modo, as armas nucleares israelitas constituíam naquela época uma ameaça no médio oriente muito maior do que o atual programa iraniano e, nem por isso, a nuclearização de Israel desencadeou uma corrida nuclear na região. Segundo o autor, nada indica que a nuclearização do Irão venha a mudar esse padrão (Waltz, 2012: 4).

Waltz finalmente destaca que, assim como a Índia e o Paquistão têm mantido a paz desde que alcançaram o equilíbrio da balança nuclear, Israel e um Irão nuclearizado passariam a deter-se um ao outro "como as potências nucleares sempre fazem";

desse ponto de vista, logo que o Irão obtenha as suas armas nucleares, a dissuasão passará a determinar as relações entre os dois Estados, mesmo que o arsenal iraniano seja relativamente menor. Portanto, conclui Waltz, os formuladores de políticas de segurança, os cidadãos e os analistas do mundo árabe, de Israel, da Europa e dos Estados Unidos deveriam adotar uma postura menos preocupada e confortar-se perante o facto de que "a história tem mostrado que onde as capacidades nucleares emergem, o mesmo acontece com a estabilidade. Quando se trata de armas nucleares, agora e sempre, mais pode ser melhor" (Waltz, 2012: 4).

Identidade e Securitização: Hayes e uma Abordagem sobre a Construção do Programa Nuclear Iraniano como Ameaça Global

Mesmo reconhecendo que as capacidades militares e as questões da balança de poder dão importantes indicações para a interpretação da crise nuclear iraniana, a compreensão de como as ameaças e as políticas são identificadas e construídas pelos líderes dentro das suas cabeças e no âmbito público é um aspeto crucial na compreensão das dinâmicas de segurança envolvidas na questão. Hayes examina o discurso político dos tomadores de decisão americanos em relação ao Irão e à Índia e identifica aí um nexo entre esses discursos e a formulação das políticas de segurança relativa à questão nuclear desses dois países. O que essa relação mostra é uma clara ambiguidade na política externa americana: enquanto a Índia, um Estado fora do Tratado de Não Proliferação, é ajudado pelos Estados Unidos através de um acordo de cooperação para o desenvolvimento de tecnologia nuclear avançada, o Irão, um membro original do Tratado, é visto como uma ameaça à segurança global e torna-se alvo de sanções (Hayes, 2009: 979). Segundo Hayes, essas diferentes posturas decorrem da maneira como a elite política americana constrói uma identidade amigável da Índia (que leva à dessecuritização do seu programa nuclear, apesar das evidências materiais do arsenal nuclear indiano), enquanto constrói uma identidade hostil do Irão (que resulta na securitização do seu programa nuclear, apesar da sua alegada finalidade pacífica e da falta de materialidade de um arsenal nuclear iraniano).

Desse ponto de vista, avaliar as capacidades materiais ou a objetividade da ameaça não são procedimentos suficientes para compreender como emergem e como se dissolvem os problemas de segurança; o que é crucial a essa compreensão são os processos discursivos que resultam na construção socialmente compartilhada de identidades antagónicas do tipo amigo-inimigo, racional-irracional, dentro-fora, bem-mal (securitização) ou na desarticulação desse tipo de dicotomias (dessecuritização), bem como os efeitos práticos desses processos na gestão dos problemas.

Hayes realiza um cuidadoso rastreamento dos atos de fala dos tomadores de decisão norte-americanos em relação ao Irão e à Índia (Hayes, 2009: 985-993), cuja extensão obviamente impede a sua reprodução neste artigo, procurando examinar

como esses discursos são articulados e transmitidos pelas elites políticas do executivo e do congresso americano e refletidos na opinião pública geral. A conclusão do autor é que a identidade democrática exerce um papel crucial no discurso securitizador americano das atividades nucleares estrangeiras. Nesse sentido, a proximidade ou a distância em relação ao padrão de democracia compartilhado nos Estados Unidos e no Ocidente são articuladas no discurso das elites políticas americanas com o propósito de orientar o processo de discussão e formulação de políticas públicas quanto às "expectativas de confiabilidade, potencial para cooperação e disposição para recorrer à violência do Estado estrangeiro" (Hayes, 2009: 994). Assim, continua o autor, uma identidade democrática compartilhada reduz 'o outro' à imagem ocidental, "justificando a extensão do tratamento democrático (leia-se não violento) ao Estado estrangeiro" (daí a dessecuritização do programa nuclear indiano no discurso político americano); para Estados não democráticos (mais precisamente, para Estados não redutíveis à imagem da democracia liberal americana), tal como o Irão é retratado no discurso político dos Estados Unidos e do Ocidente em geral, "normas democráticas não são aplicáveis" (daí a securitização do programa nuclear iraniano) (Hayes, 2009: 994).

Em suma, conclui o autor, a identidade democrática é crucial na forma "como os líderes políticos comunicam as ameaças de segurança ao público", independentemente das questões objetivas e materiais da ameaça. Desse ponto de vista, consegue-se compreender como a Índia, geralmente descrita como democracia antes de qualquer outra caracterização, é tratada no discurso americano como parceira confiável e cooperativa, mesmo que em 1998 ela tenha traído a confiança ocidental com os seus testes nucleares. Tal como no caso da Índia, prossegue Hayes, "o Irão é caracterizado principalmente pelo seu regime" e é a sua identidade não democrática que direciona todo o discurso das elites americanas para as ideias de baixa confiabilidade, irracionalidade, 'eixo do mal', etc. A consequência desse processo é que as relações entre Estados Unidos e Irão passam a ser de desconfiança e a única saída para a solução pacífica da crise, aos olhos americanos, passa a ser a mudança de regime e a democratização do Irão ((Hayes, 2009: 994). Enquanto isso não acontece, a questão nuclear iraniana continua securitizada com todos os efeitos excecionais (sanções, soluções militares, assassinatos seletivos, etc.) que esse processo consegue justificar.

Conclusão: Algum Diálogo Possível?

Comparando as abordagens à segurança internacional aqui discutidas e ilustradas com base no caso da crise nuclear iraniana, pode-se enfim destacar as suas principais diferenças e afinidades. O paradigma estratégico-realista estuda a segurança internacional de uma perspetiva objetivista, procurando compreender como as ameaças realmente são para, então, propor a melhor maneira de mobilizar

e direcionar as capacidades materiais do Estado para solucionar, de forma eficaz, o problema de segurança representado por cada tipo de ameaça particular. Dentro dessa abordagem, o Estado é visto como uma entidade fixa, inquestionável e eterna – ator unitário da política internacional a quem todos os demais atores não estatais e subnacionais se subordinam – e o seu comportamento no sistema internacional é sempre racional no sentido em que visa, em última instância, a sua auto preservação e sobrevivência. Em função da sua pretensão de objetividade, o paradigma estratégico-realista acredita que a política e a segurança internacional seguem alguns padrões, algumas regras que podem ser generalizadas sob a forma de teorias a partir da observação do modo como os Estados se comportam dentro da estrutura anárquica do sistema internacional. Essa forma essencialista de vislumbrar a segurança dá ao paradigma estratégico-realista um caráter epistemológico e metodológico próximo ao das ciências naturais, fazendo das suas teorias (balança de poder, dilema de segurança, corrida armamentista, dissuasão, etc.) leis gerais que, ao serem aplicadas a um caso empírico particular, permite estabelecer previsões conforme ilustra, de forma exemplar, a análise de Waltz sobre a crise nuclear iraniana.

Na outra extremidade, os estudos críticos de segurança rejeitam essa perspetiva objetivista e concebem o sistema internacional em termos construtivistas e emancipatórios. Assim, se o Estado é o ator prioritário da política internacional, isto não se deve a nenhuma natureza do sistema ou da estrutura internacional, mas sim a uma política de poder que constrói o Estado como ator central e joga para as margens outros atores e outras dimensões da realidade. Dentro desse segmento, a Escola de Copenhaga autodefine-se como "radicalmente construtivista" (Buzan *et al.*, 1998: 204), mas evita o envolvimento com o polo crítico emancipatório do debate. Ela é construtivista no sentido em que define a segurança como um tipo particular de prática discursiva que constrói ameaças através de interações sociais entre o ator securitizador e a audiência – abrindo, dessa perspetiva, o leque de problemas de segurança para além dos tradicionais tópicos militares – mas ancora a teoria da securitização na tradição estratégica, a fim de evitar a expansão indefinida e a descaracterização do conceito de segurança. Ainda que a teoria da securitização não se comprometa com uma crítica emancipatória, isso não significa que ela seja acrítica ou que não se preocupe em questionar as relações de poder: a manipulação da construção de ameaças por elites ou grupos dominantes com o objetivo de dar prioridade a questões do seu interesse, manter uma ordem que lhe favoreça ou tratar comunidades políticas ou grupos sociais desfavorecidos e marginalizados por meios de exceção (como Estados periféricos, imigrantes, pobres, doentes, etc.) é uma possibilidade sempre presente nos processos de securitização, daí a preferência normativa da Escola de Copenhaga pelo processo inverso: a dessecuritização. Assim, embora o foco conceptual da teoria

da securitização recaia sobre o processo de construção discursiva dos problemas de segurança, os efeitos desse processo (tais como a formulação e a implementação das políticas de segurança) não são negligenciados na sua agenda de investigação, conforme ilustra o trabalho de Hayes sintetizado na secção anterior.

Pode-se concluir, com base nessa comparação, que apesar das claras diferenças epistemológicas e metodológicas e das diferentes questões que ambas as abordagens procuram responder, existe uma 'porosidade'[5] entre as suas fronteiras que permite uma ligação e uma abertura para o diálogo. Do ponto de vista da Escola de Copenhaga, o construtivismo da teoria da securitização e o objetivismo dos tradicionais estudos estratégicos não impedem uma conceção de segurança internacional que sintetize aspetos importantes de ambas as abordagens. Nas palavras de Buzan *et al.*, a Escola de Copenhaga "não quer criar uma teoria da segurança que possa apenas dizer como tudo poderia ser diferente" (1998: 205). Desse modo, mesmo desafiando as premissas centrais do paradigma estratégico-realista – o foco na unidade do sistema internacional (o Estado) e no seu instrumento (a força militar) – a Escola de Copenhaga preocupa-se em manter o debate sobre segurança ancorado na sua problemática tradicional. Do ponto de vista dos estudos de estratégia, por outro lado, as fronteiras parecem ser mais rígidas na medida em que a teoria da securitização não se funda em fatores materiais mas sim em atos de fala. Isso pode, de uma perspetiva estratégica, soar muito abstrato e desvinculado das questões práticas de solução de problemas que motivam grande parte da sua agenda de investigação. É importante que os estrategistas percebam, porém, que a securitização é um processo que também produz efeitos práticos e que o ato de 'pronunciar a segurança' envolve responsabilidades que precisam de ser consideradas pelos formuladores de políticas, analistas, estrategistas, etc. (Buzan *et al.*, 1998: 211). Num momento em que as doutrinas militares e os planos estratégicos se abrem cada vez mais para incorporar as chamadas 'novas ameaças' (terrorismo, criminalidade organizada, pirataria, epidemias, catástrofes naturais, agroterrorismo, ciberterrorismo, espaço, etc.), é crucial que os estudos estratégicos levem em conta as responsabilidades envolvidas na nomeação desses tópicos com o rótulo da segurança e compreendam que a articulação de qualquer problema em termos de segurança é sempre uma opção política e nunca uma necessidade imposta por uma suposta 'natureza ameaçadora' dessas questões.

5 Essa expressão é utilizada por Croft para enfatizar que as fronteiras das diversas correntes dos estudos de segurança internacional são constructos determinados mais por necessidades de organização didática do que por divergências irreconciliáveis (2008: 510).

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The Russia-Ukraine Conflict: Lessons for Europeans from a Polish Perspective*

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Abstract

The current Russian-Ukrainian conflict has once again altered the fate of Eastern Europe. Yet, it should be also considered as a game changer for European security. The entire European security architecture has trembled as the eastern flank of the continent has been destabilised. If the conflict cannot act as a unifier for the transatlantic community, it could well spell tougher times down the road. This danger would become particularly acute if the perception takes hold that NATO has lost its credibility to deter threats and the EU has lost its ability to be a normative power which stimulates changes in the international environment. Firstly, this article presents five fundamental lessons-learned that must be drawn from the Russian-Ukrainian conflict in order to contain the potential future challenges and threats for Europe. Secondly, it offers four recommendations which constitute a sound basis for a concrete and long-term security policy action plan in response to the conflict.

Resumo

O Conflito Russo-Ucraniano: Lições para os Europeus na Ótica Polaca

O corrente conflito russo-ucraniano alterou novamente o destino da Europa do Leste. No entanto, esta crise deve também ser considerada como um fator perturbador da segurança Europeia. Toda a arquitetura da segurança Europeia foi afetada com a instabilidade do flanco oriental do continente. Se este conflito não servir como um fator unificador da comunidade transatlântica, poderá ser um prenúncio de difíceis tempos vindouros. Acresce, ainda, que este perigo poder-se-á tornar particularmente grave caso se instale a perceção de que a NATO perdeu a sua credibilidade para dissuadir ameaças e a União Europeia a sua capacidade como potência normativa para estimular mudanças no sistema internacional. Inicialmente, este artigo apresenta cinco lições fundamentais que deverão ser retiradas do conflito russo-ucraniano de forma a conter eventuais desafios e ameaças para a Europa. Posteriormente, serão abordadas quatro recomendações que constituem uma base para um plano de ação de políticas securitárias sólidas e de longo prazo como resposta a este conflito.

* The opinions, findings and conclusions expressed herein are those of the author and do not necessarily reflect those of the Ministry of Foreign Affairs of the Republic of Poland.

In 2013, Eastern Europe was on its path to fade to oblivion. For some Western countries it has become an "unwanted child" being neither a source of political and economic successes nor a strategic security policy nuisance. It was more convenient to assume that the status quo will prevail. Some have fallen into this strategic trap; others have warned that history in Easter Europe has not yet ended. "The West's willingness to consider security issues in Eastern Europe as second-tier is premature. There is one more important factor co-defining the situation in the region: Russia. Unfortunately, its role cannot always be described as constructive. A turning point in Russia's policy towards Eastern Europe was undoubtedly the 2008 war with Georgia and the recognition of the independence of Abkhazia and South Ossetia. The conflict confirmed that Russia has set its own 'red lines' in Eastern Europe, and recognised the area as lying within its 'zone of privileged interests'"(Jankowski and Świeżak, 2014).

The current Russian-Ukrainian conflict has once again altered the fate of Eastern Europe. Yet, it should be also considered as a game changer for European security as the forgotten notion of war was restored into the political discourse. The entire European security architecture has trembled as the eastern flank of the continent has been destabilised. If the conflict cannot act as a unifier for the transatlantic community, it could well spell tougher times down the road. This danger would become particularly acute if the perception takes hold that NATO has lost its credibility to deter threats and the EU has lost its ability to be a normative power which stimulates changes in the international environment.

Five Lessons-Learned

From a Polish perspective, five fundamental lessons-learned must be drawn from the Russian-Ukrainian conflict in order to contain the potential future challenges and threats for the Old Continent.

Firstly, this conflict has confirmed that Eastern Europe remains a volatile space. In fact, Europe received its first wake-up call in 2008 during the Russian-Georgian war. As identified by Ronald D. Asmus (2010: 215) "the Russo-Georgian war of August 2008 was a little war that shook the world. It shocked a West that had become complacent in its belief that war in Europe had become a think of the past and thus ignored the warning signs that conflict was brewing between Moscow and Tbilisi".

However, the negative trends stemming from the Middle East and North Africa – being both direct and indirect consequences of the Arab Spring – have led many Western countries to simply forget about Eastern Europe. In reality, the belt of instability stretching from the Caucasus to Transnistria never disappeared. Indeed, the regional security vacuum has triggered more assertiveness. The protracted conflicts render the strategic situation even more fragile. In Georgia, the Russian occupation

of about one-fifth of Georgian territory continues. In reality, Russia has not ceased to further illegally incorporate both Abkhazia and South Ossetia into its own political, economic and security system. On November 24, 2014, a Russian-Abkhazian treaty on alliance and strategic partnership was signed, despite Abkhazia not being recognised as a state by the international community.

Under this treaty, Abkhazia, which still retains a semblance of independence, will be integrated with Russia in the areas of: defence, border control, customs policy, social policy and law and order. A united Russian-Abkhazian grouping of troops, consisting of units from both countries which will be deployed in Abkhazia, is to be formed within one year of signing the treaty. In peacetime, the command will rotate, and in wartime the commander will be appointed by Russia. "The treaty also provides for a gradual unification of military standards, joint protection of Abkhazian borders (in practice, the border with Georgia) and the free movement of people through the Abkhazian-Russian border. A Joint Information and Coordination Centre of the law enforcement agencies dealing with internal affairs will be created in two years' time in order to coordinate actions aimed at combating crime" (Falkowski, 2014). Moreover, Azerbaijan and Armenia have carried on a bloody conflict over the disputed Nagorno-Karabakh region.

In July 2014, the killing of fifteen Azerbaijani soldiers along the "line of contact" signified an escalation in hostilities. Casualties from retaliatory action, Azeri multiple-rocket launcher fire and overflights by the Azerbaijani Air Force indicated that the situation might deteriorate. However, the hostilities may not be accidental. In fact, "Armenia is a faithful Russian ally. It rejected an Association Agreement with the European Union it painstakingly negotiated for three years, and signed up for membership in the Moscow-led Customs Union. Russian military bases remain on the Armenian territory through 2043, and Russian troops guard Armenia's borders with Iran and Turkey. Moreover, Armenia voted in support of Russia in the UN General Assembly regarding the annexation of Crimea. It may use Russia's action towards the peninsula as a model for occupation and annexation of Karabakh" (Cohen, 2014). Finally, the illegal stationing of a Russian contingent in Transnistria with neither a United Nations mandate nor Moldovan consent completes the picture. Moldova has already been subject to an extraordinary degree of blackmail and threats by Russia. Just before Moldova signed the EU's Association Agreement in 2013, "Russia launched a vitriolic campaign against the EU inside Moldova. It also threatened to impose several kinds of trade embargoes on a country that has been heavily dependent on Russia for its energy, trade and labour market for migrant workers" (Dempsey, 2014). Recently, Russia has also interfered into the region of Gagauzia in which the Turkic-speaking community has become increasingly pro-Russian and more vocal about a greater autonomy, if not independence from Moldova.

Secondly, Winston Churchill was wrong when he depicted Russia as "a riddle wrapped in a mystery inside an enigma". Russia has unfortunately confirmed its predictable status of a revisionist power. Its principal foreign policy goal is to maintain Eastern Europe in Russia's sphere of influence by stopping, or at least hampering, the political aspirations of Georgia, Moldova and Ukraine to strengthen their ties with both the EU and NATO. The other goal is to influence or even intimidate some EU and NATO members and to put into question the Western political system based on democracy and the rule of law. To achieve these ends, Moscow has reached for hybrid warfare. In fact, the tools thus far applied by Russia in its conflict with Ukraine come from different centuries: the use of pure military force: the nineteenth century; breach of international law and the use of propaganda: the twentieth century; and, finally, political and economic pressure, combined with new instruments such as cyber-attacks: twenty-first century.

Hybrid warfare has been an effective and sometimes surprising mix of military and non-military as well as conventional and irregular components. The Russian hybrid approach to conflicts has become even more prominent with an extensive use of their Special Operations Forces ("little green men"), security forces and intelligence agencies, as well as Russian-speaking minorities, as tools. Indeed, "none of the single components is new; it is the combination and orchestration of different actions that achieves a surprising effect and creates ambiguity, making an adequate reaction extremely difficult, especially for international organizations that operate on the principle of consensus" (Golts and Reisinger, 2014: 3). In fact, to the current Russian approach five elements seem key: the actions with an appearance of legality, military show of force and readiness, "little green men", taking advantage of local tensions and local militias as well as propaganda. Moreover, with hybrid warfare techniques, ones shortfalls can be compensated. At the same time, these instruments allow optimal exploitation of the opponent's vulnerabilities. Therefore, "Russia's hybrid warfare in Ukraine demonstrated the new capabilities of the Russian armed forces, following the military reform launched in 2008: enhanced deployability (tactical and strategic airlift), a relatively high level of training and professional forces" (Golts and Reisinger, 2014: 10)

Furthermore, Russia as a revisionist power, seeks to secure its military might and signals its readiness to use conventional forces just as easily as it does other, softer means. In the past decade its military capability significantly rose and its defence budget is to grow even further. The decision to increase military expenditure and its share of GDP dates back to late 2008. After the war with Georgia, it was decided to undertake a far-reaching reform of the armed forces and to accelerate their re-equipment with new armaments. In 2013, Russia's defence spending increased by 4.8 percent in real terms, and its military burden exceeded that of the US for the first time since 2003. "Russia's spending has risen as it continues to implement the

State Armaments Plan for 2011–20, under which it plans to spend 20.7 trillion roubles (EUR 574 billion) on new and upgraded armaments. The goal is to replace 70 percent of equipment with 'modern' weapons by 2020" (Perlo-Freeman and Solmirano, 2014: 2).

A creeping militarisation of the Kaliningrad Oblast, the Crimean Peninsula and areas near the borders of the Baltic States, as well as forward basing in Belarus, pose a major threat to the stability of the vicinity of the EU and NATO. The redeployment in December 2013 of Russian fighter jets to Belarus has political significance above all. Indeed, "it should be seen as a symbolic counterbalance to the NATO Baltic Air Policing mission which has been in place since 2004 and consists of aircraft from different NATO member countries (mostly Poland) taking turns to guard the airspace of Estonia, Lithuania and Latvia" (Wilk, 2013). From a military perspective, the practical dimension will be the training of Russian pilots in terms of potential (future) flights in Belarusian airspace.

Finally, since the Russian annexation of Crimea, the intensity and gravity of incidents involving Russian and Western militaries and security agencies has visibly increased. Compared with the pre-March 2014 period, "the situation has changed both with regards to the number of relevant incidents, and their gravity. Concerning the numbers, NATO officials indicated in late October 2014 that this year NATO states have already conducted over 100 intercepts of Russian aircraft, three times more than in 2013" (Frear, Kearn and Kulesa, 2014: 1).

Thirdly, Russia has five major allies in the Western world: a growing anti-Americanism in Europe, lack of knowledge about Eastern Europe, fear of conflict, economic interests and anti-liberalism. In fact, a dangerous mixture of political, economic and social factors weakens the ability of Western elites to take bold, strategic decisions which go beyond an electoral cycle. Having this in mind, Russia has smartly used its trump card to consolidate its gains in Eastern Ukraine, achieve a growing leverage over the West's ability to move towards political confrontation again as well as put the blame on the West. In this context, some Western experts even claim that "the United States and its European allies share most of the responsibility for the crisis. The taproot of the trouble is NATO enlargement, the central element of a larger strategy to move Ukraine out of Russia's orbit and integrate into the West. Putin's pushback should have come as no surprise. After all, the West had been moving into Russia's backyard and threatening its core strategic interests, a point that Putin made emphatically and repeatedly. […] There is a solution to the crisis in Ukraine, however – although it would require the West to think about the country in a fundamentally new way. The United States and its allies should abandon their plan to westernize Ukraine and instead aim to make it a neutral buffer between NATO and Russia, akin to Austria's position during the Cold War. Western leaders should acknowledge

that Ukraine matters so much to Putin that they cannot support an anti-Russian regime there" (Mearsheimer, 2014).

Fourthly, defence still matters. Until very recently, one of the best deterrents for small- and medium-sized states – provided they could not join NATO, the EU, or both – was embedded in international law and diplomatic tools. However, the erosion or even the blatant breach of international legal commitments (the 1987 Intermediate-Range Nuclear Forces (INF) Treaty, the 1990 Conventional Armed Forces in Europe (CFE) Treaty, the 1994 Budapest Memorandum, the 1997 NATO-Russia Founding Act, the 1999 adapted CFE Treaty) has severely undermined their deterrent character.

In its latest annual report on arms control compliance, the US State Department formally accused Russia of having violated the INF Treaty. The basic allegation is that Russia breached its obligations not to possess, produce, or flight-test a ground-launched cruise missile (GLCM) with a range of between 500 km and 5,500 km (the "Prohibited Range") or to possess or produce associated launchers (United States of America State Department, 2014: 12). "The primary reason that Russia would seek to deploy a new GLCM is to enhance its war-fighting capabilities in the European theater. Russia's 2010 Military Doctrine continues to identify NATO (especially the prospect for further NATO enlargement) as a continuing source of potential military danger for the Russian Federation. In addressing this challenge, a new intermediate-range GLCM would provide Russia with important additional capabilities" (Schwarz, 2014). In fact, the new GLCM could also give Russia the means of delivering nuclear attacks in vital parts of Europe. Russian doctrine has long envisioned use of nuclear weapons as an integral part of Russia's war-fighting strategy in Europe, as they are viewed as a means to compensate for a weaker position of Russia's conventional military.

Taking into consideration the erosion or violation of international legal commitments, military instruments still remain valid in Europe in the twenty-first century and the effective diplomatic tools that European countries have had at their disposal need to be strengthened by necessary military potential. Europe should once-again be able to negotiate out of a position of strength. The well-known phrase "trust but verify" needs to apply again.

Finally, the Russian-Ukrainian conflict created a pivotal moment for European security. Russia's challenge to a rules-based order reached its highest point since the end of the Cold War with the seizure and annexation of Crimea in March 2014. The security conditions in Central and Eastern Europe have considerably worsened. The European security architecture, which was inclusive and in fact co-created by Russia, has been changed. Therefore, a revisionist Russia can hardly be treated as a "strategic partner" anymore, at least for the foreseeable future. This privilege should be reserved only for those countries which do not put at risk the health of

the liberal international order based on democracy, self-determination, the rule of law, market economy, free trade, respect for human rights and effectively on mutual trust. The existence of this order must not be taken for granted and needs to be protected and defended. In recent years, Russia has constantly challenged the West's global geopolitical interests by establishing a close cooperation with other authoritarian regimes (especially Belarus, China, Iran, Sudan and Syria) and therefore further destabilising the world order (*e.g.* by fuelling the war in Syria).
At least for now "Russia has made clear that it intends to be a rule-breaker, nor a rule-maker, casting doubt on its readiness to play a helpful role in forging a new normative consensus between established and emerging powers" (Kupchan, 2014: 163-164). In fact, over the next months and years the West's unity will likely be tested and undermined by Russia. If successfully, other rising powers – especially Brazil, China, India and Iran – might see Western inaction as an incentive to foster their own alternative visions of world order.

Four Policies

The Russian-Ukrainian conflict cannot be solved by tactical, ad hoc measures which for the West seem more convenient as they are less costly from a political and economic perspective. However, it would not be sensible if European policymakers decided to resolve the tensions between sustainable economic policy and security policy exclusively in favour of the former. Therefore, Europe needs to forge a concrete, united and long-term action plan in response to the current conflict. Four recommendations for Europeans come to the fore.
First, Europeans must embrace a "Ukraine first" policy which should be translated into a more proactive, balanced and sustainable approach to the neighbourhood policy in general. The stabilisation of eastern and southern Ukraine, based among others on the fifteen-point plan for the peaceful settlement of the crisis presented by President Petro Poroshenko as well as the Minsk Protocol, remains a prerequisite for any further steps. Russia must stop fuelling the conflict by withdrawing its forces from Ukraine and from the Russian-Ukrainian border, as well as by stopping financial and military support to the separatists. Simultaneously, the EU and the United States, along with the International Monetary Fund, should continue to support Ukraine economically, which could constitute the best incentive for Kyiv to implement the necessary reforms (monetary and fiscal policy, energy market, financial and security sectors). In fact, Ukraine has untapped growth potential: "Ukraine has fertile agricultural land, an attractive geographical location in Europe, bordering the European Union (the largest market in the world), and a large domestic market of almost 46 million consumers. It also has abundant natural resources, relatively well-developed infrastructure, high quality human capital, and a significant industrial base. However, Ukraine's

potential has yet to be adequately harnessed. Defying expectations at the time of the collapse of the Soviet Union, when hopes that the newly found independence would spur Ukraine's development loomed large, the country's GDP per capita still lingers below 1989 levels and at a mere 10 percent of the European Union average after twenty years of transition. Incomes have increased much more slowly in Ukraine than in the Europe and Central Asia region as a whole. Ukraine has also been under-performing relative to regional peers, such as Poland, Romania, Russia and Belarus, especially during the recent global crisis, registering a decline in GDP by 15 percent in 2009" (World Bank, 2014: 10). Furthermore, the Association Agreement with the EU could provide an important anchor for the reform process. Implementation of the Association Agreement, together with the Deep and Comprehensive Free Trade Area agreement, could provide considerable benefits for Ukraine. EU accession had such an effect earlier for the new EU members in Central and East Europe, which took advantage of the intimate engagement with the EU to increase exports, attract FDI, enhance competition, minimize the negative influence of vested interests, and ultimately make an unprecedented step towards catching up with the West. The entrance of the EU agreements into full force would create legally binding obligations for the harmonization of Ukraine's laws with the regulatory architecture of the EU's single market.

Moreover, the importance of the driving force that could change the long-term fate of Ukraine – its politically conscious and proactive civil society – should not be overlooked. Democracy promoters and local activists need to focus on society itself. "Good NGO work is crucial for the quality of public space. It defines the culture of public debate and holds governments accountable. The defining principle of their work should be to ensure a two-way relationship with society. Whatever choice civil society leaders make, it is crucial that they remain independent. NGOs would benefit from shifting their outlook from one limited to the issues of the Helsinki Declaration and human rights to one that encompasses economic justice, access to services and consumer protection" (Lutsevych, 2013: 17).

Finally, Crimea needs to be returned to Ukraine. Some may argue that this geographic peninsula is practically gone, but not by international legal standards. In fact, "the unlawfulness of acts committed by the Russian Federation in Crimea leading to Ukraine's loss of effective territorial control over the Peninsula gives rise to conclusion that, under international law, Crimea remains an integral part of Ukraine's territory under Russian occupation" (Republic of Poland, Ministry of Foreign Affairs, 2014: 7). If it is not returned, the Ukrainian government – with the necessary support from the West – should prepare a detailed account of what property has been seized and present this case at an international court (e.g. the International Court of Justice or the International Tribunal for the Law of the Sea).

Individual Ukrainians, who lost their property in Crimea, should also go to the court. In fact, a creation of a special tribunal – based on the experiences gathered by the still existing Iran-United States Claims Tribunal – should also not be excluded.

Second, Europeans must understand that there can be "no business as usual" with Russia. Should this lesson already have not been learnt following the Russia-Georgia war in 2008? Russia has become an unreliable, irresponsible and a revisionist power. Indeed, "Russia today is more autocratic internally and more aggressive toward its neighbours than at any time since the dissolution of the Soviet Union in 1991. Official propaganda paints the West as an enemy and actively tries to undermine unity in the EU and coherence in the transatlantic alliance" (Speck, 2014). Therefore, the Western community should be ready to impose additional political and economic sanctions if further destabilisation occurs. The sanctions signal the West's readiness to confront Russia and show that the West is ready to pay a price in terms of the partial interruption of its economic interaction with Russia.

Furthermore, the European countries should stop all transfer of military technology to Russia, including those ongoing or suspended, as well as reduce Russian dominance over European energy markets. Moreover, the West must strategically reassess its relations with Russia. In 1967, the "Harmel Report" reasserted NATO's basic principles and introduced a two-track strategy of deterrence and dialogue. Under the current circumstances, the West – especially NATO – needs a similar intellectual exercise to build consensus on the relationship with Russia which has been fundamentally altered. Agreeing to establish a high-level commission tasked with developing recommendations on how to re-engage Moscow diplomatically will prevent NATO, and more broadly the West, from reaching premature conclusions (one of them being Russia's willingness to return to the currently undermined international legal framework) (Bunde, Jankowski and Michelot, 2014). Finally, as in the Ukrainian case, the prime mover of the necessary transformation of Russia might stem from its civil society. Therefore, its strength could be reinvigorated by promoting an independent Russian-speaking media.

Third, NATO is back. Following the Russian-Ukrainian conflict, there exists a unique opportunity for the Alliance to demonstrate its full and continued commitment to Article 5. The NATO summit in Wales addressed a new security reality. The Alliance has started to refocus on its core mission: securing peace through defence and deterrence. Indeed, NATO must be strategically enhanced, especially its eastern flank. Therefore, "in order to ensure that our Alliance is ready to respond swiftly and firmly to the new security challenges, today we have approved the NATO Readiness Action Plan. It provides a coherent and comprehensive package of necessary measures to respond to the changes in the security environment on NATO's

borders and further afield that are of concern to Allies. It responds to the challenges posed by Russia and their strategic implications. It also responds to the risks and threats emanating from our southern neighbourhood, the Middle East and North Africa. The Plan strengthens NATO's collective defence. It also strengthens our crisis management capability. The Plan will contribute to ensuring that NATO remains a strong, ready, robust, and responsive Alliance capable of meeting current and future challenges from wherever they may arise" (North Atlantic Treaty Organization, 2014). Consequently, the strengthening of the eastern flank will be reached by conducting regular military exercises in Central and Eastern Europe which actual forces participate, and which encompass all potential scenarios, including Article 5 ones. Moreover, the NATO Response Force will be transformed into a more accessible and agile instrument with a robust delivery capability which will enhance its responsiveness. This rapid response capability (Very High Readiness Joint Task Force) will focus on speed, providing NATO leaders with a credible and easily deployable asset to match sudden threats along NATO's periphery. This force should consist of a land component with appropriate air, maritime and special operations forces available. Readiness of elements of the VJTF will be tested through short-notice exercises. NATO will also establish an appropriate command and control presence and some in-place force enablers on the territories of eastern Allies. Furthermore, a strategic enhancement of the eastern flank will cover both infrastructure – including a proper high readiness command on the basis of the Multinational Corps Northeast in Szczecin and equipment storage sites prepositioned for arrival of major forces in the case of conflict – as well as 'boots on the ground'. In addition, NATO could in the future introduce the standing defence plans which would be a more precise extension of the contingency plans. Finally, Europeans should be more responsive to the ongoing US requests to reverse the negative trends in military spending (2 percent of GDP needs to remain not only a rule of thumb, but stricter roadmaps to reach that should be developed). In fact, in Wales the allies agreed to halt any decline in defence expenditure, increase defence spending in real terms as GDP grows as well as aim to move towards the 2 percent guideline within a decade.

Fourth, "if you want peace, prepare for war". Europeans need to consider rearmament. And luckily there seem to be a few good harbingers on the horizon with Estonia, Latvia, Lithuania, Poland, Romania or Norway, to name a few, where military expenditures are set to grow. Particularly Poland, being a responsible ally, has recently given a constructive example. Based on a solid financial foundation, *i.e.* a legal obligation to spend 1.95 percent of GDP on defence, Poland has paved the way towards a robust modernisation programme (with particular emphasis on air and missile defence, land forces, naval forces, information technology and helicopters). Indeed, with an objective to spend at least twenty percent of its growing

budget on procurements, and thanks to the recent announcement of its military budget increase to at least 2 percent of GDP in 2016, Poland is fast becoming one of the frontrunners of European military strength.

If one could name one unique novel element in the Polish strategy, it would be the recurrence of deterrence. Once a backbone of many national security strategies, with time it has almost vanished from the vocabulary of strategic debate. Yet, from a Polish perspective this concept has not become obsolete, as it provides a viable solution to the current strategic problems. Indeed, deterrence is a strategy for addressing two competing goals: countering a potential enemy or threat, and avoiding war. Poland must act as "the expectations of behaviour that undergirded the pre-Ukraine war status quo have already been altered: Russia has demonstrated its will and capability to use force to redraw the map of the region. The credibility of the West has also been altered, and to be precise, diminished" (Grygiel and Mitchell, 2014).

The goal of the "Polish Fangs" initiative, announced in 2013, is to develop the essential military capabilities necessary to implement a deterrence strategy. In practice, "Polish Fangs" will be comprised of cruise missiles for both the F-16 fleet and potentially the conventional submarines, combat drones, special operations forces, as well as the Polish Navy Coastal Defense Missile Battalion system. Moreover, it is likely that this project will be supplemented by both defensive and offensive cyber-weapons, as cyber-defence capabilities will become a priority in the next strategic planning cycle.

Currently, only two pillars of the deterrence strategy are operational. First, the special operations forces, which have become an undisputable flagship of the Polish Armed Forces and their professionalization. Second, the Coastal Defense Missile Battalion that became operational in June 2013. Ultimately, it will be equipped with 48 Norwegian Naval Strike Missiles, which can serve both as an anti-ship and a land-attack weapon.

Another particularly noteworthy undertaking is the acquisition of the cruise missiles for the F-16 fleet. Following the example of Finland, Poland in December 2014 signed a deal to purchase 40 advanced Joint Air-to-Surface Standoff Missiles (JASSM) from the United States. The deal also includes associated equipment, training and logistical support needed to make them operational. Delivery is to take place in 2015 and 2016, and the missiles are scheduled to be operational in 2017. The combination of F-16 fighters and semi-stealthy missiles will provide a new and important capability for the Polish deterrence strategy. In fact, the transaction will be much more than an arms deal – it will have, as was the case in Finland, significant political and regional military implications.

The "Polish Fangs" initiative, along with the air and missile defense system, will provide Poland with game-changing capabilities. They should be perceived as a good example of the leading edge of so-called anti-access/area-denial (A2/AD) systems, which are raising the costs for potential adversaries to project power and pursue their objectives (Jankowski, 2013).

Conclusion

Establishing a rules-based order for the 21st century depends on the West's ability to recover its economic and political strength, enabling to continue serving as the world's anchor of liberal values and practices. However, it does not mean that the military aspect should be overlooked.

The Russian-Ukrainian conflict has confirmed that most Europeans have been proven wrong in their assessments as they have become intellectually and emotionally dependent on wishful thinking, namely that they no longer had to worry about their own security and Moscow's actions, even if Russia fell far short of European democratic standards. The real difficulty in finding Russia a place and role within Europe's security architecture is Moscow's continuing preoccupation with its great power status and its pursuit of hegemony in the post-Soviet space. The European integration process has been designed in order to constrain and contain the influence of major powers within supranational organizations.

Moreover, the world will neither be safer nor more just if Europe disarms. On the contrary, future generations of European citizens would likely face an international environment less amenable to both their socio-economic and security needs.

As Ulrich Speck rightly underlines "the easiest way for the EU to get out of the confrontation with Russia would be to disengage from the post-Soviet space and seal NATO's external border. But that would be short-sighted. In such a scenario, there would likely be permanent, low-level conflict and warfare in Eastern Europe, as the countries in the region are not ready to accept full submission to Moscow. They have developed their own identity and aspirations since the fall of the Soviet Union in 1991. Russia, for its part, would likely turn into an even more revisionist, imperialist-minded, aggressive, and militarized power. It would be an illusion to think that the EU could be safe and prosperous in such a neighbourhood" (Speck, 2014). Only by stepping up engagement, by helping countries such as Ukraine, to stabilize, and by enlarging the sphere of liberal democracy and market economy can the West bring the post-Soviet space closer to the postmodern multilateral order.

In 2014, Europe received a second wake-up call – a chance that must not be missed. Anyone who fails to see this is strategically blind.

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A Geopolítica: Saber Criado na Modernidade – o Exemplo Português

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Resumo
Com o presente artigo, aludindo ao caso português, pretende-se mostrar como o saber geopolítico é um saber da modernidade, em rigor um saber que, enquanto tal, dificilmente poderia produzir resultados práticos antes do fim do século XVIII. Assim sendo, procura-se explicar por que razão o mundo antigo e o período medieval não são épocas geopolíticas. De resto, para o serem, teria de se pressupor a existência de relações internacionais, as quais não foram configuradas antes do início da Idade Moderna.

Abstract
Geopolitics: Modernity Based Knowledge – the Portuguese Example

The present article, taking into account the Portuguese case, demonstrates that the geopolitical knowledge is a knowledge of modernity, one that could hardly have produced any practical results before the end of the eighteenth century. Thus, it is explained why the ancient world and the medieval period are not geopolitical epochs. Besides, in order to be classified as such, one would have to presume the existence of international relations, which were not configured before the beginning of the Early Modern Age.

Antes de mais, importa definir e esclarecer o que está em causa nesta disciplina específica, apenas crismada como tal no século XX.

A geopolítica pode ser definida como disciplina de estudo e apoio da ação política interna ou externa, mas predominantemente externa, em função da ocupação humana do espaço e dos condicionalismos do espaço físico. Quer-se dizer com isto que a geopolítica atende, de forma dialética, a todo o quadro ecossistémico onde as comunidades políticas exercem o seu mandato, de modo que a realidade geopolítica concreta sobre a qual incide a disciplina geopolítica é a política condicionada pelo espaço, pelos fatores geográficos – política em função do espaço, seria então uma outra boa variante definitória para dar conta do objeto em si desta ciência, ou saber (como se quiser) aplicado. E como esse quadro é cada vez mais o mundo inteiro, fruto da mundialização iniciada na modernidade tardia, que, por sua vez, tem as suas primícias, somente em esquisso, é certo, na descompartimentação do mundo da primeira Idade Moderna, predomina, em termos geopolíticos, o vetor externo. Todavia, o vetor externo não predomina exclusivamente em razão da mundialização. Durante grande parte do século XX, a geopolítica concentrava-se sobremaneira no seu vetor externo por força da marca de água que a caracterizou desde início, concernente ao uso do poder enquanto tal, à sua projeção, consequentemente, à luta pelo poder entre atores políticos em função do espaço, em particular, em função do espaço físico *tout court* e do espaço humanizado que se procurou naturalizar, de forma mais ou menos determinista – por exemplo, o conceito de fronteira natural, ou o conceito de Estado como organismo inserido no seu meio ambiente vital. Claro está que nem a política se resume ao poder, nem o poder se resume à dimensão hostil, aquela propriamente estratégica, pelo que geopolítica e geoestratégia, mesmo em relação à conceção mais "belicosa" de geopolítica, nunca se chegam a sobrepor, ainda que se aproximem neste último caso[1]. Assim, para acolher definitoriamente este marco histórico da geopolítica, tanto mais que é geralmente aquele que se costuma projetar sobre todo o passado anterior ao nascimento da geopolítica como área disciplinar e de intervenção, poderíamos, numa segunda aproximação, sem dúvida redutora, definir a geopolítica como disciplina de estudo e apoio à criação, organização, gestão e uso políticos do poder em função do espaço como fator desse mesmo poder.

1 Reduzida substancialmente a política aos requerimentos do poder *qua* poder, em particular à sua projeção, ainda assim esse mesmo poder tem, para o efeito, de atentar à sua própria arquitetura interior, à sua própria modulação enquanto tal em função da geografia e dos fins políticos e suprapolíticos de que a política é curadora, que de modo nenhum se reduzem à hostilidade condicionada pelo espaço, campo da geoestratégia, enquanto forma do saber e do agir estratégico. Além de que não podemos esquecer que a lógica interna de projeção de poder tem a ver com a imposição soberana e não necessariamente com pretensões digladiantes sobre a soberania, como ocorre num clima em que a unidade política está a esfrangalhar-se, ou está já esfrangalhada.

A segunda definição parte do pressuposto (moderno) que a dimensão da violência é intrínseca ao exercício da política, está consagrada nesse exercício. Uma pressuposição errónea, estamos em crer, na sua aplicação ao mundo pré-moderno, como intentamos mostrar noutros locais, mas que aqui não é fulcral discutir porquanto podemos muito bem partir da primeira definição apresentada, muito mais equilibrada, e que faz justiça ao cerne da geopolítico e não só ao seu aguilhão inicial, a essa marca de água, que não se perdeu de todo, nem podia, porque se amputaria erradamente a geopolítica de uma dimensão ainda hoje marcante, mas que não perfaz o todo da disciplina[2].

Seja como for, independentemente do foco de cada uma das definições, basicamente o seu quadro de referência é o mesmo: o caráter central do espaço para a ação política, a existência de atores intrinsecamente políticos nos seus racionais e a existência de relações qualificadas entre os distintos atores, o mesmo é dizer, a existência de relações internacionais. Pois bem, como não podemos isolar o espaço do tempo, convém verificar se o quadro de referência da geopolítica é aplicável às épocas pré-modernas, e se não for, que não é, adiantamos já em forma de prolepse, temos deixar confinar a geopolítica aos períodos históricos que se lhe adequam.

Para falarmos com propriedade de geopolítica e de racionais geopolíticos nunca poderemos esquecer o fator temporalidade, isto é, o quadro temporal que lhes serve de ata de nascimento[3]. Na realidade, para que possamos entender algo como possuindo natureza geopolítica, em consonância com as definições precedentes, temos forçosamente de pressupor comunidades políticas enquanto tais, obedecendo no essencial a fatores políticos *tout court*, corporizadas num território, evocando uma certa identidade de pertença perdurável, voluntária ou forçada, implícita ou explícita face a outros – aquilo que historicamente veio a ser designado como *Estado* –, e, sobretudo, uma certa *episteme*, por assim dizer, que

2 Acerca do nascimento da geopolítica e dos seus desenvolvimentos até à decadência no imediato pós-guerra, originada pela sua identificação com o nazismo, veja-se Korinman (1990). Para uma visão teórica sucinta da relação entre uma geopolítica inicial mais agressiva e a sua vertente mais pacificada, ou pelo menos mais ciente das suas restantes dimensões, nos dias de hoje, ver Fernandes (2008: 121-123).

3 Não há nenhuma criação humana que não seja histórica por definição, a não ser que tomemos a geopolítica como trans-histórica, mas desenrolando-se na história, tal como os processos biológicos humanos estão à mercê da história, padecem das circunstâncias históricas, mas não são propriamente históricos – por exemplo, as alterações provocadas na flora microbiana bocal pela modificação dos regimes alimentares, nomeadamente no neolítico, com a introdução da dieta à base de cereais, e no pós-revolução industrial, com a concentração nos açucares e nas farinhas refinadas, e mais recentemente nos alimentos processados, ou a crescente acumulação de tecidos adiposos por via de uma sedentarização da vida, sobretudo nas sociedade mais ricas. Mas nesse caso, a geopolítica não seria uma criação humana. Como não é um processo biológico, nem um ditado divino, seria o quê?

permita imbricar todas estas peças num conjunto coerente. A geopolítica pressupõe aquilo que geralmente se denomina relações internacionais: relações políticas entre atores políticos *qua* políticos.

Como tudo ou quase tudo, também as relações internacionais têm uma génese definida no tempo, sendo a geopolítica posterior a essas mesmas relações internacionais, o que modo nenhum lhe retira crédito. Na verdade, formas de ser e estar tão essenciais à nossa existência, que parecem acompanhar o homem desde sempre, pensamos na interioridade e na intimidade, afinal também elas são apenas historicamente relevantes.

Como mostrou Charles Taylor (1989), a interioridade (e a afirmação da vontade) é algo que nasce na sociedade romana tardia quando estiola o último estoicismo (embora por este de alguma forma subterraneamente marcado), mas que apenas ganha uma expressão original e acabada com o cristianismo, em particular com Santo Agostinho. Quanto à intimidade, trata-se de um fenómeno muito mais recente, emergindo entre os séculos XVIII e XIX (Taylor, 1989)[4]. Já as relações internacionais nascem na época primomoderna, enquanto a geopolítica acompanha o despontar cronológico da intimidade. Em bom rigor, muito dificilmente poderemos pensar em relações internacionais aquém de Quinhentos, a não ser como força de expressão e facilidade de linguagem, pelo que as frases feitas acerca de orientações geopolíticas da Roma imperial, ou dos reinos medievos, carecem de real aplicação histórica, sendo antes mero *flatus vocis*; a própria expressão empregue *relações internacionais* dever-nos-ia levar a meditar sobre a sua etimologia e campo semântico.

O Mundo Greco-romano não Conhece nem Relações Internacionais nem Geopolítica

Em breves linhas, pode dizer-se que os gregos não têm verdadeiramente uma política externa, mesmo quando detêm uma posição imperial. Consideram esta unicamente como a melhor forma de prover ao sustento e à segurança das suas Cidades-Estado, à sua liberdade, inconcebível sem a dominação de outrem. Atenas, mesmo nos seus momentos áureos, não tem nada que se pareça a uma política ativa de expansão comercial, tal o conceito negativo que se faz do trabalho e o papel

4 Desta obra do filósofo canadiano, tenha-se atenção, em particular, à segunda parte, para a noção de interioridade, e à quarta e quinta partes, para a noção de intimidade. Veja-se igualmente Veyne (2005: 683-712), que refere um corte claro entre o estoicismo e Santo Agostinho no que à interioridade diz respeito, acrescentando, no entanto, e sem esclarecer, que o ambiente estava sensibilizado para essa mesma interioridade desde o século III, aquando do definhamento do estoicismo; entretanto posto fora de moda precisamente por culpa do voluntarismo e de uma inquietude interior a emergir.

desempenhado pelos estrangeiros[5] no comércio; as cidades gregas praticavam isso sim uma política de importação de cereais em virtude da impossibilidade de realização do ideal autárquico da *polis* (Austin e Vidal-Naquet, 1985: 113-129). Por outro lado, para o mundo grego, à sua roda giram simplesmente os bárbaros, mais ou menos capacitados militarmente, e não verdadeiros sujeitos dotados de dignidade atorial; postura clara em Aristóteles, que chega a identificar os bárbaros com a ideia de escravo por natureza (Aristóteles, 2005: livro I, cap.VI, 6, 1255a). Referir então uma disputa intra-helénica, a Guerra do Peloponeso, como um marco das relações internacionais é historiograficamente pouco ou nada aceitável[6].

Roma tem uma política imperial, como queiram os romanistas que se deva interpretar o império, mas à sua roda, ora conhece bárbaros, ora outros impérios ou reinos que lhe fazem ou poderão fazer frente. Isto é, Roma tem uma política para dentro do império, incluindo a segurança do seu *limes*, e uma política para o exterior próximo ao seu *limes*, para as suas áreas de influência, defensiva ou ofensiva conforme as circunstâncias. Mas mesmo esta só existe na medida em que possam estar em causa os assentamentos populacionais e não (ou só acessoriamente) o controlo do território por si. Aquilo de que não dispõe é de qualquer política internacional, seja porque os bárbaros não contam como atores políticos formalmente iguais, seja, por exemplo, porque os partos apenas lhe interessam enquanto podem afetar o império. Tudo isto entendido numa forma não intrinsecamente territorial, não estadual – território que é uma noção consubstancial às relações internacionais e à geopolítica –, na medida em que Roma interage com povos e, acima de tudo,

5 É preciso assinalar que o conceito de estrangeiro não é o nosso. O meteco tanto pode ser grego como não-grego. Mas o grego domiciliado numa Cidade-Estado como Atenas, sendo considerado estrangeiro e não dispondo de direitos de cidadania, não é visto, por exemplo, como um egípcio ou um persa. Aliás, em caso de conflito, como aconteceu com a Pérsia, isso é notório. Existe tanto um sentido de uma unidade helénica como a consciência de fraturas intra-helénicas, visíveis estas últimas na Guerra do Peloponeso. Por outro lado, um grego nunca será um bárbaro, mesmo que meteco, já um não-grego é-o ou é-o quase sempre.

6 N'*A República*, Sócrates argui, de acordo com uma representação um tanto ou quanto idealizada, é certo, quiçá como contraponto às dilacerações provocadas pela Guerra do Peloponeso, que quando os gregos combatem os bárbaros está-se diante de uma guerra, mas no caso dos gregos se combaterem entre si, se está diante de uma discórdia civil, uma sedição (*stásis*), uma vez que o termo *sedição* se aplica ao nacional e o termo *guerra* ao confronto com estrangeiros. Se considerarmos, ademais, o peso negativo que a *stásis* tem para o imaginário grego, uma espécie de mundo às avessas, dissolução pura e simples da ordem e consequente regresso à barbárie, pode aquiltar-se, não obstante a idealização, a força do argumento socrático. Ainda assim, há a considerar que embora se fale da mesma família e origem, de amizade por natureza e de parentela, nem Sócrates, nem Gláucon ou Adimanto, se referem aos gregos entre si como irmãos. A noção de pátria enquanto *brotherhood*, palco de irmãos de sangue em armas, foi até há poucos séculos uma noção de perímetro espacial restrito (Platão, 2001: livro V, 470b-471b).

com aqueles que os dirigem, num traço de "pessoalidade" e patrimonialismo que se prolongará até à Idade Moderna, do qual resulta a menorização das questões referentes ao domínio do espaço e à precisão de fronteiras enquanto tais: "Roma conquistava povos, não territórios" (López Barja de Quiroga, 2011: 66)[7].

Continuando a socorrer-nos de Pedro López Barja de Quiroga, desta feita parafraseando-o com relativa liberdade nas conclusões, verifica-se que nem na *pólis* grega nem na *res publica* romana o território é *o* dado primordial, como vai acabar por ser (ou, se quisermos, ser *um* desses dados primordiais) com a moderna lógica soberana. Mais importantes que as fronteiras, que o traçado propriamente geopolítico dos limites entre comunidades, são as próprias comunidades que habitam o território. Não significando isso que o território careça de importância real, nomeadamente a nível fiscal e religioso, mas ele não faz parte do núcleo essencial da política mediterrânica antiga, que se centra antes na cidade, no núcleo urbano enquanto comunidade qualitativamente organizada em torno de um sentido, de um fim, do bem comum, diríamos nós em instância aristotélica. Dito de outra maneira, o importante é a Cidade, esta cidade que acabámos de qualificar, não as fronteiras donde cessa o seu poder para dar lugar a outro poder também ele supostamente constituído a partir do domínio de um espaço linear, de certa forma construído de fora para dentro – como se primeiro fosse o espaço, o perímetro de delimitação face aos outros e vice-versa, e só depois, ou ao mesmo tempo, o que lá dentro se pode edificar; que é, de resto, o modelo que se configura a partir da Idade Moderna, por intermédio do Estado soberano, mas apenas a partir desse período (López Barja de Quiroga, 2008: 10-11)[8].

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7 Um raciocínio similar poder-se-ia aplicar igualmente ao mundo grego, e na prática isso mesmo subjaz à nossa argumentação. Aliás, Pedro López Barja de Quiroga refere que a cidade antiga não satisfaz os critérios do que pode ser considerado um Estado, pois nem a soberania nem o território se lhe apresentam como elementos essenciais. *Vide*, ainda López Barja de Quiroga (2007: 222). Acrescentaríamos nós, que no caso da soberania, uma criação moderna ainda que com fontes muito arcaicas, a questão não se colocaria de todo.

8 Não será por acaso, como acrescenta o autor, exatamente o contrário, a não ser para quem pense que as palavras são objetos descartáveis, superfícies sem relevo, que nem sequer existe uma palavra em latim para designar o território controlado pela cidade, pela urbe, algo que torna muito complicada a vida a quem insiste em ver em Roma um Estado (López Barja de Quiroga, 2008: 11). De resto, também a questão de soberania, que se tornou o elemento identificador por excelência do Estado, para além de pressupor a plena autonomia do político em torno da lógica de poder, fruto de um claro processo de secularização por transvase de categorias teológicas, a remeter a uma certa leitura do que é o poder divino, sobretudo monoteísta – apesar dos precedentes romanos da soberania (Agamben, 1998: 94 e ss.) –, no que diz respeito ao seu exercício não era sequer cogitada à época. À *pólis*, não era necessária a independência, bastava uma autonomia razoável, diz ainda o historiador López Barja de Quiroga (2008: 10) e com maior profusão de argumentos e referência às fontes (*Idem*, 2011: 66-68). Ademais, como a

Não é por acaso que "não há um Direito Internacional Público em Roma, por mais que tivessem sido os romanos a cunhar o termo *ius gentium*: direito das gentes ou das nações. Quando se fala de *ius gentium* em Roma, na realidade fala-se ou de Direito natural – uma noção estoica herdada por Cícero e da qual os juristas medievais e modernos extrairão os conceitos e instituições legais do Direito Internacional Público –, ou então […] do direito que assiste aos estrangeiros e seus negócios quando se encontram na cidade de Roma". Para Roma, a orbe "não é outra coisa senão a órbita romana, que se fecha em si mesma girando em redor de um centro que não é outro que Roma *caput imperii*. Rodeiam esse centro duas órbitas concêntricas: Itália e o limes. A visão que Roma tem do mundo é uma visão etnocêntrica e hegemónica, de domínio e expansão" (Ruiz Castellanos, 2012: 149-150).

No fundo, o que nem romanos nem partos se veem, de maneira alguma, é como atores principais numa ecúmena, naturalmente espacializada, de relações de poder, ou de qualquer outra variante política[9].

questão da soberania não se punha e com ela a de um seu atributo essencial, o da perpetuidade, até porque a montante, as comunidades políticas antigas não se concebiam como um todo mas como a soma de várias partes, cfr. López Barja de Quiroga, *Imperio Legítimo. El Pensamiento Político en Tiempos de Cicerón*, pp.77, 125-126, não é de admirar que Aristóteles argumentasse que mudada a constituição a *pólis* era forçosamente outra, uma vez que "uma cidade é a mesma atendendo principalmente à sua constituição"; e, neste último caso, pode alterar o seu nome ou manter o mesmo, serem os seus habitantes os mesmos de sempre ou outros completamente distintos, que a cidade é a mesma (Aristóteles, 2005: livro III, cap. III, 1276b). Cfr. Aristóteles, *Op.cit.*, Livro III, cap. III, 9, 1276b, p.182. Estranho raciocínio para quem está habituado ao conceito imperecível de país, do seu *corpus mysticum*, que os tratadistas medievais começam a forjar, à continuidade dinástica, à *dignitas non moritur*, e finalmente à pessoa coletiva do Estado enquanto ator perpétuo, até porque o Estagirita não nega a antiguidade e continuidade empírica das comunidades que conhece. Tanto mais que a constituição é a forma que dá forma à comunidade de cidadãos, e dada a proverbial superioridade da forma sobre a matéria em Aristóteles, seria suposto ver nesta uma continuidade que subtrairia a *pólis* à corrupção da matéria. Que seja a própria forma constitucional a quebrar a continuidade implica uma distinta visão das coisas. Pensamos que a razão última deste racional presente no pensamento greco-romano reside, como veremos, na ausência, de um *nomos* da terra, do qual derivará um *nomos* político, com os seus princípios perenes, dados à imagem do Criador e sustentados por Ele, até que o esquema temporal se cumpra – é a passagem de um esquema cíclico a um esquema ora escatológico ora linear para o mundo sublunar. Este *nomos* político não implica necessariamente a ideia soberana, mas a soberania sem ele, ainda que tergiversando o sentido mais próprio dessa Ordem, não teria existido.

9 Paul Veyne (2005: 52), parafraseando Mommsen, refere que de certa maneira Roma se considerava o único Estado no mundo – na verdade, o melhor seria dizer a única estrutura política no mundo – e que os imperadores não tinham ministro dos negócios estrangeiros.

A razão é muito simples e prende-se com as novidades trazidas pelo cristianismo, tendo por base a "velhinha" şedeq hebraica[10], quando coalhadas, em parte, na leitura de Cícero, no último estoicismo e no plotinismo: é necessário que aflore um *nomos* cósmico e da Terra, uma Ordem onto-ética, alcançando tanto a vida natural como o homem, mas sobretudo este último, que estruture plenamente todas as ordens da vida em torno de uma determinada finalidade querida pelo Criador, incluindo naturalmente as ordens social e política; sendo este *nomos* que irá colocar no mesmo patamar e permitir a comparação, no que à nossa matéria diz respeito, entre comunidades políticas – quiçá na ausência dessa ordem e no caráter avulso de fundo, num mundo já complexo, se encontre uma das razões principais do porquê da sociedade romana ser altamente ritualizada. Contudo, o provável mecanismo compensatório de ritualização não nos deve confundir quanto ao essencial[11].

10 A şedeq é sinónimo de justiça, entre outras extensões semânticas, enquanto "ordem criada, num todo bem integrado e harmonioso nas suas várias componentes, ordenador das justas relações ente os homens" (Vaz, 2012: 63).

11 Não é por acaso que se assiste amiúde em Roma a situações de grande turbulência, para não dizer mais, aquando das sucessões imperiais. Certamente que o poder imperial em Roma é, pelo menos idealmente, uma delegação do povo romano, não dispondo o imperador de uma legitimidade como que enervada na sua própria pessoa inviolável, algo que acontecerá mais tarde com os monarcas europeus, seja no seu corpo linhagístico-patrimonial, seja depois no seu corpo público. Paul Veyne (2005: 15-78) parece ter mostrado tudo isso de forma inequívoca. Todavia, sem que o historiador francês o diga expressamente, pode deduzir-se da sua argumentação e de várias passagens – o caso dos imperadores louvados em vida e vilipendiados sem mais depois de mortos, ou o caso das leis vigentes sempre carecidas de confirmação pelo novo imperador (*Idem*: 16), tudo como se efetivamente *a* dignidade imperial se não se perpetuasse por si, ou não existisse como princípio político autónomo – que o que falta para se conseguir a estabilidade política é uma ordem institucional autónoma – apenas terá uma expressão definitiva com o aparecimento moderno do Estado – que balize a transmissão de poderes. O problema não está assim nas sinuosidades do poder enquanto delegação, porquanto é fácil debelar o seu caráter aparentemente lasso, como todos nós sabemos no mundo contemporâneo, mas desde logo na ausência de uma ordem imanente a esse mesmo poder do povo romano em si. E isto independentemente da existência articulada de diferentes magistraturas. No fundo, voltamos ao mesmo: à ausência de um *nomos* da terra, no qual o povo romano se perceberia a si mesmo enquanto comunidade sacral-política – era ainda cedo para se chegar a uma comunidade puramente política, como se verá –, dentro da qual emanaria um conjunto normativo que teria o efeito de sustentar e assegurar não só a sua estabilidade como a sua estrutura, o seu esqueleto inviolável.

Ponderando eventuais objeções, não se nos afigura ser este um raciocínio circular, antes a turbulência política como facto manifesto parece (abdutiva e paradigmaticamente em sentido próprio) configurar a ausência de uma ordem política como caso de uma regra (aqui a ausência de uma ordem cósmica e terrena mais geral), que, por sua vez, ajuda a constituir.

Todavia, e esta seria uma derradeira objeção de fundo, dada a terrível complexidade do que era ser imperador em Roma, como o mostra Veyne, mesmo afirmações mais retumbantes deste histo-

Todavia, para Roma já era tarde demais, e o mundo medieval, demasiado fraturado em termos de poder (e não só, como veremos em seguida), não vai poder lançar mão dos recursos que conhece acerca desta Ordem, embora seja já na Baixa Idade Média que se comecem a forjar as estruturas políticas que dão origem ao tecido dos Estados-Nação europeus tais como hoje os conhecemos[12].

A Idade Média e a Primeira Idade Moderna: as Relações Internacionais e a Geopolítica são Ainda uma Miragem

Na Idade Média, período em que se começam a lançar as bases imediatamente precursoras do mundo ocidental tal como hoje o conhecemos, estamos, não obstante, ainda longe de poder falar propriamente em relações internacionais, nem mesmo segundo uma analogia, demasiado forçada e anacrónica, como se observou, usada muitas vezes para o mundo greco-romano.

As relações internacionais nascem com a descompartimentação do mundo levada a cabo pelos reinos europeus, em primeiro lugar os reinos ibéricos, com o lento desabrochar do Estado, dito, de forma pleonástica, moderno (e da vital noção de soberania) e com a teorização, primacialmente da segunda escolástica ibérica, acerca da relação que esses Estados tecem entre si e com terceiros, no seio de uma

riador, como seja a de que o imperador era um aventureiro (de extração senatorial, até ao séc. III) que tinha tido sucesso (*Idem*: 21), ou de que não devemos procurar a explicação para alguém se ter tornado imperador no Direito Público ou em qualquer base legal, antes na pura relação de forças (*Idem*: 22), talvez não devessem ser interpretadas em função da nossa proposta, mas da tal complexidade referida; tratar-se-ia simplesmente de uma outra ordem política com uma lógica de funcionamento distinta. De acordo, mas é justamente essa outra lógica e essoutra complexidade que se revelam anárquicas a partir de uma compreensão do mundo cabalmente normativa; e como é essa compreensão normativa que forja a ideia de comunidade política e a concretiza no seio de um ordenamento mais vasto que lhe dá sentido e lhe põe limites, não parece que a eventual objeção exposta possa infirmar seja o que for.

12 De qualquer forma, é a partir de Santo Agostinho, no caso da cristandade latina, e no império bizantino, portanto, durante toda a Idade Média que se escoram os fundamentos de uma lei divina, da Ordem de que falámos, operativa em todos os campos e de forma inter-relacional. Dante sintetizá-la-á mais tarde como espaço comum, trave-mestra do pensamento medieval: "Na ordem que eu descrevo tende assim/ toda a natura, por diversa sorte/ mais ou menos a seu princípio afim;/ onde a diversos portos se transporte/ no grande mar do ser, e a cada enfuna/ instinto que lhe é dado a que lá aporte" (Dante, 2011, Paraíso, canto I, 601). Repare-se que a descrição versificada da Ordem aparece logo no canto primeiro do *Paraíso*, a travejar tudo o resto. Como mostra Rémi Brague, a lei divina no espaço greco-romano, quando tematizada, era sobretudo uma ideia reguladora que exprimia as estruturas profundas de uma ordem natural perpétua, "que podia quando muito completar ou corrigir a legislação dos homens". Só a Idade Média tornaria essa Lei, nas palavras do filósofo francês, "uma realidade efetiva e que age na história como um fator que afeta as massas" (Brague, 2008: 47 e 141, respetivamente, para as passagens citadas). Havia, no entanto, que matizar a fórmula, cremos, em relação à *naturalis ratio* em Cícero.

ecúmena que nos foi dada a gerir pelo Criador. A geopolítica derivará daí, com algum intervalo de tempo.

Retomando a medievalidade, que é o ponto que mais nos interessa, porquanto genealogicamente somos dela politicamente herdeiros, pode afirmar-se, mesmo para a Baixa Idade Média, que a época é completamente omissa quanto à ideia de relações internacionais. Isto por duas ordens de razões. A primeira delas, que exporemos muito sucintamente, tem a ver com o reconhecimento epistémico básico para ação, que não é de molde a poder forjar racionais de raiz geopolítica. A segunda ordem de razões prende-se com questões mais diretamente atinentes ao mundo do político, e nela centraremos as nossas atenções, sem, contudo, esquecer que as duas ordens de razões estão certamente imbricadas, e a merecer um estudo ainda por fazer.

No respeitante ao reconhecimento epistémico básico para a ação, pode dizer-se que embora a Idade Média tenha já recolhido a ideia de um *nomos* revelado por Deus, que se esparze em distintas ordenações parcelares, mas concatenadas, para as diversas esferas da vida, não desenvolveu qualquer mecanismo de dissociação fatorial que valorizasse a autonomia relativa de cada esfera e subsequente compreensão muito própria de cada uma. Se indagarmos no mundo medieval o que se pensa, por exemplo, das categorias *causalidade, tempo* e *espaço*, perceber-se-á essa não dissociação fatorial, antes a intrincada rede de analogias, diríamos de pendor psicologizante, a tudo atribuindo intencionalidade, remetendo ultimamente para a vontade de Deus.

Todavia, aqui apenas iremos sumariar algumas das relações que o homem medieval tece com o espaço, a partir do seu reconhecimento epistémico de base relativamente a esse mesmo espaço. E fazemo-lo em relação ao espaço, uma vez que a geopolítica não é outra coisa senão o estudo do condicionamento espacial da ação política[13].

Consideremos então o espaço sucessivamente na dimensão social, civilizacional e cartográfica.

No mundo medieval os grupos sociais aparecem suportados por ordens absolutizadas e com uma visão de autorreconhecimento considerada igualmente de forma absoluta. Não negando a mobilidade social, mas fazendo-a percorrer mentalmente um caminho por saltos entre essas mesmas ordens absolutizadas, com "valorações" também elas absolutas. A sociedade é pensada como um agregado intencionalmente motivado, segundo uma intenção divina de assim o querer. Uma ordem estática, na qual qualquer atropelo representa um desvio (desordem), pensado (na maior parte das vezes) diretamente da relação que cada ordem absoluta imagina

13 Para um estudo mais desenvolvido e aplicado ao medievo das categorias de *causalidade*, *tempo*, *espaço* e *acaso*, veja-se Fernandes (2007: 259-304).

imediatamente como a única integralmente legítima, a relação com a divindade. Percebe-se de imediato que as considerações políticas (e não só essas) nunca são autonomizadas, nem ao nível de cada ordem, nem ao nível do agregado que perfaz a comunidade.

O outro civilizacional é sempre visto como uma desordem *simpliciter*, ou um caso estranho, exterior, à ordem que se personifica. Mesmo que se oponha exclusivamente por um só fator, o sujeito não se relativiza dentro desse fator. O que é mais, em caso de guerra, mesmo o próximo é imediatamente diabolizado, não chegando a adquirir a condição de outro enquanto ator. De modo que não se pode falar em relações atoriais num todo, numa ecúmena.

O espaço não é "verdadeiramente cartografado", pelo menos na aceção moderna do termo. Trata-se de um espaço intencional, simbólico, geralmente só se tornando vivo e sendo preenchido, quando adquire qualidades que se opõem, ou não, e em termos absolutos, a quem controla esse espaço. O que objeta a quaisquer racionais geopolíticos tal como nós os concebemos, com maior ou menor carga metafórica.

Primeiro, Ainda é Preciso Construir o Espaço e a Identidade Política

No que toca ao mundo do político, tal como é compreendido na Idade Média, devemos começar por dizer duas coisas: não há comunidade política pura, nem poder puro não partilhado acima dessa comunidade, como veio a ocorrer, de alguma forma (mais na Europa do Norte), na época moderna, e, com mais propriedade, na época contemporânea. Quando se afirma que não há comunidade política pura, trata-se de nunca esquecer que o corpo político – metáfora então empregada para designar o essencial da comunidade política, se não mesmo para a identificar pura e simplesmente – é plural, querendo com isto dizer-se que a própria definição da ordem política que o distingue como corpo político aparece sempre mesclada de razões de outra ordem, nomeadamente as religiosas, não permitindo ainda identificar um corpo exclusivamente político.

Não é por acaso que os ritos funerários dos monarcas medievais, cabeças dos emergentes corpos políticos, consignavam um sentido de triunfo como antecipação da futura *conregnatio* do rei com Cristo, sendo o rei enterrado com todo o seu aparato simbólico, enquanto nos ritos funerários primomodernos franceses e ingleses, dependentes da ideia dos dois corpos do rei (o natural e o público) e dessa outra segundo a qual o rei jamais morre, o sentido do triunfo celebrava a *conregnatio* do rei com a *Dignitas* real, cuja substância havia sido passada ao sucessor, mas que nas exéquias era representada pela efígie do monarca falecido. Efígie essa que simbolizava o corpo público do rei, uma vez que o seu corpo natural ia a enterrar, tanto quanto possível, como um simples penitente. É como se no caso medieval se quisesse assinalar que o fim da política era a graça, de que o monarca, tal como Cristo, era primícia de bem-aventurança, quando na época moderna, se passou a

querer sinalizar que a política era fim em si. Dizia-se mesmo, nos finais do século XVI, a propósito dos dois corpos do rei, que o corpo mortal do monarca havia sido criado por Deus, enquanto o seu corpo público, cabeça imortal da imortal comunidade política, fora criado pelo homem. Estava em curso a secularização, por translação de categorias teológicas, ou se quisermos, através de uma *signatura* que reenvia ao teológico, como num jogo de espelhos[14].

Já quando se afirma que não há poder político puro acima da comunidade, estamos simplesmente a dizer que não há Estado. Em bom rigor, o Estado é um produto da Modernidade.

Para haver Estado é preciso que este se decante do corpo comunitário de raiz política através da sua cabeça, que esta seja autónoma e até soberana, de modo a representar a referida comunidade face a si mesma e, sobretudo, face a outras, sem nela se diluir[15]. Para isso, é preciso que o Estado (com os seus atributos) seja encarado de

14 Acerca da origem distinta dos dois corpos do rei e das diferentes perspetivas do *conregnatio*, veja-se Kantorowicz (2012: 415-416), respetivamente. Segundo Agamben (2008: 19-20), a *signatura* pode ser definida como algo que num sinal ou num conceito o excede e o restitui a uma determinada interpretação, ou o desloca para outro contexto, sem com isso sair do âmbito do semiótico para constituir um significado novo, ou um novo conceito. Para a ideia da secularização como uma *signatura* do sistema conceptual moderno, veja-se Agamben (*Idem*). Para uma compreensão mais alargada da figura da *signatura*, veja-se ainda Agamben (2010: 43-107).

15 É só nesse sentido da não decantação que se devem entender os juristas medievais quando estes dizem, durante grande parte do medievo, que a corporação política não tem cabeça, nem alma nem intelecto. Daí a sua dificuldade em lidar com a ideia de pessoa coletiva integral, que não fosse apenas fictícia mas operasse como uma pessoa real em termos jurídicos. Ernst Kantorowicz afirma que o Estado medieval é um Estado corporalista. Não se aplicando de todo vê-lo como uma *persona ficta* por cima dos seus membros. O Estado medieval, nas palavras de Kantorowicz, não é, pois, um ser superior *per se* mais além da cabeça e dos membros que o configuram enquanto todo organológico, ou mais além da moral e do direito, pelo que se não decanta do corpo político, quando é precisamente essa decantação, através do ponto de fuga da cabeça, que permite o desabrochar do Estado. Aliás, Kantorowicz salienta que corpo e cabeça aparecem articulados de forma estreita, como se de um todo orgânico se tratasse, o que não deixa de ser deveras revelador, mas *a contrario* da defesa da existência de um Estado medieval. O historiador alemão releva também a importância que para o Estado tem a figura da pessoa fictícia. Mas diz que o Estado medieval a desconhece, porque sabe das dificuldades dos juristas medievais em lidar com a ideia de personalidade jurídica coletiva – por exemplo, a não-aceitação de que uma comunidade personificada enquanto unidade pudesse delinquir, por falta de alma ou de corpo material, ou porque poria absurdamente em causa a inocência dos futuros membros (Kantorowicz, 2012: 310-312). Ora, é a atribuição de personalidade, primeiro moral e depois jurídica, ao Estado que lhe dará sustentabilidade até aos dias de hoje (*Idem*: 278). E Kantorowicz reconhece-o, quando afirma que o Estado, na Europa continental, do século XVI em diante se converteu numa *persona ficta*, que por direito próprio não só se achava acima dos seus membros, como se divorciara destes (*Idem*: 379) – a tal cabeça que se decantara e autonomizara por completo do corpo, e que o tragaria em nome da unicidade e indivisibilidade da soberania.

acordo com uma racionalidade e uma funcionalidade essencial própria, até mesmo como um fim em si mesmo – o conceito de razão de Estado tanto faz emergir essa teleologia como emerge dela – e dessa forma possa definir e posteriormente desfuncionalizar o corpo político (a separação Estado/sociedade civil). Porque quando o corpo político é tomado enquanto tal, isto é, como corpo político *qua* corpo político, enquanto racionalidade e funcionalidade intrínseca e própria do ponto de vista político-jurídico[16], conjunto estruturado, então esse mesmo corpo político pode muito bem ser identificado pela "abstração" político-jurídica (o Estado) entretanto criada precisamente para plasmar essa essencialidade política autónoma[17].

16 O jurídico vai acabar por limitar o político em termos de puro poder, até ao momento que o político, mediante o exercício soberano, consiga não só suplantar o jurídico, mas fazer dele uma sua emanação. Claro está que isto pressupõe que o jurídico possa ontologicamente ser visto para além de uma mera cobertura de arranjos de poder e de justificação daquele que se impôs como mais forte. Não estamos certos que teses como as de Benjamin e Agamben se apliquem por inteiro antes da Idade Moderna, em particular, ao medievo. Neste último caso, como o direito dependia da moral e esta da teologia, a codificação da política como *jurisdictio* (dizer do direito) era clara e a contenção do assomar do poder *per se* também. Da mesma forma, como a guerra se definia nos confins da política, mas sem foros de cidadania política, o direito não derivava dela, antes nela se procura imiscuir para a controlar e evitar que a sua indesejável vizinhança do mundo da tranquilidade na ordem, ou do bem comum, contaminasse a Cidade. Todavia, também não estamos certos de que a um nível antropológico e ontologicamente mais fundo o jurídico, mais de que dizer e afirmar de direitos, não faça parte da ancestral constelação de dispositivos para controlar a vida, domesticar o outro e amansar os deserdados da terra. Desse ponto de vista, a arquitetura da *jurisdictio* seria uma forma histórica mais, não de exercer o poder e alforriar a lógica de poder, em sentido político estrito, mas de domínio. Para a triangulação entre poder, violência e direito, saliente-se o ensaio *Sobre a Crítica do Poder como Violência* (Benjamin, 2010: 49-71). Acerca da ligação constitutiva do direito com a maldição, que acompanha o juramento enquanto sacramento da linguagem, *vide* Agamben (2011). E ainda Agamben (2001: 14-15), para a ideia, com recurso ao direito romano, de que a vida aparece originariamente no direito tão só como contrapartida de um poder que ameaça de morte.

17 Historicamente falando, essa essencialidade política autónoma da comunidade que se passa a ver a si mesmo como Estado alimenta a novel máquina burocrática, tanto como a complexificação das funções de governo que necessitam dessa máquina alimenta igualmente o sentido de autonomia da categoria Estado e respetiva racionalização e teorização específicas. De qualquer forma, a construção do que se designa, de forma redundante, por Estado moderno é uma tarefa muito longa no tempo, pelo menos na Europa meridional, mas também, de certa forma, na Europa do Norte, particularmente no caso inglês, onde se nota a dificuldade em assumir a figura do Estado como representando sem mais todo o corpo político, pelo que este último não seria senão corpo do Estado *simpliciter*. Para as resistências inglesas à ideia do corpo político ser tomado como mera expressão da cabeça (o Estado), ou como só tivesse sentido a partir desta, *vide* Skinner (2011). Donde se depreende de certa passagens, por exemplo, as referentes a Henry Parker (*Idem*: 21-24), que se a palavra *Estado* já significava o corpo político como um todo unificado precisamente por esse mesmo Estado (de alguma maneira uma cabeça), ao mesmo tempo é referido o corpo por oposição à cabeça monárquica. Estaríamos diante de antigas resistências formuladas numa nova linguagem e dificul-

Na verdade, tanto nas monarquias senhoriais como nas subsequentes monarquias regalistas[18], o essencial e o decisivo tem a ver com o papel que o corpo desempenha enquanto eixo central na configuração da esfera política e joga-se na ordem interna, para fazer uso de um jogo de linguagem que é caro ao nosso tempo e útil por mor da explicação, mas pressupondo uma dicotomia (interno/externo) que se não aplica de todo à época medieval.

Já no terceiro quartel do século XII, e a propósito do corpo glorioso de Cristo e das relações deste com o homem e a Igreja, o Cristo total, mas com óbvias repercussões dirimentes a nível político, porque o que está em causa à época são comunidades político-sacrais, o teólogo cisterciense Isaac d'Étoile expõe um padrão que, a nosso ver, será o de toda a Idade Média até ao seu crepúsculo. Escreve Isaac d'Étoile num dos seus sermões que "como a cabeça e o corpo fazem um só homem, assim o Filho da Virgem e os seus membros formam um só homem e um só Filho do Homem. Cristo completo e total, como diz a Escritura, é a Cabeça e o Corpo. Com efeito, todos os membros juntos constituem um só *Corpo*"[19].

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dade em atribuir ao Estado em si mesmo personalidade jurídica, fazendo dele uma pessoa coletiva juridicamente unificada, fosse quem fosse que a materializasse como cabeça da cabeça, digamos assim – um, vários, ou todos. De qualquer forma, no caso inglês é necessário a devida cautela tendo em atenção a longa tradição de uma autoridade composta da cabeça – rei e parlamento, já defendida por Sir John Fortescue. Ou dito de outro modo, atendendo à complexidade das metáforas de origem medieval, agravada no caso inglês por uma certa indistinção, a coroa é uma suprema autoridade composta de que o rei é a cabeça. Porque se, em princípio, o corpo se poderá sentir melhor representado numa cabeça composta, basta que esta chegue a ser soberana para que a definição integral do corpo pelo Estado e a subsunção desse mesmo corpo venha a ocorrer, independentemente da constituição da cabeça. Para o caso português, a acreditar nos absolutamente incontornáveis trabalhos de António Hespanha, não se podem vislumbrar com clareza os perfis do dito Estado moderno antes do século XVIII, mesmo atendendo a que Portugal é, por outro lado, uma comunidade política precocemente estabilizada em comparação com muitas das suas congéneres europeias. Convém, por fim, notar, que este processo de radical autonomização fatorial do político-jurídico é fruto de um processo mais vasto de secularização – que não tem por que recusar o próprio teológico enquanto motor de secularização –, e de modo algum se dá em nenhuma sociedade histórica que se conheça, para cá dos Himalaias, antes da Idade Moderna europeia.

18 Referimo-nos, com a expressão *monarquias regalistas*, às monarquias medievais, que proliferam já no século XIV, em que os direitos do monarca enquanto pessoa pública começam a prevalecer sobre os seus direitos e privilégios como senhor *qua* senhor, a que, apesar de tudo, nunca se resumiu por completo.

19 Trata-se de uma citação do cisterciense Isaac d'Étoile, *Sermon* 42, 12 (*apud* Martins, 2011: 196). O itálico é nosso. A passagem acima citada poderá ser também uma boa ilustração de como é concebida a Igreja, à volta do centro romano, incluindo a reforma gregoriana. Assim, não seria tanto o privilégio cesarista do papado a evocar, discordando, um tanto, de uma versão popularizada por Hans Küng (2002), embora a centralização papal possa posteriormente servir de modelo para o desabrochar das cabeças estaduais (Prodi, 2011), mas sobretudo a unidade da Igreja como Corpo de Cristo e Povo de Deus, a dos níveis: a de todos os fiéis e seus representantes sacerdotais, e o da igreja institu-

O referido padrão vemo-lo claramente replicado na primeira metade do século XIV, aquando de um problema de jurisdições territoriais que envolviam a cidade de Valencia e o rei Afonso IV de Aragão. Por essa altura, mais propriamente entre 1327 e 1336, anos em que Afonso "o Benigno" reinou, um jurado da cidade, Guillem Vinatea, terá dito ao seu rei o seguinte: "como homem não sois mais que nós e como rei sois por nós e para nós"[20]. Cremos que a passagem por si é suficientemente eloquente, dispensando, no presente contexto, comentários adicionais.

Onde nada há acima da comunidade política, a cabeça mal se decantando do corpo político, ou não passando de um seu aríete – e a cabeça é que exprimiria o corpo enquanto conjunto, isto é, visto de fora, projetado para fora, ou face ao de fora –, e a nascente ideia de soberania não se tendo autonomizado, onde existe, portanto, uma maior ou menor dose de pré-estatalidade, não se pode falar propriamente de relações internacionais, não só porque existe uma certa patrimonialidade no exercício do poder[21], mas sobretudo porque para a comunidade política

cional com a sua hierarquia sacerdotal. No primeiro caso, querendo-se ressaltar a unidade de credo e de liturgia, e no segundo caso, a unidade institucional da comunidade eclesiástica. Em ambos os casos, face ao encasulamento e à dispersão relativa que aquilo que se convencionou designar por Alta Idade Média e por regime feudo-senhorial – sem que os dois se sobreponham temporalmente – explicam. Da mesma forma, a luta entre o papado e o império deveria ser entendida antes de mais como a luta entre a Igreja e o Império e não entre o papa, ou a cabeça romana, e o imperador. Sobre esta luta, sem que coincida necessariamente com a nossa perspetiva, *vide* Ullmann (1997).

20 Citado por Ernest Belenguer (2011: 83), a partir da obra Gaspar Escolano, reeditada e ampliada no século XIX por Juan Perales, *Décadas de la Historia de la Insigne y Coronada Ciudad y Reino de Valencia*, Vol. III, 1880, p. 181. Esta ideia do poder como ministério, serviço da cabeça em prol do corpo político, terá uma longa posteridade no espaço peninsular. Ainda em 1641, o jurista e publicista António de Freitas Africano (2005: 36) lembrava nos seus *Primores* que "não se diz de Portugal Rei, senão Rei de Portugal, porque o Rei foi eleito e subordinado para o Reino, e não o Reino para o Rei". Aliás, citando a mesma passagem, Pedro Calafate (2012: 99) coloca-a precisamente no contexto do poder como ministério à comunidade política.

21 Na medida em que cabeça mal sobressai enquanto cabeça do corpo político, que, por sua vez, está ainda a constituir-se, quem exerce o poder tende a tomá-lo por seu ou da sua linhagem. Em linguagem contemporânea, dir-se-ia que quem exerce o poder usurpa prerrogativas públicas. Todavia, o poder público está longe de ser um produto acabado ao longo da Idade Média, para se poder falar verdadeiramente em usurpação. Acresce que, ao contrário dos imperadores romanos, como vimos, os monarcas medievais têm inscrito na configuração patrimonial-linhagística das suas pessoas uma legitimidade de mando intrínseca que os leva a agir como agem. Uma legitimidade que provêm tanto da velha herança germânica – vejam-se, por exemplo, os rituais mito-mágicos dos reis taumaturgos e a realeza sacral em Bloch (1983) –, quanto da influência da Igreja, reinterpretando a *res publica* romana – o rei como defensor da comunidade e da paz –, ou consagrando-o como vigário de Cristo na terra – veja-se ademais Marc Bloch (1983) e Walter Ulmann (1997), o estudo já citado de Ernst Kantorowicz (2012: cap. III) sobre a realeza cristocêntrica. De qualquer forma, a situação é historicamente complexa até ao século XIV, porquanto o rei tende a confundir a legitimidade distinta que possui, a de não ser um mero senhor, com a lógica dominial vigente, comportando-se,

as questões essenciais são a definição interna do poder e a regulação adentro da comunidade, para escapar à desagregação a que tende o regime feudo-senhorial[22]. Ora, um dos principais atributos da soberania enquanto fator autónomo é

dentro dos limites da ordem da criação pelos quais vela conjuntamente com a Igreja, como se o reino fosse dele. Mas como o monarca não tem poder efetivo para isso, nem sequer para ser simplesmente o poder superior que almeja ser, e será na época tardomedieval e primomoderna, na prática mais que rei do reino é Senhor de senhores e entre senhores; rei de determinados domínios que pertencem a esse reino. Contudo, a história não acaba aqui, porque ao ser apenas senhor incontestado das parcelas dominiais em que tem poder, vai impor nestas e sobre a lógica dominial, senhorial-feudal, que certamente lhe poderia muito bem bastar, as prerrogativas de mando (não nos referimos à *plenitudio potestatis*, nem simplesmente à *auctoritas* ou à *potestas* e respetiva articulação, porque isso é complicar num espaço pequeno um assunto que envolve outras personagens: o papa e o imperador) que decorrem da condição de monarca, nunca totalmente perdida. E será precisamente no governo direto desses domínios que estabelecerá as bases para a criação da coisa pública - preferimos *criação* a *renovação*, porque o público enquanto ordem e dignidade imanente, autónoma, sistemática, estável e perpétua e não avulsa, é algo de moderno, com inequívocos contributos medievais, mas de modo algum romano. De resto, a acreditar em Dominique Barthélemy (2006: 27, 35 e 43), opondo-se à tese da anarquia feudal, a ideia do público e da comunidade do reino nunca se terá perdido, nem mesmo entre os séculos IX e XI, relativamente à aristocracia feudal.

22 Já no caso do imperador romano podemos aparentemente falar de uma cabeça que se decanta por entre o povo romano. Porém, trata-se muito mais de uma cabeça de si mesmo que de Roma, da qual supostamente seria representante. Nem Roma nem o imperador configuram estruturas político-institucionais estáveis, como vimos, pelo que a relação metafórica entre corpo e cabeça, ou outra qualquer, é dificilmente operacionalizável. Consonante com uma determinada personalização e patrimonialização, a própria de um chefe conquistador, de uma lógica de chefado, o imperador tende mais a assumir que a representar Roma, ela própria bem menos unificada do que aquilo que geralmente se diz, se compararmos com as entidades políticas tardomedievais, senão mesmo com as nascentes unidades políticas da Baixa Idade Média, pelo menos ao nível dos princípios. Assim, a aparente cabeça política que o imperador romano exprimiria face a outros, na realidade não traduz um todo atorial. Se a cabeça medieval está subordinada a um corpo em constituição, a "cabeça" romana aglutina bem mais a vontade de aglutinar (se é que essa vontade se dá) que propriamente um corpo real. Com independência do comportamento errático ou consistente do líder, existe um arbítrio de princípio que não é compaginável com a consistência de uma moldura atorial, essencial às relações internacionais, tanto nos imperadores romanos como no caso dos reis medievais que agem como se o reino fosse seu. A ser certo o que referimos na nota anterior e o que já dissemos sobre o poder político romano, o arbitrário é até maior no caso dos imperadores. O maior lastro efetivo e material de Roma e do seu peso histórico sobre os imperadores, bem como a tradição, aliás bizantina, medieval e depois renascentista, acerca de uma presuntiva ordem sistemática romana republicana – no sentido de *res publica* – comparativamente com o incipiente ou inexistente lastro que se poderia apor ao monarca medieval, não nos devem confundir sobre a pré-compreensão onde estava projetada a vida do homem romano e o *Dasein* que começava a conformar o medievo, no essencial aquele pelo qual nós ainda somos-no-mundo, no que a esta matéria diz respeito.

De qualquer forma, nunca seria uma representação pura, a do imperador romano, desconhecida para o mundo antigo, porque pressupõe a invenção moderna do Estado e a separação deste da comunidade política, transformada aos poucos em mera sociedade civil.

precisamente a soberania do Estado face aos outros Estados. Por conseguinte, subordinar a soberania à comunidade, para dizê-lo com calculada impropriedade, ou tão simplesmente – e mais de acordo com os tempos medievais, anteriores à assunção soberana – subordinar-lhe a representatividade do conjunto (face ao "de fora") que a cabeça configura, é não relevar autonomamente as relações inter-Estados, que lentamente sobressaem no vácuo da luta entre o papado e o império – confrontação, neste particular, já por si nada é despicienda. Em suma, sendo o corpo político indispensável e o centro das atenções[23], não existe poder político puro e muito menos não partilhado a encabeçar e acima desse mesmo corpo político. Acontecendo isto também porque não se releva o emergente internacional. Por outro lado, não se releva o internacional, porque o essencial diz respeito à imposição da ordem e da justiça no seio da comunidade política, que, no limite, é toda a comunidade cristã latina.

Um tal estado de coisas é tanto mais válido quando estão em causa as monarquias senhoriais, isto é, as monarquias estatalmente incipientes que, *grosso modo*, atravessam os séculos XI a XIII. Nesses casos, e mesmo referindo-nos a reinos de precoce centralização, como Portugal, é muito difícil situar o interno face ao externo. Como afirma brilhantemente o medievalista Hermenegildo Fernandes, no seu estudo biográfico sobre Sancho II, por essa época "o domínio dos laços pessoais [o mais importante à época] é o do efémero e como o território é menos importante do que aqueles que nele habitam e, sobretudo, do que aqueles que nele mandam, também o de uma relativa volatilidade da relação com o espaço, pelo menos se a contrastarmos com o sucessivo modelo social de apropriação do espaço, empenhado em ancorar cada vez mais os indivíduos numa espacialidade claramente demarcada". Noutra passagem, o mesmo autor refere ainda que "os últimos séculos da Idade Média verão, através, de uma política, talvez não absolutamente consciente de vertebração territorial e institucional do reino, as primícias da criação desse espaço [espaço económico nacional], definido essencialmente na demarcação face ao poderoso vizinho castelhano. No tempo de Sancho o que existe é uma coisa inteiramente outra: por um lado o reino é um tecido, de trama pouco apertada, de cidades e de territórios – "terras" – essencialmente rurais com muito escassa articulação entre si, partilhando uma sorte própria que lhe advém da contiguidade geográfica; por outro

23 Mas não um corpo puramente político, reitere-se. Isto é, o corpo político está no seu núcleo central afetado por outras dimensões que não as exclusivamente políticas, nomeadamente aquelas atinentes à dispensação jurídico-moral da justiça e do amor, teologicamente enquadradas pelas virtudes teologais, e todo este quadro ordenado ultimamente à preparação ou mesmo à realização da graça. Dependendo, se considerarmos ou não para a época estioladas ou enfraquecidas as aspirações messiânicas e escatológicas primocristãs.

lado, por isso mesmo que esses laços internos são escassos, a integração no espaço peninsular e, mesmo, magrebino é muito mais evidente […]" (Fernandes, 2006: 53 e 66, respetivamente).

De tudo isto facilmente se depreende que a fronteira, fundamental em termos geopolíticos, é no período medieval algo bastante esquivo. Ela está longe de uma estabilização nuclear, desde logo porque durante todo ou quase todo o período medieval a própria noção de fronteira não se autonomizou enquanto tal, muito menos a noção de fronteira linear, que nos é tão cara desde Oitocentos e que ainda reproduzimos naturalmente na nossa cartografia política. Como mostra Hermenegildo Fernandes para o caso português, mas o mesmo será válido para os outros reinos europeus, tanto mais que em Portugal se dá uma centralização política relativamente temporã e o delinear do que será a futura fronteira linear do país muito cedo, o povoar de castelos – e não de uma rede de castelos – a raia não pressupõe um traçado anterior de fronteira política reinícola que importaria defender. Pelo contrário, é a partir desses núcleos encastelados que se irá chegar, por aglutinação progressiva e sem qualquer pré-definição, à fronteira linear, o mesmo é dizer, a uma ideia autonomizada e definida de fronteira que se interioriza como essencial para a representação do ator político Portugal face a terceiros. Até lá, o reino é construído de dentro para fora, pois "a fronteira resulta da justaposição de uma série de parcelas, de núcleos operando à escala local, cujos limites podem ter graus diferentes de definição, podendo ir da situação perimétrica, suporte da fronteira linear, à zonal" (Fernandes, 2009: 171) – o que mostra imediatamente que não se pressupõe uma qualquer relação continuada entre atores políticos devidamente consolidados e coesos, no caso, em torno de um todo espacial; isto é, não se pode observar nenhuma relação internacional de natureza geopolítica e geoestratégica, porquanto todas elas se tecem em torno de blocos espaciais, reais, idealizados ou imaginários, politicamente não operacionalizáveis, para não dizer mesmo politicamente estranhos ao medievo.

Da mesma forma, a identidade dos povos está ainda muito distante de encontrar a sua expressão acabada, ou sequer consolidada, dentro de um território e em relação ao mesmo, uma vez que também o território está em fase de construção, como vimos. O que temos são esboços de contornos identitários que a seu tempo verão a luz num traço preciso. De tal modo assim é que, num país como Portugal, cedo estabilizado naqueles que viriam a ser os principais fatores de portugalidade, e já na época primomoderna, na qual o país se exercita na vanguarda do processo de configuração do Estado, não apenas o espaço e a fronteira eram mal conhecidas, datando a primeira representação cartográfica do reino, da autoria de Fernando Álvares Seco, da segunda metade de Quinhentos – 1561, editada em Veneza –, como a identidade reinícola sofria a concorrência, não

poucas vez com êxito, da identidade católica, hispânica, social, familiar e até local. O que de modo algum fazia dos portugueses simplesmente e acima de tudo portugueses. Sendo muito provável que o mesmo valha, por maioria de razão, para os restantes países europeus (Silva e Hespanha, 1993: 19-37).

A Geopolítica: um Saber e uma Prática com Duzentos anos

Com tudo o que acabámos de evidenciar, está bom de ver que não basta o passo da medievalidade à modernidade para se poder começar a falar, com certo automatismo, de questões geopolíticas. Mas para além do processo ser lento e não ser linear, não estando terminado nos alvores da Idade Moderna, se há algo que os Estados modernos herdam das monarquias regalistas, ainda que modificado, é a clara destrinça entre paz e guerra. O monarca, ou o príncipe guardam pela justiça (poder é então *jurisdictio*) e pelo amor os seus súbditos da desordem, cuja guerra é um dos principais fautores. Será preciso interiorizar noções como a de razão de Estado, a partir de Seiscentos, que vai a par da acentuação soberana, e logo de um puro poder estatal não partilhado[24], para se começar a pensar a paz como equilí-

24 Claro está que a emergência da cabeça sobre o corpo político, o mesmo é dizer, de um poder puramente político (inicialmente político-jurídico) não obrigava a que esse poder expropriasse o corpo político que representava da sua politicidade intrínseca. A ideia de um poder político puro não partilhado não era o único caminho possível, embora fosse aquele que acabou por sair vitorioso. A segunda escolástica desenvolvera uma linha de raciocínio que poderia ter sido perfeitamente aproveitada, e que consistia numa relação partilhada, no seio da comunidade política, entre a cabeça e o corpo. O avanço era óbvio em relação à Idade Média. Reconhecendo a importância cada vez maior da figura do Estado, o qual não poderia ser como que diluído no corpo político, ou ser mero aríete deste, mas, em contrapartida, também não deveria subsumi-lo, procurou-se que fosse a comunidade política, enquanto unidade de pessoas públicas diversas, a depositária última do poder, sem a confundir já e simplesmente com o corpo político, com esse inextrincável organológico que, quando pensado como corporação, acaba por acentuar o primado político, sem mais, do corpo. No fundo, a segunda escolástica dá azo a que a comunidade política seja pensada como combinado de funções autónomas, que no seu esforço congregado concorrem para o bem comum. Cabeça e corpo exercendo funções complementares e *adicionalmente* – porque esse não é o seu múnus, sob pena de fundamentar a política numa lógica adversativa, pondo em causa o comum da comunidade – de freio e contrapeso mútuos. A nosso ver, o pensamento de Suárez traduz isto mesmo. As diferenças possíveis de tonalidade de pensamento andariam depois à volta de saber se a comunidade resguardava essencialmente os velhos poderes políticos do corpo, ou se promovia a cabeça sem esvaziar o corpo, ou então se encontrava a muito difícil via média equidistante. Parece-nos que a primeira solução (conjuntamente com algo da terceira), dadas as circunstâncias históricas retrospetivas a partir das quais elaboramos, teria sido a melhor, reconhecendo o Estado como eixo mínimo de organização e ordenação do pôr em comum requerido por sociedades complexas, mas ressaltando essa relacionalidade *per se* do pôr em comum da comunidade (bitola do bem comum), sem identidade sintética, que o

brio de poder, de raiz estratégica, e não como uma mundividência diametralmente oposta à guerra. Todavia, é necessário dar ainda mais um passo teórico e recordar que só a partir de fins do século XVIII, com os nacionalismos em ascensão e também com a noção de nação em armas se pode rigorosamente fazer menção ao jogo internacional como o de uma luta pelo poder, mais do que um dinâmico equilíbrio de razões de Estado. Nesse aspeto, geopolíticos como Mahan ou Mackinder antecipam os racionais da escola realista de relações internacionais em quase meio século[25]. Por outro lado, aquela imagem que muitos de nós temos na cabeça (pensando de imediato em Felipe II), de altos responsáveis a dirigirem ou a tentar dirigir os destinos do mundo conhecido nos seus gabinetes estratégicos não é senão um anacronismo projetado pelo desenvolvimento tecnológico dos meios de comunicação e de coisas tão simples como mapas operacionais, aqueles não suficientemente rápidos e estes não suficientemente eficazes ou detalhados, pelo menos até ao dealbar de Oitocentos, para sermos generosos.

Porém, referir o jogo geopolítico, a própria semântica de *potências enredadas em jogos de poder geograficamente condicionados* – para já nada dizer sobre a semântica da própria noção de *potência* –, particularmente a dicotomia marítimo/continental, pressupõe os três aspetos mencionados: a ideia de equilíbrio de poder, a ideia posterior de luta pelo poder e a capacidade tecnológica para tornar exequíveis essas ideias. Nenhuma dessas premissas se dá em conjunto com anterioridade ao século XVIII, digamos ainda com maior generosidade, pelo que referir realidades geopolíticas – não dizemos de potencialidades de cariz geopolítico, que começam a ser pressentidas, e aqui e ali assumidas, nos começos da modernidade – antes desse tempo, ainda para mais de uma específica dicotomia que tem negativamente marcado o exercício da disciplina geopolítica, por redutora senão mesmo errónea no essencial, parece-nos completamente despropositado. Para empregar uma expressão de que não gostamos, e incidindo tanto no universo geopolítico quanto geoestratégico, a suposta "grande estratégia" de Afonso Henriques, exemplificando com um herói que é particularmente caro aos portu-

corpo plural expressa melhor que a cabeça unitária. Todavia, no que concerne à leitura de Suárez, naturalmente longe de imaginar as totalizações de poder que viriam por aí, e sem nunca alijar o poder, por mais autónomo que fosse, de um ancoradouro ético superior e de uma abertura ao transcendente – não estando de todo enganado quanto às premissas, apenas quanto às formulações de dependência, excessivas para a liberdade do homem e para a autonomia das diferentes esferas da vida –, hesitamos quanto a atribuir-lhe a segunda ou a terceira soluções. Seja como for, as energias soberanas esmagaram mais cedo ou mais tarde todas as veleidades em relação a caminhos alternativos concretizados; e isto até hoje.

25 Não se quer com isto defender as reflexões da escola realista em torno ao poder, tão só afirmar que, independentemente da sua justeza, antes do período referido os seus racionais nem sequer seriam interiorizáveis pelos decisores político-militares.

gueses, não só é historiograficamente descabida como configura na realidade um mito, valendo o que valem todos os mitologemas – basta atentar na recente biografia dedicada por José Mattoso (2007) ao primeiro dos afonsinos[26].

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26 Não há rigorosamente nada no livro que nos permita falar de um horizonte estratégico na ação do primeiro rei de Portugal. Aliás, nomear Afonso Henriques como o primeiro dos afonsinos, algo que Mattoso evita, pressupõe uma carga fundacional retrospetiva que a sua época não suporta de todo. Infelizmente, está tão entranhada a ideia de uma estratégia nacional de Afonso Henriques, como se do nosso tempo se tratasse, que um estrategista da talha de Bruno Cardoso Reis, ademais com formação de historiador, num artigo recente, incorre no mesmo dislate, vá se lá saber porquê, sem apresentar qualquer respaldo teórico ou empírico para o efeito (Reis, 2013: 17-18). Bastaria atentar no racional de António Paulo Duarte, desenvolvido no mesmo número da publicação em causa, para se perceber da impossibilidade de uma estratégia nacional de Afonso Henriques. O referido o racional, ainda que deva ser bastante matizado em nosso entender, mas por razões ainda mais desfavoráveis aos defensores de uma estratégia nacional arcaica, mostra-nos como à época a liderança marcial e a arte do combate eram muito mais relevantes que o conhecimento e ponderação estrutural sobre o contexto envolvente do conflito, dos seus constrangimentos, das suas potencialidades e vulnerabilidades, deixados em grande parte à providência divina (Duarte, 2013: 51-52).

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