Reimagining Security:
The Metaphors of Proliferation

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For forty-five years the confrontation between the United States and the Soviet Union has defined the theory and practice of international security. We lived, it was assumed, in a 'bipolar world', with one pole in Washington and the other in Moscow. These poles oriented our thinking about security, not only between the superpowers or even in Europe, but in the world. Once the confrontation ended and the Cold War was declared over, the custodians of international security policy scrambled to make sense of a world that had lost its bearings. Their theoretical and practical compasses no longer gave direction.

In response to this loss, policy makers and students of international politics have been engaged in rethinking international security. Much of this rethinking has involved identifying interests—usually American interests—and arguing about how policy should be changed to meet those interests now that the Cold War has concluded. More thoughtful contributions to this debate have argued that the end of the Cold War provides the space for an international security agenda that is not dominated by the supposed interests of the United States and its allies, and is not concerned solely with the leading states' military muscle. However, this very process of rethinking international security is also reshaping the security agenda. It is developing new terms in which security is being thought, and is thereby structuring the problems to be tackled and the solutions which will be tried.

The Cold War security environment was thought in terms of an image of bipolarity and of Cold War. This defined and ordered problems—indeed, much of the 'new thinking' in international security is a reaction against the exclusion and marginalisation of other concerns. In large part the tasks of definition and ordering are performed by the metaphorical content of the security images. Images comprise a series of metaphors, which shape our understanding of policy problems, and thereby inform the solutions which are, and are not, attempted. In this chapter I consider one of the central images which is emerging from the rethinking of international security, the image of proliferation. I will show how this image is being constructed in the discourse and practice of (particularly western) states. I will also examine the metaphors which are contained in the image, and show how they are informing a particular, and flawed, policy response.

One noted, and useful, example of the rethinking of international security was provided by Charles Krauthammer, in the journal of record of the US foreign policy elite, Foreign Affairs, in early 1991. He was responding directly to the collapse of the 'bipolar' image of the Cold War: "Ever since it became clear that an exhausted Soviet Union was calling off the Cold War, the quest has been on for a new American role in the world. Roles, however, are not invented in the abstract; they are a response to a perceived world structure." 1 The structure

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Krauthammer perceived following bipolarity was a "Unipolar Moment". In addition to redefining international security in terms of unipolarity, Krauthammer also gave an early statement of the 'proliferation' problem as it would come to be understood:

The post-Cold War era is thus perhaps better called the era of weapons of mass destruction. The proliferation of weapons of mass destruction and their means of delivery will constitute the greatest single threat to world security for the rest of our lives. That is what makes a new international order not an imperial dream or a Wilsonian fantasy but a matter of the sheerest prudence. It is slowly dawning on the West that there is a need to establish some new regime to police these weapons and those who brandish them.²

Krauthammer's article appeared as a US-led coalition was using Iraq as a test range for its vast assortment of weapons of all kinds of destruction. The aftermath of this war in the Gulf saw 'the West' pick up the pace of their realisation that longer term action was needed to address the proliferation of weapons of mass destruction. In addition, the massive conventional army which Iraq deployed (admittedly to little effect) was seen to tie conventional weapons to this new security agenda. 'Proliferation' thus came to be seen as a wide ranging problem, encompassing not only the spread of nuclear weapons, but of chemical and biological weapons, as well as the diffusion of conventional arms.

Not only did Krauthammer sound the warning on proliferation, he also set out the elements of a response to this new threat:

[A]ny solution will have to include three elements: denying, disarming, and defending. First, we will have to develop a new regime, similar to COCOM (Coordinating Committee on Export Controls) to deny yet more high technology to such states. Second, those states that acquire such weapons anyway will have to submit to strict outside control or risk being physically disarmed. A final element must be the development of antiballistic missile and air defense systems to defend against those weapons that do escape Western control or preemption.³

The three elements of Krauthammer's response correspond well with the policy developments in the subsequent four years:

1. The first line of attack is a regime based on technology denial. Indeed, the COCOM formally concluded its work in March 1994, and its members are engaged in establishing a non-proliferation export control regime which would include also the states of central and eastern Europe. More generally, regimes of technology denial are the foundation of the non-proliferation effort. Consider the communiqué of the

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North Atlantic Council, announcing an Alliance Policy Framework on Proliferation of Weapons of Mass Destruction", 9 June 1994:

3. Current international efforts focus on the prevention of WMD and missile proliferation through a range of international treaties and regimes.4 ....

4. The aforementioned treaties are complemented on the supply side by the Nuclear Suppliers Group, the Zangger Committee, the Australia Group and the Missle Technology Control Regime. These regimes should be reinforced through the broadest possible adherence to them and enhancement of their effectiveness.5

Once the successor to COCOM is in place—assuming it maintains a version of COCOM's munitions and dual-use technologies lists—there will be in place technology denial regimes for the three weapons of mass destruction (nuclear, chemical and biological), missile delivery systems and conventional arms. With the exception of missile systems, there will also be some form of international mechanism addressing each of these as well, as the United Nations has created a Register of Conventional Arms.

2. Krauthammer's second suggestion was for tight international supervision or the threat of forcible disarmament. On 9 April 1991 the UN Security Council passed Resolution 687 which outlined the forcible disarmament of Iraq. It mandated a Special Commission (UNSCOM) which, together with the International Atomic Energy Agency (IAEA), would oversee the declaration and destruction of the Iraqi chemical, biological and nuclear weapons holdings and production capabilities, as

4. The Communiqué cites the regimes as the NPT, the CWC and the BTWC. The NPT is the Nuclear Non-Proliferation Treaty. It entered into force in 1970, and recognises five nuclear weapons states, forbidding all other states to acquire nuclear weapons and to help others in their acquisition. The CWC is the Chemical Weapons Convention. It was signed in January 1993, and is expected to enter into force in 1995. It bans chemical weapons and their production, and unlike the NPT is universal and non-discriminatory. There are no 'chemical weapons states'. The BTWC is the Biological and Toxin Weapons Convention. It entered into force in 1975, and bans the production and holding of biological weapons of all kinds. Unlike the other two, there are no verification measures associated with the convention, although the States Party are considering adding a verification protocol.

The regimes to which the NAC refers in §4 are each limited membership supplier regimes. They jointly agree to lists of technologies on which export controls are to be maintained, although the controls themselves are applied nationally by the members. The Nuclear Suppliers Group (NSG) and the Zangger Committee both control nuclear technology and material. The Australia Group applies controls to technologies related to chemical and biological weapons. The Missle Technology Control Regime (MTCR) applies controls to ballistic and cruise missile technology, with a range greater than 300km and a payload greater than 500kg.

well as their missile technology. Similarly, through May and June of 1994, North Korea was threatened with international sanction, and possible military conflict with the South and the United States, should they not allow international inspection of their nuclear facilities.

3. The final element of a security policy to counter proliferation, which Krauthammer outlined, was the development of military capabilities to defend against what has come to be called 'the post-proliferation environment'. The recent US threats of violence in the case of North Korea are one example of such a military response forming part of the reaction to the problem of 'proliferation'. A second is found in the NATO declaration, quoted above:

12. Recent events in Iraq and North Korea have demonstrated that WMD proliferation can occur despite international non-proliferation norms and agreements. As a defensive Alliance, NATO must therefore address the military capabilities needed to discourage WMD proliferation and use, and if necessary, to protect NATO territory, populations and forces.

13. NATO will therefore:

- seek, if necessary, to improve defence capabilities of NATO and its members to protect NATO territory, populations and forces against WMD use, based on assessments of threats (including non-State actors), Allied military doctrine and planning, and Allied military capabilities.

It would seem, then, that it has dawned on the West that proliferation is a serious security problem—indeed, in January 1992, an unprecedented Summit meeting of the UN Security Council declared proliferation a threat to international peace and security. Such a determination opens the way for multilateral military action to respond to proliferation, under the terms of the United Nations' Charter.

'Proliferation' appears to have been developed as a central image in the new international security agenda in the time between Krauthammer's article and the recent NATO summit. The spur to the construction of this image was the war in the Gulf. In the first section of this paper, I trace the construction of the image of proliferation in the pronouncements and practices of the Western states following the Gulf War. This image of proliferation as a security problem is, as Krauthammer noted, a perception of the state of the world. That perception is a metaphorical one, as the image of a security problem which is created is grounded in metaphor. In the second section I discuss the nature of image and metaphor as they relate to the constitution of international security. Finally, I examine the particular

metaphors of the proliferation image, in order to show how they shape the understanding of a problem, and the policy solutions which are developed in response.

Reimagining International Security

In November 1990 the central combatants had gathered in Paris to mark formally the end of the Cold War, and to herald an era of peace. By the end of the February following, the Gulf War had convinced the leading policy-makers of the need to rethink international order and international security a little more clearly than just hoping for peace. The Gulf War had seemed to promise a United Nations which could function as an organ of international collective security—providing all ignored the driving role of the United States in shepherding UN actions in the Gulf. Thus, in his address to Congress following the conclusion of the Gulf War, George Bush called for a UN-centred 'new world order':

> Until now, the world we've known had been a world divided—a world of barbed wire and concrete block, conflict and Cold War. Now, we can see a new world coming into view, a world in which there is the very real prospect of a new world order: in the words of Winston Churchill, a world order in which "the principles of justice and fair play protect the weak against the strong ..."; a world where the United Nations—freed from Cold War stalemate—is poised to fulfil the historic vision of its founders; a world in which freedom and respect for human rights find a home among nations.8

Bush's new world order was to be one of liberal democracy and human rights within a functioning United Nations, but "The victory over Iraq was not waged as a 'war to end all wars.' Even the new world order cannot guarantee an era of perpetual peace. But enduring peace must be our mission."9 What posed the threat to enduring peace in this new world order? On 8 February, while the fighting was still ongoing, the Canadian government made a proposal which provided one answer, an answer echoing the alarm sounded by Krauthammer in *Foreign Affairs*:

> Canada has long been a leading proponent of measures to deal effectively with the proliferation of weapons of mass destruction, and has advocated restraint and effective controls on the export of conventional weapons.

> The current Gulf crisis, with its use of missile technology and threatened use of chemical and biological weapons, highlights these concerns; we must seize the opportunity to address them positively and effectively.

> Canada proposes a gathering of world leaders under United Nations auspices to issue a statement of global, political will, condemning the proliferation of weapons of mass

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In this proposal, Canada gathered together all of the technological elements which would come to compose the new 'Proliferation' agenda: weapons of mass destruction (WMD)—which are chemical, biological and nuclear weapons—their delivery systems—particularly missile technology—and massive build-ups of conventional weapons. For the first time, proliferation would now refer to the full range of weapons and related technologies, not just to nuclear weapons, or even weapons of mass destruction. The proposal for a world summit was not well received, but the rest of the policy agenda Canada outlined was picked up by others. Over the course of the next three years, in various fora, the foreign affairs and international security community of the leading states reiterated the problem, gradually refining the terms of the image it provided.

An important feature of the Canadian proposal was the inclusion of conventional weapons in a non-proliferation agenda. Canada had called for the creation of a Register of Conventional Arms at the United Nations, a proposal that had been made previously, but met with little success.\(^1\) With the example of the Iraqi arsenal, the idea of at least tracking conventional weapons transfers gained credence. In April, at a meeting of the European Council, Prime Minister John Major announced that the United Kingdom would take the lead on creating the Arms Register, and won the backing of his European partners. Even France agreed, in a broad package of non-proliferation measures it released 31 May—a package which included France's accession to the NPT. Japanese Prime Minister Kaifu also announced Japanese support for the Register in April, and further declared that Japan would join the UK to sponsor a resolution creating such a Register at the UN General Assembly that fall.

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10. External Affairs and International Trade Canada, "Post-Hostilities Activities", *Backgrounder*, 8 February 1991. The proposal was announced in two speeches that day, one by Prime Minister Mulroney and one by External Affairs Minister Joe Clark.

11. At its 1988 session, the UNGA had struck a 'Group of Experts on the Study of Ways and Means of Promoting Transparency in International Transfers of Conventional Arms'. (UNGA Resolution 43/74, December 7, 1988). In its 1990 report to the UNGA, the Group of Experts held that a register of conventional arms transfers was impossible for the foreseeable future.
The inclusion of conventional arms in the proliferation agenda had been spurred, quite clearly, by the large Iraqi conventional arsenal. In his 6 March address to Congress, President Bush had promised an initiative to address the problem of conventional arms building in the Middle East. He delivered on this promise in a speech to the US Air Force Academy 29 May:

Nowhere are the dangers of weapons proliferation more urgent than in the Middle East.

After consulting with governments in the region and elsewhere about how to slow and then reverse the buildup of unnecessary and destabilizing weapons, I am today proposing a Middle East arms control initiative. It features supplier guidelines on conventional arms exports; barriers to exports that contribute to weapons of mass destruction; a freeze now, and later a ban on surface-to-surface missiles in the region; and a ban on production of nuclear weapons material. Halting the proliferation of conventional and unconventional weapons in the Middle East, while supporting the legitimate needs of every state to defend itself, will require the cooperation of many states, in the region and around the world.12

In the accompanying fact sheet released by the White House, the connection between Bush's proposal and the more general problems of proliferation, addressed particularly in the prior actions by the UK and Canada, was drawn explicitly: "Since proliferation is a global problem, it must find a global solution. At the same time, the current situation in the Middle East poses unique dangers and opportunities. Thus, the president's proposal will concentrate on the Middle East as its starting point, while complementing other initiatives such as those taken by Prime Ministers John Major and [Canada's] Brian Mulroney."13

There are two important aspects of the language Bush adopted to address the problem in his speech to the Air Force Academy. The first is that Bush uses the term 'proliferation' to refer to all forms of weapons: "the proliferation of conventional and unconventional weapons". During the Cold War, 'proliferation' was used exclusively to discuss weapons of mass destruction, and primarily to refer to the spread of nuclear weapons. A key feature of the way in which proliferation is being constructed as a post-Cold War security problem is the broad technological sweep of the concept. The move to join conventional weapons to unconventional in a proliferation control agenda poses a particular problem, however. As Bush notes, states are considered to have a right to arms in support of the "legitimate needs of every state to defend itself."14 If conventional arms are to be controlled along side WMD,
a means to distinguish the legitimate from the illegitimate needs to be devised. This is the second important aspect of Bush's language. The President equates problematic arms building—what was termed in the Canadian proposal "massive build-ups"—with "destabilizing" accumulations. In other words, while states have a right to conventional arms, they do not have a right to acquire conventional arms in such a way that they are destabilising. Thus, in this address, Bush provides the two metaphorical pillars of the new security image: proliferation and stability. Since this speech, the discourse and practice of states has refined this image and drawn it to the centre of international security policy in the post-Cold War world.

In July of 1991, this broad proliferation agenda was advanced beyond the Middle East by the five permanent members of the Security Council. The Five met to "review issues related to conventional arms transfers and to the non-proliferation of weapons of mass destruction". They

noted with concern the dangers associated with the excessive buildup of military capabilities, and confirmed they would not transfer conventional weapons in circumstances which would undermine stability. They also noted the threats to peace and stability posed by the proliferation of nuclear weapons, chemical and biological weapons, and missiles, and undertook to seek effective measures of non-proliferation and arms control in a fair, reasonable, comprehensive and balanced manner on a global as well as a regional basis.15

The statement of the Five echoed closely Bush's May speech, accepting as problematic the full range of military technology,16 while broadening the geographic concern. The statement also followed Bush's lead in focussing on 'stability' as the marker of problematic transfers.

This definition of the proliferation problem—encompassing the full range of military technologies, and concerned with preventing the 'destabilising' effects of conventional arms procurement—was echoed in the resolution the Japanese and British introduced at the fall session of the UNGA. By Resolution 46/36L of 9 December 1991 the UNGA created "a universal and non-discriminatory Register of Conventional Arms, to include data on international arms transfers as well as information provided by Member States on military


16. The one rather interesting change from the Canadian proposal is the limitation of 'delivery systems' to 'missiles'. While Canada highlighted the problem of missiles, their text seems to leave open the possibility of including other forms of delivery system. The 'missile' focus has been maintained, however, leading to critique of the proliferation control agenda from those who feel that attack aircraft are at least as problematic as missiles for their capacity to deliver WMD. See John Harvey, "Regional Ballistic Missiles and Advanced Strike Aircraft: Comparing Military Effectiveness", International Security, 17 (2) 1992, 41-83.
Holdings, procurement through national production and relevant policies..."\textsuperscript{17} The first preambular paragraph of that Resolution reads in part: "Realizing that excessive and destabilizing arms build-ups pose a threat to national, regional and international security ...."\textsuperscript{18} This text reaffirms the image put forward by the P-5 of 'excessive' and 'destabilising' arms build-ups as problematic. It also links this image directly to 'international security'. Finally, despite the fact that Resolution 46/36L is designed to address the problem of conventional arms, the relationship to weapons of mass destruction is not forgotten. In the final preambular paragraph, the Resolution reads: "Recognizing also the importance of the prevention of the proliferation of nuclear weapons and other weapons of mass destruction."

The problem of proliferation was also being addressed by the leading Western military organisation, the North Atlantic Alliance, while the UNGA deliberations were ongoing. At its Summit in Rome, in November 1991, the North Atlantic Council released a Declaration, which addressed the problems of proliferation directly:

\begin{quote}
The proliferation of weapons of mass destruction and of their means of delivery undermines international security. Transfers of conventional armaments beyond legitimate defensive needs to regions of tension make the peaceful settlement of disputes less likely. We support the establishment by the United Nations of a universal non-discriminatory register of conventional arms transfers. We support steps undertaken to address other aspects of proliferation and other initiatives designed to build confidence and underpin international security.\textsuperscript{19}
\end{quote}

The "Rome Declaration" clearly joins the full range of military technology together as "aspects of proliferation", and indicates that proliferation is a threat to international security. At the same Summit, the Council adopted a new Strategic Concept, a revision of the basic document of NATO strategy. The Strategic Concept notes that the Alliance has an interest in Middle Eastern stability, a stability which can be threatened by the "build-up of military power and the proliferation of weapons technologies in the area, including weapons of mass destruction and ballistic missiles." More generally, the Strategic Concept outlines the new strategic environment facing the Alliance after the end of the Cold War:

\begin{quote}
Any armed attack on the territory of the Allies, from whatever direction, would be covered by Articles 5 and 6 of the Washington Treaty. However, Alliance security must also take account of the global context. Alliance security interests can be affected by other risks of a wider nature, including proliferation of weapons of
\end{quote}

\textsuperscript{17} UNGA Resolution 46/36L, 9 December 1991, §7.
\textsuperscript{18} UNGA Resolution 46/36L, 9 December 1991, preamble.
\textsuperscript{19} "Rome Declaration on Peace and Cooperation", issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Rome on 7-8 November 1991, Press Communiqué S-1 (91) 86, 8.
mass destruction, disruption of the flow of vital resources and actions of terrorism and sabotage.\textsuperscript{20}

While the Gulf War provided an important impetus for this growing concern with proliferation, so too did the condition of the states of Central and Eastern Europe, and the then Soviet Union. All these states were possessed of large arsenals, some also with a military productive capacity. In addition, the USSR had a large supply of nuclear weapons, material and expertise, and in late 1991 it was unclear how long these could be kept under central control. On 20 December, the members of NATO met for the first time with the members of the former Warsaw Treaty Organisation, in a "process of regular diplomatic liaison ... to build genuine partnership among the North Atlantic Alliance and the countries of Central and Eastern Europe", termed the North Atlantic Cooperation Council (NACC).\textsuperscript{21} In its inaugural declaration, the NACC tackled the problem of proliferation, particularly nuclear proliferation arising from its members' holdings, and in doing so reinforced the emergent image of proliferation and stability: "We all recognise the need ... to refrain from any steps that could lead to the proliferation of nuclear weapons or other weapons of mass destruction and to take firm measures to prevent the unauthorised export of nuclear or other destabilizing military technologies."\textsuperscript{22}

By the end of 1991, the image of proliferation as an important security problem confronting states as they build the new world order had been enunciated by a variety of actors in a range of fora. Subsequently, the importance of this problem as it had come to be defined grew, and various practical measures were marshalled to address it. In July 1992, the G-7 included a discussion of proliferation in their Political Declaration: "The end of the East-West confrontation provides a historic opportunity, but also underlines the urgent need to curb the proliferation of nuclear weapons, other weapons of mass destruction and missiles capable of delivering them." The G-7 also pointed to the particular practical measures which were needed to confront this problem. The first was strengthening and extending the NPT at the review and extension conference in 1995. The nuclear non-proliferation regime also needed to be bolstered by making a concerted effort to contain the nuclear technology of the former Soviet Union and by strengthening the IAEA, whose limits had been revealed

\textsuperscript{20} Both quotations are from "The Alliance's New Strategic Concept", agreed by the Heads of State and Government participating in the meeting of the North Atlantic Council in Rome on 7-8 November 1991, Press Communiqué S-1 85, 4.


\textsuperscript{22} "NACC Statement", 20 December 1991, 2.
by Iraq. The G-7 also recognised the need to strengthen control on missile proliferation, specifically the MTCR, and to control conventional weapons proliferation.23

The G-7 statement hinted at the first line of response to proliferation: gathering instruments aimed at controlling the various technologies now considered to be a proliferation concern under the rubric of non-proliferation. The United States furthered this approach the week after the G-7 Summit, announcing a 'Non-Proliferation Initiative'. In practical terms, the initiative refocussed extant practice on 'proliferation'. In Arms Control Today, Spurgeon Keeney notes this feature of the initiative with dismay:

President Bush's long-awaited 'nonproliferation initiative', which commits the United States to take a leading role in preventing the spread of nuclear weapons, is remarkable for the absence of initiatives. The statement, basically a list of past accomplishments and ongoing activities, was aptly described by a senior government official as the conversion of 'practice into policy.' Unfortunately, the president has sacrificed a major opportunity for launching imaginative new proposals to entrenched bureaucratic interests mired in Cold War thinking.24

While Keeney laments the lack of initiative, the refocussing of policy instruments is exactly what we should expect from an exercise in reimagining. The understanding of the security environment is being altered, and so what used to be 'nuclear non-proliferation' instruments, and 'arms control' instruments and even 'export control' instruments, are now all seen as aspects of the controls for a single problem: proliferation.

The refocussing of various arms control instruments onto the problem now being understood as proliferation proceeded in parallel with the development of discursive policy I sketched above. In relation to the 'core' of the proliferation problem, nuclear weapons, attention began to be focussed on the conference of States Party to the NPT, to be held in 1995. The NPT had a duration of 25 years, after which the States Party were to determine whether it "shall continue in force indefinitely, or shall be extended for a fixed period or periods".25 The importance of the NPT extension conference is that without the NPT states would find it difficult to construct a broad non-proliferation regime. The looming 1995 deadline has allowed for the possible development of two new control measures: a Comprehensive Test Ban (CTBT) and a Cutoff on the Production of Fissile Materials. Both of these measures have a long history, but a history without a record of any substantial success. In the summer of 1993, however, the United States altered its long-standing

25. Treaty on the Non-Proliferation of Nuclear Weapons, Article X.2.
opposition to a CTBT, and also called for a Cutoff Convention. Both are now being discussed by the Conference on Disarmament (CD).  

The change in the American position is indicative of the process of reimagination I am discussing. During the Cold War, the CTBT was seen as a means to curtail the nuclear arms race between the US and the Soviet Union. The American opposition was justified by an argument that testing was needed to ensure the safety of the US arsenal. However, it was more truly based on a fear that the Soviet Union could evade any feasible verification system. With the passage of the Cold War, and of the centrality of the US-Soviet nuclear balance, the verification question ceased to be whether the USSR could evade the detection procedures, but whether those procedures could catch a first time tester. Seen in a 'proliferation' context, a CTBT with feasible though not perfect verification was seen to be in the US interest, in a way that it was not in the Cold War context.

Chemical weapons had received a particularly high profile during the Gulf War, as there were fears that Iraq would attack the coalition forces—or even Israeli civilians—with chemical arms. This spurred the completion, in December 1992, of the Chemical Weapons Convention, banning the production and holding of all chemical arms and controlling the precursor chemicals needed to create them. The Iraqi use of Scud missiles also focussed attention on the problems posed by the proliferation of missile technology—a concern reflected in many of the statements quoted above. Controls have been organised through the Missile Technology Control Regime (MTCR), created by the G-7 countries in 1987. In November of 1991, meeting in Washington, the MTCR states agreed to expand the scope of the restrictions so that missiles capable of delivering any form of mass destruction weapon would be covered. In addition, to serve as a fully fledged non-proliferation regime, the MTCR would need to expand its membership. In 1990, the Regime was opened to states other than the G-7, and by March of 1993, with the admission of Iceland, the membership stood at 23. At that meeting, the MTCR partners also discussed how "the Regime might evolve from being a pure export control regime to a broader, more formal multilateral non-

26. The CD is the leading multilateral forum for arms control and disarmament negotiations. It meets in three sessions a year, at the United Nations buildings in Geneva. It is not formally part of the UN, although the UN Secretariat provides secretarial support, and the CD does report to the Secretary General. The CD is the successor to the Ten Nation Disarmament Conference, the Eighteen Nation Disarmament Conference and the Committee of the Conference on Disarmament. The CD most recently produced the Chemical Weapons Convention (1993). It is not to be mistaken for the Disarmament Commission (UNDC), which is a UN body.

27. In the only article between 1985 and 1990 to address the question of a CTBT in Foreign Affairs, Paul Doty indicates the context within which the CTBT was considered at the time: The article makes no mention of proliferation, rather "At issue is whether the single, radical step of ending all nuclear weapons testing ... is the best route to stopping the qualitative arms race?" See Paul Doty, "A Nuclear Test Ban", Foreign Affairs, 65 (4) 1987, 750-69.
proliferation arrangement that develops and promotes international norms in the transfer and control of missile technology.  

There has thus emerged a new image at the heart of international security. It is an image of the proliferation of weapons of mass destruction, their delivery systems and of destabilising accumulations of conventional weapons. I have detailed how this image was constructed in the discourse of the leading actors and institutions of the international system. The importance of this new image is reflected in the academic literature on foreign and security problems. I conducted a review of the issues between 1985 and the present in five of the leading US foreign policy journals, journals which reflect and inform the policy debate within the United States. This review bears out the contention advanced here that 'proliferation' is a problem enunciated to fill the gap left by the Cold War, and catalysed by the experience in the Gulf. There were only 7 articles on the problem between 1985 and the fall of the Berlin Wall—of which five were concerned with nuclear proliferation. There were 9 articles in the year between 1989 and the Gulf War. Since the end of the Gulf War, there have been 56 articles in these journals concerned with proliferation.  

In addition to the new image, there is also a clear pattern to the strategy being employed in response. It is a three-tiered strategy, anchored at the global level by "formal multilateral non-proliferation arrangement[s]". At present there are four such arrangements: the NPT, the CWC, the BTWC and the UN Arms Register. This leaves only missile technology, of the identified concerns, without a global arrangement, and hence the proposal for the evolution of the MTCR. The second tier of the control strategy is a collection of supplier control regimes. The MTCR is joined by the Australia Group which controls Chemical and Biological technology, the Nuclear Suppliers Group (NSG) and Zangger Committee which control nuclear technology, and the successor regime to the COCOM which is to control conventional and dual-use technology. Finally, these supplier controls are implemented nationally by export control systems. 

30. The Policy Framework on Non-Proliferation adopted by the NATO in June 1994 recognises this layered approach as the foundation of global efforts to address proliferation:

3. Current international efforts focus on the prevention of WMD and missile proliferation through a range of international treaties and regimes. The most important norm-setting treaties are the Nuclear Non-Proliferation Treaty (NPT), the Chemical Weapons Convention (CWC) and the Biological and Toxin Weapons Convention (BTWC).  
4. The aforementioned treaties are complemented on the supply side by the Nuclear Suppliers Group, the Zangger Committee, the Australia Group and the Missile Technology Control Regime.
This strategy is designed to prevent proliferation, but as proliferation is a threat to international security, there has also been thought given to a response to proliferation, once it has occurred. In the United States, this has resulted in discussion of 'counter-proliferation', which the former US Defense Secretary has defined as the use of the military to respond to proliferation. In May and June of 1994 it seemed that the first example of 'counter-proliferation' would be seen in North Korea—and at the time of writing, while such a war is no longer imminent, it is still very much a possibility. The United States has also enlisted its NATO allies to the cause of counter-proliferation, understood in this fashion:

11. The principal non-proliferation goal of the Alliance and its members is to prevent proliferation from occurring or, should it occur, to reverse it through diplomatic means....

12. Recent events in Iraq and North Korea have demonstrated that WMD proliferation can occur despite international non-proliferation norms and agreements. As a defensive Alliance, NATO must therefore address the military capabilities needed to discourage WMD proliferation and use, and if necessary, to protect NATO territory, populations and forces.31

The international security environment is thus being reimagined. The image which guided international security policy and scholarship during the Cold War has given way to a new image centred on 'proliferation'. This image is informing both policy and academic debate, and is found reflected in the instruments and institutions of international arms control and security, as well as in the written record of the academy. What are the implications of this image? How can we understand the way in which this image informs policy, reshaping instruments, institutions and even interests? The images of security comprise a number of metaphors, which shape our thinking about problems and solutions—in the present case, the metaphors of 'proliferation', 'stability' and its related metaphor 'balance'. In order to consider the role that image plays in international security, it is necessary to appreciate the way in which metaphors constitute our understandings, and thereby inform the conception we hold of a policy problem, and the solutions we develop to address those problems.

Images, Metaphors and Understandings

Scott Sagan has recently argued that the dominant approach to the proliferation problem within the academic community has been rooted in rational deterrence theory, based on an "assumption that states behave in a basically rational manner, pursuing their interests

according to expected-utility theory".32 There are a variety of problems with a theory based on the maximisation of expected utility as a basis for a theory of political action. Sagan proposed to use organisation theory as a corrective to some of these problems. This theory introduces two limitations on rational choice: "large organizations function within a severely 'bounded' form of rationality", and "have multiple conflicting goals and the process by which objectives are chosen and pursued is intensely political."33 In other words, Sagan recognises that the interests on the basis of which actors choose are not pre-constituted as rational deterrence theory supposes. Ned Lebow and Janice Stein broaden this critique beyond the organisational:

Neither theories of deterrence nor rational choice say anything about the all-important preferences that shape leaders' calculations. Achen and Snidal correctly observe that deterrence theory assumes exogenously given preferences and choice options. It begs the question of how preferences are formed. Empirical analyses of decision making suggest that individuals often identify their preferences and options in the course of formulating and reformulating a problem.34

The problem can be stated in general terms: rational choice theory assumes: a) a set of pre-constituted utilities (or interests) and b) a pre-constituted problem. Lebow and Stein, along with Sagan's organisational corrective, draw attention to the first, but only hint at the second. The argument I am advancing is that the problem, interests and possible solutions are shaped, at least in part, metaphorically. Lebow and Stein's 'formulation and reformulation of a problem' involves adding and refining an image. In the preceding section I have detailed the emergence in state pronouncements and practices of an image of the international security environment following the Cold War. In other words, a problem is not presented to policy makers fully formed, but is rather constituted by actors in their (discursive) practices. This practically constituted image of a security problem shapes the interests states have at stake in that problem, and the forms of solution that can be addressed to resolve it. Central to this function of shaping interests and responses is the metaphorical character of the image so constituted. To understand how an image shapes interest and policy is it first necessary to consider how metaphor shapes understanding.

Paul Chilton has provided a useful example of the role of metaphor in shaping understandings in international relations, particularly concerning the Cold War discourses around nuclear weapons and the relationship of 'the West' to 'the Soviet Union'. In doing so, he illustrates how the metaphor naturalises a policy, and the apparent interests

underlying it—in this case, the central security policy of Cold War Europe. Chilton works with the example of a fairly common speech from the Foreign Secretary of the United Kingdom, John Nott. Nott used a metaphor of 'a dying giant' to argue that there is a possibility of the Soviet Union attacking Western Europe in order to defend the 'peace through strength' policy of then Prime Minister Margaret Thatcher, and her American mentor Ronald Reagan. As Chilton notes, "What Nott wants to do, it seems, is to assert the likelihood of Russia attacking Europe." On the basis of such an assertion, 'proven' through the analogical reasoning of metaphor, the government can justify a policy of military hostility, to insure against the lashing out of a dying giant.35

Chilton argues that policy makers address problems by means of what I have called 'images'36—that is, the student or policy maker constructs a metaphorical image of problem, an issue or even other actors.37 This image relates the thing being imagined to another, in terms of which the first is understood. These images comprise metaphors, which are used to structure and support our understanding of a problem, and therefore our response to the problem. In Chilton's example, the key relationship is the support the image and its metaphors provide for pre-existing policy. His political concern is with the bellicose nuclear strategy pursued by the Western Alliance, and the consequent danger of nuclear 'war' that the governments foist on the people of Europe and North America through the metaphors supporting the image of the Soviet Union. However, the general relationships between the image of a policy problem, the condition of the problem itself and the policy solution to that problem allow the ideas he develops to be given wider scope than Chilton provides. The metaphors entailed by a given image do more than simply support a policy choice, they structure the way in which the image holder can think about a problem, and so shape that choice in the first place.

Chilton's use of metaphor is rooted in a prior argument, advanced by George Lakoff and Mark Johnson. By considering their arguments directly, we can see how metaphor shapes problems and solutions in international relations, as in other areas of our lives. The common understanding of metaphor is that it is a literary tool, allowing an author to provide descriptive depth and allegorical commentary by means of establishing a relationship

36. Throughout the remainder of this discussion it will be necessary to indicate words which denote images and those which denote metaphors. Following roughly the usage of George Lakoff and Mark Johnson, I will capitalise the name of images, while enclosing metaphors in single inverted commas. The image with which I am concerned, then, is that of PROLIFERATION, which comprises three key metaphors: 'proliferation', 'stability' and 'balance'.
37. Chilton uses two terms, 'scripts' and 'frames' to refer to the concept I have developed as image. For consistency, throughout this paper, I use the single term 'image'. 
between two separate objects or ideas. Lakoff and Johnson argue that metaphor is much more than this, that it is absolutely fundamental to the way in which people understand and live in the world around them. "The essence of metaphor is understanding and experiencing one kind of thing in terms of another."38 [Emphasis in the original] They begin with an example of the way in which the concept of 'argument' is understood in our society, suggesting that we understand argument in terms of warfare. To illustrate, they provide examples from our everyday language:

ARGUMENT IS WAR

Your claims are indefensible.
He attacked every weak point in my argument.
His criticisms were right on target.
I demolished his argument.
I've never won an argument with him
You disagree? Okay, shoot!
If you use that strategy, he'll wipe you out.
He shot down all of my arguments.39

It is more, however, than simply using the language of war to talk about argument. Rather, our understanding of what argument is, and the way in which we then set about to argue, are in part—indeed in large part—structured by the military metaphor:

It is not that arguments are a subspecies of war. Arguments and wars are different kinds of things—verbal discourse and armed conflict—and the actions performed are different kinds of actions. But ARGUMENT is partially structured, understood, performed, and talked about in terms of WAR. The concept is metaphorically structured, the activity is metaphorically structured, and, consequently, the language is metaphorically structured.40

It would be surprising indeed if we lived our lives, understood our most basic activities and practices, in terms of metaphor, and then abandoned metaphoric reasoning and understanding at the level of social and political action. Indeed, if we take Lakoff and Johnson's arguments seriously, this is not possible, as they are making a case for metaphor as essential to human cognitive process. This makes impossible the rational choice claim that there are pre-constituted state interests, or even the organisational claim that there are pre-constituted, if competing, intra-organisational interests. Rather, the "formulating and

39. Lakoff and Johnson, Metaphors We Live By, 4. To illustrate that this image is not simply a linguistic convenience, they suggest imagining a culture in which 'argument' is considered in the terms of 'dance' rather than 'war': "[W]e would probably not view them as arguing at all: they would simply be doing something different." (5)
40. Lakoff and Johnson, Metaphors We Live By, 5.
reformulating" of a problem, to which Lebow and Stein refer, involves the formation of the metaphorical image of a problem, only in terms of which can interests and policies be located.

It is worth examining in more detail how the images and the metaphors they comprise accomplish this structuring of action. The image, and the metaphors that are contained within that image, frame a problem in a particular way, so as to highlight certain possibilities, while precluding others. Lakoff and Johnson argue:

Every description will highlight, downplay, and hide—for example:

- I've invited a sexy blonde to our dinner party.
- I've invited a renowned cellist to our dinner party.
- I've invited a Marxist to our dinner party.
- I've invited a lesbian to our dinner party.

Though the same person may fit all of these descriptions, each description highlights different aspects of the person. Describing someone who you know has all of these properties as "a sexy blonde" is to downplay the fact that she is a renowned cellist and a Marxist and to hide her lesbianism.41

The description, given to another guest, forms a key part of the image of his (for the sake of argument I will assume a heterosexual male) fellow guest. Indeed, not having any other image on the basis of which to frame behaviour toward this woman, he will base his actions on the image created by that description. It seems patently obvious that a man will behave differently to each of the 'people' captured by the four descriptions. The image of the 'sexy blonde' privileges certain behaviour—behaviour that will be downplayed, if not hidden outright, by the image of a 'lesbian'. Similarly, our male guest is likely to form very different conversational strategies to talk with a 'renowned cellist' and with a 'Marxist'.

In a similar way, the characterisation of the problem of 'proliferation' highlights certain characteristics of the phenomenon, while downplaying and hiding others. That image contains three key metaphors: 'proliferation', 'stability' and balance'. As such, the image highlights the (source) spread) recipient nature of the process of arms production and distribution. At the same time, it downplays the structural nature of the arms production and transfer system which bind the suppliers and recipients to each other and it hides the fact that weapons and related technologies are procured for a variety of factors related to external military threat, internal regime support and economic development.42 I will address these

41. Lakoff and Johnson, *Metaphors We Live By*, 163.
42. The structure of the arms transfer and production system is analysed by Keith Krause in his *Arms and the State: Patterns of military production and trade*, (Cambridge: Cambridge, 1992). The term 'arms transfer and production system' is also Krause's. I have elsewhere considered the variety of political and economic motivations driving states both to supply and demand weapons and their related
features of the problem in more detail below. What is important at this point is to see that
the image and the metaphors it entails privilege a certain set of policy responses—those
which address the 'spread' of technology highlighted by the image—while denying place to
others—policy, for instance, which would seek to address the problems of economic
development which may spur the creation of an arms industry.

Clearly there is a difference between the image of an international problem, which draws in
large part on the understandings of other international problems, and the root metaphors
which are the focus of Lakoff and Johnson. They speak of the 'grounding' of our conceptual
system in terms of simple elements of our everyday lives which we can experience directly,
without social mediation. Thus, for example, spatial metaphors of 'up' and 'down', 'in' and
'out' are based on our experiences of the world—we have an inside and outside, we stand
erect, we sleep lying down and rise when we awake.\textsuperscript{43} Lakoff and Johnson have been
criticised for a biological bias, and while they clearly want to ground metaphors in part on
our unmediated physiological experience of the world, they also allow for social rather than
biological grounding: "In other words, these "natural" kinds of experience are products of
human nature. Some may be universal, while others will vary from culture to culture."\textsuperscript{44}
Thus, Lakoff and Johnson provide an account of metaphor at the very basic level of
comprehension, but allow for much wider application in providing for cultural as well as
physical experience to serve as a 'grounding' for those metaphors.

The inclusion of social experience does not take us far enough to serve my purposes in this
discussion, however. My concern is with the images and metaphors which \textit{structure} policy in
the first instance. These obtain in discourses of policy makers, and of the policy community
with which those in government interact—which is why the discussion above focussed

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\textsuperscript{43} Lakoff and Johnson, \textit{Metaphors We Live By}, 56-60.

\textsuperscript{44} Lakoff and Johnson, \textit{Metaphors We Live By}, 118. Deborah Cameron accuses Lakoff and Johnson of
biologism in her "Naming of Parts: Gender, Culture, and Terms for the Penis among American
College Students", \textit{American Speech}, 67 (4) 1992, 377-78. Cameron does recognise, however, that Lakoff
becomes more sensitive to this concern in his later work on the subject, George Lakoff, \textit{Women, Fire

There is, it seems to me, a more trenchant critique of Lakoff and Johnson hiding in
Cameron's charge of biologism. They reject the common form of definition for ignoring the
embedding of concept in metaphor. Hence they suggest "a very different concept of definition
from the standard one. The principal issue for such an account of definition is \textit{what gets defined and
what does the defining.}" (116, emphasis added.) We might, however, wish to ask a third question: \textit{who
does the defining.} With that addition, the problem of social power in metaphor, which is I think at the
root of Cameron's critique, could be addressed, and would make the conception of metaphor
and definition more palatable to the political scientist. It does not, I think, do any violence to
Lakoff and Johnson's argument to make this amendment. (I take this issue up briefly in the
Conclusion, below.)
extensively on the language of that discourse. Because the important discourse is that of
a policy community, the relevant images can be 'grounded' in both the metaphors of
everyday experience and in other policy images which are common to the community as a
whole. What is more, the entailments of images and metaphors—the associations which
allow metaphors to relate one kind of thing to another—which are drawn from everyday
experience will grow to include other policy references, in addition to their everyday
entailments. For example, 'balance' is a concept with which we all live, and so the use of
'balance' as a metaphor evokes certain common understandings. However, for those of us
engaged in international relations, balance also entails understandings associated with
'strategic balances' and the 'balance of power'.

For this reason, we can talk of policy images in terms of a 'two-step' image creation process.
The first step is the appropriation of a concept from its everyday meaning for application
to policy. Hence 'proliferation' is appropriated from biology, where it refers to the outward
spread of cells, or of organisms, by means of the reproduction of its parts—in particular,
to the uncontrolled outward spread of cancer cells. Similarly 'stability' and its related concept
'balance' are appropriated from our everyday experience to discuss the relations among
states. Indeed, 'balance' and 'stability' can be seen ultimately to be grounded in the sort of
unmediated biological experiences which interest Lakoff and Johnson. In standing erect,
humans will see a great virtue in 'balance', providing them with 'stability'. 'Instability', leading
to a loss of 'balance' can cause injury or death. From these primary concerns, the metaphors
of stability and balance have entered our common conceptual universe. Sanity is represented
in terms of 'balance' and 'stability' ("She has a balanced mind", "He became unstable"), as
is personality. From these 'root' metaphorical understandings, the concepts of 'balance' and
'stability' are brought into the conceptual universe of students of international relations to
provide metaphors for relations among states. Indeed, these two are among the dominant
metaphors of our discipline.

The second step of the process is the one with which I am most concerned. It is the use of
these metaphors, 'proliferation', 'stability' and 'balance', as they are embedded in the
understandings of policy makers, to 'reimagine' international security following the end of
the Cold War, and the Gulf War of 1990-91. At this point, the metaphors are applied to the
'security problems' of the third world, not directly from their biological or experiential
referents, but from their embedding in the experience of the Cold War international

45. A noted recent attempt to examine the impact of policy communities outside government on
the policy process addresses the question in terms of 'epistemic communities'. See Peter Haas,
"Introduction: Epistemic Communities and International Policy Coordination", in Peter Haas, ed.,
Power, Knowledge and International Policy Coordination, a special issue of International Organizations, 46 (1) 1992, 1-35. The
concept is further elaborated by the other contributions to this volume.
system—although this is not to say that the first step entailments are not also present at the second step. The reimagining of international security, following the end of the Cold War, largely involves this second step appropriation of metaphorical concepts.

Finally, to understand my claim that the process detailed above is indeed a 'reimagining', consider the role of the superpowers in creating in the first place the problem now identified as proliferation. The huge regional arsenals (now called 'destabilising accumulations') were in large part the creation of the two superpowers' providing their friends and allies in different regional conflicts—'proxies' in the language of the Cold War. As we have seen, the Middle East is the region of primary concern, and yet here the states which are the most problematic are the ones armed by the US and the USSR—Iraq, Egypt, Syria, and Iran. It is only with the breakdown of this conceptual system that 'proliferation' was broadened beyond the narrow field of nuclear weapons to encompass "nuclear, chemical and biological weapons", and their "missile delivery systems", as well as "destabilizing accumulations of advanced conventional weapons".

This discussion provides a framework for the examination of the PROLIFERATION image. The centrality of that image to the contemporary international security agenda is indicated by President Bill Clinton's first address to the UN General Assembly in the fall of 1993: "I have made non-proliferation one of our nation's highest priorities. We intend to weave it more deeply into the fabric of all our relationships with the world's nations and institutions." The PROLIFERATION image is built around three dominant metaphors: 'proliferation', 'stability' and its related concept, 'balance'. The three metaphors were neatly joined together in a recent article on proliferation from the US Army Journal, Parameters, "The policy community uses the term 'proliferation' to define a wide array of activities regarding the spread of weapon technologies. Key to the definition is the notion that proliferation destabilizes the balance of power within a region." I can now examine each of these metaphors to show what features they highlight, downplay and hide in their information of the PROLIFERATION image, and how they thereby both privilege and preclude certain policy solutions.

The Metaphors of PROLIFERATION


47. Frederick R. Strain, "Nuclear Proliferation and Deterrence: A Policy Conundrum", Parameters, 23 (3) 1993, 86.
The image of PROLIFERATION as an international security problem is based on a pair of unrelated metaphors. Lakoff and Johnson stress the coherence of metaphor in the images of a number of the concepts they use as examples (ARGUMENT IS WAR entails a series of metaphors growing from the WAR image). However, they also provide examples of multiple metaphors, with their own entailments, informing a compound image of a phenomenon—we conceive of the mind both as MACHINE and as BRITTLE OBJECT, for example.48 PROLIFERATION similarly provides a unique image by joining the metaphors of 'proliferation' with those of 'stability' and 'balance'.

'Proliferation'

The 'proliferation' metaphor, which is at the root of the image of international security which is being created and acted on by states at present, comes to this image in the two-step process I outlined above. The original meanings of proliferation, the 'other' in terms of which we begin to conceptualise and understand the emergence of nuclear power and nuclear weapons, is grounded in biology. The Oxford English Dictionary provides the following primary definitions for the three related words—proliferation, proliferate and proliferous:

"Proliferation ... The formation or development or cells by budding or division."

"Proliferate ... To reproduce by proliferation; to grow by multiplication of elementary parts."

"Proliferous ... Producing offspring; procreative; prolific."

The first step of the image creation process was the adoption of this biological metaphor of proliferation for the 'problem' of an increase in the number of states with access to nuclear technology, once controlled fission was developed in 1945. This first step yielded 'nuclear proliferation' as a policy problem in the Cold War, underpinning the various solutions that were devised: the Nuclear Non-Proliferation Treaty (NPT) and its attendant supplier groups—the Nuclear Suppliers' Group (NSG) and the Zangger Committee. I have outlined above the second step of this process, the adoption of the 'proliferation' metaphor for a wide ranging international security 'problem' in post-Cold War. The new proliferation agenda, then, draws both on the understandings of the first step, which led to the adoption of this metaphor to discuss nuclear technology, and the understandings of that initial application of the metaphor in considering a wider range of technological concerns.

48. Lakoff and Johnson, *Metaphors We Live By*, 27-29. The image of MIND IS MACHINE entails such metaphors as 'the wheels are turning' and 'I'm a little rusty', whereas the image of MIND IS A BRITTLE OBJECT provides metaphors such as 'her ego is fragile' and 'he cracked under pressure'.

The origin of the term "proliferation" is in human and animal reproduction—indicated in the *Oxford* definitions by the third, "producing offspring". However, in the discipline of Biology, the term is now most commonly used to refer to the 'reproduction' of cells, indeed it is synonymous with "cell division and cell growth". There is a direct, physical link between cell reproduction and the reproduction of organisms, and so the investigation of the way in which animals reproduce leads to the consideration of cell "proliferation". To a biologist, then, "proliferation" refers to the full range of organic reproduction, driven by 'cell proliferation', including budding yeasts and sexually reproducing humans. There is also a close connection with *excessive* multiplication of the elementary parts. Notice that the definitions from the *Oxford* conclude with "prolific"—that is proliferation is rarely used to refer to small scale reproduction. (Even 'normal' cell reproduction in humans, from a single-cell zygote to an adult, yields on the average $10^{13}$ cells!) Indeed, in the brief survey of the 'cell proliferation' literature I conducted to determine its nature, I found that it is most often used in connection with cancer research, as cancer involves cells escaping the mechanisms which control their proliferation.

The connection between 'cell proliferation' and 'cancer' is both important and telling. Cell proliferation is a harmless, natural process—indeed, it is absolutely essential to life as we know it. This proliferation is managed by a series of biological control mechanisms, which serve to regulate the proliferation of cells so that they faithfully reproduce what is coded into their genetic material. Once these mechanisms fail, and the cells proliferate without control, cancers, often deadly to the organism as a whole, result. As Andrew Murray and Tim Hunt write, in introducing the study of cell proliferation: "Without knowing the checks and balances that normally ensure orderly cell division, we cannot devise effective strategies to combat the uncontrolled cell divisions of the cancers that will kill one in six of us."  

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49. The sentence concludes the authors' introductory paragraph to an overview of the contemporary study of cell proliferation:

This book is about the cell cycle, the ordered set of processes by which one cell grows and divides into two daughter cells. Cell growth and division is a cornerstone of biology. Without understanding how the cell cycle works, we cannot understand how the fusion of two cells, an egg and a sperm, and the subsequent divisions of the fertilized egg produce an adult human composed of about $10^{13}$ cells. Without knowing the checks and balances that normally ensure orderly cell division, we cannot devise effective strategies to combat the uncontrolled cell divisions of the cancers that will kill one in six of us [Andrew Murray and Tim Hunt, *The Cell Cycle: An Introduction*, (New York: Freeman, 1993), 1].

In case it seems that they are not discussing cell 'proliferation', consider the following: "Although we know much about some of the steps involved in the regulation of proliferation, our ignorance about others keeps us from fitting the steps together into a coherent picture of how cell multiplication is regulated in tissue culture, let alone in intact organisms." (106) Furthermore, in conversation with the author, a molecular biologist at the University of Guelph confirmed that 'proliferation' is used as a general term to refer to the growth of cells by division.
'Proliferation' in its base biological meaning then, refers to an autonomous process of growth and outward spread, internally driven but externally controlled. Danger arises when the controls fail and the natural proliferation of cells produces excessive reproduction.

The first step of the adoption of 'proliferation' as a metaphor for international security involved applying the term to the development of nuclear technology after the discovery of controlled fission in the United States' Manhattan Project. The United States' nuclear programme represented the source 'cell' or 'organism' from which the technology would spread. Such spread was a 'natural' process, and so scholars confidently predicted that there would be thirty or forty nuclear powers by 1980. Such a condition was considered dangerous, and undesirable, and so attempts were made to establish external controls on the proliferation of nuclear weapons. These attempts resulted in the Non-Proliferation Treaty of 1970, which remains the principal mechanism of proliferation control. The development of nuclear technology was thus imagined in terms of the 'proliferation' metaphor. The first question to be asked is what are the implications of this image, with its understandings of autonomy, spread and external control, for the policy response to the development of nuclear technology? There are two crucial entailments of the proliferation metaphor as applied to nuclear weapons.

The first entailment is the image of a spread outward from a point, or source. Cell division begins with a single, or source cell, and spreads outward from there — in the case of a cancer, both to produce a single tumour and to create a number of separate tumours throughout the host body. Similarly, the 'problem' of proliferation is one of a source or sources 'proliferating', that is reproducing itself by supplying the necessary technology to a new site of technological application. This image highlights the transmission process from source to recipient, and entails policy designed to cut off the supply, restricting the technology to its source. Hence, the dominant response to nuclear proliferation is the creation of supplier groups, the Zangger Committee and the NSG, which seeks to 'control' the spread of nuclear technology. In other words, they attempt to provide "the checks and balances that normally ensure orderly" transfer, and prevent the spread of nuclear technology resulting in the "cancer" of weapons' proliferation. The image is repeated even in the more extreme proposals for policy. For example, former Prime Minister Trudeau proposed a scheme to the United Nations Special Session on Disarmament for preventing weapons' spread. This scheme included two measures currently under consideration at the Conference on Disarmament, a Comprehensive Test Ban Treaty, and a Cutoff of Fissile Material Production. Trudeau's plan was known as the 'suffocation proposal'—firmly in keeping with the biological referent of proliferation. To stop, rather than control, reproduction by organisms, you need to 'suffocate' the progenitors.
The second entailment of the 'proliferation' metaphor for the problem of nuclear weapons spread is an extreme technological bias. Biological proliferation is an internally driven phenomenon, and so the image of 'proliferation' applied to the development of nuclear technology highlights the autonomous spread of that technology, and its problematic weapons variant. As Frank Barnaby writes in a recent work, "A country with a nuclear power programme will inevitably acquire the technical knowledge and expertise, and will accumulate the fissile material necessary to produce nuclear weapons." In fact, the text from which this is drawn presents an interesting example of the autonomy of the 'proliferation' metaphor. The book is entitled How Nuclear Weapons Spread: Nuclear-weapon proliferation in the 1990s. Notice that the weapons themselves spread, they are not spread by an external agent of some form—say a human being or human institution. Under most circumstances such a title would be unnoticed, for as Lakoff and Johnson argue, the metaphors are so deeply engrained in our conceptual system that they are not recognised as being metaphorical.

This image, by highlighting the technological and autonomous aspects of a process of spread, downplays or even hides important aspects of the relationship of nuclear weapons to international security. To begin with, the image hides the fact that nuclear weapons do not spread, but are spread—and in fact are spread largely by the western states. Secondly, the image downplays, to the point of hiding, any of the political, social, economic and structural factors which tend to drive states and other actors both to supply and to acquire nuclear weapons. Finally, the image downplays the politics of security and threat, naturalising the 'security dilemma' to the point that it is considered as an automatic dynamic. The image of PROLIFTATION thus privileges a technical, apolitical policy, by casting the problem as a technical, apolitical one. The Non-Proliferation Treaty controls and safeguards the movement of the technology of nuclear energy. The supporting supplier groups jointly impose controls on the supply—that is the outward flow—of this same technology. The goal, in both cases, is to stem or, at least slow, the outward movement of material and its attendant techniques.

Such a policy is almost doomed to fail, however, for it downplays and hides the very concerns which motivate the agents of the process. Iraq was driven to acquire nuclear weapons, even in the face of NPT commitments, and so employed technology which is considered so outdated that it is no longer tightly controlled. This simply does not fit with the NPT-NSG-Zangger Committee approach. In addition, in order to gain the necessary material, the Iraqis needed access to external technology. Such technology was acquired by human agents acting for the Iraqi state and was acquired from other agents, who had their

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own motivational interests to provide the necessary technology. The technology does not 'spread' through some autonomous process akin to that causing a zygote to become a person, but rather they are spread, and so the agents involved are able to sidestep the technologically focussed control efforts.

The second step of this process, reimagining international security in the terms of PROLIFERATION following the end of the Cold War, adopts the policy entailments along with the underlying biological imagery. By using the PROLIFERATION image now to address biological and chemical weapons, missile technology and even conventional weapons, the international community is replicating the problematic policy solutions which highlight technology and hide politics and agency. Thus the NPT and its supplier groups are joined by the Chemical Weapons Convention and the Australia Group, a supplier group which also oversees export controls on both chemical and biological weapons' technology. Missile technology is controlled by the Missile Technology Control Regime. Even conventional arms, the ones we might expect to be most closely related to understandings of politics, are conceived in terms of 'excessive and destabilising accumulations'. Once more, it is the weapons themselves, rather than the political agents acquiring and using them, which are the lexical focus of discussions of conventional arms. What is ignored by this policy approach is any suggestion that there are political interests or motivations at work, which may cause human institutions to act in ways which promote insecurity (which, in other words, destabilize). A good part of the reason for this lack of understanding is that the image of the problem is one which downplays, and even hides, the involvement of the politics of human agency in both the acts of supply and acquisition.

'Stability' and 'Balance'

The two related terms 'stability' and 'balance' are so firmly seated in the language of international relations that their metaphorical nature is seldom remembered—as with many of the metaphors Lakoff and Johnson discuss. Thus the use of the two in imagining the new international security agenda around PROLIFERATION tends to draw more explicitly on the entailments that have been generated by that disciplinary use. It is, nevertheless, still useful to remember the first step of the two step process of metaphor creation—the understanding of international relations in terms of our common experiences of 'balance' and 'stability'.

While the metaphor of 'proliferation' is grounded in processes which are most basic to human life, the metaphors of 'stability' and 'balance' are probably more firmly rooted in most people's common experiences. Both terms are used widely in the metaphors of our everyday lives, and wherever they occur, value is placed on maintaining stability and balance.
Thus we speak of people being 'well balanced', or of having 'stable personalities'. Teams are most successful if they have a 'balanced' attack, and people look for 'stable' employment and to 'balance' their bank accounts. Given the positive connotations of 'stability' and 'balance', it should not be surprising that their use as metaphors of international relations connote a normative commitment to the creation and maintenance of stable and balanced orders.

The balance of power is generally used to refer to the system of interstate relations created in Europe following the defeat of Napoleon. The mechanism of power balancing—stabilising relations among states by maintaining power equivalences—was progressively naturalised by theorists of international relations. Hedley Bull argues that both an objective and subjective balance are necessary for a balance of power to operate. Nevertheless, he clearly places primacy on the objective conditions of the balance: "But if the subjective element of belief in it is necessary for the existence of a balance of power, it is not sufficient... A balance of power that rests not on the actual will and capacity of one state to withstand the assaults of another, but merely on bluff and appearances, is likely to be fragile and impermanent." This naturalisation of the balance of power reached its zenith with Kenneth Waltz' *Theory of International Politics*:

The theory, then, is built up from the assumed motivations of states and the actions that correspond to them. It describes the constraints that arise from the system that those actions produce, and it indicates the expected outcome: namely, the formation of balances of power. Balance-of-power theory is microtheory precisely in the economist's sense. The system, like a market in economics, is made by the actions and interactions of its units, and the theory is based on assumptions about their behavior.

Thus the balance of power is not only a desired outcome—in keeping with the normative commitment of people to balance and stability, power balancing is the natural outcome of the behaviour of states. There is thus strong incentive to maintain 'balances' and to avoid anything which could 'destabilise' them. Throughout the Cold War, the military relationship between the superpowers in particular was therefore examined in minute detail to avoid 'instabilities'—either 'arms race instabilities' or 'crisis instabilities'.

51. This is not to say that there have not been other instances of power balancing in international politics. David Hume argued that the balance of power was a feature of the classical world (see Hume, "Of the Balance of Power"). Herbert Butterfield opposed this view, suggesting that "The idea of the balance of power is associated with the modern history of our part of the world, and envisages the political units of the Continent as forming what used to be called 'the European states-system." (Butterfield, "The Balance of Power", in Butterfield and Martin Wight, eds., *Diplomatic Investigations*, (London: Allen and Unwin, 1967), 133.) Similarly Hedley Bull provides examples from sixteenth, seventeenth and eighteenth century Europe of the balance of power mechanism. (Bull, *The Anarchical Society: A Study of Order in World Politics*, (London: Macmillan, 1977), 101-02.)


The first step adoption of metaphors of 'stability' and 'balance' to think international relations produced the imagination of the Cold War in terms of a balance of power, and of the need to maintain that balance by avoiding instabilities. The second step use of these metaphors has involved their adoption from the Cold War security image to apply to the new image of PROLIFERATION. As I demonstrated above, a key element of this image is a definition of the problem posed by proliferation in terms of its effects on the 'stability' of (regional) balances of power. This step involves a number of entailments, derived both from the metaphors' grounding and from the specific meanings of the Cold War.

The first entailment of the 'stability' and 'balance' metaphors is that they highlight dyadic relationships. Our common experience with 'balancing' is that of two masses offsetting one another—rendered visually by the classic scale, or "balance". Two masses—or in the case of international relations, two states—offset each other in a 'stable' fashion. The introduction of a third mass greatly complicates the problem of balancing.54 While the classic balance of power system in Europe is generally considered to have five states (Russia, Prussia, Austro-Hungary, France and Britain), the actual mechanism of the balance was the creation and maintenance of stably balancing dyads. Britain's famed role as a 'balancer' involved it changing sides so as to ensure that one grouping did not overbalance the other. Hedley Bull indicates the dyadic basis of the balance of power in the following discussion of simple (dyadic) and complex (three or more) balances:

Whereas a simple balance of power necessarily requires equality or parity in power, a complex balance of power does not. In a situation of three or more competing powers the development of gross inequalities in power among them does not necessarily put the strongest in a position of preponderance, because the others have the possibility of combining against it.55

Martin Wight also argued that regardless of the form of system of balance, the concept was infused with a dyadic understanding of balance: "But the distinction between multiple and simple balance is immaterial to the conception of the balance of power as an even distribution. In both the multiple and the simple balance there is the idea of equipoise."56

54. The relationship between three bodies under the influence of gravity—the famed three body problem—is one of the most difficult in the history of Newtonian physics. While two bodies will settle into a 'stable' orbit, the addition of a third body introduces complex and possibly chaotic interactions among the three. Waltz uses the three-body problem to bolster his claim that a two power system is the most stable: "The three-body problem has yet to be solved by physicists. Can political scientists or policy-makers hope to do better in charting the courses of three or more interacting states?" [Theory of International Politics, 192.]


56. Martin Wight, "The Balance of Power", in Butterfield and Wight eds., Diplomatic Investigations, 152. The dualism inherent in the concept of equipoise can be seen by tracing through its meanings. The Oxford English Dictionary defined equipoise with reference to 'counter-balance', which it further defines as "a weight or influence which balances another." [Emphasis added.]
Indeed, Waltz took this feature of metaphor and history and raised it to the status of law, arguing that the ideal—that is most stable—balance is that between two roughly equivalent states: "International politics is necessarily a small-number system. The advantages of having a few more great powers is at best slight. We have found instead that the advantages of subtracting a few and arriving at two are decisive." 57

During the Cold War, the dyadic understandings of 'balance' were reasonably appropriate to the superpower confrontation, as there were two roughly equivalent superpowers anchoring two roughly equivalent alliances. Even then, however, the image downplays and hides those outside the central 'balance', rendering non-European states or regions either as invisible or as mere appendages to the superpower confrontation. To imagine third parties as autonomous would be to introduce problematic third and higher order 'masses' into the metaphorical 'balance'. However, the regional security systems which are today of greatest PROLIFERATION concern to those, mainly in the North and West, who use the image, simply do not resolve themselves into dyads. They are neither dominated by the confrontation of two overpowering opponents, nor do they divide into two allied groupings. Nevertheless, the metaphor of balance leads to the characterisation of these regions in dyadic terms.

In the Middle East, the region in which the present image could be said to have been born, the relationships among the various states are complex, and yet even accounting for these varied relations misses the sub- and trans-national dimensions of the politics of Middle Eastern security. For instance, the place of the Kurds in Iraq, and their relations to the Kurds in both Iran and Turkey, is an important element of the 'security' relationship in the eastern Middle East—and centrally involved in both Gulf Wars of the past fifteen years. 58 Similarly, the Israeli relationship with the Palestinians involves complex relations among Palestinians living in Israel, Jews living in Palestine, Palestinians in neighbouring countries, and those countries' states. Despite this complexity, the power of the dyadic entailment shapes discussions of the region. The most prevalent dyadic construction, of course, is that which characterises the region's complexities as "the Arab-Israeli conflict". Yet the two most recent wars in the region involved an Arab state's army fighting one of another Muslim (though not Arab) state, and a broad coalition destroying an Arab state—a coalition that included both Arabs and, to all intents and purposes, Israel.

57. Waltz, *Theory of International Politics*, 192. In addition, see the whole of Chapter 8 (161-93), to which this sentence forms a conclusion. Waltz claims that "Chapter 8 will show why two is the best of small numbers.... Problems of national security in multi- and bipolar worlds do clearly show the advantages of having two great powers, and only two, in the system." (161).

The same problems arise in other regions of concern. South Asia is, at its most simple, an intricate dance among India, Pakistan and the PRC—a construction which ignores the Kashmiris, Tamils and Sri Lanka. Despite the centrality of the triad of powers, there is a strong tendency to speak of the region in terms of the dyadic Indo-Pakistani relationship. Indeed, this tendency can be seen in part to have resulted in the growth of India's arsenal:

The Indian military buildup may also be explained by the various decision-maker's political image of the state in international society. One of the problems with Indian leaders and policy-makers since the death of Prime Minister Jawaharal Nehru in 1964, is the feeling that India does not get enough respect, especially compared to China, with which it sees itself as essentially equal in size, population and economic development. Instead, India is constantly equated with Pakistan, a nation at one time one-fifth its size in population and capabilities, and only one-eighth its size since the creation of Bangladesh in December 1971.59

Similarly, in the North Pacific, while the relationship between North and South Korea is of central importance, the security dynamic cannot be understood outside the context of the relations among these two states and the PRC, Japan and the United States, at the very least. These five do not break into two neat groupings, and yet the dyadic, "North against South", representation of the problem is common.

A second important entailment of the 'stability' and 'balance' metaphors is that they highlight numerical capabilities, while downplaying qualitative capabilities, and hiding other aspects of security—even aspects of the military other than equipment. This entailment is rooted both in the experiential basis of the metaphors and in their use during the Cold War. 'Balance' is by and large a quantitative, not qualitative characteristic—on a scale, a kilo of feathers will balance a kilo of lead. In particular, the accounting of numbers of various kinds, though notably money, involves the metaphor of 'balance'. Thus it should not be surprising that the application of the balance metaphor to the relationships of arms leads to a focus on numerical capabilities. The experience of superpower arms negotiation was in large measure guided by attempts to achieve 'essential equivalences'—in the number of launchers, the number of warheads, the throw weight of missiles, or the number of tanks.

What gets downplayed by the numerical entailment of these metaphors is the variation in capability among different weapons and weapon systems. This can be seen in the present proliferation control systems. The MTCR identifies technologies of concern by range and payload, entirely ignoring the reliability of the weapons, and even their accuracy (which is generally well measured)—in other words, ignoring most of what determines whether a weapon will be delivered on target by a given missile. Similarly, the UN Arms Register

records weapons in seven categories, so that, for example, all 'tanks' are counted together. Thus, in the first reporting cycle, the United Kingdom included several pieces of obsolete equipment that were transferred for display in museums. The comments that allow the Register's users to realise that these entries are museum pieces were purely voluntary. For example, Britain reported two exports of tanks. Six tanks were sent to Switzerland, and were marked "Obsolete equipment for museums", while 25 were reported sent to Nigeria. Nothing more than that 25 tanks were sent was reported by the UK, and so the character of these weapons is still formally opaque.60

While it is unfortunate that the numerical entailment of the balance metaphor downplays the quality of arms, it is much more problematic that it hides entirely aspects of the security problem other than arms—be this military doctrine and policy, or the more general politics of security.61 Indeed, the entailments of 'stability' and 'balance' in this context tend to reinforce the autonomous, technological character of the problem which is entailed by the 'proliferation' metaphor. Technology 'spreads' through some natural process. We can count the occurrence of this spread, so that we know where the technology is accumulating. We may even be able to control this autonomous process. However, it is these accumulations, if we do not prevent them, which can then 'upset' balances; in the words of Resolution 46/36L: "excessive and destabilizing arms build-ups pose a threat to national, regional and international security."

There is a third, and rather ironic, entailment to the 'stability' and 'balance' metaphors—they can lead to the promotion of the spread of nuclear weapons to a greater number of states. The logic of the 'balance' between the superpowers, it has been argued, is that mutual assured destruction with nuclear weapons introduces a caution conducive to 'stability'. If the metaphors of the Cold War are adopted to imagine the new international security environment, there seems little way to escape the conclusions of this argument, that nuclear weapons can be stabilisers. Indeed, it has led John Mearsheimer to argue:

If complete Soviet withdrawal from Eastern Europe proves unavoidable, the West faces the question of how to maintain peace in a multipolar Europe. Three policy prescriptions are in order.

First, the United States should encourage the limited and carefully managed proliferation of nuclear weapons in Europe. The best hope for avoiding war in post-Cold War Europe is nuclear

60. United Nations Register of Conventional Arms: Report of the Secretary General, General Assembly, A/48/344, 11 October 1993, 105. This is not to say that there are not alternate sources of information. Before the Register was formed, both the Stockholm International Peace Research Institute (SIPRI) and the International Institute of Strategic Studies tracked arms transfers, and remain able to provide information which is not included in the official data of the Register.

61. A similar conclusion, although from very different assumptions, is reached by Colin Gray in his recent article, "Arms Control Does Not Control Arms", Orbis, 37 (3) 1993, see particularly 341-42.
As part of the 'managed proliferation' of nuclear weapons in Europe, Mearsheimer suggests provision of nuclear arms to Germany. On this and on other points Mearsheimer's argument has been widely, and justifiably, attacked. But what is interesting about it is the way in which it makes the entailments of the 'stability' and 'balance' metaphors so clear. What is important is to assure that the numbers of weapons are distributed so that the balance among them is stable — regardless of who holds the weapons. The problems of history and politics which would be raised by German nuclear weapons are blithely ignored, because the metaphors informing Mearsheimer's conceptualisation hide them entirely. Most of us are sufficiently sensitive to these problems that Mearsheimer's argument is jarringly uncomfortable. However, the problem persists in all uses of the PROLIFERATION image, and yet it is only when the problems are as dramatic as in this case that the implications of the image are widely rejected.

In the title of his article, "Back to the Future: Instability in Europe after the Cold War", Mearsheimer also indicates the final entailment of the 'stability' and 'balance' metaphors—they are inherently conservative. It is not an accident that it was a conservative alliance facing a revolutionary challenge that formulated the practice we now call the balance of power. Nor is it an accident that the changes in Eastern Europe, while welcomed in the West on democratic grounds, were feared for their capability to introduce 'instability'. When a 'balance' is 'stable', an asymmetrical alteration to either side introduces instability. Thus once a stable balance is achieved, the metaphor highlights the importance of the maintenance of the status quo.

The conservative bias of the metaphors is problematic, even within the limited confines of a proliferation problem. The goal of policy makers seems clearly to be the reduction of weapons and their related technologies—at least in the arsenals of others! The image, however, which is informing the policy response to the problem, provides no support for reduction once a stable balance is achieved. There can be no guarantee that any reduction in arsenals, even a 'symmetrical' reduction, would produce a similarly stable balance at the lower levels of arms. Indeed, building on the received wisdom of the Cold War, there might even be a case to be made for high levels of arms, as a 'balance' at high levels is more resistant to small changes—that is, it is more 'stable'.


63. Although by instability, Western policy makers probably meant political and strategic instability, not the psychological instability of Vladimir Zhirinovsky.
There is, of course, a more politically problematic result of the conservative entailment of 'stability' and 'balance'. The emphasis on 'stability' hides the struggles of the oppressed, and the security concerns of any other than the regime controlling the state. Change introduces the possibility of upsetting a balance, and as stability is so highly valued, change of any kind is to be opposed. It is for this reason that we should not be surprised that The Balance of Power was devised by the defenders of the monarchical order in face of the Napoleonic challenge. The conservative nature of the stress on stability can be seen in the reaction of the West in general, and the United States in particular, to the changes in Eastern Europe. Consider the example of the ill-received speech US President Bush gave in the Ukraine, in August 1991, as reported by the Los Angeles Times:

"Freedom is not the same as independence," Bush told Zayets and the rest of Ukraine's legislature on Aug. 1. "Americans will not support those who seek independence in order to replace a far-off tyranny with a local despotism. They will not aid those who promote a suicidal nationalism based upon ethnic hatred."

Shorn of rhetorical niceties, the American position seemed to be: Moscow and Soviet President Mikhail S. Gorbachev know best. Although the legislature here was dominated by Communists still opposed at that time to secession, Bush's speech "went down about as well as cod-liver oil," one Kiev-based diplomat remarked.64

Bush's so-called 'Chicken Kiev' speech reflected the bias towards the known, towards the status quo. This bias was further revealed in the policy the US was simultaneously pursuing towards changes in Yugoslavia. A US Deputy Assistant Secretary of State justified the continuing US policy of supporting the Yugoslav union, in terms which draw the links between this conservative thinking and the emphasis on stability:

Many have asked why we chose to include unity among the goals we supported in Yugoslavia. From the beginning, our fundamental policy objective in Yugoslavia has been democracy, not unity. But when the Yugoslav crisis began, we decided to state our support for both unity and democracy because we believed that unity offered the best prospects for democracy and stability throughout Yugoslavia. Given Yugoslavia's crazy-quilt ethnic makeup and history of deep-seated ethnic disputes, we believed that the only alternative to some form of democratic unity was violence, suffering, and long-term instability.65

As both the USSR and the Yugoslavian federations fell apart, the US position was to fight to maintain the status quo, in the interests of 'stability'.

This conclusion, that security in the present international system is politically conservative, is not a new one. Indeed, the chapters of this volume are, in many ways, predicated on the
recognition of the problems posed by the narrow and conservative nature of international security as it commonly understood. What I have hoped to show is that this bias is an entailment of the metaphorical images we use to construct the problems in the first place. As such it serves to naturalise a particular set of relations of power and interest, privileging those who are able to set the metaphorical agenda, and to render invisible the political basis of their claims.

The Assembled Image

The image of PROLIFERATION knits together the metaphors of 'proliferation', 'stability' and 'balance' to shape the policy responses of the international community. The metaphors have certain entailments, which serve to highlight, downplay and hide aspects of the security environment. Thus, the policy responses which are being developed address primarily those aspects highlighted, while ignoring those downplayed and hidden. The image is of an autonomously driven process of spread, outward from a particular source or sources. It is an apolitical image, which strongly highlights technology, capability and gross accounts of number. As such, it is an image that masks the political interests of those supporting the present structure of proliferation control—a structure which strongly reflects this image and its entailments.

To begin with, the control efforts are classified by the technology of concern. Thus there are global instruments for controlling the spread of nuclear weapons, of chemical and biological weapons, and a register of conventional arms. There is no global instrument for the control of the spread of missile technology, but the MTCR addresses this technology as a discrete problem, and is considering evolving into a global regime. There is thus little or no recognition in the practical response to PROLIFERATION that the spread of these technologies might all be part of a common 'security' problem. The security concerns which might drive states to acquire one or more of these technologies are hidden by the PROLIFERATION image. This division of the problem into discrete technologies persists, despite the fact that the connection among the various technologies of concern manifests itself in a number of ways. I will mention only two by way of illustration. The first is the common reference to biological weapons as "the poor man's atomic bomb". The implication of this phrase is that a state prevented from acquiring nuclear weapons—in this case for reasons of cost—could turn to biological weapons to serve the same purposes. The second example is of the links being drawn in the Middle East between Arab states' potential chemical arms, and Israel's nuclear arsenal. The Arab states are balking at ratifying the CWC until the Israeli nuclear arms are at least placed on the negotiating table. Conversely, supporters of the Israeli position can cite the Arab states' overwhelming conventional superiority as a justification for Israel's nuclear arms.
The common approach to 'controlling' proliferation across the technologies of concern is the limitation and even denial of the supply of technology. Each of the technologies of concern is addressed by at least one suppliers group, and the major Western suppliers maintain export controls to implement the groups' lists. Such an approach is clearly informed by the entailments of the PROLIFERATION image. Supplier controls respond to the 'spread outward from a source' entailment of 'proliferation'. They also reflect the ways in which both the metaphors of 'proliferation' and 'stability' highlight technology, by focussing solely on its nature and movement. In addition, these groups reflect the various entailments of 'stability' and 'balance' outlined above. They seek to prevent "excessive and destabilizing accumulations" of technologies through the application of their controls. Lost entirely in these practices are considerations of the political and economic underpinnings of security. These aspects are hidden by the image, and so are not addressed by the policy responses.

The relationship between these political interests, the policy responses and the metaphors of the PROLIFERATION image would form the subject of another paper, at the very least. However, it is not responsible to ignore entirely this relationship, and so I will provide an example by way of illustration. India stands as a leading opponent of the present approach to proliferation control, with its roots in technological denial. India represents a different set of interests from those of the northern states most concerned with PROLIFERATION as presently understood and practiced. For India, access to technology is vital, and the principle of discrimination between the have and have not states—enshrined most notably in the NPT, but seen throughout the non-proliferation measures for denying technologies' spread—is absolutely unacceptable. As such, the Indians reject the image of PROLIFERATION, and call rather for DISARMAMENT. This view is reflected in the following passage, quoted from a paper by the Indian Ambassador to Japan, who was previously the Indian representative on the Conference on Disarmament:

It would be futile to pretend that 1995 is 1970, that nothing has changed and nothing requires to be changed in the 1995 NPT. It would be a cruel joke on the coming generation to say that they will be safer with an indefinite extension of the 1970 NPT. 1995 presents an opportunity; there is great scope for non governmental agencies, intellectuals and academics, who believe in nuclear disarmament to work towards changing this mindset and spur governments in nuclear weapon countries to look at reality, to accept that there are shortcomings in the NPT and that nations, both within and outside the NPT have genuine concerns which need to be addressed in order to make the NPT universal, non discriminatory and a true instrument for nuclear disarmament. [Emphasis added.]

There are three noteworthy elements of this plea for change. The first is that Ambassador Shah recognises the importance of changing the mindset toward the problem in order to effect change in the policy responses to that problem. This feature of his remarks relates to the second. Ambassador Shah casts his justification for alterations in the NPT as reflecting a changed reality—thereby attacking the naturalisation of the features of the world which are highlighted by the PROLIFERATION image, as reflected in the NPT. Finally, Ambassador Shah calls for the new NPT to be an instrument of ‘nuclear disarmament’, not non-proliferation. In other words, he recognises that there is a policy problem to be addressed, but it is not a PROLIFERATION problem—that is, a spread of weapons technology from those who have to those who do not presently have. Rather, the problem needs to be imagined as a (DIS)ARMAMENT problem—the possession of nuclear and other arms, regardless of who has them.

For the countries of the north, the indefinite extension of an unamended NPT is considered essential. The NPT is seen as the linchpin of the proliferation control effort, without which the entire edifice might fall. What Ambassador Shah’s comments demonstrate, reflecting the position taken in India, is the way in which that effort, tied so closely to the entailments of the PROLIFERATION image, serves only a particular set of interests by highlighting only specific features of ‘reality’. From where he sits, ‘reality’ provides Ambassador Shah with a different approach to the problem of nuclear (and other mass destruction) weapons, an approach better captured through an image of (DIS)ARMAMENT than one of PROLIFERATION.

Conclusions

The discussion in this paper has examined the way in which international security, and international security policy, are constituted in the terms of an assembly of metaphors. An image, comprising a series of metaphors, provides the conceptual frame for a problem, and therefore structures the policy agenda by privileging a particular set of solutions which can be proposed and implemented. In particular, the image highlights certain aspects of a given problem, while downplaying others and hiding still more. The policy solutions which will be advanced will, not surprisingly, focus upon the features highlighted by the image, and ignore those downplayed and hidden. I have shown how in the aftermath of the Cold War, and in the context of the Gulf War, an image of a problem of PROLIFERATION was developed, which comprised three key metaphors: ‘proliferation’, ‘stability’ and ‘balance’. The entailments of these metaphors provide an image of an autonomous, technical, apolitical process, which if left unchecked spreads its technological offspring outwards from its source, resulting in excessive and destabilising accumulations elsewhere. This image is
reflected in, and is driving the further development of, the instruments of control—the policy being applied to the problem defined by PROLIFERATION.

There are two classes of conclusion I can draw from this discussion, those relating to policy and those to theory. I would suggest two conclusions concerning the present policies of proliferation control. The first is that the image of PROLIFERATION is giving rise to a policy agenda dominated by strategies of technology denial. Such strategies reflect the technological bias and the 'outward from a source' entailments of proliferation. However, they are profoundly problematic in the contemporary international system. Technology denial is serving to deepen the already wide gap between North and South. It ignores entirely the needs of economic development—needs which are at least as great a security concern as is the spreading of weapons technology. In addition, the strategy is unsustainable. Because the PROLIFERATION image is of an autonomous process, it takes no account of the political and economic interests driving the supply of military technology. These interests are presently being felt in the United States, for example, in opposition to any extension of export controls—despite the United States long being the leader of the supplier control groups.67 The second policy conclusion is related to the first. The metaphors of 'stability' and 'balance' are similarly ill-suited to the contemporary security environment. Even if we accept that they provided useful conceptual frames to understand the superpower relationship in the Cold War, they are not appropriate to the regional security arenas of the post-Cold War. The entailments of 'stability' in particular can not account for the variety and complexity of the Middle East, South Asia or the North Pacific, to mention the regions of contemporary concern. Regional security, and security policy, must then be 'reimagined' on bases other than those provided by 'stability' and 'balance', and hence by PROLIFERATION.

On a more conceptual note, the implications of this argument are that in order better to understand and influence international security and security policy, we must identify the images that are supporting and informing that policy, and the metaphors of which they are composed. These will provide the scale along which policy responses are ordered, privileging some while rejecting others. Furthermore, to understand fully the nature of an image and its attendant metaphors, it is necessary to discover their origin. The metaphors which concerned Paul Chilton, for example, were drawn from everyday experience—quite deliberately, as their function was to bolster extant policy in the public mind. However, the images and metaphors which concerned me here structure the thought of policy-makers

themselves. Therefore, while the images may be drawn from a different universe, the intellectual function they serve is the same.

The analysis of metaphor provided here is by no means complete. I have examined the relationship between the metaphorical images of security problems and the policy responses. To draw this form of work more fully into a research agenda of 'critical security studies', it would be necessary to develop the relationship of these two to political interests. How does power affect the formation of metaphorical images? Whose interests are promoted by particular images, and whose are ignored? These questions need also be asked in reverse: do particular images operate so as to enhance the power of particular actors or groups, and also to create and reproduce sets of interest? Clearly these questions are well beyond the scope of this chapter, but need to be considered in the building of a new research agenda for international security.

These conclusions hold two implications for 'critical' security studies. First of all, the exploration of the metaphors underlying policy will form an important part of a general project of critique, understood as revealing the power relations hidden by security relations. Those power relations are masked by the metaphorical understandings of the images of security, and so to reveal them, the images must themselves be revealed. Secondly, the impulse to critique is rooted in a political stance opposed to the dominant powers, and thus supporting the struggles of the oppressed. In order to create alternative security policies from the perspective of the oppressed, the present argument suggests the need first to construct images of security problems which privilege their interests, rather than those of the dominant powers—(DIS)ARMAMENT rather than PROLIFERATION, for example.

Finally, it is important that I be clear about the one conclusion I am not drawing. I am by no means suggesting that such imagining and metaphoric reasoning is by itself dangerous. Rather, it is both essential and impossible to eliminate. What must be recognised is that images and their metaphors privilege certain policy solutions. Therefore the choice of image must be guided by the appropriateness of the privileged solutions to the problem at hand, but more importantly by the normative convictions of the chooser.