The Myth of Nuclear Deterrence

Amarjit Singh

Being unconquerable lies with yourself, being conquerable lies with the enemy
– Sun Tzu, *Art of War*

Introduction

Do you think that if Pakistan were to use all its 50 nuclear bombs against India and kill 100 million people, India would be deterred from finishing Pakistan? Or, if the Lashkar-e-Tayyeba were to threaten New Delhi with a nuclear bomb based on designs illicitly received from the notorious A Q Khan, would India withdraw from Kashmir to appease them? Supposing China was to threaten India with nuclear extinction, do you think India would agree to let them take Assam? In this article, I have a message for those who will not go to war for fear of a nuclear war. Further, this article builds atop conventional principles of nuclear deterrence and bases its premise on the theory that the traditional theories such as first and second strike capabilities have focussed too narrowly on the role of nuclear wars and nuclear winters, but have not adequately considered the role of conventional warfare within the circumambulation of mutually assured destruction (MAD) and massive retaliation.[1]

An Indian nuclear scientist speaking at a seminar at Harvard University, claimed that all India needed against China was a bomb or two to deter it — that China would be unable to tolerate the death of half a million or one million people; therefore, he argued, India needed no further military nuclear programme[2]. He is not alone in his perspective, since numerous theorists share identical sentiments. Moralism abounds in India. However, I cannot believe that such moralists are realists. Moreover, there is a problem with scientists taking on responsibility

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for security without having the proper background and training. Apparently, no one has told them that China killed and starved 36 million people under Mao Tse-tung without batting an eyelid[3], let alone its oft-mentioned genocide in Tibet;[4] China has displaced an estimated 5.3 million people and sunk 15 cities to construct its Three Gorges Dam.[5] And this China is going to be concerned about one million people dying by a nuclear attack? Though no one can deny that we need scientific input in nuclearisation, Bharat Karnad asserts that "scientists in general tried too often to influence policies they did not understand."[6]

Various scholars have argued for a minimum deterrence capability raging between 12 to 200 atomic bombs[7], compared to India's supposed arsenal ranging from 50 to 400 atomic bombs[8]. However, the main issue cannot be the number of bombs but their damage inflicting capability. For instance, India possesses atomic bombs largely of the Hiroshima size of 5 kilotons[9]; but China's 500-old bombs consist of sizes that range up to 1 megaton and beyond and include hydrogen bombs. In addition, India's technological development is far behind that of China's[10], even though the two nations emerged as independent nations around the same time in 1947-48. Thus, China is sitting pretty, in full knowledge of the fact that India's deterrence is insufficient, even if it is well implemented, though the implementation and deployment issue is still shrouded in secrecy[11]. Consequently, 'minimum deterrence' for unacceptable damage vis-à-vis China cannot mean anything less than a sufficient second-strike capability that is as powerful as China's full nuclear capabilities, at least so long as a godless Communist Party rules China that does not use reason like god-fearing, peace-loving nations.

Thus, there are other issues beyond rational thinking that come into play when we look at the spectrum of nuclear deterrence and conventional warfare that this paper explores. The approach that minimal nuclear deterrence is effective in stopping conventional war is a theorem that has often been disputed; even the concept of inflicting "unacceptable damage" on the opponent is debated because the amount of unacceptability comes into question.[12] Where nations are willing to fight on till the "last drop of blood is shed," there may be no limit to "unacceptable damage." The essential factor of courage, emotions, and tempers has been

overlooked in war and nuclear deterrence. In addition, nuclear brinkmanship can be taken to new extremes, and perhaps to more abstruse, enigmatic, and perplexing levels than strategies in chess, which are known to be complex. In the writer's opinion, too much of the rationalisation of deterrence has been created by psychologists, political scientists, diplomats, politicians, and international relations' theorists, who may seldom have ever held a gun, let alone fire one. The prospect of nuclear stability must also be looked at from the perspective of those who have to fight the wars on the ground, and who have a strategically thinking warrior's bent of mind plus a grasp of *realpolitik*.[13]

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Philosophy of Nuclear Deterrence

The main philosophy of nuclear deterrence is that the nation at the other end is going to shudder at the threat of nuclear attack. The entire principle of deterrence is premised on the game "chicken," where the less courageous blinks first and avoids a head-on collision.[14] The principle is further pivoted on fear overtaking a nation. But, soldiers are taught to overcome fear and "fight till their noble death" when so commanded. Thus, I think that deterrence affects primarily the political leaders of nations by working on their fears and weaknesses. The theory of deterrence further takes from *legal deterrence* where punishment is supplied with an aim to deter future legal violations.[15,16] This approach is the hallmark of the *rational choice theory*, which espouses that humans are reasoning actors who make rational decisions to minimise harm to themselves while optimising the means and ends, costs and benefits, especially in relation to the prospects of crime. The final aim of the rational choice theory is to create disincentives for the commissioning of crime.[17]

Nuclear deterrence also derives from *psychological deterrence* (a branch of behavioural psychology), which seeks to control actions by fear of punishment, and which has fashioned the criminal justice system in various countries.[18] It is interesting that the whole concept of *nuclear deterrence* sprang from legal and psychological deterrence that were meant to deter crime among individuals and societies. For nuclear deterrence to work, Party A must understand the thinking

and behaviour of Party B to call the shots; and there must be complete certainty with absolutely no place for ambiguity.[19] In addition, nuclear deterrence is based on the principle of rationale choice, where a common sense fear of destruction and sense for survival overweighs the desire for exerting control. Inasmuch as the world we live in is not ideal, the effectiveness of nuclear deterrence is also not a formula or equation. Typically, chaos and unintegrated actions govern wars and battles in contrast to information and certainty. While we may seek to prepare schedules and rules for war operations, nothing in military operations goes according to schedule and little can follow rules when death stares soldiers in the face. At the last moment, unpredicted actions and reactions spring from the infinite mind that pervades humans.

Now that so many nations have nuclear weapons,[20] with another 30 planning to have one in the next ten years according to Mohammed El Baradei of the IAEA (International Atomic Energy Agency), and another 20 capable of developing some type of nuclear deterrent, these nuclear bombs are headed towards becoming all too commonplace.[21] Some will probably even argue that nuclear weapons among more nations create a more stable and conflict-free world. But, as happens with any commodity that becomes plentiful in supply, and, thus, loses its economic value, so is it becoming with nuclear weapons, let alone if more nations possess them. Therefore, while the rationality of mutually assured destruction might prevent rival nations from using nuclear weapons after various rounds of threats and counter-threats, the value of nuclear deterrence in preventing conventional warfare could be diminished, with an ever-increasing risk to nuclear escalation if nuclear deterrence is unstable. Consequently, the truth is that total security premised on nuclear weapons cannot endure in the long run in a world where every nation fears some enemy or the other. Hence, the motivation to resort to conventional warfare will be all too high when nations find their rivalries are not being resolved, which is why conventional wars will logically continue to take place. In addition, no nation is totally secure, and all security is temporary, and all nations are subject to unstable rivalries. What's more, the mere possession of nuclear weapons may embolden either rival, especially the weaker one, to engage in military adventurism, resting safe in the belief that its opponent will not escalate conventional war beyond a reasonable limit. What happens in such cases is that nuclear deterrence—both stable and unstable—may deter nuclear nations from using nuclear weapons, but needn't deter them from using conventional weapons.

Inoperability of Nuclear Deterrence

Inoperability of nuclear deterrence is defined as the non-use of an explicit threat when the potential to apply one exists. For example, the USA did not use any nuclear threat against China when it intervened on the side of North Korea during the 1951-53 War; it is clear that nuclear deterrence was inoperative during the Soviet invasions of Hungary in 1956, Czechoslovakia in 1968, and Afghanistan in 1979; it has been inoperative in coercing China out of Tibet; and was inoperative against Russia when Russia continued to supply conventional weapons to Vietnam. Direct nuclear threats have not been applied by China in making Taiwan relinquish sovereignty; neither did China use any nuclear threat against Vietnam during the 1978 border war; the United Kingdom did not use a nuclear threat against Argentina during the Falklands War of 1982; the United States did not threaten the Taliban with nuclear annihilation in the wake of 9/11; more so, the United States never threatened Iraq with nuclear bombardment in the 1991 and 2003 Gulf Wars, relying instead on superior conventional forces to subdue Iraq; and, Israel has never threatened its neighbours with nuclear retaliation even while the whole world believes that Israel possesses nuclear weapons. The Cuban missile crisis did not invoke direct nuclear threats by either the USA or USSR, though strategists and planners "imagined" possible underlying threats and playedout different scenarios. The USA and Russia steered clear of explicit nuclear threats during the entire four decades of the Cold War,[22] feeling safer with keeping the nuclear issue under the rug rather than ratcheting up reactions that could escalate. The 1967 and 1973 Arab-Israeli Wars did not attract nuclear threats by the USSR, though the USSR did threaten to come to the military assistance of Egypt.[23] China did not threaten the USSR during the 1969 Ussuri river stand-off. And, China is not threatening any neighbour nation over the spats over the Spratly Islands. In no ongoing modern war has nuclear threat or nuclear deterrence been significant. Moreover, the no-first strike philosophy adopted by nuclear nations[24] further devalues the principle of nuclear deterrence for preventing conventional wars.[25]

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It is not easy to apply and follow through on a nuclear threat, since how the opponent reacts to that threat is uncertain. It is not an easy game to play, and perhaps more difficult to learn how to play it. What if a charged opponent reacts irrationally and uses its own nuclear weapons against the threat in an anticipatory first strike? If a nuclear threat is ignored and there is no follow-through, then the threat was hollow. Hence, nuclear nations have been very cautious in applying nuclear threats.

Applied Deterrence

It is a moot question whether the existence of nuclear weapons actually deterred the occurrence of conventional war. Applied deterrence is defined here as an explicit threat given by one nation to another. While operative when the USSR threatened France with a nuclear strike during the 1956 Suez Crisis,[26] the threat did not deter France, while the objectives of the Anglo-French-Israeli invasion were achieved. It is also debatable whether the possession of nuclear weapons by a weak nuclear weapon state ever was the direct cause of deterring a stronger one from invasion (except possibly in the case of India-Pakistan in 1999 and 2002, as we shall discuss later). Western international relations theorists have generally developed a well-known principle that no nuclear nation should go to war with another nuclear nation for its own well-being and survival, especially when other options are open and alternative ideas of coexistence can be conceived[27]. The USA, China, and Russia have never had legal or moral excuses or reasons to invade each other on a large scale, and wishes and war games, it should be understood, should not be mistaken for reasons. Currently, though, the USA is carrying on cross-border operations across the Afghanistan border into Pakistan, a nuclear nation, and it still remains to be seen how that will play out. Thus, whether the nuclear weapons of the North Atlantic Treaty Organisation (NATO) prevented a larger conventional Soviet Army from moving into Europe can never be answered, only conjectured. It is known that the USA had adopted a strategy of first-strike against the USSR if the Warsaw Pact were to as much as step across the international border.[28] Whether the USA would have followed through on that threat or not is open to discussion, but it did seek to impress that on the USSR by implicit means, rather than explicit. The same goes for deciding whether it was nuclear threats from the USA that prevented the USSR from conquering neighbouring nations in the post-World War II period. Recall that, to the contrary, the USSR had unilaterally withdrawn from South Korea and northern Iran, and had returned Manchuria to China for goodwill, though it got stabbed in the back

later after Mao flip-flopped in the Bay of Pigs episode[29]. We should consider that neither Russia nor the USA *wanted* war during the Cold War period. Moreover, it is possible to imagine that China is restrained from exercising force in the current days against any nation for fear of reprisal from the international community rather than nuclear retaliation. So, there is no proof to the argument that nuclear weapons have actually deterred war.

It is very likely that nuclear weapons *emboldened* China during the 1969 Ussuri river stand-off; Pakistan has probably been emboldened by its new-found nuclear weapons capacity to carry on a continuous campaign to *bleed India by a thousand cuts* in Kashmir; North Korea is probably emboldened by its nuclear capacity to flip-flop on agreements in the six-nation talks; and Iran's nuclear confidence emboldens it to thumb its nose at the West. The USA was emboldened by its nuclear prowess to prepare immensely for a first-strike against the numerically superior Warsaw Pact forces. But, it must be made clear that being emboldened does not substitute for making an applied threat, and should not be mistaken for the same thing. When a nation is emboldened, it plays on the fears and imagination of its enemy without making an applied threat. The nation 'allows' its enemy to think that there may be nuclear retaliation for any escalation. This is quite a tough game to play, since it can never be ascertained how it will play out. The message is that large nations need to depend on none other than themselves for their own defence and security.

Only nuclear nations had the wherewithal to attack nuclear weapon states, so there aren't many data points where the actual operability of nuclear weapons can be said to be statistically significant. To the contrary, all data point (except possibly one) point conclusively to the uselessness of nuclear weapons in protecting anything. Moreover, one swallow (a data point as in the case of India-Pakistan in 1999-2002)[30] never made a summer. While nuclear weapons have only succeeded in making the world a potentially more dangerous place, they are something that major nations simply cannot do without[31]— that is about all we can conclusively say after 60 years of nuclear weapons history.

Faith and Rationality in Nuclear Deterrence

Compounding these trends is the attempt by the United States to build a ballistic missile defence system, in abrogation of the 1972 US-Soviet Anti-Ballistic Missile (ABM) Treaty that sought to limit defence missile sites to two sites of 100 interceptors each, which are obviously insufficient to defend either country against all possible nuclear and conventional attacks.[32] Of course, the US abrogation came

in the light of concerns regarding the Chinese military build-ups, and only after the former Soviet Union had first made clear to the US that it reserved the right to abrogate the 1972 ABM Treaty.[33] Consequently, the US is signalling that it has lost faith in nuclear deterrence altogether, finding that even the principle of MAD (mutually assured destruction) may not work with an irrational and insane leader, such as of some rogue nation, and recognising that an insane leader might become the leader of Russia. This is not altogether without foundation, since Vladimir Putin has renounced Russia's former no first-use policy[34]. Hence, it is possible to understand the USA's reliance on a missile defence system in Europe to protect itself. Thus, nuclear deterrence is not a foolproof system, nor can it be reduced to a perfect science, since it follows entirely from psychological and behavioural states of mind; various stances of aggressiveness or timidity; and multiple confluences of fear, culture, and internal politics. It is impossible to believe that the method of handling deterrence by any one nation can be adopted by another, since nations and leaders have different personalities and operate under varying circumstances. In addition, all threat situations are different, much like battlefields, where no two battlefields are identical and the tactics for every battle are always unique. Therefore, it has often been repeated that nations today cannot adopt the deterrent strategies of the Cold War nor can nations of the East adopt strategies used by the West and Russia.[35, 36] Even the technologies available for wars have changed dramatically since then, indicating that new thinking is necessary.

It can be recognised that the eventualities and permutations/combinations of the behaviour of leaders are many, while the existence of irrationality or supra-rationality in a leader's mind immediately trashes nuclear deterrence in the dustbin, nuclear deterrence being based on rational choice. It is also useful to keep in perspective that deterrence is a psychological strength-of-mind game where the rules are few and the uncertainties plenty. When irrationality and insanity are brought into the equation, the concept of deterrence dissolves very quickly. Moreover, leaders can pretend to be irrational and insane, to the extent that they make their adversaries believe they are irrational and insane, so as to possibly prevent the adversary from invading, though the real, inside story may be different. In fact, "[N]uclear deterrence fails when there are risk-takers on both sides and when leaders are irrational."[37] It is not impractical to think that irrational leaders may emerge; in fact, the world's history is testimony to irrational kings and rulers. Yet again, not all irrationality is negative: those who use a supra-rationality[38] cannot be made to fit into simple jackets of rationality. A supra-rationality can be both productive and realistic, but one that discards

conventional wisdom of rationality.[39] Thus, it is difficult to explain the vast combinations of applications of rationality, irrationality and supra-rationality under the spectre of a nuclear threat, much as in conventional war, but it can only be acknowledged that there are *known unknowns* and *unknown unknowns*.

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Minimum Unacceptable Damage

How much or how less is minimum unacceptable damage? Numerous scientists and analysts have claimed that the minimum unacceptable damage is really only a few bombs.[40] This is being too naïve, too unrealistic. How much torture does a prisoner need before he sings? The tolerance level of individuals and nations is different from individual to individual and nation to nation. Communist, dictatorial nations tend to be more irrational and stubborn than democracies by virtue of their stiff stance and authoritarian organisation. Kim Jong Il is a typical contemporary example of an irrational leader who has the US spinning in confusion year after year. It can, thus, be concluded that they require greater levels of threat to scare them than others. What works to deter India may not work to deter China, and so on. Some have a low tolerance level and swoon at the sight of blood; others get more emboldened and determined when they see blood and death. The factor of insult, loss of face, and pride must figure in tolerance levels. For instance, Pakistan felt compelled to 'answer' India's 1998 explosions because, I believe, they perceived themselves as being perceived as weak if they did not undertake explosions of their own. Hence, to understand the least number of bombs that will deter a nation, it is necessary to read the mind of the opponent, not theorise on one's own moral principles and levels of tolerance. As a result, when reading the opponent's mind is difficult and fraught with uncertainties, it is a safe approach to aim to possess as much damage capability as he possesses. If Nation A thinks that the number of nuclear bombs it has is sufficient to cause unacceptable damage, then anything less in the hands of the opponent will be dismissed as not quite strong enough, or else considered a weak defence.

Security can seldom be taken for granted in this regard or argued away on a flimsy theory or moral ground. The only reality we can believe in is the reality on the ground, while all the intellectuals can debate for as long as they like. It is also wrong to be lulled into thinking that the modern world of high technology and good economy is going to put a stop to all wars. It is necessary to realise that war, like death, is not only a reality, it is a certainty.

Nations that are short on resources may tend to rationalise and argue for a lower deterrence level, so that funds can be expended on civilian projects such as schools, parks, and water. While no one argues against the need for schools, parks, and water, I must assert that asking for low deterrence levels is much like asking for demilitarisation so as to have only defensive forces, forgetting that the best defence is usually the best offence. Jeremy Stocker also cautions against minimalistic deterrence.[41] Unless an enemy realises that it will be an eye for an eye and a tooth for a tooth, the real fear does not convincingly sink in, and deterrence doesn't have teeth in such situations. In a world where only real security permits sovereignty to persist, expenditure for civilian projects before assuring expenditure for military projects is like putting the cart before the horse.[42] In the circumstances of India, where hostile nations surround it, any neglect of military and nuclear strength is at its own peril. However, once credible and stable deterrence is achieved, the use of nuclear weapons is not necessary. This does not mean that nuclear deterrence is not necessary, since a vulnerable nation will, thus, be setting itself up for catastrophe by disarming, but only that stable nuclear deterrence is a necessary evil.[43] Hence, the minimum unacceptable damage that Nation A should ideally plan for Nation B can be nothing less than what B thinks will bring A down to its knees. This would be thinking as the enemy does, which has the intrinsic characteristic of upsetting and deterring the enemy.

Conclusion

The threat of the use of nuclear weapons, when called, must not stop India from defending its interests against the aggressions and transgressions of Pakistan or China. In addition, it is realistic and necessary for India to aim to develop a nuclear arsenal on par with China, an effort that is not as expensive as some may make it out to be. The needs for India's survival as a race — of numerous independent religions that are dominant in India — require that the threat of nuclear deterrence not deter India from defending its pride and territory. The situation on the subcontinent is unstable, and conventional deterrence through

strategic deterrence is unrealistic, especially if a courageous leader arrives to the fore in India. The increase in conventional disputes since India and Pakistan became *de facto* nuclear powers around 1990, and again since they became overt nuclear powers in 1998, is testimony to the fact that the possession of nuclear weapons is unable to deter conventional war, and may, in fact, increase the likelihood of nuclear war. Moreover, nuclear deterrence is predicated on rational choice theory, but leaders may become irrational, supra-rational, or irresponsible. The nuisances that are Pakistan and China, by their autocratic regimes that oppress their own people, signal unambiguously that they both itch for a war with India — China, to occupy territories it claims, and Pakistan, to avenge its 1971 defeat. Since the only strength of an enemy that nations inebriated with their own strength will realise is minimum acceptable damage on them of an equal calibre as what they can inflict, India must develop nuclear capabilities equal to China's. Moreover, it is logical to believe that nuclear threat and deterrence among nuclear nations is a myth whose time has elapsed, since mutual nuclear deterrence will not deter conventional warfare among aggressive and deep-thinking leaders.

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Note: This article is the first of a two-part series and the subsequent issue shall carry the concluding part.

Notes

1. "Mutual Assured Destruction", Wikipedia, http://en.wikipedia.org/wiki/Nuclear_Deterrence
2. "The Indo-US Nuclear Deal: Looking Forward" Friday, 10 March 2006, South Asia Initiative, Harvard University, http://www.fas.harvard.edu/~sainit/pastseminars2.htm
3. Wikipedia,"Great Chinese Famine," http://en.wikipedia.org/wiki/Three_Years_of_Natural_Disasters
4. There are numerous sources for China's genocide in Tibet. For one, see "Tibet,"in Dinah L Shelton (ed), *Genocide and Crimes Against Humanity* (Gale Cengage, 2005), eNotes.

com. 2006. 12 February 2009 <http://www.enotes.com/genocide-encyclopedia/tibet>

5. Antoaneta Bezlova, "ENVIRONMENT-CHINA: Three Gorges Dam May Displace Millions More", http://ipsnews.net/news.asp?idnews=39621, 12 October, 2007.
6. Bharat Karnad, *Nuclear Weapons and Indian Security* (MacMillan India Ltd., 2002), p. 333.
7. Jasjit Singh, in Foreword to G Kanwal, *Nuclear Defence: Shaping the Arsenal* (New Delhi: Knowledge World 2001), pp. xii-xiii.
8. India's actual arsenal size is shrouded in secrecy. But, for long, well into the 1990s, India only spoke about nuclear deterrence, but probably never made atomic bombs. Refer House Committee, *Foreign Assistance Legislation*, 1988-89, p. 423, cited in Devin Hagherty, *The Consequences of Nuclear Proliferation* (MIT Press, 1998). The 400 bombs that analysts believe that India has are only estimates of 'capability' based upon the amount of weapons-grade plutonium in India's stockpile.
9. The real size of the bombs is secret. But, it must be noted that India exploded devices of 0.2 and 0.6 kiloton capacity in 1998, while Pakistani explosions were many orders of magnitude larger. It is fully conceivable to imagine, and definitely possible to suspect—given the different directions that Indian policy-making pulls in, combined with low sophistication of Indian technology—that most Indian bombs are tactical and of less than 3 kiloton capacity.
10. Amarjit Singh, "Fiery Dragon, Sleeping Tiger," *Realpolitik*, March 2006, pp. 22-24.
11. India might have fewer missiles than Pakistan, let alone China. See Rajat Pandit, "India Lags Behind Pakistan in Missiles," http://timesofindia.indiatimes.com/India/File_India_lags_behind_Pakistan_in_missiles/articleshow/4060400.cms, 02 February 2009.
12. George Perkovich, *India's Nuclear Bomb* (LA, CA: University of California Press, 1999).
13. A lot can be understood in this context on how to fight wars, be they nuclear or conventional, by simply studying and imbibing the most ancient textbook on war—Sun Tzu's *Art of War*—the precepts of which are as applicable today as any time ever.
14. The game "chicken" was supposedly first played in the United States between motorcyclists of competing gangs. Two motorcyclists would speed toward each other in a duel along a marked line (such as the white line on the centre of a road). The first one to veer off the centreline was judged the loser and given the name of "chicken." When neither veered, there would be a collision.
15. "Deterrence (Legal)," http://legal-dictionary.thefreedictionary.com/Deterrence
16. Wikipedia, "Deterrence (Legal)," http://en.wikipedia.org/wiki/Deterrence_(legal)
17. Wikipedia, "Rational Choice Theory (Criminology)", http://en.wikipedia.org/wiki/Rational_choice_theory_(criminology)
18. Wikipedia, "Deterrence (Psychological)", http://en.wikipedia.org/wiki/Deterrence_

(psychological)

19. Donal C Whitmore, "Revisiting Nuclear Deterrence Theory", http://www.abolishnukes.com/short_essays/deterrence_theory_whitmore.html, 01 March 1998.
20. USA, Russia, UK, France, China, India, Pakistan, North Korea, Israel.
21. "UN Agency: 30 Countries Could Soon Have Nuclear Weapons, Fox News", http://www.foxnews.com/story/0,2933,221279,00.html, Vienna, Austria, 16 October 16 2006.
22. Dr. Zulfiqar Khan, *India Pakistan Nuclear Rivalry: Perceptions, Misperceptions, and Mutual Deterrence* (Islamabad Policy Research Institute, 2005), p. 48.
23. Wikipedia, "Yom-Kippur War," http://en.wikipedia.org/wiki/Yom_Kippur_War, accessed 2009.
24. Nations remain largely double-mouthed in their first-use doctrines. The UK would reserve the nuclear option against nations that used WMDs against it; the USA has always claimed a first-strike option to truly deter Russia and China, but is a responsible nation; Russia has a no first-use treaty with China; but China allows itself the first-use option against nuclear states, and Russia renounced its first-use doctrine, targeted specifically at the USA; NATO has often advanced the use of first-strike, especially during the Cold War when Warsaw Pact forces far outnumbered NATO forces on the ground. China's wishy-washy doctrine allows it to use nuclear weapons on its own territory; hence, it may use them against Taiwan and Arunachal Pradesh, which they claim as their own. Yet, Russia, the UK, USA, and France pledge to use nuclear weapons only defensively (Refer Wikipedia, "No First-Use," http://en.wikipedia.org/wiki/No_first_use, accessed 2009).
25. This is self-evident. Assume that Nation A has a no-first use policy: if Nation B attacks Nation A using conventional weapons, Nation A will desist from using nuclear weapons on Nation B to uphold its principle of no first-use. However, this situation has obvious disadvantages if Nation B is militarily stronger than Nation A.
26. Kamal Matinuddin, *The Nuclearization of South Asia* (Oxford University Press, 2002), p. 10.
27. This means, no doubt, that the nation decides to live with an opponent, an unpalatable outcome.
28. Charles Glaser, *Analyzing Strategic Nuclear Policy* (Princeton, NJ: Princeton University Press, 1990), pp. 190-192, 202-203.
29. Jung Chang and Jon Halliday, *The Unknown Story: MAO* (New York: Anchor Books), 2006.
30. I treat the Kargil War and its aftermath of Operation Parakram as a continuum, since so little time had elapsed after the Kargil tensions died down and the December 2001 attacks on the Kashmir and Indian Parliaments took place.

31. Reality simply dictates this.
32. Tom Sanderson, "Chinese Perspectives on US Ballistic Missile Defense: A Report on the Stimson Center Fellowship in China", http://209.85.173.132/search?q=cache:I-Z2PQhajbcJ:www.stimson.org/eastasia/pdf/sandersonreport.pdf+abrogation+of+the+1972+U.S.-Soviet+Anti-Ballistic+Missile+(ABM)&hl=en&ct=clnk&cd=7&gl=us, Fall 2001
33. Thomas L Friedman, "US-Soviet Talks End With Progress on Arms Control", *New York Times*, http://query.nytimes.com/gst/fullpage.html?res=950DE4D91338F937A1575AC0A96F948260, 24 September 1989.
34. Gurmeet Kanwal, *Nuclear Defence: Shaping the Arsenal* (New Delhi: Knowledge World, 2001), p. 109
35. RM Basrur, *Minimum Deterrence and India's Nuclear Security* (Stanford, CA: Stanford University Press, 2006), p. 10.
36. Khan, n. 22, p. 43.
37. Matinuddin, n. 26, p. 220.
38. By definition, supra-rationality is also irrational, since supra-rationality goes beyond commonly understood levels of rational thought and is not easily understood by the rational person.
39. The principles of spirituality, for one, go beyond conventional beliefs, common sense, or common rationality. For instance, the original force of the universe moves as an 'unseen hand'.
40. Basrur , n. 35, pp. 27 and 47.
41. Jeremy Stocker, "The United Kingdom and Nuclear Deterrence," *Adelphi Paper 386*, (London: The International Institute for Strategic Studies, 2007), p. 56, "[Q]uinlan cautions against *too* minimal an approach."
42. It should be mentioned that water, rail, roads, and power also have military overtones for defence production and troop movement. Investment in education has long-term military implications since you wouldn't be reading this if you weren't educated.
43. Stocker n. 41, p. 56, "…and reflects the British view that nuclear weapons are a regrettable necessity."