

## The Essence of the South Asian Nuclear Debate

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Scott D. Sagan, Kenneth N. Waltz, *The Spread of Nuclear Weapons A Debate Renewed With New Sections on India and Pakistan, Terrorism, and Missile Defence* (New York: W W Norton and Company, 2003).

Rajesh M. Basrur, *Minimum Deterrence and India's National Security* (Stanford, California: Stanford University Press, 2006).

Sumit Ganguly and Devin T. Hagerty, *Fearful Symmetry India-Pakistan Crises in the Shadow of Nuclear Weapons* (Oxford: Oxford University Press, 2005).

Rajesh Rajgopalan, *Second Strike Arguments about Nuclear War in South Asia* (New Delhi: Penguin, Viking, 2005).

Nuclear weapons burst into the world arena in 1945, with the American bombing of Hiroshima and Nagasaki. The destruction was so near total that Japanese folklore and music ever since are replete with plays and songs of those two fatal days in the summer of 1945. The American guilt for engineering such unwarranted killings has been no less either. Ever since nuclear weapons have dominated the discourse on strategic studies, starting with the well known publication of Bernard Brodie's much acclaimed book *Absolute Weapon* in 1946, scholars have been investigating various aspects of the subject from different perspectives, especially from the point of view of deterrence theory. Most of the literature on deterrence can be broadly categorised into two schools of thought: deterrence optimist school and the pessimist school. The scholars belonging to the first school broadly believe that nuclear deterrence works across cultures and different political systems. They argue that the acquisition of nuclear weapons by

more states does not necessarily destabilise the international order and may even create conditions for a more peaceful world. The scholars who subscribe to the second school, however, emphasise the important differences in the technological conditions, political and organisational cultures of the states. These variations, they feel could either impede or enhance deterrence stability. Given the anarchic nature of world politics and the uncertainties that are prevalent in the inter-state relations, the emergence of the powerful non-state actors embracing messianic ideologies, it is a prudent policy to restrain, dissuade, contain and prevent acquisition of nuclear weapons by new states. Kenneth Waltz, a leading theorist of international relations belongs to the first school. Scott D. Sagan is the principal proponent of the second school. In what can be termed as the most illuminating scholarly dialogue, these two scholars have put together their arguments in the book under review – *The Spread of Nuclear Weapons*. The nuclear weapons optimist position flows from the logic of rational deterrence theory. This theory indicates that the possession of nuclear weapons by two states reduces the likelihood of war between them primarily because the costs of war and its consequences are immense. Basing his arguments within the neorealist structural theory, Waltz indicates that systemic pressures disable any two nuclear weapons state from deviating from the point of logical decision making; that nuclear weapons are primarily a tool of deterrence and their existence is a stabilising factor in international politics. He strongly advocates the view that more new nuclear weapons states would actually lead to greater stability on a systemic level. He is, however, not alone in making such argumentations. Bruce de Mesquita, Peter Lavoy and John Measheimer equally believe that “nuclear weapons are a superb deterrent”.<sup>1</sup> Sagan, on the other hand, strongly asserts that such an optimistic view of nuclear weapons is dangerous for the world. Placing his arguments within the theoretical underpinning of organisational theory, he argues that military organisations in nuclear weapons states suffer from certain common biases: inflexible routines and parochial interests. Such behavioural patterns, swaying on the side of inflexibility, could lead to the breakdown of deterrence and trigger off a major nuclear exchange with catastrophic consequences. Differing with Sagan’s position and projecting a positive future for nuclear deterrence, Basrur in *Minimum Deterrence and India’s National Security*, Ganguly and Hagerty in *Fearful Symmetry*, and Rajgopalan in *Second Strike Arguments about Nuclear War in South Asia* supports the Waltzian position that nuclear weapons have acted as a deterrent in the India-Pakistan context. The dominant view

emanating from their writings is that the rhetoric of threat between the two countries is nothing more than mere rhetoric to deter the other from considering the nuclear option.<sup>2</sup> The two states might experience a sense of desperation because of their vulnerability to conventional attack but in crisis situations, both countries have exhibited a greater sense of desperation to avoid the use of strategic nuclear weapons. Sagan refutes this position by claiming that states like India and more importantly, Pakistan lacks institutional mechanisms for civilian control over nuclear decision making. Military organisations are also “inward looking”, heavily influenced by domestic politics and therefore, decisions regarding nuclear weapons would be taken based on issues of domestic stability, rather than systemic threats.

Before dwelling further, the reviewer would like to make it clear that there is a conceptual difference between nuclear deterrence and conventional deterrence. The two concepts are not to be mixed together. Conventional deterrence depends on the quality, quantity and strength of conventional forces that a country possesses. Such forces could be utilized either for an offensive or defensive posture. Countries also could strike first in a conventional sense to gain the advantage as the costs and consequences of such strikes are limited. Nuclear deterrence is achieved through its ability to punish a country with a high rate of “unacceptable costs”. In the words of Waltz, “dissuasion by deterrence operates by frightening a state out of attacking, not because of the difficulty of launching an attack and carrying it home, but because the expected reaction of the opponent may result in one’s own severe punishment”.<sup>3</sup> Deterrence is primarily achieved through the certainty of retaliatory punishment and the uncertainty of a state’s nuclear policy in times of crisis. For such a retaliatory strategy, the survivability of nuclear weapons from a first strike; a second strike nuclear force is crucial. The reviewer also is of the opinion that though conventional wars can be fought in a nuclear environment, yet higher the stakes in the war, the greater the risk of nuclear retaliation. As a result, nuclear weapons negate both conventional and nuclear advantage. History has also proved that in a conventional world, wars spiral out of control and could be limitless, whereas in a nuclear world, only limited wars could be fought.

Nuclear weapons in the South Asian context have given rise to numerous speculations about their probable use in war. The chief western concern is that India and Pakistan have a history of wars; they had a bloody partition, and both states are inherently hostile towards the other’s

existence. Given the emotional volatility of their relations and the geographical proximity of their borders, both countries could be engaged in a devastating nuclear arms race, strike each other with nuclear weapons with unimaginable consequences and come to oversee their mutual destruction. Sagan refutes the efficacy of rational deterrence theory in this context, elaborating that actors' rationality in a nuclear environment is an assumption, not backed by evidence. He cites that though India has an extremely assertive civilian nuclear command structure, the Pakistan military is in complete control of its nuclear weapons. Both sides have a history of misunderstanding, have engaged in four wars in the past, and a violent dispute over Kashmir. They have also shared pre-colonial, colonial and common cultural traits. Such a situation contrast sharply with the American-Soviet nuclear balance during the Cold War. These two countries did not have any territorial dispute and hardly knew each other in cultural terms. Though admitting that the new nuclear powers would not repeat the mistakes of the Cold War adversaries, Sagan argues that the India-Pakistan historical rivalry, protracted ideological and territorial disputes may drive them up the nuclear ladder during a crisis. This might happen either willfully, accidentally or by miscalculation.

The books under review can be placed in three thematic categories. These are essentially the three conditions of deterrence stability that have been identified by the scholars. By placing each author's arguments within the intellectual boundaries of the requirements set out, the review would attempt to delineate the trend of the debate in the South Asian context. The review would end by providing the final thoughts on the issue and the dominant trend that emerges in the argumentation of the four reviewed books.

The three important requirements of nuclear stability are:

- a. Prevention of preventive war.
- b. Survivable second strike forces.
- c. Avoidance of accidental nuclear war.

### **Prevention of Preventive War**

Sagan writes that both India and Pakistan have raised the nuclear antenna on a number of occasions and have led the South Asian region to the brink of a nuclear disaster. As India was the first to test nuclear in

1974, Pakistan military leaders did not get the chance to contemplate a preventive strike. The crucial aspect of a strike arises on account of the small size of the India-Pakistan nuclear arsenal. Given that these nuclear weapons are smaller and less sophisticated than were the US and Soviet arsenal, renders them vulnerable to a counterforce attack and less capable of mounting a counterforce attack. Hence, the certainty of a second strike on which the entire logic of deterrence rests is thrown off gear. He posits that during *Brasstacks* (1986-87) India undertook a massive military exercise involving 250,000 troops and 1,500 tanks along the India Pakistan border in Rajasthan. The rationale behind the exercise, according to Sagan, was a covert plot on the part of the then Indian Chief of the Army Staff, General K. Sunderji to provoke a Pakistan military response and subsequently, the Indian air force could strike Pakistan's nuclear programme. For Sagan, the Indian failure to notify Pakistan about the nature of military buildup betrays the hidden motives that animated the military and political leadership. The 1990 Kashmir crisis and the Kargil conflict of 1999, Sagan believes, exemplify the unstable nature of strategic interactions in the region. He argues that Kargil demonstrated the organisational bias of the Pakistani Army, typically rooted in short term tactical maneuvers rather than anticipate the strategic consequences of such a conflict. As a result, Pakistan military completely overlooked the likely international reaction; Pakistan was diplomatically isolated during Kargil. Also the Kargil conflict demonstrated the stability/instability paradox; stability in the nuclear level did not deter wars at the conventional level. The nuclear rhetoric employed by both India and Pakistan during *Operation Parakram*, the pessimists argue, demonstrate the fragility of escalation control mechanisms.

Waltz differs with Sagan. He contends that the alarmist views about the South Asian nuclear situation are at best, imperialist and tend to look at the South Asian decision makers as lesser breeds possessing lower levels of rational conduct.<sup>5</sup> According to Waltz, nuclear arms race is neither inevitable nor are there any signs of it being visible in the present South Asian landscape. In his assessment, both India and Pakistan are likely to contain their nuclear arsenal to the requirements of a credible second strike. Approvingly citing Subrahmanyam's arguments, Waltz claims that Indians have understood well that building large nuclear forces are a waste of resources and foolhardy. An arsenal of sixty for India and twenty for Pakistan would be sufficient for the purposes of deterrence. The chief purpose of Pakistan's nuclear strategy is to deter India's superior conventional

capabilities not their use as weapons of coercion. Rajgopalan, agrees with Waltz and suggests that India should not give undue importance to Pakistan's refusal to subscribe to the 'no first use' doctrine and its easy resort to nuclear rhetoric during the crisis situations. These are essentially aimed at deterring India's overwhelming conventional superiority.<sup>6</sup> When it comes to actual crisis between the two sides, it is clear that central control tightens over nuclear weapons reducing the possibility of a nuclear crisis. He argues that both the Pakistan and Indian nuclear strategies are extremely cautious and are meant primarily to deter the other. Rajgopalan describes three types of deterrence. Deterrence by punishment involving a threat of unacceptable damage in retaliation (massive) which Robert McNamara described as "Assured Destruction"; deterrence by denial which anticipates that in an event of failure of deterrence, strategic defensive forces, offensive forces, and command and control capacity come into play; and existential deterrence, a concept suggested by McGeorge Bundy, who argued during the Cuban Missile crisis of 1962 that the existence of thermonuclear weapons were enough to deter both the US and Soviet Union. Relative balance of numbers (how many warheads), did not matter in the ultimate analyses for the decision makers. In the South Asian context, the idea of existential deterrence with a small survivable nuclear arsenal would prevail.<sup>7</sup> So far as the temptations of preventive attack, both Waltz and Rajgopalan are of the opinion that it is an unlikely possibility in the South Asian context. Rajgopalan asserts that Indian nuclear doctrine falls within the parameters of existential deterrence. With regard to Kargil and *Operation Parakram*, though both crises were clearly conventional in nature, the threat of nuclear weapons usability loomed large on the horizon. Significantly, nuclear signaling was limited in both crises. The claims that India was deterred from crossing the Line of Control (LoC) because of the existence of nuclear weapons could be partially true. However, it is also equally true that the Indian decision not to cross the LoC was also informed by the diplomatic advantages of not crossing the LoC. The positive role of the Clinton administration in diffusing the crisis can not be discounted. While it is tempting to credit Indian restraint to nuclear deterrence alone, one should not underestimate the image of war held by Indian political leaders. The belief that India could win the war without having to escalate perhaps played no small part in the Indian calculations.

*Parakram* was more a strategy of compellence rather than deterrence. Nuclear signaling with regard to missile tests was conducted by both sides.



Though the idea of a preventive strike across the border was contemplated by India on terrorist camps, it was given up on the face of intense international pressure and the existence of nuclear arsenal in Pakistan. After the Kaluchak attack on May 14, 2002, Pakistan conducted missile tests, perhaps intended to deter Indian conventional forces from embarking on a military venture across the International Border or LoC. However, actual behaviour suggests that the leaders on both sides were careful with regard to nuclear threat rhetoric. Basrur is also of the view that India's history and strategic culture, its doctrinal policy clearly reflects the strategic choice of a "credible minimum deterrent". His work is an attempt to fulfill the lack of conceptual clarity in the minimalist nuclear posture. For him, minimal deterrence "threatens the lowest level of damage necessary to prevent attack, with the fewest number of nuclear weapons possible".<sup>8</sup> According to Basrur, the ability of the nuclear weapons to deter is dependent on the adversary's perception of risk and the certainty of catastrophic consequences. This is more a political than a technical dilemma. Will states take the risk of triggering a nuclear exchange, the consequences of which could be total annihilation? Even the idea of preventive strike against a fledgling Chinese nuclear facility was given up by Russia for fear of minimum retaliation by China on a Russian city. The Israeli strike on Iraq's Osirak reactor in 1981 is, perhaps, the first strike against another country's nuclear facilities and has never been replicated by others. Waltz expresses the view that the Israeli strike achieved nothing substantial and only increased Arab motivation to acquire nuclear weapons. Basrur is highly critical of *Brasstacks* which he argues might have provoked Pakistan to react; a highly dangerous consequence in a nuclearised environment. With regard to *Parakram* in the aftermath of the December 13, 2001 attack on the Indian parliament, Basrur writes that it represented a significant strategic shift in India's nuclear policy; that of deterrence to one of compellence.<sup>9</sup> Indian leaders took the initiative in projecting military force, backed by nuclear capabilities to coerce Pakistan into dropping its support for terrorist groups in Kashmir.<sup>10</sup> India sought to pressurise the US into influencing Pakistan by the compellence strategy. Kargil had to an extent established the stability/instability paradox and the Pakistan military's perception that a limited war could be fought among two nuclear powers. India's military mobilisation during 2001-02 was an attempt to test the limited war theory in the reverse. Ever since the end of hostilities over Kargil in 1999, many in the Indian strategic community had been suggesting the possibility of

stretching the elasticity of space between the Kargil-type of limited response and a nuclear conflagration. The objective was to convince Pakistan that its nuclear weapons would not deter India from responding appropriately to Pakistan's hostile actions. The 2001-02 military buildup was preceded by diplomatic pressure by India, stopping rail and bus service to Pakistan and recalling its ambassador. The Indian Army moved if not deployed the Prithvi missile from Secunderabad to the border. Basrur argues that the whole exercise was a bluff and was obvious as such to the other side. The US would have stopped any war at that stage and that the Indian Armed Forces had neither the wherewithal nor effective plans to attack Pakistan. Compellence failed as Pakistan also resorted to nuclear signaling by deploying its Shaheen Missile on 20 May 2002. Nuclear weapons so far viewed as a political tool in India's strategic culture was elevated to the realm of operational strategy and as a result could have had unforeseen consequences and failure of control.

Ganguly and Hagerty approach the subject from a different conceptual framework. At the beginning, they put forward three propositions for evaluating the determinants of crisis behaviour. These are: India and Pakistan were dissuaded from attacking each other due to timely and forceful US intervention; that India and Pakistan despite compelling incentives to attack each other were dissuaded from doing so due to fear that war might escalate to the nuclear level; that India and Pakistan were dissuaded from attacking each other due to lack of conventional military superiority. With regard to any consideration of preventive war, India was dissuaded from doing so in the 1984 crisis in Punjab and *Brasstacks*, primarily because it lacked requisite conventional military superiority.

According to Ganguly and Hagerty, during the 1986-87 crisis, Pakistan's conventional capability was bolstered by the inflow of sophisticated weapons from the US. From 1990 onwards till Kargil 1999 and *Parakram* of 2001-2002, the shadow of nuclear weapons played a strong deterring role as well as US' pro-active role as a security facilitator. By the 1990s, Pakistan had the rudiments of a nuclear weapon and the US was heavily engaged in South Asia through its involvement in Afghanistan since 1979. Placing their arguments within the three levels of analysis, the authors indicate that due to unipolarity after the end of the Cold War, the US took on the role of a "security facilitator". After the 1998 test by India and Pakistan, the systemic had only one super power, the US, and as a result it was increasingly called upon to play the role of a balancer. Indeed, by the



1990s, the trilateral relationship between Washington, Islamabad and New Delhi constituted the core of South Asian affairs.<sup>11</sup> Ganguly and Hagerty focuses on the grand strategy of Pakistan and India, similar to Rajgopalan's view of grand strategy in the domestic level of analysis and conclude that despite strong domestic rhetoric in both countries against the other, preventive war as a policy option was given up as any rational actor feared the terrible consequences of retaliation.<sup>12</sup>

### **Survivable Second Strike Forces**

Waltz believes that for deterrence to work, for a retaliatory strategy to be in place, a second strike capability is crucial. A survivable second strike capability increases the prospects of peace and nuclear stability. The very fact that an adversary could retaliate negates the attacker's strategy of nuclear attack. Here, numbers do not matter. The US had a number advantage over the Soviet Union during the Cuban Missile Crisis; likewise the Soviet also enjoyed a number advantage over China in the Ussuri river crisis of 1969. Yet, both were deterred by their opponents second strike capability even if it was limited to striking at one or two urban centres. As Brodie had famously stated, "[T]hus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose".<sup>13</sup> Waltz argues that survivability and second strike forces need not be in hair trigger alert. Moreover, with regard to the survivability and second strike potential of small nuclear arsenals, a few survivable second strike nuclear warheads with delivery systems are enough to deter a potential attacker. This requires a strategy of dispersed nuclear weapons. Sagan argues that nuclear dispersal, historically, means that command and control is difficult to achieve as the Soviet and US case showed. What is forgotten in such argumentation is that both the US and Soviet arsenal were massive. In comparison, the South Asian nuclear arsenal is small and easy to disperse and manageable.<sup>14</sup> The adversary only needs to believe that some of the nuclear warheads would survive its first strike. That is reason enough for it not to strike in the first place. An element of uncertainty is crucial here. Rajgopalan also asserts that for deterrence to work, second strike capability is critical. However, he agrees with Waltz in stating that though the second strike capability is important, the strength of the second strike is not particularly significant for deterrence to work. He states that "If it is the threat of nuclear war that deters, then the threat of a second strike capability is important,

and the strength of the second strike might be irrelevant".<sup>15</sup> In this context, Pakistan's nuclear doctrine states the first strike (as a last resort) and a second strike capability; India's nuclear draft doctrine, on the other hand, clearly states the efficacy of credible minimum doctrine, no first use and retaliation (second strike) to a nuclear attack on Indian territory and forces.<sup>16</sup> Basrur, Ganguly and Hagerty strongly argue that for a "minimum credible deterrent", there must be a "guaranteed second strike". The adversary must be convinced of the attacked state's ability to retaliate with sufficient power and accuracy. A minimum deterrent is defined according to them in terms of "assured survivability against repeated attrition attack". For nuclear forces to be survivable, they must be hidden, dispersed or mobile in their base. The credibility factor which is woven through Rajgopalan, Basrur, Ganguly and Hagerty arguments is what Waltz had originally envisioned. Credibility is in the realm of one's own perception, writes Waltz. Moreover, nuclear weapons are unique and hence Waltz succinctly puts it, "contemplating war when the use of nuclear weapons is possible focuses one's attention not on the probability of victory, but on the possibility of deterrence, a big worry in a conventional world, disappears in a nuclear one"<sup>17</sup> Sagan is, however, sceptical about the survivability of nuclear forces in the India-Pakistan context. Pakistan's nuclear force deployment has a pattern that gives away its deployment locations. Indian intelligence officers had identified missile deployment during the Cold War with regard to Pakistan's M-11 missiles.<sup>18</sup> Both countries could also interpret messages revealing secret locations. The 1971 war reflected the ability of each side to detect messages about force positions and movements. During the Kargil conflict also, messages were intercepted.

### **Avoidance of Accidental Nuclear War**

Another factor in nuclear stability is the avoidance of accidental wars. Sagan fears that the geographical proximity, inadequate warning systems, short flight times, rapid decapitation, terrorists bases within Pakistan, lack of Permissive Action Links (PAL) in Pakistan, alerting of nuclear weapons in crisis especially by Pakistan, intelligence akin to the joint Indian and Israeli preventive strike on Pakistan's nuclear installations in 1998 could trigger a nuclear reaction. He also distrusts the ability of Central Commands in India and Pakistan to maintain control over their weapons. Waltz is critical of Sagan's stand. He points out that it smacks of colonial attitudes and general mistrust of the developing world decision maker's rationality

and ability to take logical decisions. Such perceptions are not backed by evidence. Rajgopalan, Basrur, Ganguly and Hagerty are less fearful of the probable misuse of nuclear weapons in the South Asian context. Rajgopalan is of the view that unintentional use might occur due to nuclear escalation and normal military behaviour. Military commanders might use nuclear weapons from their legitimate national political authority. However, given the fact that nuclear weapons signify catastrophic consequences, the possibility of conventional conflict escalating to nuclear level is zero. The possibility of nuclear weapons used by local commanders is again improbable because nuclear weapons have not been dispersed to local commanders by both countries and are in fact under tight control of the Nuclear Command Authority (NCA). Neither India nor Pakistan has delegative command and control structures.<sup>19</sup> Both India and Pakistan's nuclear doctrines reduce the risk of these weapons falling to a rogue military commander as these weapons are kept in a disabled state. Nuclear weapons falling into the hands of terrorist are rather alarmist. Pakistan has a three men safety system to activate a nuclear arsenal; moreover, the terrorist will have to know how to assemble the weapon, which is usually kept in a disabled state. It is a highly unlikely scenario. None of the weapons are kept in high trigger alert. Given the fact that these weapons are kept in separate parts, the likelihood of accidents are also low. According to Basrur, given the small size of the nuclear weapons in South Asia, securing them is not a Herculean task. Terrorist might be motivated to use natural uranium and radiation attacks but again, given the strong vigilance in place around nuclear installations, such prospects seems highly unlikely. Basrur is categorical in stating that building nuclear weapons is a very difficult task. Dirty bombs are altogether not easy as making them involves the handling of radioactive materials. However, he cautions that although a nuclear bomb would be hard to make, it is not an impossible task. As long as the will is there, the opportunities and capacities can be acquired. To counter nuclear terrorism, what is required is the technical sophistication and organisational zeal. Also, intelligence gathering means and methods should be state of the art. There has to be effective co-ordination, planning and oversight. India's nuclear doctrine must consider the threat of nuclear terrorism. Last but not the least; Basrur indicates the importance of multilateral international cooperation to deal with this probable menace.

To summarise, the debate with regard to nuclear weapons in the South Asian context is no more about whether these weapons are a viable tool of

statecraft. Rather, the debate has shifted to the realm of numbers; how many nuclear weapons should a state possess in order to establish a credible nuclear posture of deterrence? The answer which emerges from the review is not many. Neither India nor Pakistan possesses the resources or the need to enter into a nuclear arms race. A few survivable weapons with second-strike capability, however, are within these states' finances and public support.

States co-exist in anarchy at the systemic level where the dominant rule is self help. So long as states are suspicious of each other, nuclear weapons are here to stay. And as long as this is the existential order of the day, states have to devise tactics to limit the possibility of their own destruction. Nuclear weapons bring about stability despite the fact that their existence threatens humanity with annihilation. It is important to note in the end that the Clausewitzian dictum "war is a continuation of politics by other means" is not a useful paradigm in the nuclear age. These weapons are not usable weapons but their existence is a reality that states have to learn to deal with. In a very Waltzerian sense, perhaps the threat to use nuclear weapons is much more morally defensible than their actual usage.<sup>20</sup> Hopefully, these weapons will always remain in the domain of threats; strategic posturing and the long peace will be a reality in perpetuity.

### References/End Notes

- <sup>1</sup> Bruce de Mesquita and William H. Riker, "An Assessment of the Merits of Selective Nuclear Proliferation", *Journal of Conflict Resolution*, Vol. 26, No. 2, June 1982, p. 283. Also see John J. Mearsheimer, "Back to the Future: Instability in Europe after the Cold War", *International Security*, Vol. 15, No. 1, Summer, 1990 pp. 5-56. Mearsheimer even predicted a more stable world if Germany, Ukraine and Japan became nuclear powers. For this view, see John Mearsheimer, "The Case for the Ukrainian Nuclear Deterrent", *Foreign Affairs*, Vol. 72, No. 3, Summer 1993, pp. 50-66. Peter Lavoy states that nuclear weapons would prevent future wars between India and Pakistan. See Scot D. Sagan and Kenneth N. Waltz, *The Spread of Nuclear Weapons A Debate Renewed With New Sections on India and Pakistan, Terrorism, and Missile Defence* (New York: W W Norton and Company, 2003), p. 47.
- <sup>2</sup> Michael Walzer in *Just and Unjust Wars A Moral Argument with Historical Illustrations* (New York: Basic Books, 1992), pp. 269-286 stated that nuclear deterrence works primarily because it is strategy based on bluff.
- <sup>3</sup> Sagan and Waltz, no. 1, p. 5.
- <sup>4</sup> See Waltz and Sagan, no. 1, pp. 88-124.
- <sup>5</sup> See Waltz and Sagan, no. 1, p. 14.

- <sup>6</sup> Ibid, pp. 36-148.
- <sup>7</sup> See Rajesh Rajagopalan, *Second Strike Arguments about Nuclear War in South Asia*, Penguin, Viking, New Delhi, 2005, pp. 20-28.
- <sup>8</sup> Rajesh M. Basrur, *Minimum Deterrence and India's National Security*, Stanford, University Press, Stanford 2006, p. 24.
- <sup>9</sup> In deterrence, one threatens to punish the adversary when the later initiates an act of war. In compellence, one initiates the action by threatening the adversary in order to change the latter's behaviour.
- <sup>10</sup> Rajesh M. Basrur, no. 8, p. 80.
- <sup>11</sup> Sumit Ganguly and Devin T. Hagerty, *Fearful Symmetry India-Pakistan Crises in the Shadow of Nuclear Weapons*, Oxford University Press, Oxford, 2005, p. 5.
- <sup>12</sup> Grand Strategy is the overall political goals of a state and the means-use of military, diplomatic and other means to achieve that goal.
- <sup>13</sup> Bernard Brodie, "Implications for Military Strategy", in Bernard Brodie, ed., *The Absolute Weapon*, Harcourt, Brace, New York, 1946, p. 76.
- <sup>14</sup> See Sagan and Waltz, no. 1, pp. 20-21.
- <sup>15</sup> Rajesh M. Basrur, no. 8, p. 27.
- <sup>16</sup> Ibid, pp. 78-79.
- <sup>17</sup> Kenneth N. Waltz, "Nuclear Myths and Political Realities", *American Political Science Journal*, 84 (3), September 1990, pp. 735-36.
- <sup>18</sup> Sagan and Waltz, no.1, pp. 101-102.
- <sup>19</sup> Rajesh M. Basrur, no.8, p. 149
- <sup>20</sup> Michael Walzer, no.2, p. 274. He states that deterrence is a way to cope with the condition of supreme emergency when states realize that their commitment to resist the use of nuclear weapons stems from the fact that a nuclear confrontation would not be the defeat of one side or the other but the total destruction of both. Deterrence is a way of coping with such a condition. He writes "Though it is a bad way, there may well be no other that is practical in a world of sovereign and suspicious states".

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