NUCLEAR WEAPONS AND THE 1991 GULF WAR:
NUCLEAR TABOO OR RISK AVERSION?

by

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Abstract: Nuclear deterrence theory has neglected to account for the fact that since 1946, states' in possession of nuclear weapons have refrained from using them in conflicts against adversaries that lack such a military capability. Nina Tannenwald has argued that a nuclear taboo, a normative inhibition associated with the first use of nuclear weapons, has been a necessary component of the causal mechanism that has resulted in such nuclear non-use. An examination of the 1991 Gulf War shows that the nuclear taboo may not have been necessary to cause nuclear non-use against isolated Iraqi forces. While the causal mechanism may have involved the nuclear taboo in a peripheral associative capacity, it is unclear that the nuclear taboo was necessary to cause U.S. nuclear restraint in 1991. Prospect theory expects decisions to be based on the relation of their outcome to a reference point, which usually is the status quo. Positive deviations from the reference point are viewed as gains and negative deviations as losses, and losses hurt more than otherwise equal gains satisfy. The frame of gains encourages risk aversion and the frame of losses encourages risk propensity, and people are more sensitive to changes in assets than net asset levels. Risk aversion appears to have been central to nuclear non-use in the 1991 Gulf War. While the frame of losses prompted President Bush to restore Kuwaiti independence in what could have proven to be a costly war, the frame of gains, perhaps brought about by the success of the Nuclear Non-Proliferation Treaty (NPT), encouraged nuclear restraint. While the lack of evidence inhibits a satisfactory explanation of the causal mechanism that caused U.S. nuclear restraint in the 1991 Gulf War, it is clear that the normative inhibition associated with the first use of nuclear weapons may not have been necessary to have caused such nuclear restraint. The implication of this is that social activism against nuclear use may have little effect; it is unclear that the nuclear taboo
effects Presidential preferences regarding the use of nuclear weapons. Moreover, the fate
of the NPT will be critical to containing future nuclear use and proliferation.
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Introduction

Why, since the 1945 nuclear attacks' against Hiroshima and Nagasaki, have states that have possessed nuclear weapons routinely refrained from using them against those states that lack such a military capability? Deterrence theory explains nuclear non-use in conflicts between two nuclear states, but nuclear non-use in conflicts by a nuclear state against a non-nuclear adversary remains for nearly all deterrence theorists an empirical anomaly. Indeed, the little deterrence scholarship that does address the issue tends to assume that nuclear non-use against a non-nuclear state will prevail without examining the particular sources of this restraint. Nina Tannenwald has recently argued that a normative inhibition associated with the first use of nuclear weapons is a necessary component of the causal mechanism that results in nuclear non-use against non-nuclear adversaries (Tannenwald 1999, 2005, forthcoming). However it is far from clear if such a normative inhibition, however otherwise able to resonate with social logics, is necessary to cause nuclear non-use against non-nuclear adversaries. The normative inhibition associated with nuclear weapons may not have been necessary to cause non-use against isolated Iraqi forces in the 1991 Gulf War, as the psychological bias to risk aversion appears to have played a central role.

This paper is divided into five sections. Having argued that nuclear non-use against a non-nuclear adversary is indeed a question worth investigating, I firstly assess the state of the extant literature on deterrence theory and strategy regarding nuclear use against a non-nuclear adversary. Such nuclear non-use is in the majority

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1 I refer to states that do and do not have a military nuclear capacity as nuclear and non-nuclear states respectively.

2 Tannenwald actually contends that a nuclear taboo has inhibited nuclear use in both conflicts between two nuclear states and a nuclear and non-nuclear state. However her work to date has only detailed cases of the latter, and fails to explore the impacts of the taboo in scenarios such as the superpower deterrence of the Cold War.
of cases an assumption that does not receive adequate problematisation; the few scholars who note its anomalous status for deterrence theory fail to systematically assess its causes far less to explore its causal mechanisms. Indeed Nina Tannenwald and T.V. Paul are the only scholars who to date have rigorously explored it (Paul 1995, forthcoming). The next two sections outline two models for explaining and understanding nuclear non-use against a non-nuclear adversary. The first explanation is based on game theoretic reciprocal cooperation and contains central insights from prospect theory. The second account is Tannenwald’s seminal contribution that a normative inhibition associated with nuclear weapons is a necessary cause of nuclear non-use against non-nuclear adversaries. Section four proceeds to examine the causes of U.S. nuclear non-use against Iraqi forces in the 1991 Gulf War, a conflict where, according to Tannenwald, we should expect the effects of the nuclear taboo to be the strongest. The final section concludes with some implications of the findings for perpetuating the tradition of nuclear non-use against non-nuclear adversaries and containing nuclear proliferation.

Tannenwald provides three reasons why nuclear non-use against a non-nuclear state is an empirical anomaly (Tannenwald 1999: 433-34). Firstly, why nuclear states have shown restraint in conflicts against an adversary that does not possess nuclear weapons is not clear. While a nuclear state can deter such a nuclear attack if it has a sufficient second-strike capability, a non-nuclear state cannot deter such an attack through similar means. Secondly, why do non-nuclear states initiate conflicts against nuclear states? This question is another way of viewing the first question. Many states engage in conflicts against a more powerful adversary when the stronger states’ victory is more or less assured. Why a state might choose to fight a battle that it will most likely lose is another question, and can be explained by reference to factors such
as domestic politics, bureaucratic inertia and national prestige. Moreover, Robert Jervis has argued that "the ability to tolerate and raise the level of risk is not closely tied to military superiority...The links between military power – both local and global – and states behaviour in crises are thus tenuous (Jervis 1984: 135)." This line of questioning thus begs the first question; why is nuclear non-use by a nuclear state against a non-nuclear adversary always perceived by the latter as assured?

Thirdly, Tannenwald argues that "the security situation of small, non-nuclear states has not been rendered as perilous in the nuclear age as a realist picture of predatory anarchy would predict (Tannenwald 1999: 434)." Firstly, a predatory anarchy is not the only type of realist anarchy. As Charles Glaser has argued, the assumptions of realism imply either cooperation or conflict in anarchy (Glaser 1995). Despite the insistence of some offensive realists, a predatory anarchy is only one such type of realist anarchy. On closer inspection this point is however more about nuclear acquisition than nuclear use. Increasing the negative effects of the security dilemma and encouraging a regional nuclear proliferation spiral is reason enough not to acquire a nuclear capability. That the Nuclear Non-Proliferation Treaty (NPT) overcomes the limitations of the security dilemma by negative security assurances to non-nuclear states increases the incentives to not acquire a nuclear capability.

Moreover, a myriad of factors based in domestic politics, bureaucratic dynamics and national prestige affect the decision to develop a (military) nuclear capacity (Sagan 1997). The issue of the spread of nuclear weapons is a different question altogether from the question of nuclear use. The degree of proliferation of nuclear weapons is nonetheless not at all inevitable; this however partially points back to the nuclear use policies of the nuclear states and the traditions enshrined in the NPT. A large part of this issue therefore begs the first question; the degree of
inevitability of nuclear non-use by nuclear states against non-nuclear adversaries. I therefore focus on only the first of the three anomalies that Tannenwald notes.

Tannenwald has argued that as an explanation for these cases of nuclear restraint, deterrence theory is “either wrong or incomplete; a normative element must be taken into account in explaining why nuclear weapons have not been used since 1945 (Tannenwald 1999: 433).” This is however not at all clear. A close examination of the deliberations of President George Bush and his National Security Director Brent Scowcroft regarding the question of nuclear use in the 1991 Gulf War, the case where we should expect the effects of the nuclear taboo to be the strongest, suggests that the cognitive bias to risk aversion appears central to explaining U.S. nuclear non-use against isolated Iraqi forces.

President Bush perceived that nuclear use against Iraqi forces would increase the already strong pressures for nuclear proliferation in the Middle East, and perhaps increase proliferation pressures elsewhere. This would heighten the negative effects of the security dilemma on U.S. interests. Furthermore, while Bush’s perception may well have resulted from a cognitive heuristic that distorted the significance of the threat, nuclear proliferation was indeed to become an important security threat of the post Cold War era. Thus Lawrence Freedman noted in 1993 that “nuclear proliferation is both symptomatic of – and responsible for – the loosening of strategic links. This helps explain why there is increased concern about it in the 1990s (Freedman 1993: 172).” The importance of perception should not however be underestimated. Robert Jervis has noted that hegemons’ tend to be threatened by whatever is beyond their reach (2006: 7). Thus nuclear proliferation was the natural threat that would succeed the Cold War Soviet threat, and which has come to be associated with terrorism by the current Bush administration.
Thus while self-deterrence was indeed central to nuclear non-use, restraint on the grounds of perceived likely future nuclear proliferation appears to be the basis for such self-deterrence. Bush and Scowcroft viewed nuclear proliferation as a serious challenge to U.S. interests. While nuclear possession was perceived not to significantly encourage nuclear proliferation, nuclear use against non-nuclear Iraq in the latter stages of the Gulf War was perceived to encourage dynamics for regional nuclear proliferation. Therefore, while deterrence theory is indeed incomplete, a normative inhibition on the first use of nuclear weapons use appears to have performed a secondary or perhaps slightly reinforcing role to this cognitive bias at best. On the other hand, it may have been unnecessary to cause non-use; it is certainly unclear that a normative inhibition associated with the first use of nuclear weapons was necessary to have caused such nuclear restraint in early 1991. While Tannenwald’s claim that “a normative prohibition on nuclear use has developed in the global system” warrants further scholarly attention to ascertain the social scope of the norm, her contention that “without this normative stigma, there might have been more (first) use” misconstrues the evidence in the 1991 Gulf War case. The effect of the normative inhibition on nuclear use, however otherwise resonating with other social norms, appears to have been unnecessary to Bush’s final policy preference for nuclear non-use in early 1991.

Some preliminary considerations regarding counterfactual reasoning are first in order. This inquiry might be objected to on the grounds that nuclear non-use is not really an empirical anomaly between adversaries of any kind. If non-use is an anomaly, the argument would run, then it has to be shown that nuclear use is inherently likely. The mere presence of nuclear weapons would not suffice; there must have been at least one individual with the authority to authorise nuclear use who
desired to do so in at least one juncture in the relevant decision-making process. Because nuclear weapons have only ever been used against Hiroshima and Nagasaki at the end of World War II, their non-use is not really much of an empirical anomaly at all. After all, Bernard Brodie summed up the matter well six decades ago; "everything about the atomic bomb is overshadowed by the twin facts that it exists and that its destructive power is fantastically great (Brodie 1946: 52)."

However, such a critique is itself open to two objections. They are both premised on the supposition that although we intuitively expect policies to contain the destructive capacity of nuclear weapons, there is nothing inherently inevitable about the emergence of such policies, or nuclear non-use itself, in the first place. It is easy to discern rationality post hoc. Firstly, as Richard Price has noted, the development of weapons technology has generally gone hand in hand with their incorporation into the standard techniques of war, and moreover their sustained use until they become outdated (Price 1995: 73). Nuclear weapons, and to a lesser extent chemical weapons, pose a clear challenge to this historical pattern.

It is nonetheless true that correlation does not necessarily constitute causation; states have often not used all force available to them when engaging in conflicts. Perhaps there can never be conflicts requiring such a massive scale of destruction that nuclear weapons offer. This however begs the question. How is the threshold of destructiveness of weapons that is tolerated in battles determined? Any equilibrium or threshold that develops over time should not be assumed to be natural. If the destruction wrought by the use of nuclear weapons is enough for them not to be used, we must ask of what is the destruction of such concern? A tangible object of national security and/or an intangible but nonetheless critical normative value could constitute the value. And it could constitute a value of either the state contemplating nuclear use,
the target state, some other third party, or some combination of these groups. The answer to this question inevitably refers back to something valued by the state refraining from nuclear use. Insofar as the fear of destruction of something of value by the state considering nuclear use must be problematised, so too must the nuclear non-use decision itself. To reject nuclear non-use against a non-nuclear adversary as a question not worthy of inquiry is to misunderstand the complexity and inherent contingency of human decision-making.

Secondly, as Robert Jervis has noted, the processes of history unfold such as to lend an air of inevitability to political outcomes (Jervis 1993: 174). There is a tendency to treat historical outcomes as inevitable and to consider alternative counterfactual scenarios as almost impossible. Historical processes are however rarely so inevitable. Could one rerun history a number of times, a number of other outcomes could have been possible. Most cases of nuclear non-use involved senior military officials who favoured nuclear use but whose preferences did not prevail. There was nothing inevitable about their preferences being marginalized. Moreover, complex system effects and positive and negative feedback mechanisms make seemingly impossible and unwanted outcomes inherently possible (Jervis 1997). The fact that history cannot be rerun, coupled with the methodological issues associated with imagining all the possible systemic implications of such a thought experiment, should not detract us from the central insight that historical processes are generally not inevitable. Although nuclear weapons present a dramatic increase in destructive power, there is nothing inevitable about their non-use. Thus Thomas Schelling argues that a half-century of nuclear non-use (presumably against nuclear and non-nuclear adversaries) may simply have resulted from “some stunning good luck (Schelling 2000: 1).”
Nuclear non-use against a non-nuclear adversary represents a historically contingent causal mechanism that requires sustained empirical exploration. If this inquiry is still objected to on the grounds that, having taken the above remarks into consideration, nuclear non-use was otherwise overly inevitable, the sources of this inevitability are open to question. There is nothing natural or inevitable about the rationale or beliefs that led to nuclear non-use, and, more importantly, understanding them may well allow policies of nuclear non-use to be perpetuated. It is precisely this question that this paper addresses.

If explaining and understanding nuclear non-use against a non-nuclear adversary is acknowledged as an important question, it is nonetheless not an easy question to address. Discerning the effect of a norm on human behaviour is particularly problematic if the outcome to be explained is the same regardless of the effect of the norm. This will be particularly problematic if we only have access to limited behavioural evidence, whether because of data unavailability or because no conscious or explicit choice was made to follow the norm (Fearon and Wendt 2002: 62). The case of nuclear non-use against isolated Iraqi forces in early 1991 exhibits precisely these characteristics. Also unclear is what kind of metric one could develop to assess the relative importance of normative versus non-normative motivations in a meaningful way. I propose and implement such a method. By examining the effects of two norms on an individual, one can compare the effects of a norm on an actor relative to another norm. This procedure can be all the more effective if there is reason to suspect that the effect of the second norm on the actor in question is similar to that of the norm in question. This is suggestive of the salience of normative and non-normative factors in producing the outcome in question. At issue is the impact of one particular norm on an actor; comparing the actor's discourse in the instance under
question, when the effects of the norm should be expected, to another juncture when it is known that behaviour was strongly affected by another norm that should elicit a somewhat similar response can give some idea as to the effects of the norm in question on the actor’s preferences. Such a procedure of course assumes that the effects of the two norms possess more similarities than dissimilarities, and this procedure is open to challenge on these grounds. I discuss this matter further below.

Much of what is known about nuclear deterrence refers to conflict escalatory propensities between two nuclear states. After all, the nuclear détente between the United States and former Soviet Union was the fundamental characteristic of the Cold War era. This is troubling however given that conflicts between a nuclear and non-nuclear state have risen in salience since the end of the Cold War. Nuclear non-use against non-nuclear states has been an enduring feature of the nuclear age. As Paul Nitze has noted, the “use of nuclear weapons in a regional crisis was never really an option for the United States-despite talk of it (Nitze and McCall 1997: 77).” Yet it is an anomaly not easily accounted for within the analytical parameters of deterrence theory.

The Cold War ended over fifteen years ago. Conflicts between nuclear and non-nuclear states have become much more salient, as have concomitant concerns for nuclear non-proliferation and disarmament. While over two thirds of the international conflicts that have occurred since the dawn of the nuclear age in 1946 were between two non-nuclear states, 84% and 89% of those conflicts involving at least one nuclear state only involved one nuclear state in the Cold War and post Cold War era’s respectively. Why does nuclear non-use in such conflicts prevail, and in what way

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3 EUGene dataset. I take the Cold War to have ended in 1989, although altering this date to 1990 or 1991 would not alter these statistics significantly. I take the nuclear age to have begun in 1946 because the two cases of nuclear use in 1945 brought World War II to an end, ushering in the era of bipolarity with which nuclear détente became associated.
must the analytical parameters of deterrence theory be reformulated to account for this?

The phenomenon of nuclear non-use against non-nuclear adversaries possesses significant policy implications. U.S. nuclear strategy enunciated after the September 11 attacks in the National Security Strategy, Strategy for Combating Terrorism and Strategy to Combat WMD articulates the viewpoint that the new, emerging threats the United States faces in the post-9/11 world are actually graver than those faced by the Soviet Union during the Cold War (Huntley 2006: 53). Exploring what has so far caused non-use against these non-nuclear threats may indeed reveal the threshold under which nuclear use will become operationally feasible. I proceed below to explore the insights that the extant deterrence literature offers regarding escalatory propensities for conflicts between a nuclear and non-nuclear state in more detail.
Nuclear Deterrence: One Nuclear State?

Most of what is known about nuclear deterrence developed during the Cold War détente between the United States and former Soviet Union. One study, for example, begins by noting that “our main purpose in studying deterrent threats is to advance understanding of the conditions under which they are likely to succeed or fail in the U.S.-Soviet context (Stern et al 1985: 9).” It should not be overemphasised that the extant body of knowledge was generated for the purposes of understanding conflict escalatory propensities between two nuclear states. Much of the literature on the theory and strategy of deterrence attempts the methodologically challenging task of determining whether deterrence postures actually deter, and what association of other behavioural, psychological and institutional factors caused actor behaviour. The cases used for this tend to span the nineteenth and twentieth centuries. Many of the studies draw inferences about nuclear deterrence through examining conflicts from before the dawn of the nuclear era, an exercise open to criticism on the grounds of the transformative system effects of the nuclear revolution. On the other hand, much of the best evidence available for such cases refers to conflicts well before the Second World War, especially World War I. Whether Richard Harknett, James Wirtz and T.V. Paul are correct in asserting that the disappearance of American-Soviet nuclear competition requires a rethinking as to the inevitability of such politics requires further theoretical and empirical work, and cannot be explored here (Paul, Harknett, and Wirtz 1998: 2). Throughout the literature on deterrence theory and strategy however, references to conflicts between a nuclear and non-nuclear state, if made at all, tend to be speculative.
There are five key elements to nuclear deterrence theory (Morgan 2003: 8). Two states must be engaged in (1) a severe conflict in which significant values of both are at stake. A (2) retaliatory threat that causes (3) unacceptable damage is the key means by which a statesman attempts to deter or compel his adversary and thus influence his assessment of his interests. The success of operationalising such a cost-benefit calculus depends on (4) actor rationality, or more specifically, for preferences to be transitive and known by the adversary and for actors to attempt to fit their outcomes with their preferences. Threats must be (5) credible to be believed. Conveying a commitment to make good a threat that might otherwise cause an unwanted action-reaction spiral makes credibility in the nuclear context elusive. The many issues associated with the extant literature and the many unanswered questions referring to whether deterrence postures actually deter cannot be explored here.

Almost all scholarship on nuclear deterrence takes nuclear non-use against a non-nuclear adversary as inherently inevitable. As a result it fails to problematise it. Lebow and Stein, for example, take issue with the ability of deterrence theory to account for conflict escalatory developments. Although they examine cases before and after 1945, including some conflicts between nuclear and non-nuclear states, they offer no explanation for the outcome of nuclear non-use in such conflicts. In both the 1969 and 1973 Middle East conflicts and the Argentine invasion of the Falkland Islands in 1982, important cases of nuclear non-use against a non-nuclear adversary, conflict escalatory outcomes are explained by "the distorting effects of cognitive biases and heuristics, political and cultural barriers to empathy, and the differing cognitive contexts the deterrer and would be challengers are apt to use to frame and interpret signals (Lebow 1989: 27)." While their studies tellingly detail important problems associated with the rationality assumption in deterrence theory, an important
facet of nuclear deterrence remains unexplained. The fact that nuclear non-use against a non-nuclear adversary is too often not treated as something which itself requires problematisation makes an inquiry into the sources of inevitability of nuclear non-use against a non-nuclear state all the more urgent.

Those observers that do note the phenomenon address it in a speculative manner and do not systematically explore its causes or explore causal mechanisms. Ken Organski and Jacek Kugler have stressed the shortcomings of deterrence theory, arguing in 1980 that “new ways to account for behaviour in nuclear conflicts need to be found (Organski and Kugler 1980: 176).” They however fail to suggest how non-use against a non-nuclear adversary can be explained, and furthermore how this explanation would be integrated into the extant body of deterrence theory. Robert Osgood and Robert Tucker, as well as Geoffrey Blainey, argue that nuclear weapons are largely devoid of military significance in either third world conflicts or guerrilla wars where suitable targets for the weapons are lacking (Osgood and Tucker 1967: 158; Blainey 1973: 201). This answer is partially satisfactory but does not address the majority of conflicts where nuclear weapons possessed a clear strategic feasibility.

John Mueller has argued that “nuclear weapons may have some relevance to the large, set-piece conflict between organised countries—but that kind of war, as noted, is already quite rare (Mueller 1989: 257).” This claim however fails to come to terms with the strategic implications of nuclear weapons themselves for such conflicts. It is far from clear that the conflict between the United States and Soviet Union would have resulted as it did had the power of splitting the atom not been harnessed and used when it was. Indeed, nuclear use a year or two earlier or later could have set the foundations for a strikingly different relationship between the United States and the former Soviet Union. Ultimately, Mueller cannot rule out the
possibility that the destructive capacity of nuclear weapons themselves at least partially caused the 'retreat from doomsday' that he attributes to other social forces. Indeed, it is likely that the destructive potential of nuclear weapons themselves were the root cause of the belief that war, in the nuclear era, was 'repulsive, immoral and uncivilized.' Moreover, if Mueller is correct, one must wonder how future generations that have not experienced World War I or II, and that may experience the decline of American unipolarity in the future, will similarly come to believe that war is to be avoided on the principles that Mueller enunciates.

It is also possible that a normative opprobrium that stigmatised nuclear weapons as morally unacceptable was and/or is at least a partial cause for the lack of their operational feasibility. John Lewis Gaddis has argued that self-deterrence explains nuclear restraint. Self-deterrence can contain normative and non-normative causal factors (Gaddis 1987). First, there could be a paucity of appropriate targets or a shortfall in nuclear weapons capabilities at the time. Second, there could be the setting of a precedent whereby others would be more likely to use nuclear weapons in the future. Third, there could be pressures from important allies or public opinion. Fourth, it is possible that the decision was made because senior political authorities believed that such nuclear strikes would be morally wrong. Gaddis however fails to elaborate beyond such an otherwise useful typology of causes, although he does address the causes of non-use in several Cold War conflicts. George Quester argues that the source of nuclear restraint against non-nuclear adversaries is the end of the American monopoly on nuclear weapons, but does not address the causal mechanisms that cause non-use nor attempt to specify the nature of the association of the normative and non-normative forces involved (Quester 1986: 124; 2000).
Patrick Morgan has suggested that "imposing excessive costs on the attacker does excess harm (in the negative reactions of third parties or its own citizens) to the defender (Morgan 2003: 48)." Daniel Geller concurs that non-nuclear initiators and targets will not evidence escalatory caution in disputes with nuclear powers. While Geller does note the normative and non-normative factors involved, he never spells out how they combine, if at all, to cause non-use. Geller is however one of the few scholars to have noted that "a set of military, political and ethical constraints has weakened the psychological advantage of possessing nuclear weapons (Geller 1990: 296)," although it is the advantage of using the weapons, rather than possessing them, that is at issue, since the possession of nuclear weapons serves many other non-deterrent purposes. Furthermore, use against a non-nuclear adversary would have different repercussions to use against a nuclear adversary.

Of all the deterrence studies to date, Paul Huth most clearly spells out what can be referred to as normative and non-normative factors, although he fails to elaborate on the issue:

First, nuclear use would be likely to increase the incentives for horizontal nuclear proliferation, which the existing nuclear powers have consistently opposed. Second, the potential for collateral damage to civilians, whether the weapons were used tactically on the territory of the protégé or were targeted directly at the attacker territory, might provoke strong criticism internationally and domestically (Huth 1988: 42).

Of the few deterrence theorists who both implicitly note that nuclear non-use against a non-nuclear adversary is an empirical anomaly and offer some explanation as to why, none attempt to explore the particular mechanisms through which non-use is caused in individual cases. Of particular interest is the association of normative and non-normative factors that constituted the causal mechanism that caused nuclear non-use
in different cases. Subjecting Tannenwald's claim that a normative element is necessary to cause non-use to empirical qualification will better illuminate the relevant causal mechanism. It will also suggest whether a normative inhibition is indeed necessary for nuclear non-use. It is this mechanism that this paper explores. I proceed to outline the methodological issues associated with exploring it.
Methodological Considerations

Jon Elster has noted that the fundamental problem that arises in the analysis of social norms is the extent to which they have real, independent efficacy and the extent to which they are rationalisations of self-interest (1989: 125). It should be noted at the outset that there is no reason why these two explanations should be mutually exclusive. Individual drives for utility maximisation and social logics of legitimacy may be mutually reinforcing means through which a norm becomes substantially strengthened. Norms may well be rationalisations of self-interest and come to possess causal efficacy. The proper question to ask therefore is what effect norms have, over time, once the rationalisations of self-interest that gave rise to them in the first place are no longer their sustaining force. Powerful norms have a tendency to develop beyond what they were initially designed to achieve or contain and affect their creator and/or perpetuator in ways far from amenable to them.⁴

Tannenwald argues that the nuclear taboo developed after the 1945 Hiroshima and Nagasaki attacks despite the willingness of a number of American military generals and Presidents to find operational feasibility for them (Tannenwald 1998; 2005). President Eisenhower and Secretary of State John Foster Dulles, for example, spent a great deal of political capital throughout the 1950s attempting to “remove the taboo associated with the use of nuclear weapons (Tannenwald 2005: 23).” It should be noted at this point that evidence of such words as ‘taboo’ in a statesman’s

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⁴ Robert Axelrod differentiates strong norms from weak norms by the ability of the norm to encourage adherents to punish deviants (Axelrod 1986). Legro and Price and Tannenwald have noted that examining cases of weak or failed norms will shed further light on the causal mechanisms of norms that produce policy outputs (Legro 1997; Price and Tannenwald 1996).
discourse should not be assumed to constitute evidence of its effects. Of more importance is the meaning that the actor attaches to the discourse. Thus, President Bush’s statement in National Security Directive 24, September 1989 that “there is an increasingly urgent need to achieve a global ban on chemical weapon production as well as use (NSD 24: 1)” may or may not constitute the effects of the normative inhibition associated with the use of chemical weapons. I return to this point below.

For Tannenwald, the global anti-nuclear weapons movement, non-nuclear states and various international institutions such as the United Nations and, initially, Russian anti-American propaganda were the chief cause of its propagation and effectiveness (Tannenwald 2005: 7). As she puts it, the nuclear taboo was

actively promoted by a grassroots and state level antinuclear weapons movement, which successfully used the UN and other international forums in a discursive strategy both to maintain a categorical distinction between conventional and nuclear weapons and to stigmatise the latter as unacceptable weapons of mass destruction (Tannenwald 2005: 33)

It is important however to disentangle a cause of a norm and its effects. It is entirely plausible that such activist networks substantially perpetuated the nuclear taboo while the taboo itself was only a marginal cause of nuclear non-use against a non-nuclear adversary. On the other hand, it is feasible that the nuclear taboo, whilst central to causing non-use against a non-nuclear adversary, was caused by factors other than such trans-national activist networks. Whether the nuclear taboo caused nuclear non-use or not, explaining and understanding it is best achieved through grasping the relevant causal mechanism.

Elster describes a causal mechanism as an intermediate between laws and descriptions. Mechanisms are “frequently occurring and easily recognisable causal patterns that are triggered under generally unknown conditions or with indeterminate
consequences (Elster 1998: 45). Causal mechanisms are the best that can be done to generate causal inferences when description is unsatisfactory and lawlike generalisations are impossible. As Nancy Cartwright puts it, “On the day of judgement, when all laws are known, these may suffice to explain all phenomena. But in the meantime we do give explanations (Cartwright 1983: 51-52).” Mechanisms are the source of these explanations that might later come to form laws. Little is known about the causal association of normative and non-normative factors that associate to produce nuclear non-use against a non-nuclear adversary. Ascertaining the relevant causal mechanism that caused nuclear non-use in a particular case is therefore a good building block for future studies.

Much of the first wave of constructivist work was devoted to detailing if norms mattered in specific spatio-temporal contexts and glossed over the specificities of how they mattered in association with non-normative factors. Because, as Jack Snyder has pointed out, ideas and culture are best understood as “embedded in complex social systems shaped by the interaction of material circumstances, institutional arrangements and strategic choices,” establishing causal mechanisms is a necessary first step to explaining and understanding the causes of nuclear non-use against non-nuclear adversaries (Snyder 2002: 7). Further empirical studies may later enable quasi-lawlike generalisations to gradually emerge.

Because the decision to authorise nuclear use is in the hands of a few individuals, assessing the cause of non-use involves assessing their discourse to understand the sequence of thoughts behind the decision. Indeed, the decision might be better regarded as a non-decision. The decision-making process of the relevant decision-maker(s) must initially be ascertained. In the case of American nuclear non-

5 For several other definitions of a causal mechanism, see Hedstrom 2005: 25.
use, that decision-maker is the President. Of course the decision to refrain from nuclear use could have been made in previous administrations, possibly decades ago, such that Presidential preferences were peripheral to the 1991 Gulf War decision. Positive feedback processes can be powerful, and can be fuelled by multiple combinations of normative and non-normative forces. I return to this point below.

Contexts in which the President made judgements regarding nuclear use must be located and subsequently comparatively assessed with the discourse associated with other issues to verify what meanings were attached to specific statements. This involves “the interpretation of meaning through empathetic understanding and pattern recognition (Goldstein and Keohane 1993: 27).” The deliberative process must then be analysed to assess the mechanism that led to nuclear non-use. Alexander George and Timothy McKeown have referred to this approach as process tracing; the researcher looks closely at the “decision process by which various initial conditions are translated into outcomes (George and McKeown 1985: 35).”

Much constructivist scholarship equates a concern for reputation with the effect of a norm. However concern for reputation can stem from non-normative sources such as a perceived linkage between reputation and the likelihood of economic and military cooperation. The relevant deliberations may on the other hand suggest the causal saliency of the nuclear taboo and other institutional actors enunciating values that resonate with it. Non-normative factors such as the fear of increased nuclear insecurity from nuclear proliferation and the precedent that it would set for future nuclear proliferation and use against the original state may also be central. Insofar as reputation is perceived to be linked to these factors, a concern for reputation need not reflect the causal efficacy of a norm. Furthermore, fear of unfavourable relations with other (nuclear) states that may enter the conflict on the
side of the non-nuclear state may be central, and need not be normatively based. Fear of international opprobrium associated with military, economic and diplomatic factors could therefore have a non-normative or normative basis. Furthermore, any combination of these factors in association is feasible, especially if cognitive references to normative and non-normative factors reinforced each other. I discuss what the causal saliency of normative and non-normative factors would look like below.

Of what has been written on nuclear non-use by a nuclear state against a non-nuclear adversary, only Tannenwald’s empirical examination of her claim regarding the necessity of the normative opproprium associated with nuclear weapons attempts to detail the causal mechanism that resulted in non-use. Very few scholars have rigorously subjected the phenomenon of nuclear non-use to questions of normative causation. This is perhaps due to the complexities involved in measuring the effects of ideas on policy (Yee 1996). Ideas can simply reflect the prior interests of the policy makers, and previously designed policies may generate a powerful feedback effect on the ideas themselves. Discerning the effects of the nuclear taboo and differentiating its effects from other non-normative causes indeed presents “a host of methodological difficulties (Goldstein and Keohane 1993: 27).” This does not mean however that such a study will necessarily bias either normative or non-normative factors.

Perhaps most pressing is the constructivist contention that normative causes cannot be differentiated from non-normative causes. Alexander Wendt, for example, notes that “to the extent that material causes are made of ideas we will not get a full understanding of how ideas matter by treating them as variables distinct from other causes (Wendt 1999: 94, italics added).” Rationalists tend to typically respond to this

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6 See also Price and Tannenwald 1996: 147
by insisting that this position can only be maintained if the implicit meaning of identity is broadened far beyond the idea of identity as a social category to the point of analytical emptiness (Fearon 1999: 30).

Price and Tannenwald “entirely agree that these (non-normative) factors enter into an account of non-use.” They proceed to argue that “setting up a ‘test’ between a ‘norms’ explanation and a ‘non-norms’ explanation” is problematic because framing the question as such opens the door to missing the possibility that “these supposed non-normative factors may not in fact be independent variables (1996: 147, italics in original).” Indeed, as Price and Tannenwald stress, the non-normative factors “may only become politically salient because of the prior existence of a taboo or norm, however strong or weak.” Price and Tannenwald stress that “norms structure realms of possibilities; they do not determine outcomes (1996: 148).”

It is however too much to argue that norms fail to determine outcomes by structuring realms of possibilities. It is correct to contend that norms do not, in and of themselves, completely determine one possible policy outcome from among many. But causality does not preclude non-material acts of determinism. Structuring what is socially possible and impossible is an inherently deterministic act, and determining what is socially possible or impossible through defining the frame of reference that logics of legitimacy resonate with is inherently causal. Possibility implies impossibility. In fact, causality must be a meaningless analytical term if such an association is not causal. It is, of course, a distinct sense of causality from that associated with the logic of statistical analysis, as Price and Tannenwald correctly point out (1996: 147-148). Thus Wendt elsewhere differentiates between causal and constitutive theories; “what we seek in asking these (constitutive) questions is insight into what it is that instantiates some phenomenon, not why that phenomenon comes
about (Wendt 1998: 105).” Instantiation may however be necessary to allowing some phenomenon to ‘come about.’ Instantiation and the more direct sense of ‘bringing something about’ imply different and distinctly irreducible senses of causation.

Furthermore, Price and Tannenwald are incorrect to suggest that exploring the causal importance of non-normative factors in association with the taboo commits one to a test between a norms explanation and a non-norms explanation where “the analytical goal would be to establish what proportion of the “outcomes” is explained by “norms” and what proportion is explained by other factors (1996: 147).” One does not have to concur with Fearon’s insistence that “it is just not true that we have all of our preferences or desires only in virtue of being members of some particular social category (Fearon 1999: 30)” to believe that the different kinds of causal work performed by normative and non-normative factors are distinct. They need not and should not be subject to the competitive one or the other type of test that Price and Tannenwald suggest they must be subject to in order to examine the causal effects of non-normative factors on foreign policy.

At issue therefore is ‘what’ causal work is performed by normative and non-normative forces. The question of ‘how much’ causal work normative and non-normative factors perform begs precisely this question; the particular association of normative and non-normative factors acting in association to produce a particular outcome can be ascertained once the previous question has been addressed. If it can be shown that the relevance of some factors are not reducible to the influences of their normative context (the what question), and are constitutively independent of it, the answer to the ‘how much’ question will be readily apparent.

It is not inconsistent to argue that all interests do not necessarily refer back to some social category and that the causal powers of the logics of appropriateness and
consequences are distinct. One can only go so far in simplifying the association of apples and oranges. Moreover, it is not inconsistent to argue that one is in some sense more causally important than the other and that causality consists of their acting in association. Furthermore, this association need not resemble mutual constitution. It is possible that the interaction of two factors are necessary to cause an outcome while neither factor is necessary for the constitution or causal powers of the other, even if the interaction serves to strengthen one or both factors at some point. It is thus curious that Friedrich Kratochwil and John Gerard Ruggie assert that norms can be thought of only with great difficulty as “causing” occurrences when they proceed to state the matter so succinctly:

Norms may “guide” behaviour, they may “inspire” behaviour, they may “rationalise” or “justify” behaviour, they may express “mutual expectations” about behaviour, or they may be ignored. But they do not effect cause in the sense that a bullet through the heart causes death or an uncontrolled surge in the money supply causes price inflation (Kratochwil and Ruggie 1986: 767).

Indeed, the shooting of the bullet or the surge in the money supply may well have been made socially possible through normative forces of social legitimacy and illegitimacy. It is highly feasible that in a counterfactual situation without the norm that enabled this possibility, such an outcome may not have occurred. To say then that norms are inherently non-causal is to conflate causality with a strictly asocial understanding of the world. Moreover, it fundamentally misconstrues the complex causal mechanisms that often consist of the association of normative and non-normative forces. None of this implies however that all causal mechanisms are at least partly normative, nor does it prohibit an analysis of the causes of nuclear non-use that attempts to explore the causal association of normative and non-normative factors.
To attempt to further distil the causal importance of logics of legitimacy against the pull of utility maximisation is to commit the fallacy of assuming that the association of apples and oranges can be further fruitfully simplified. It cannot. If causality consists of the association of normative and non-normative forces, attempting to either reduce one to the other or simply the causal association achieves nothing but intellectual stultification. Much of the debate between rationalists and constructivists has been, as Peter Katzenstein and Nobuo Okawara have put it, “bitter, repetitive and ultimately inconclusive” due to the denial of this relatively straightforward proposition (Katzenstein and Okawara 2001: 183). So how can the effects of norms on policy outcomes be assessed?

The significance of normative factors should be initially measured against other normative factors. This enables the relative strengths of different normative structures on the relevant actor to emerge. Subsequent to this, the discourse of this actor should be examined to assess whether there is evidence of preferences that resonate with the values of that norms value system. That this fitting of preferences with values could be intentional or unintentional does not complicate the proposition that to the degree that the discourse of an actor contains values that resonate with the norm, the norm has effected that individual. These effects can then be compared to those of non-normative forces. To the degree that the same discourse contains evidence of the effects of non-normative forces, normative forces have not affected preferences. Normative and non-normative forces could reinforce each other, and positive and negative feedback mechanisms fuelled by normative and non-normative factors could make the causal mechanism challenging to discern. Nonetheless, examination of the relevant discourse should at least be suggestive of the normative and non-normative
constitution of the causal mechanism that produced nuclear non-use against a non-nuclear adversary.

Assessing discourse from the same spatio-temporal domain allows extraneous causal factors in that particular context to be controlled for, although if evidence from multiple domains points to a similar conclusion its credibility is strengthened. This allows the relative weight of normative and non-normative factors that produce behavioural outcomes to be ascertained. This will not necessarily reveal the causes of the norm itself, nor furthermore reveal its degree of wider social acceptance. The process will however enable one to clarify its effects on an actor vis-à-vis other norms as well as non-normative factors.

All of this rests on the assumption that utterances by an actor that attempt to fit preferences with values that are perceived to be inherent to the structure of a norm reflect the causal work of that norm. This assumption is open to challenge on the grounds that utterances may not reflect genuine preferences and beliefs. Talk can be and often is cheap. Two means exist to strengthen the assumption. Firstly, the opinions of those in close proximity to the individual, and in whom there is good reason to trust, can be used as corroborative measures. Secondly, one can measure the likelihood that the speaker or corroborator is trustworthy by assessing whether they would perceive dishonesty in regards to specific issues as likely to attract benefits that they would value. To the degree that dishonesty would be perceived to attract perceived values, there is grounds for doubting the sincerity of beliefs.

Sometimes the available evidence will inhibit selection of the best normative factor to compare the normative factor in question against. For example, below I compare the beliefs of President George Bush regarding nuclear weapon use against Iraqi forces and Kuwaiti human rights abuses. It should be noted that examining
Kuwaiti human rights abuses is a better selection than the issue of American soldiers losing their lives, because the source of discourse is Bush's memoirs; we should expect more disingenuous sympathy towards American lives than toward Kuwaiti lives. The issue of chemical weapon use, however, is likely to have been perceived as closer in problem structure to that of nuclear weapon use than the issue of Kuwaiti human rights abuses. However because there are too few references to chemical weapons in Bush's memiors, and many to Kuwaiti human rights abuses, I compare beliefs regarding nuclear non-use and Kuwaiti human rights abuses. Bush devotes a good deal of attention to detailing his perspectives on Kuwaiti human rights abuses. Moreover, insofar as the norms associated with nuclear weapons and human rights should evince similar moral positions, comparing the effects of both on the President is useful to understanding the causal mechanism that caused U.S. nuclear non-use against Iraqi forces. After all, both norms stipulate socially acceptable destruction thresholds. In both cases, the President's views clearly represent an attempt to fit preferences with some normative value. Because the normative value is inherently moral, one can assess whether the position on nuclear use attracts a similarly moral response. If not, there is good reason to believe that if behaviour is affected by a norm, it is not a norm that resonates with the inherently moral and civilisational value structures associated with the nuclear taboo.

This exercise may be open to criticism on the grounds that this exercise biases non-normative factors because the most powerful norms leave no evidence. However, many powerful non-normative factors similarly leave little evidence. Many severe commitments could also leave little evidence. Risk aversion, profit drive and respect for human rights are some of the many sentiments that could be held so deeply that there is little evidence of them, although whether they could all be held concomitantly
is another matter. At any rate, no evidence is by no means firm evidence of the effects of norms. Thus although much of the evidence regarding nuclear non-use may be unavailable, there is no reason to suspect that the available evidence does not systematically bias causal inference toward either normative or non-normative factors.

Finally a note of caution is in order. Just as Gary King, Robert Keohane and Sidney Verba have argued that “random measurement error in the dependent variable produces estimates of causal effects that are less efficient and more uncertain,” a significant degree of uncertainty clouds the conclusions of this inquiry (King, Keohane and Verba 1994: 159). As I show below, the evidence available to judge the case is sparse. I rely only on that which has been made available for public consumption. Insofar as that only written for private consumption is currently unavailable, and is likely to remain so for some time, the findings here contain a notable margin of error. New evidence that reveals personal sentiments missing from earlier documents could change the findings outlined below considerably. There are thus grounds for arguing that this study is ultimately inconclusive. Nonetheless, it can still be shown that a normative inhibition may not be necessary to cause nuclear non-use against non-nuclear adversaries. I now turn to the issue of case selection.

Harry Eckstein has argued that critical cases are central for theory testing in small N studies. Critical cases are those in which a theory is either most likely or least likely to hold. If a theory fails to explain a most likely case it should be considered weak, whereas if it explains the least likely case it should be considered promising (Eckstein 1975: 113-120). While King, Keohane and Verba have argued that “Eckstein’s argument is wrong if ‘case’ is used as he defines that term, what we call a single observation,” they concede that “obviously, a case study which contains many observable implications, as most do, is not subject to the(se) problems (King,
Keohane and Verba 1994: 209-212). The process tracing method satisfies this criteria because it generates multiple observations. Furthermore, although small n case studies with no variance in the dependent variable are open to criticism on the grounds of not viewing the natural range of variation of the dependent variable, such studies can "be useful if they pose tough tests for theories or identify alternative causal paths to similar outcomes when equifinality is present (George and Bennett 2004: 76)." Insofar as a causal mechanism that led to nuclear non-use can be delineated, examination of a single case can therefore yield fruitful inferences.

Tannenwald contends that the effects of the nuclear taboo have increased over time. There is thus reason to expect the nuclear taboo to figure most prominently in causal mechanisms that led to non-use in recent conflicts between a nuclear and non-nuclear state. Furthermore, a key further causal factor should be discounted after the end of the Cold War. A decision not to use a nuclear weapon against a non-nuclear adversary may have been abetted by the fear of a third nuclear state entering the conflict on the side of the non-nuclear state. Specifically, American decisions not to engage in nuclear use against a non-nuclear adversary may have been perpetuated by a fear of Soviet involvement or even retaliation. The importance of such perceptions would have been minimised after the end of the Cold War. While adverse relations with other nuclear and non-nuclear states may well have constituted part of the causal mechanism that led to nuclear non-use in the Cold War and post Cold War periods, the fear of a third nuclear state entering into the fray would have been significantly minimised after the Cold War's end. On the other hand, as Freedman's above comment attests to, there are good reasons for expecting non-use on the grounds of the fear of nuclear proliferation that it would encourage in the 1990s.
The 1991 conflict between the United States and Iraq occurred after the Cold War had ended. It is a significant case of armed conflict between a nuclear and non-nuclear state after the end of the Cold War. Indeed, the conflict was not only authorised by the United Nations but involved many other nuclear states as well. If Tannenwald’s findings about the cumulative effect of the nuclear taboo are correct, its effects on nuclear non-use against a non-nuclear state should be the strongest in this case. Even if it figures prominently in a causal mechanism that is one of many causes that produces nuclear non-use, and thus constitutes what J. L. Mackie calls an insufficient but necessary part of an unnecessary but sufficient (INUS) cause, its absence would reveal telling implications of the causal effect of normative stigmatisation on the policy of nuclear non-use. Specifically, this would suggest that a normative inhibition on nuclear weapons is not at all necessary to cause nuclear non-use against a non-nuclear adversary.

What of the 2003 Gulf War? Because a major objective in the second Gulf War was to oust Saddam Hussein’s regime from power, much of the conflict would have taken place inside Baghdad. Such a conflict would have differed significantly from the first Gulf War where suitable desert targets for nuclear weapons existed. Nuclear use in the 2003 Gulf War however would have involved excessive civilian casualties. As Dick Cheney himself speculated in 1998, “the whole nature of U.S. combat operations would have changed dramatically (Cheney 1998: 23). Because suitable targets for the weapons existed in the first Gulf War but not the second, the first is a better test for the strength of the effects of the nuclear taboo.

It could of course be argued that the restraint from nuclear use in the face of civilian casualties constitutes a critical case for the central causal effects of the nuclear taboo. Indeed, the causes of the different military objectives for the two Gulf Wars
require exploration. Liberating Kuwait was the single military goal in Gulf War I; putting an end to Saddam Hussein’s government in Iraq was an explicit American objective of Gulf War II. Normative factors may have been central to the change in these two war objectives, although the presence of two different administrations, admittedly staffed by many of the same individuals, as well as a host of economic and other non-normative factors are also important. Of course the host of non-normative causal factors outlined above may well constitute a causal mechanism that led to non-use in association with the normative stigmatisation of the nuclear taboo.

Both the 2003 Gulf War and the 2001 Afghan war require exploration of the causal association of normative and non-normative factors that resulted in nuclear non-use. While access to the relevant materials is problematic for any conflict that occurred after the Vietnam War, the presence of some data in the case of the first Gulf War and very little in the other two cases warrants an examination of the 1991 Gulf War within the n=1 framework. Although the two most recent cases may exhibit more powerful effects that result from the nuclear taboo, the prospects for such a rigorous study hinge on access to the relevant materials. Indeed, as I argue below, many of the relevant materials of the 1991 Gulf War are unlikely to become available for some time yet. Firstly however it must be established that the battlefield conditions of the 1991 Gulf War were amenable to nuclear use.

It could be argued that the 1991 Gulf War is not a challenging case for examining nuclear non-use as the strategic circumstances surrounding the conflict were never dire for the United States and its coalition allies. This position would take as unproblematic however the fact that such a threshold is required for nuclear use, which itself has to be accounted for. Iraq wielded the world’s fourth largest conventional army at the time, and military and civilian experts worried in advance
about the high level of casualties U.S. troops might sustain, especially if Iraq used chemical or biological weapons (Tannenwald 1999: 458). With Iraqi forces dug into field positions, the potential for a discriminate tactical nuclear attack with virtually no collateral damage to civilian populations was possible (Sagan 2004: 8). US casualties were estimated to run into the thousands, and some reports during the Gulf crisis suggested that nuclear weapons would have resulted in fewer deaths in the coalition and Iraqi side than using the conventional weapons needed to assure victory.

Indeed, a low yield tactical weapon could have been used against massed Iraqi troops or a discreet military complex and could have destroyed the many underground Iraqi targets more easily than conventional weapons. Some analysts argued that “from a strictly military perspective, a small number of tactical nuclear strikes limited to Iraqi military targets would save using allied ground forces in a potentially bloody campaign (“U.S. Can do Battle with Tactical Nukes,” The Washington Times, 29 January 1991, B9).” There was nevertheless hardly any consideration of nuclear use by top U.S. officials in the Gulf War. Whilst military planners and several government agencies examined tactical nuclear options for retaliation against Iraqi use of chemical and biological weapons, such options were never deliberated at the political level (Arkin 1996). It could be argued that this is further evidence that the strategic circumstances of the conflict were never serious enough for contemplation of the nuclear option. However rather than dismiss the case on this basis, the reasons as to why nuclear weapons were never seriously considered require problematisation and empirical exploration. Nuclear non-use against non-nuclear adversaries can be accounted for through a game theoretic model incorporating insights from prospect theory and also through insights from constructivist theory. I address each in turn.

There is a large body of scholarship that attempts to stipulate the conditions for international cooperation in anarchy. Much of this is game theoretic modelling. Robert Axelrod and Robert Keohane have argued that cooperation is more likely when the duration of the encounter between the states involved in an interaction is iterated and indefinite, and when the difference between the payoffs for cooperation and defection is modest (Axelrod 1984; Axelrod and Keohane 1993). Axelrod and Keohane have however conceded that because security affairs tend to make relative gains more important than absolute gains, increasing the payoff for defection, security cooperation is less likely than economic cooperation. In security affairs, “it may be possible to limit or destroy the opponent’s capacity for effective retaliation (Axelrod and Keohane 1993: 92).” Because “the first concern of states is not to maximise power but to maintain their position in the system,” the priority that states give to relative gains over absolute gains challenges the possibility of sustained security cooperation (Waltz 1979: 126; 1986: 334). This position has received much sympathy (Grieco 1988; 1993; Krasner 1991; Mastanduno 1991).

However it is far from clear that relative gains are most states central preoccupation in security affairs, nor whether a central concern with relative gains will ensure that competition prevails over cooperation. Thus Thomas Schelling argued in 1960 that such situations of central preoccupation with relative gains “would arise in a war of complete extermination, (but) otherwise not even in war (1960: 4-5).” A conflict can be “won” in two senses; relative to one’s own value system and relative that of one’s adversary. If one does not highly value total extermination of the
adversary, both senses of victory might not contradict each other; absolute gains might be possible for both state parties to an international militarised conflict. Thus Robert Jervis argues that the very fact that nuclear war could be total in the sense of destroying both sides means that the conflict of interest cannot be total (Jervis 1989: 15). The avoidance of nuclear war was an absolute good to the United States and Soviet Union during the Cold War, and both could have profited from stronger restraints on arms racing. A nuclear and non-nuclear state could similarly both benefit from not engaging in conflict and, more specifically, from the nuclear state refraining from nuclear use. To the degree that total extermination of the adversary is not the goal of the nuclear state, such cooperation is inherently possible. A glance at the conflicts between nuclear and non-nuclear states suggests that the total destruction of the non-nuclear state has rarely been the objective of the nuclear state.

Because of the possibility of immediate and potentially grave losses to a state that attempts to cooperate without reciprocation, prudent nuclear states are reluctant to cooperate with nuclear adversaries in conflicts unless they can monitor with confidence, prepare in time to meet a prospective defection, and circumscribe the arrangements to minimise vulnerability (Lipson 1993: 73). On the other hand, the shadow of the future encourages further cooperation, at least to diminish the risks of a clear common aversion such as nuclear war. 1 outline such game theoretic dynamics between a nuclear and non-nuclear state below.

Given the more or less inconclusive findings about security cooperation in anarchy, Charles Glaser is correct when he claims that “by itself, (the concept of) self-help tells us essentially nothing about whether states should prefer cooperation or competition (Glaser 1995: 59).” Robert Keohane has similarly noted that considerable variation in outcomes is consistent with the assumption of substantive rationality
(Keohane 1988: 381). Schelling’s point about the rationality of irrationality in some strategic bargaining situations indeed blurs the distinction between what constitutes a rational and irrational utility function (Schelling 1966: 18-22).

In games between two states of different relative capabilities, the more powerful state may overcome the weaker state’s greater reluctance to cooperate by offering it what it would perceive to be more than an equal share of the benefits. If the non-nuclear state values its non-nuclear status and the security guaranteed through NPT membership more than nuclear acquisition, nuclear acquisition might be avoided on these grounds. It is in the larger state’s interest to provide such a security guarantee however costly because it prefers what it might perceive as an unequal cooperative arrangement to no cooperation. Moreover, the loss of benefits stemming from an existing agreement hurt the more powerful state more than unrealised gains from possible future cooperation. I show below that prospect theory is central to the game theoretic explanation of nuclear non-use against a non-nuclear adversary.

Duncan Snidal has argued that an asymmetric distribution of absolute gains may be a requisite for striking cooperative agreements among different sized states concerned with relative gains (Snidal 1993: 198). This claim requires further empirical confirmation. A symmetric distribution of absolute gains might also be a requisite for cooperation if the resulting relative gains are more or less equal. Nonetheless, this insight can be used to explain a policy of nuclear non-use by a nuclear state when in a conflict with a non-nuclear state. The possession of a nuclear weapon is assumed to constitute relative power against a state that lacks such a military capability.

If the forces of a nuclear and non-nuclear state engage in conflict, the nuclear state cooperates by not using nuclear weapons against the non-nuclear state. Such
cooperation may be affected however if a third nuclear state intervenes against the nuclear state on behalf of the non-nuclear state. The non-nuclear state cooperates by not acquiring nuclear weapons that could be used against the larger state in the future, and not inducing a nuclear state to intervene on its behalf against the nuclear state. The shadow of the future is, by definition, indefinite. Both states have an incentive to perpetuate the shadow of the future because if the game is not iterated, the incentive for mutual defection will increase. This heightens the negative impacts of the security dilemma on both states through either immediate or later nuclear use by the nuclear and non-nuclear state respectively. Defection shortens the shadow of the future, which encourages further defection and heightens the negative effects of the security dilemma. Therefore, if the nuclear state does not desire the total destruction of the non-nuclear state, there is a strong incentive for both states to cooperate. Even if total destruction or regime change were desired, the fear of nuclear proliferation caused by using nuclear weapons against a NPT signatory might cause nuclear non-use in such conflicts.

This dynamic differs from that of a conflict between two nuclear states. Although the incentives to cooperate are clearly high, Jonathon Mercer has rightly pointed out the tendency that “decision-makers in a nuclear crisis know the game may not be repeated and so discount the future (Mercer 1996: 222).” There is a higher likelihood of conflict escalation leading to mutual destruction when both states possess a nuclear capability. Conflicts between a nuclear and non-nuclear state, on the other hand, should evince higher cooperative tendencies at more intense hostility levels because of the increased length of the shadow of the future. This suggests that such cooperation is generally more likely between a nuclear and non-nuclear state than between two nuclear states. This lends support to Snidal’s contention that an
asymmetric distribution of absolute gains may be necessary for cooperation among states with varying degrees of relative power.

In a conflict between a nuclear and non-nuclear state, defection by both states would be individually and collectively sub-optimal because apart from the likely destruction of the non-nuclear state it would encourage a regional or global arms race that would result in a net decrease of security to both states. If the objective is the total annihilation of the adversary then the costs of not engaging in war exceed those of the later arms race that the conflict might encourage. If on the other hand the objective is less than the total destruction of the adversary, the costs that would be incurred in the future as a result of the conflict might be more severe than those of the conflict itself. Irrespective of the values at stake in the conflict, the leader of the nuclear state would surely only use nuclear weapons if survival was perceived to be at stake; for the perceived proliferation tendencies and international opprobrium would be enough to self-deter, although normative and non-normative factors could carry different weights in different cases.

The form of the game could therefore be prisoner’s dilemma or chicken. Both players could play the game according to either game structure. Moreover, as Robert Jervis has noted, “Chicken can become Prisoner’s Dilemma if each sides’ behaviour leads the other to believe that being exploited would be worse than mutual defection (Jervis 1988: 322).” Anatol Rapoport has argued that establishing credibility in the prisoner’s dilemma means instilling trust, whereas in chicken it involves creating fear (Rapoport 1964: 116). Insofar as credibility in conflicts between a nuclear and non-nuclear state derives from establishing fear that nuclear weapons will be used or pursued upon defection, and trust that states will be faithful to cooperative agreements not to use or pursue nuclear weapons, such games contain central elements of both
prisoner's dilemma and chicken. Although cooperate-defect and cooperate-cooperate are both states' first and second preferences in both games, whether defect-cooperate or defect-defect will be their third preference is unknown. The structure of the game could thus resemble either prisoner's dilemma or chicken. As Glenn Snyder has pointed out, "a mutual perception of toughness in the opponent thus may lead to compromise in chicken, but similar perceptions in the prisoner's dilemma tend to produce conflict and mutual loss (Snyder 1971: 86). It is hard to specify the effects of perceptions of toughness in conflicts between nuclear and non-nuclear states without knowing more about both state's utility functions. Prospect theory offers the central insight that explains nuclear non-use against a non-nuclear state within the preceeding game theoretic framework.

Research on cognition and decision-making demonstrates that individual choices are as much a function of consistent heuristics and biases as they are the result of calculated costs and benefits (Berejikian 2002: 166). Prospect theory contends that an important bias significantly mitigates the cost-benefit calculus central to rational choice models. Initially developed by Daniel Kahneman and Amos Tversky (1979), prospect theory is an empirical model of decision-making that stands as the leading alternative to expected utility as the theory of choice. Its central contention is that people are more sensitive to changes in assets than net asset levels, in contrast to expected-utility theory's definition of value in terms of net assets (Levy 2003: 270). Kahneman and Tversky differentiate between an experience value and a decision value; the former is the degree of pleasure, pain, satisfaction or anger at an outcome, the latter is the contribution of that outcome to the overall attractiveness or aversiveness of an action in a choice (Kahneman and Tversky 1984: 350). While much of rational choice theory assumes experience values and decision values to
coincide, the correspondence of decision values between experience values is often far from perfect. Prospect theory views political behaviour as based not on the individual predispositions of a particular leader, but as the evolution of a cognitive response to a situation that constrains the way options are interpreted and choice is made (McDermott 1998: 4). Whether such vagaries of personality significantly mitigate such cognitive mechanisms is an important avenue for further research.

People frame choice problems in orientation to a given reference point and assign more weight to losses from that reference point than to otherwise equal gains. Positive deviations from the reference point are framed as gains and negative deviations are framed as losses. Gains and losses at or close to the reference point are viewed more significantly than otherwise comparable gains further away from it. Thus the first Iranian nuclear weapon would be much more significant than the tenth, and, if nuclear weapons were used against Iraq in 1991, the first would have been much more significant than the second. Negative deviations from the reference point induce a risk-taking propensity, whereas positive deviations induce risk aversion. Individuals tend to be risk averse in the domain of gains and risk seeking in the domain of losses (McDermott 1998: 4-5). Furthermore, significant threats are underinflated and insignificant threats tend to be overinflated. Thus most people tend to be more wary of travel by plane than car when the latter carries a higher chance of fatality.

Expressed formally, a loss of \( x \) carries a negative utility function of \( j \), while a gain of \( x \) carries a positive utility function of \( k \), where \( |j| > |k| \). Loss aversion leads people to value what they possess more than that which is comparable and not in their possession. Actual losses hurt more than forgone gains. Loss aversion can lead to risk taking where the result might be an even greater loss. Apart from the tendency for
value functions to be generally concave in the domain of gains and convex in the domain of losses, little has been established about the thresholds under which individuals are prepared to take risks that could result in further loss. For example, the possibility that President Bush would have authorised nuclear use in early 1991 against Iraqi forces, because he was in the domain of loss, to alleviate a perceived security dilemma brought about by Iraqi aggression against Kuwait is intuitively implausible. Further research is required to establish the parameters of such cognitive thresholds. There is evidence to suggest that just as the difference between $10 and $20 is more meaningful than the same ten dollar increase from $1110 to $1120, American strategists in the 1950s and 1990s respectively would have perceived the first Soviet nuclear weapon as much more significant than the first Iraqi nuclear weapon because a number of other states possessed a nuclear capacity by 1991.8

While much research remains to be done on reference points, the status quo usually serves as the chief point of cognitive orientation (Jervis 2004: 171; Mercer 2005). Insofar as nuclear proliferation is perceived to be central, the framework instituted in the NPT is the obvious frame of reference for American Presidents. Kahneman and Tversky note that reference points can be constituted by a combination of normative and non-normative forces (Kahneman and Tversky 1991: 1046-47). The causal origin of the NPT as a reference point might ultimately be constituted by bureaucratic, normative or non-normative strategic factors, and is an important subject for future research. It is important to note however that much work remains to be done to understand how reference points form, endure and change (McDermott 2004). Just

8 Why the NPT emerged in 1970 rather than 1950 is thus an important anomaly for prospect theory to address. Bernard Brodie raised the question in 1973 of “why the United States did not use its monopoly when it had it” (Brodie 1973: 393, see also Brodie 1959: 227-241). Moreover, prospect theory has to come to terms with American nuclear restraint toward the Soviet Union between 1946 and 1949, as Russian nuclear acquisition likely gave salience to the loss frame (see Quester 2000). At issue is what combination of other factors mitigated the inevitable bias to risk propensity.
as rational choice lacks a theory of the origin of preferences, prospect theory lacks an understanding of the framing effect or the concomitant origin, duration and transformation of reference points. The following discussion details the application of prospect theory to the case of American nuclear non-use against Iraq in the 1991 Gulf War. Nearly all applications of prospect theory to international affairs to date have detailed the consequences of the prevalence of the loss frame; a decision-maker attempting to recover sunk costs to his detriment through throwing good resources after bad. The 1991 Gulf War story however details the frame of loss determining the commitment to liberate Kuwait but the frame of gain both ensuring nuclear non-use and inhibiting a final march on Baghdad after the restoration of Kuwaiti sovereignty.

Prospect theory stipulates that President Bush would perceive the proliferation of nuclear weapons as conducive to a net decrease in American security. Insofar as he perceived the institutionalised successes of the NPT as placing the United States in the domain of gains, the propensity for risk aversion made nuclear use against isolated Iraqi forces inherently unlikely. As the excerpts from many national security documents below reveal, there is good reason to assume that the NPT was Bush’s frame of reference in regards to nuclear proliferation. While further American nuclear acquisition may well have been perceived to balance the scales, prospect theory suggests that the American President would perceive nuclear proliferation to be much worse than further U.S. nuclear acquisition would have been better. Only perceiving the prevailing nuclear security environment through the frame of loss might have encouraged a preference for nuclear use, irrespective of how much further damage to American interests it would be perceived to have caused. Of particular interest is why President Bush did not perceive that Operation Desert Storm would increase the

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9 Current American nuclear policy under the second Bush administration, and specifically that George W. Bush desired regime change in the second Gulf War, may be able to be accounted for on the grounds that the President and his close advisers perceived themselves in a more severe frame of loss.
incentives for other states to acquire a nuclear capability. After all, had Bush perceived Saddam to possess a nuclear capability he may have refrained from attempting to restore Kuwaiti sovereignty. It is likely however that the frame of loss that incited the preference to restore Kuwaiti sovereignty was enough to occlude the fact that the massive U.S. effort would increase the incentives for other states hostile to U.S. interests to acquire nuclear weapons.

It is likely that while the nuclear environment was viewed in the frame of gains, the Middle East was viewed in the frame of losses due to the violation of Kuwaiti sovereignty. The frame of loss might have encouraged President Bush to engage in Operation Desert Storm in the first place. That Kuwaiti sovereignty had been lost to Iraqi aggression was enough to trigger the salience of the loss frame. Analogies to Hitler and Vietnam also encouraged this (McDermott and Kugler 2001: 70, 79). Indeed, one analyst noted that Operation Desert Storm was centrally concerned with restoring the ‘status quo’ (Draper 1991: 32). Why Bush then refrained from the policy of regime change is somewhat anomalous as prospect theory suggests that risk taking begets risk taking in the loss frame. However, if the restoral of Kuwaiti sovereignty was all that was at stake, its achievement could have triggered the salience of the domain of gains, instigating risk aversion.

The NPT committed the non-nuclear states to forgo developing a military nuclear capacity without forcing the nuclear states to commit to pressing cuts in their own nuclear arsenals (Cohen 2006: 91). The commitment by the five nuclear signatories to decrease the number of operational nuclear weapons is open ended after all. Moreover, although many non-nuclear signatories have vociferously called on the nuclear states to deplete their nuclear arsenal at a faster rate, few if any of the 180 non-nuclear signatories ever really expect a nuclear free world. The chief incentives
for the non-nuclear states are primarily a guaranteed supply of nuclear energy for civilian purposes and other economic benefits, as well as the negative security assurances that the nuclear states will not use nuclear weapons against them, and come to their aid if attacked by a non-NPT nuclear state.¹⁰

These benefits may well be enough for the relevant decision-makers in non-nuclear states to perceive their security environment as in the domain of gains despite their non-nuclear status. After all, the realist picture of a predatory anarchy is simply not a reality for many non-nuclear states. Just as nuclear use for the nuclear state will only occur in the frame of losses, the frame of gains will perpetuate nuclear non-acquisition in the majority of non-nuclear states that do not, for various reasons noted above, view their security situation in the loss frame. Risk aversion thus explains nuclear non-use by the nuclear state and nuclear non-acquisition by the non-nuclear state within the game theoretic framework. Moreover, there is good reason to expect stability in this cooperation. Leaders of the nuclear states may well be able to significantly reduce their nuclear stockpiles, but loss aversion will ensure that eliminating the last twenty nuclear warheads will prove much harder than the last two hundred.

In the case of American nuclear non-use, the President would likely have defined the frame of reference as the status quo, instituted in the NPT. Such a reference point will likely constitute the threshold of nuclear weapons in the world that is perceived to be acceptable, although this focal point may not be natural. Moreover, nuclear states that are not signatories to the NPT such as Israel, India and

¹⁰ Non-nuclear states may renege on their NPT commitments through changing perceptions of the reference point. Non-nuclear status becomes associated with loss that should be avoided, deemphasising the other benefits that the NPT offers, and increasing the propensity for risk, manifested in nuclear acquisition. Perceptions of the security dilemma and economic benefits may be central here, although normative logics of legitimacy may also be responsible both for the reference point itself and perceptual reorientations from it.
Pakistan may or may not be accepted as inside or outside the frame of reference and may be perceived differently, and are thus interesting cases. Further horizontal (or vertical) nuclear proliferation is viewed as a loss that further nuclear rearmament cannot compensate for. A perception that a state is either engaging or likely to engage in actions that will result in net losses from that reference point will be viewed as inherently undesirable, given the prevailing frame of gains. In the frame of gains, nuclear use is an inherently unlikely policy response. In the nuclear non-use case, such an action will likely be perceived as heightening the negative effects of the security dilemma. Nuclear proliferation or foreign aggressiveness could cause this perception, but the perception of an adversary need not reflect their intentions. In most cases perceived intentions will not reflect actual intentions. Nonetheless, only in the frame of loss would such perceptions render nuclear use against a non-nuclear state a possibility.

In the case of the 1991 Gulf War, whether President Bush perceived Saddam Hussein as irrational is less important than whether he perceived him to pose a challenge to American security interests in the region and beyond. The two perceptions are distinct, although they could of course reinforce each other. A higher propensity to take risks through framing Iraqi aggression against Kuwait explains President Bush’s early commitment to the 1991 Gulf War when many of his senior advisers preferred economic sanctions. Indeed, Bush’s significant commitment to the Gulf War could have resulted in more severe losses than those caused by the original costs of Saddam’s invasion of Kuwait. However, the threat posed by Iraqi aggression and perceived Iraqi militarism was not in itself perceived as enough to change the President’s frame with regards to nuclear weapons from gains to that of losses.

11 Whether the recently proposed nuclear cooperation between the U.S. and India is successful will have interesting implications for exactly what the reference point is of the current Bush administration, and perhaps more importantly how it has changed over time.
Prospect theory suggests that if President Bush viewed nuclear proliferation in a loss frame, he would take risks to recover the loss in security. Nuclear use may have been perceived as significantly increasing the original losses from Iraqi aggression, but perhaps nonetheless not avoided. As noted above, prospect theory does not specify the degree of risk that President Bush would have engaged in given the various degrees of loss that the problem could have been framed in. If prospect theory is correct, we should expect to see President Bush making explicit reference to the consequences associated with nuclear proliferation and his belief that nuclear use would only aggravate these negative security effects. Moreover, reference to the NPT and the security benefits flowing from this would attest to the perception that the NPT is closely associated with the frame of gains and was the reference point.

It is also worth asking what would have shifted President Bush's frame of gains in regards to nuclear proliferation in the Gulf War case to a frame of loss. Insofar as history cannot be rerun, we cannot know how Bush would have responded to a sudden Iraqi nuclear attack, especially when Bush was almost certain that Saddam lacked such a capacity. Of particular interest is whether such Iraqi nuclear use would have encouraged similar retaliation. Domestic electoral factors may have encouraged this, although prudence may have inhibited it. Had Iraq announced a nuclear capacity but not used it, the frame of loss may have had a more severe hold on the President. Whether any configuration of Iraqi offensive or defensive nuclear capacities would have been enough for the President to go from frame of gains to the frame of losses remains unclear. Also open to question is whether such a severe loss frame could cause American nuclear use. What can be said with certainty however is that if it is accepted that only nuclear use against U.S. forces would encourage U.S.
nuclear use (retaliation, not first use), the conflict no longer is between a nuclear and non-nuclear state.

How social logics of legitimacy might act in association with cognitive predispositions to produce behavioural outputs is unknown and requires further study. Although there is a general consensus that risk propensity and aversion inherent to prospect theory are brought about by cognitive biases independently of factors pertaining to personality or normative logics, this requires further work and is further addressed in the conclusion. It could be argued that a normative inhibition was also necessary to cause either the original reference point, tendency for risk aversion, or the preference for nuclear non-use. I now turn to the recent constructivist account of nuclear non-use.

While the above theory accounts for nuclear non-use through a wholly material framework based on a non-normative strategic calculus, the second paradigm is characterised by an insistence that a normative element is necessary in combination with material factors to account for nuclear non-use against a non-nuclear adversary. Proponents of this theory argue that a nuclear taboo, a normative inhibition on the first use of nuclear weapons, is central to generating the final policy preference for nuclear non-use. Tannenwald is the premier advocate of this account. For her, “a normative element must be taken into account in explaining why nuclear weapons have not been used since 1945; without this normative stigma, there might have been more use (1999:433).”

T.V. Paul has similarly argued that “ethical and normative considerations do play a role in national calculations with respect to weapons of mass destruction (1995: 713; forthcoming).” Some other scholars have also pointed to the causal relevance of a normative inhibition (Quester 1991: 218-28; Russett 1989; Muller 1991: 328-39;
Bundy 1998). Tannenwald’s work and her article co-written with Richard Price exemplify this approach (Tannenwald 1999; 2001; 2005; forthcoming; Price and Tannenwald 1996).\(^{12}\) The key to the argument is the claim that the normative stigmatisation associated with the nuclear taboo is a necessary cause of nuclear non-use, irrespective of what other non-normative factors were involved and their causal association (Tannenwald 1999: 434; Price and Tannenwald 1996: 115). It is important to note however that the causes of the taboo and the taboo’s effects should not be conflated. As Jeffrey Legro makes clear, there is a need for the conceptualisation of norms that is independent of the effects attributed to them (Legro 1997: 57). Thus Albert Yee notes that “the existence of an ideation is distinct from its persuasiveness and motivational effects (Yee 1997: 1014).” Tannenwald’s work constitutes such an attempt to detail the structure of the norm independently of its effects.

The opposite of Tannenwald’s position is the realist view that norms, far from being constitutive, are epiphenomenal. Non-normative factors are sufficient to explain the non-use of otherwise powerful weapons. Norms constrain exogenously given self-interest and behaviour or lead to recalculations of interest. Michael Desch thus refers to the normative inhibition associated with the use of chemical weapons that “norms reflected, rather than shaped, a strategic reality largely determined by the utility (or lack thereof) of chemical weapons and by mutual deterrence (Desch 1998: 164)” He concludes that “cultural variables do not provide much additional explanatory power.” For scholars sympathetic to Desch, norms can at best generate focal points from among mutual equilibria that are equally utility maximising.

The game theoretic explanation of nuclear non-use incorporating central insights from prospect theory outlined above involves norms insofar as the shadow of

\(^{12}\) Price has also detailed the causal importance of a normative inhibition in stemming the first use of chemical weapons (Price 1995; 1997), and Jeffrey Legro has assessed the normative causes of restraint in World Wars I and II (Legro 1995; 1997).
the future ensures that state behaviour coalesces around a stable equilibrium. A norm could be said to exist insofar as state behaviour continues to resonate with fixed preferences. This is however a weak sense of a norm and is best considered a tradition. While a taboo elicits a sincere moral reaction from an individual, a tradition does not, however central to self-interest. This point is the key to differentiating between the effects of psychological biases to risk aversion and the stigmatisation of nuclear weapons associated with the nuclear taboo.

Such a differentiation is complicated by the fact that both hypotheses claim as evidence for their causal mechanism what Tannenwald has referred to as “unthinkingness and taken-for-grantedness (Tannenwald 2005: 9).” If the normative inhibition on nuclear weapons, however otherwise salient throughout society, caused American nuclear non-use against Iraqi forces in 1991, we should expect President Bush’s discourse that refers to nuclear weapons to contain attempts to fit preferences with the moral values contained in the nuclear weapons non-use norm. Prospect theory suggests that we should expect Bush’s discourse to reveal preferences that attempt to fit with the much less normative strategic values of risk aversion and, more specifically, the containment of nuclear proliferation, rather than preferences that resonate with moral values internal to the norm of nuclear non-use. It is here that the distinction between a tradition and a taboo are to be found. A taboo is constitutive of and the result of discourse that attempts to fit preferences with the perceived values inherent in the value structure of the norm; a tradition carries no such identity transforming capacity.

Tannenwald contends that part of the causes of the nuclear taboo have stemmed from “iterated behaviour over time...where obligation arises out of convention...(and which emphasises) the role of precedent, habit, and pattern
It is possible that conventions eventually give rise to normative obligation. Such norms can however be ‘convention dependent.’ As Ward Thomas has noted, such convention dependent norms are anchored in reciprocity and their perpetuation rests on that of the reciprocity itself (Thomas 2001: 34). While Robert Keohane has argued that reciprocity “seems to be the most effective strategy for maintaining cooperation among egoists,” the degree to which concerns for legitimacy perpetuate it is an empirical matter (Keohane 1984: 214).” Such reciprocity inherent in the cooperation between a nuclear and non-nuclear state to not use or acquire nuclear weapons may or may not contain a normative element similar to the norm that proscribes protection for non-combatants and prisoners of war during wartime. Indeed, such a prisoners of war norm could be normative only in the sense that a stable equilibrium for cooperation has been established that elicits minimal identity transforming capacity. Thus Newt Gingrich’s rejection of the suggestion that nuclear weapons should be used against Iraqi forces in 1991 on the grounds that they would “set a dangerous precedent” may or may not reflect the moral values of the nuclear taboo (“Calls by Some on GOP Right to Consider a Nuclear Strike Spark Heated Debate,” The Wall Street Journal, 13 February 1991, A14).

Related to the distinction between a taboo and tradition is the distinction between the effects of the norm on American voters and the effects on their President. Whilst the two are not unrelated, strong effects on the former need not produce similar effects on the latter. A nuclear taboo may be a powerful social norm but not effect Presidential preferences. On the other hand, the nuclear non-use norm might best be considered a tradition, while Presidential preferences for nuclear non-use may be grounded on moral commitments. Such normative dynamics between Presidents and
their electorates is an important avenue for further research and cannot be explored here.

The weak definition of a norm discussed above resonates with that of Judith Goldstein and Robert Keohane in their introduction to an important body of essays committed to outlining the causal effects of ideas on foreign policy. They argue that "ideas influence policy when the principled or causal beliefs they embody provide road maps that increase actors’ clarity about goals or ends-means relationships, when they affect outcomes of strategic situations in which there is no unique equilibrium, and when they become embedded in political institutions (Goldstein and Keohane 1993: 1). While it is not strictly speaking inconsistent with the constructivist thesis that norms shape preferences through the construction of identities, it does not capture the sense in which a given social identity might be more important to an actor if it contradicts the logic of maximising a specified utility function. For constructivists, the logics of utility maximisation (consequences) and that of identity resonating (appropriateness) are strictly distinct, although it is possible that the two could mutually reinforce each other to produce behavioural outcomes. I return to this point below.

If the norm associated with nuclear weapons caused the President’s policy for nuclear non-use it must be shown that it was chiefly perpetuated by social forces not sustained by non-normative strategic egoism. Examining discourse for traces of moral commitments is one means to ascertain the source of such Presidential preferences. This may be problematic however. It is possible that nuclear non-use against a non-nuclear adversary was caused by some necessary normative factor that later became perpetuated as a tradition without eliciting any discourse to any of the values internal to the norm. Nor would this make the normative element that would cause nuclear
non-use any less salient. Thus a normative element may have been a central part of
the causal mechanism that allowed the tradition to become as entrenched as it did.
That some normative or non-normative element could have been critical to the
outcome of nuclear non-use against Iraqi forces and concomitantly absent from
present discourse of the President casts a degree of doubt over the findings outlined
here. Until better access to the private documents of President Bush is possible, all
that might be able to be said with any certainty is that it is far from clear that a
normative element is necessary to cause nuclear non-use against non-nuclear
adversaries.

Price and Tannenwald’s most important contribution is the point that “positing
deterrence as an unproblematic variable elides the question of how certain weapons
have been identified as deterrent weapons whereas other weapons have not (1996:
115).” A taboo is convincingly identified as an at least necessary cause of the non-use
of chemical weapons. Why did chemical weapons get normatively stigmatised in
World War I when howitzers, able to inflict similar damage, did not? The nature of
the weapon itself and its relation to the utility function of the parties to the conflict is
insufficient to explain the non-use of chemical weapons. This is challenged however
by the use of chemical weapons by Italian forces against Ethiopian forces toward the
end of World War II and by Iraqi forces against Iranian forces in the Iran-Iraq war in
the 1980s (Price 1995; 1997). As Price and Tannenwald recognise, the non-use of
nuclear weapons is a harder case for challenging traditional deterrence theory because
it is widely felt that the tremendous destructive power of nuclear weapons has a more
direct effect on strategic calculi. Nuclear weapons are qualitatively different weapons
and therefore possess a ‘natural’ deterrent characteristic. Moreover, unlike chemical
weapons, they have only been used in one conflict, albeit twice.
As noted above, the explanations for nuclear non-use from the nuclear taboo and from reciprocity are multicollinear. This is less problematic in conflicts where both states possess a nuclear capability because MAD can also explain non-use, and the tremendous destructive capacity of nuclear weapons tends to preclude the fact that fear of their use may also nonetheless be partially perpetuated through a social construct. Cases of non-use between a nuclear and non-nuclear state are all the more interesting because MAD is a less tenable explanation, although fear of nuclear or conventional retaliation by a third party could be a critical factor. The concern for adverse relations with other partners upon nuclear use could have a strictly material, wholly normative or normative and non-normative basis.
The 1991 Gulf War

The very factor that makes the 1991 Gulf War a critical case for exploring the causes of nuclear non-use also inhibits a satisfactorily rigorous assessment of its causal mechanism. Because the 1991 Gulf War occurred only fifteen years ago, there is a notable lack of availability of the relevant historical materials. The private notes of President George Bush are still in his possession and are unlikely to become available for some time, if at all. Nor is there access to the private deliberations of the other four key advisers to whom President Bush turned to for information and advice in formulating policy following Iraq's invasion of Kuwait in early August 1990 (Rosati and Twing 1998: 46-50). Therefore, insofar as the evidence used for this study is largely based on that designed and available for public consumption, there are grounds for arguing that this inquiry is ultimately inconclusive. I firstly address the issue of the availability of trustworthy evidence and proceed to assess whether group dynamics among Bush and his advisers or positive feedback effects from path dependency challenge the empirical clarification of the relevant causal mechanism. I then proceed to examine the causal mechanism itself that led to nuclear non-use in the 1991 Gulf War.

Robert Jervis has argued that we will never get good evidence about many crucial aspects of the 1991 case. As in many other recent cases, records are likely to be incomplete and misleading (Jervis 1993: 173). Indeed, such records are often more revealing of what is unsaid rather than what is said. Moreover, the records may not fully and accurately reveal the motives, calculations, beliefs, and goals of the actors. One publication by a number of national security archivists contend that President
Bush made a secret deal with the Archivist of the United States, just before midnight on his last day in office in 1993, in an attempt to put the White House e-mail under seal and take it with him to Texas (Blanton 1995: 2). Much of the evidence that can be used to assess the discourse of the President and his closest advisers has thus been systematically hidden, perhaps never to emerge again. This does not mean however that some tentative conclusions regarding the nature of the mechanism that caused nuclear non-use against Iraqi forces cannot be generated.

Jervis’s warnings on the uses of archival information are largely directed to those attempting to discern whether deterrence in the 1991 Gulf War succeeded or failed. Such a project requires access to the perceptions both Bush and Saddam had of the credibility of the other. The image of resolve that each statesman had of the adversary is of particular importance. Such information will prove particularly hard to access, especially when many key decisions in the conflict, such as that of Saddam’s to go ahead with the invasion of Kuwait would have been made under intensely stressful conditions involving surprise and emotional strain. Such an environment is hardly conducive to coherent weighing up of the costs and benefits of each policy alternative, much less to leave traces of the decision making process. Records of such decisions may be elusive. However, gaining an understanding of the causal mechanism that caused nuclear non-use may not require as much.

Firstly, obtaining an understanding of the association of normative and non-normative forces may only require knowledge of the cognitive traits and moral values of President Bush and perhaps the group dynamics between him and his advisers. Of particular importance are those issues that tend to elicit a response that reveal a commitment to fit a preference with some implicit or explicit moral value and those issues that do not. To the extent that these values are not affected by the actions and
perceptions of Saddam Hussein, examining the Iraqi decision making process is not necessary. It is likely that the decision to refrain from nuclear use against Iraqi forces was never significantly effected by the President’s perceptions of Saddam Hussein.

Moreover, even though the Gulf War was the first major conflict initiated by the Bush administration, suggesting that Saddam’s signals may have left notable imprints on the calculus of President Bush and his advisers, the decision to not use nuclear weapons was unlikely to have been made under the stressful conditions facing Iraqi and American leadership at other junctures in the conflict. General Schwarzkopf may have faced many such situations involving chance and surprise when commanding American forces against the Iraqi army occupying Kuwait but was not himself authorised to use nuclear weapons. Indeed it appears that the preference for nuclear non-use was firmly entrenched in the mind of President Bush and unlikely to have been affected by last minute considerations. All the evidence suggests that Bush, Scowcroft and the other advisers never seriously entertained the option of nuclear use, despite their open ended threat to Saddam Hussein to deter chemical and biological weapon use and the battlefield utility of a few low yield nuclear weapons.\(^{13}\)

Those involved in formulating and implementing foreign policy on behalf of the President were National Security Adviser Brent Scowcroft, Secretary of Defense Richard Cheney, Chairman of the Joint Chiefs of Staff Colin Powell and White House Chief of Staff and personal aide to the President John Sununu (Woodward 1991: 60). Scowcroft was highly regarded and trusted by Bush and had easy access to the President. He was the only individual to serve as National Security adviser to two American Presidents; the degree of influence held by Scowcroft over Bush and the

\(^{13}\) Bush’s letter to Saddam, delivered by James Baker to Tariq Aziz states that “the United States will not tolerate the use of chemical or biological weapons or the destruction of Kuwait’s oil fields and installations. The American people would demand the strongest possible response. ... You, the Ba’ath Party, and your country will pay a terrible price if you order unconscionable actions of this sort (Bush and Scowcroft 1998: 442)."
time that the two of them spent together should not be underestimated (Yetiv 2004: 107-110). Authority flowed from President Bush through Secretary of Defense Cheney, who also had regular private weekly meetings with the President, to the commander in the field, Norman Schwarzkopf. The Chairman of the Joint Chiefs could have been excluded upon the discretion of the Secretary of Defence. Because the administration wanted Powell in the chain of command during the Gulf War, the command link went from Bush to Cheney to Powell to Schwarzkopf (Cheney 1998: 8).

Clarifying the relevant causal mechanism is complicated by the perhaps related problems of path dependence and groupthink effects. Dick Cheney contends that “the antecedents of the Vietnam War had an enormous impact on the way in which the United States government dealt with Desert Storm (Cheney 1998: 7)”. Indeed, all of the U.S. senior military commanders had experience as lieutenants, captains and majors in Vietnam in the 1960s. It is likely that a decision was made to not use nuclear weapons in any scenario other than a nuclear war against the former Soviet Union as long ago as the late 1940s, and that this decision had powerful positive feedback effects throughout successive American administrations. The American decision to refrain from attacking the Soviet Union in the four year period of American nuclear monopoly might itself be central to nuclear non-use in the Persian Gulf decades later. Moreover, decisions at critical junctures in the Korean War, Vietnam War and even the Cuban missile crisis could have been powerful factors in ensuring nuclear non-use against Iraqi forces in 1991. The issue of the use of nuclear weapons against Iraqi forces in 1991 was however relatively well defined; the parameters of the issue as a foreign policy problem were less ambiguous than other
problems where the problem itself and the policy alternatives are so ambiguous that a number of options would have appeared equally feasible.

While positive feedback processes may well have been an important part of the story, the association of normative and non-normative factors within them is more important for our purposes. Studying the causal mechanism that produced nuclear non-use in the 1991 Gulf War does not discount important processes of positive feedback or necessarily marginalize their significance. Further studies are required to detail the association of normative and non-normative factors within the positive feedback process over time. Indeed, the parameters of the problem representation of Saddam’s invasion of Kuwait and the policy alternatives raised may well result from path dependency that originated in the late 1940s, if not earlier. The more modest aim here is to delineate the association of normative and non-normative forces that constituted the causal mechanism that resulted in nuclear non-use in the 1991 Gulf War. Its relation to wider path dependent processes is a subject for further studies, as is the question of whether previous decisions to refrain from nuclear use, against a nuclear or non-nuclear adversary, significantly effected the 1991 non-use decision. Again, insofar as previous decisions had a significant effect on the 1991 decision, this study is inconclusive.

Steve Yetiv has shown that Bush and Scowcroft dominated the foreign policy, and especially 1991 Gulf War, decision-making process. This generated many groupthink effects. Yetiv’s findings emerge from a number of interviews with former officials who worked close to Bush including Scowcroft, Cheney, Powell and Sununu. The exclusive nature of Bush’s group meetings and the rejection of methodical decision-making procedures both contributed to the groupthink effects and made it easier for Bush and Scowcroft to advance their view without carefully considering
those of others (Yetiv 2004: 109-114). It appears that the preferences of Bush and Scowcroft were accepted somewhat uncritically, as though they were equivalent to a group norm (Janis and Mann 1977: 131). John Sununu noted that “a lot of opinion shaping took place on a one-to-one basis,” presumably between Scowcroft and Bush (Yetiv 2004: 109). According to Robert Gates, Scowcroft’s Deputy, Scowcroft understood Bush’s mind better than anybody else and was central in implementing Bush’s views. According to Scowcroft himself, he encouraged Bush to shape his views privately ‘sometimes.’ It is thus no surprise that Bush’s memoirs of the 1991 Gulf War, as well as his four years as President, are co-written with Scowcroft. As Vice President Dan Quayle noted:

…if the President did not decide an issue immediately, that usually meant that Brent Scowcroft was going to get his way, and you could pretty much count on whatever position you’d just heard him argue being the one that would prevail (cited in Yetiv 2004: 110).

There is also evidence that Scowcroft attempted to reconcile opposing views of senior advisers like Powell and Cheney before informing the President of their positions. Scowcroft viewed one of his core tasks as generating and maintaining harmony among the President’s key advisers. It is important to note however that ultimately, the major decisions reached in the Persian Gulf War case reflected the preferences of President Bush. Powell’s words in his memoirs are particularly salient:

“it is the President, not generals, who make decisions about going to war…if he decided that it must be war, then my job was to make sure we were ready to go in and win (Powell 1995: 480).”

The evidence presently available to adjudicate the case is confined largely to materials intended for public consumption; the autobiographies of Bush, Scowcroft
and Powell, Dick Cheney's reflections on working closely with President Bush, and interview's with the above mentioned individuals by Woodward, Yetiv, Tannenwald and others. I focus on the writings of Bush and Scowcroft, and find evidence that the norm associated with the first use of nuclear weapons may have been more of a tradition than a taboo. The norm associated with the first use of nuclear weapons appears to have had much less of an effect on American policy that Tannenwald suggests. Tannenwald’s faulty causal inference stems from not devoting sufficient attention to the discourse of those ultimately responsible for authorising nuclear use, and using the words of those lower down the command chain when it was not their preferences that ultimately mattered. Of course, my findings are open to question subject to the availability of new materials. Moreover, as the causal inferences rely on statements that were intended for public consumption, an element of uncertainty surrounds them. Documents intended for public consumption are, while useful, simply no substitute for manuscripts not intended for public consumption. In the meantime, because it is unlikely that the unavailable materials will skew the findings in favour of an inherently normative or non-normative causal mechanism, the analysis proceeds on the basis of that which is currently available.

12 and 17 issued in March and June 1989, and National Security Directives 26, 54 and 70 issued in October 1989, January 1991 and July 1992 are declassified and provide telling insights into the concerns of President Bush during his time in office from January 1989 to January 1993.

Although it is possible that neither President Bush nor any of his four close advisers personally wrote the National Security Directives, there is good reason to suspect that the narrative enclosed in them reveals Bush's preferences. As James M. Scott and A. Lane Crothers note,

> Foreign policy is a product of presidential policy making and leadership...after discussion and debate, the president decides on a course of action, which is then implemented. Since the White House is dominant, a small group of advisers (e.g., the National Security Council) and their personal characteristics, group dynamics, and policy preferences will be of great importance (Scott and Crothers 1998: 10).

While the President may not have personally written the National Security Directives, the writer would have been told strictly what to write and how to phrase it. President Bush also had the authority to change any wording inconsistent with his preferences and any phrases that did not resonate with his intuitions. Indeed, President Bush was so focussed on foreign affairs that his inattention to domestic economic matters is widely considered to have lost him re-election in 1993. There is thus little reason to suspect that the National Security Directives relating to foreign affairs in general and the Gulf War in particular do not closely resonate with the President's perceptions and preferences. The views of Dick Cheney himself testify to this position regarding the centrality of the personality of Bush to American foreign policy during the Bush Presidency:
He made certain that the U.S. government was given a clear mission and an objective to achieve. After that accomplishment, he left the formulation of plans to the Defense Department and the U.S. military. The Defense Department still had to report to President Bush, but it was free of meddling from Washington (Cheney 1998: 9).

John Sununu has also recently said that:

Everything was done according to the president’s agenda and, frankly, in a way that we all felt was trying to be reflective of both his overall goals and the specific issues that he said had either to be part of legislation or—we made sure—not part of a piece of legislation (Sununu 2002: 160).

Despite the lack of private documents currently available, Bush and Scowcroft as well as Powell have published autobiographies that reveal their values, and more importantly, the issues that tend to elicit responses that resonate with perceived moral values and those that tend to be perceived in a largely non-normative self-interested strategic manner. There appears to be a consensus regarding nuclear weapons use that appears consistently throughout the thoughts of President Bush and many of Bush’s inner circle. It is grounded largely on a non-normative strategic calculus mitigated by risk aversion.

Bush notes in his autobiography that three days after Iraq invaded Kuwait, he was determined to not allow the Iraqi occupation to persist; “I never wavered from the position that I would do whatever it took to remove Iraq from Kuwait (Bush and Scowcroft 1998: 333).”14 While many advisers to Bush preferred severe economic sanctions to punish Saddam and remove him to achieve this objective, Bush seemed to conclude early in the deliberative process that a more forceful response was required to achieve this objective. Indeed, Bush notes that “Colin Powell remarked

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14 Bush and Scowcroft’s memoirs contain excerpts written individually and collectively. All references however come from the same text.
that he felt I really had declared war on Iraq that Sunday," and Dick Cheney has noted that "I always felt, and Brent Scowcroft most likely did as well, that George Bush decided during the first weekend of the conflict that one way or another the Iraqis were going to be pushed out of Kuwait (Cheney 1998: 12)." Yet in the almost two hundred pages that Bush and Scowcroft devote to detailing the 1991 Gulf War, there is only one explicit reference to American nuclear use. Of its author, Brent Scowcroft, Bush said that “much of the subsequent original planning and careful thought (after the August 2 invasion) was done with him at my side, probably more than history will ever know (Bush 1998: 303).” Scowcroft recalls a meeting on January 31, in the middle of Operation Desert Storm;

No one advanced the notion of using nuclear weapons, and the President rejected it even in retaliation for chemical or biological attacks. We deliberately avoided spoken or unspoken threats to use them on the grounds that it is bad practice to threaten something you have no intention of carrying out. Publicly, we left the matter ambiguous. There was no point in undermining the deterrence it might be offering (Scowcroft 1998: 463).

Bush also makes five other references to nuclear weapons however:

Even if I could not express it as well as Reagan, I knew what I hoped for our country and the world....Although certainly no expert on the technicalities of arms control, I wanted to reduce nuclear weapons in a way that would not diminish our deterrent capability (Bush 1998: 17).

...there emerged disturbing signs that Iraq was still seeking to develop weapons of mass destruction (Bush 1998: 307).

He could use the link with the conference to cover his own aggression. “Any agreement on a plan which left the Kuwait issue open would be a major defeat for the collective action which has gotten us so far,” I said. Saddam would get what he wanted. “He still has a nuclear program and can return to aggression as soon as the US leaves. (Bush 1998: 365)”
Saddam was reinforcing and digging in, as well as doing everything possible to improve his weapons of mass destruction (Bush and Scowcroft 1998: 400).

We had to get rid of Saddam's nuclear and biological weapons capabilities (Bush 1998: 447).

These statements reflect the thought of President Bush and date the less than six month period from the Iraqi invasion of Kuwait, August 2 1990, to the night before the launch of Operation Desert Storm, January 15 1991. The following are four of his thoughts on the human rights abuses committed against Iraqi occupying forces against Kuwaiti civilians. The first is a diary entry of September 12 1990, and the final excerpt comes from a personal letter to King Hussein of Jordan, dated October 20 1990.

I've just read a horrible intelligence report on the brutal dismembering and dismantling of Kuwait. Shooting citizens when they are stopped in their cars. Exporting what little food there is. Brutalizing the homes. Dismantling the records. Indeed, making an oasis into a wasteland. They quote the Norwegian ambassador, a respected observer, who attested to the brutality and to the horrible intention of this dictator, Saddam Hussein (Bush 1998: 374, italics added).

When he came to the White House on September 28, the Emir told me firsthand of the extent of the atrocities Iraqi troops were inflicting on his people, and this too had a deep effect on me. It was during this period that I began to move from viewing Saddam's aggression exclusively as a dangerous strategic threat and an injustice to its reversal as a moral crusade. It was a conclusion I came to gradually through August and September. His disdain for international law, his misrepresentation of what had happened, his lies to his neighbours all contributed, but perhaps it was hearing of the destruction of life in Kuwait which sealed the matter. I became very emotional about the atrocities. They really gave urgency to my desire to do something active in response. I knew there was a danger I might overreact to what I heard and read. I'd tell myself to calm down, not to let these human rights abuses-bitter and ugly as they were, with medieval torture-cause me to do something hasty or make a foolish decision. Yet at some point it came to me that this was not a matter of shades of grey, or of trying to see the other side's point of view. It was good versus evil, right versus wrong. I am sure the change strengthened my determination not to let the invasion stand and encouraged me to contemplate the use of force to reverse it. This was how I sorted it out in
my mind, which made the choices before me clearer....I did not have a personal grudge against Saddam Hussein, but I had a deep moral objection to what he had done and was doing....Saddam had become the epitome of evil in taking hostages and in his treatment of the Kuwaiti people (Bush 1998: 374-75, italics added).

"It was clear that the President was becoming emotionally involved in the treatment of Kuwait (Scowcroft 1998: 389)."

On December 18, I received an eighty-page Amnesty International report on human rights violations in Kuwait. It troubled me deeply and I encouraged others to read it....The report was full of descriptions of specific cases of abuse, documenting the accounts of the most horrible and systematic torture of Kuwaitis. There were gruesome accounts of mutilation and rape, as well as arbitrary executions (Bush 1998: 427, italics added).

Now, let me tell you what concerns me a lot. In that entire interview there was no mention of concern about the brutal treatment of the people of Kuwait, and no mention about Saddam Hussein's barbaric policy of detaining innocent foreigners-holding them as hostages and staking them out near plants and installations so as to avoid retaliation for his brutality. The reports coming out of Kuwait are horrible (Bush 1999: 484, italics added).

Bush’s perception of and reaction to these human rights abuses are an attempt to fit his preferences with a perceived moral value. Scowcroft’s acknowledgement of their effect on the President’s emotions is strong evidence not only of the presence of a human rights norm but of its effect. Perhaps most compelling is Bush’s own admission that the violation of the human rights norm added ‘urgency to his desire to do something active in response.’ Moreover, the adjective ‘horrible’ appears in three of the four passages above. It is clearly a word that Bush uses to describe that which he perceives to clash with moral values. Its absence in his discussion of nuclear weapons suggests that the normative inhibition on nuclear weapons had no similar effect on him. While Bush’s reference to nuclear weapons is more about possession than use, there are grounds for thinking that a non-normative view of nuclear weapon possession may imply a similar non-normative view of nuclear use. After all, people
tend to overinflate the chance of unlikely events, and, moreover, the threat of Iraqi nuclear use was framed in inherently non-normative terms.

The issue of nuclear weapon use on the other hand attracts no such similar discourse or emotional outbursts. As Elster has noted, "the power of norms derives from the emotional tonality that gives them a grip on the mind (Elster 1989: 99-100, 128)." Such emotional tonality appears clearly in Bush's response to violation of the human rights norm, but his talk of 'our deterrent capability' evinces no such emotion. The norm associated with the use of nuclear weapons appears to have had a minimal effect on the President. Of particular interest is Bush's diary entry that the Iraqi occupation was "making an oasis into a wasteland." Although the use of a nuclear weapon could cause far more destruction, the potential consequences of nuclear use are not viewed in nearly as moral terms. Instead the President's utterances are an attempt to fit his preferences with a security value that appears devoid of moral content. Moreover, the risk aversion that prospect theory predicts is present in much of Bush's discourse. The fear of the development of Iraqi nuclear capabilities was the grounds for much of Bush's association with Saddam Hussein's Iraq as a security threat. Moreover, the NPT was the reference point against which frames of gains and losses were defined.

The five key security documents on nuclear proliferation and Persian Gulf policy outlined below are phrased in a similar discourse to the above deliberations on Iraqi nuclear use. As prospect theory would suggest, they involve many explicit references to the NPT, which Iraq signed in 1968 guaranteeing its safety against nuclear attack. Nuclear proliferation is stated explicitly as a fear that, it seems, U.S. nuclear acquisition cannot satisfactorily compensate for. Moreover, they also support
Freedman’s thesis that the post Cold War period saw the rise of nuclear proliferation as a security threat.

President Bush produced 12 National Security Reviews in his first 6 weeks as President. “Review of National Defense Strategy” is the twelfth National Security Review. Dating from March 3 1989, it addresses one of President Bush’s preoccupations with Middle Eastern affairs:

How would acquisition by Libya, Iraq or others of long-range weapons, chemical, biological and nuclear warheads and other advanced systems affect the prospect that those countries would threaten or attack U.S. interests, U.S. friends and allies, or other nations? What role will such capabilities play in changing regional balances of power or in shaping regional conflicts (NSR 12: 3-4)?

National Security Review 17 was produced three months later on June 15 1989. It begins with the following sentiment:

I assign major importance to preventing the proliferation and use of nuclear weapons, chemical and biological weapons, and missiles capable of carrying these weapons (NSR 17: 1).

Unfortunately the immediately following “Options for Policy” section has been blacked out. The remainder of the document deals specifically with nuclear, chemical and biological weapons. Following this is a section on each of these weapons, with concomitant “Options for Policy” sections that have all been blacked out. The President’s concerns with preventing nuclear proliferation, already made clear in the above remarks, and the importance of the NPT as a mechanism for achieving this strategic objective are made clear. Moreover, it is clear that the NPT
was central to the frame of reference against which Bush would conceptualise nuclear security gains and losses.

What is the threat posed to U.S. interests by the proliferation of nuclear weapons? What is its impact on our allies and friends and on international stability (NSR 17: 3)?

How effective has the Non-Proliferation Treaty been in preventing or slowing acquisition of nuclear weapons capability? Are the assumptions on which the treaty was based still valid today? What has been the impact of programs to promote peaceful nuclear cooperation? What leverage does the U.S. have to affect nuclear non-proliferation? How can we influence the behaviour of countries that are not party to the NPT and that have significant nuclear programs (NSR 17: 4)?

National Security Directive 26 “U.S. Policy Toward the Persian Gulf” was issued October 2 1989. The directive notes the importance of assuring access to Persian Gulf oil and the security of key friendly states in the area. Amongst the other matters addressed, Bush notes his intention that human rights principles should factor into American policy toward Iraq. This statement comes after the standard concern with nuclear proliferation detailed above. Furthermore, the discussion of normalisation of the relationship with Iran includes “improving its human rights practices.” It thus appears that while human rights norms were important in fuelling Bush’s policy of expelling Iraq from Kuwait, the norm associated with nuclear weapon use had a much weaker effect.

...the Iraqi leadership must understand that any illegal use of chemical and/or biological weapons will lead to economic and political sanctions, for which we would seek the broadest possible support from our allies and friends. Any breach by Iraq of IAEA safeguards in its nuclear program will result in a similar response. Human rights considerations should continue to be an important element in our policy toward Iraq (NSD 26: 2).
National Security Directive 54 was issued January 15, 1991, a day before President Bush gave the final authorisation for Operation Desert Storm. Among other directives is the desire to;

Destroy Iraq’s chemical, biological and nuclear capabilities....discourage Iraqi use of chemical, biological or nuclear weapons (NSD 54: 2).

Should Iraq resort to using chemical, biological or nuclear weapons....I also want to preserve the option of authorising additional punitive actions against Iraq (NSD 54: 3).

National Security Directive 70 “U.S. Nonproliferation Policy,” issued July 10 1992, is the final relevant security directive. Although issued almost 18 months after National Security Directive 54, it details more of the President’s thoughts on nuclear non-proliferation. This directive deals with the normative inhibition associated with the first use of nuclear weapons, although it is not worded as such. Moreover, while one cannot infer the effect of a normative inhibition on the President by simply assessing his views of the norm, some implications can be teased out. This consideration is important because Tannenwald concludes that the use of the word taboo in the discourse of American Presidents throughout the 1950s and 1960s is testimony to the effect of the nuclear taboo, when such a conclusion is far from clear without a similar discourse analysis to that conducted here. National Security Directive 70 begins as one might suspect;

The spread of the capability to produce or acquire weapons of mass destruction and the means to deliver them constitutes a continuing threat to U.S. national security interests. We must seek to minimise and reverse
the spread of these capabilities and to prevent the use of such weapons (NSD 70: 1).

The Directive then emphasises the proliferation threat posed by Iraq and the broader Middle East region, also outlined in National Security Directive 54 eighteen months earlier.

Under the May 1991 Middle East Arms Control Initiative, the United States launched a process among the five leading conventional arms suppliers – the United States, United Kingdom, France, Soviet Union (later replaced in the process by Russia), and China – to establish guidelines of restraint to that troubled region. The special regime created to dismantle Iraq’s weapons of mass destruction is unprecedented (NSD 70: 2).

...countries still seek possession of weapons of mass destruction and the missiles that deliver them. Clearly, the underlying motivations to acquire these weapons persist, with many governments still seeing them as an avenue to power, prestige and influence. Strong advocates of nuclear weapons exist in several countries (NSD 70: 2).

President Bush elaborates that while non-proliferation norms have been almost necessary to fulfil American non-proliferation objectives, verification mechanisms are required to supplement their shortcomings. The preference for the indefinite expansion of the NPT is also noted;

Global non-proliferation norms have played a vital role in discouraging the spread of weapons of mass destruction. They underpin – and legitimise – our regional and bilateral non-proliferation efforts. At the same time, preventing the spread of these weapons is a vital element of our overall national security and must be viewed in that context. We therefore will rely on global norms where possible and tailored approaches where necessary (NSD 70: 3).

First, the United States will build on existing norms and institutions against proliferation and, where possible, strengthen and broaden them... Second, the United States will focus special efforts on those areas where the dangers of proliferation remain acute, such as the Middle East, the Persian Gulf...In all of these areas, the problems are too difficult to be
solved by generalized global norms alone. Therefore, those norms have begun to be supplemented by tailor-made approaches: the special inspection regime for Iraq, the Middle East Arms Control Initiative... (NSD 70: 3).

The United States will seek the indefinite extension of the NPT in 1995 and full entry into force of the Treaty of Tlatelolco by 1993 (NSD 70: 4).

These excerpts from recently declassified security documents suggest that the norm associated with nuclear weapon use, irrespective of its wider social resonance, had a weak effect on the President's preferences. As prospect theory would expect, the likelihood of nuclear proliferation in the Middle East is overinflated, and displeases much more than U.S. nuclear superiority pleases. Moreover, while the norm associated with nuclear weapons stigmatises first use rather than possession, if the norm had affected Bush we should expect references to nuclear proliferation to be met with inherently normative discourse. After all, nuclear weapons can only be used if they are possessed, and the minimal likelihood of their use against U.S. forces would have been inflated. Yet all references to possible nuclear use against U.S. forces are phrased in discourse that speaks to a perceived sense of loss. Insofar as the issue of nuclear proliferation in the Middle East does not elicit a response that is an attempt to fit preferences with moral values, the effect of the norm associated with the first use of nuclear weapons appears weak.

Nonetheless, the possibility that the nuclear non-use norm had a significant effect on Bush as the human rights norm cannot be ruled out. The effects of the nuclear non-use norm may be different to those of the human rights norm. The former may result in an internalised reaction while the behavioural output of the latter may be external. Moreover, it should not be assumed that the nuclear non-use norm had a weaker effect because Bush should have noted his moral attitudes toward nuclear weapon use in much the same way as his behaviour toward the human rights norm.
Even if there is evidence that Bush conceptualised and framed the nuclear use and human rights problematics similarly, his reaction to nuclear use need not reflect that of human rights abuses. Moreover, unlike the human rights norm, Bush may not even be aware of the effects of the nuclear non-use norm on his behaviour. Indeed, the absence of more determinative evidence yields the findings of the causal mechanism that resulted in nuclear non-use outlined here hardly conclusive.

The value structures of both of the norms should be noted at this point however. For Bush, the human rights norm is total; any violations of human rights deserve moral condemnation. The many comments in his autobiography attest to this. However he does not hold similar views of nuclear weapons. His preferences were to reduce nuclear weapons in a way that would not diminish US deterrent capability. Thus while all human rights violations receive moral sentiment, only those nuclear weapons that challenge US security are viewed negatively. Prospect theory suggests as much; nuclear weapons in the hands of other states hurt much more than the already superior U.S. nuclear arsenal pleases. The norm associated with nuclear weapons refers to nuclear use and not nuclear possession. This suggests that the norm associated with nuclear weapons is not as developed as that norm associated with human rights violations. Indeed, the nature of these two norms may stem from the very cognitive dynamics that prospect theory points towards. In the association of normative and non-normative forces that combined to produce the nuclear weapons and human rights norms, the latter is total, allowing no room for any violations. The norm associated with nuclear weapons, unlike human rights abuses, allows their possession. Irrespective of the strength of both norms, the human rights norm appears to have affected President Bush significantly more than the nuclear non-use norm.
Irrespective of these considerations, it appears reasonable to conclude that based on the evidence, risk aversion was more central to the President’s preferences than the normative stigmatisation of nuclear weapons. We should expect to see at least some traces of an utterance fitting preferences associated with nuclear weapons with perceived moral values. In all of the discourse pertaining to nuclear weapons there is none of this. Discourse pertaining to human rights violations however exhibits a great deal of this. The argument that “the most powerful norms leave no trace” is a poor fallback position because cognitive biases leave similarly no trace. Moreover, irrespective of how internalised a norm or cognitive bias is, we should expect utterances from time to time that reflect them and, furthermore, allow differentiation between them. The discourse examined above spans the majority of the duration of the Bush Presidency, yet reveals not a trace of any moral opprobrium towards either foreign possession or use or U.S. use of nuclear weapons. On this basis, the causal effect of the nuclear taboo, however otherwise salient throughout American society at the time of the Gulf War, appears minimal.

On the basis of the evidence from President Bush and those who observed him, the human rights norm appears constitutive while the nuclear weapons norm appears regulatory. The former brings a reaction from the President that involves his recognition and consideration of his identity; indeed the Kuwaiti human rights violations brought forth an inherently emotional response. No such emotions were present in the President’s thoughts regarding nuclear weapon use. Subject to the uncertainty associated with the currently available evidence, the causal mechanism that resulted in nuclear non-use seems to have had a weaker normative element than that of the human rights norm. It appears that although the norm on nuclear non-use may well have been regulatory, more important was the risk aversion that mitigated
President Bush’s framing of the options and choices associated with perceived potential Iraqi nuclear proliferation. The taboo on nuclear use thus might be better referred to as the tradition of nuclear non-use. At any rate, it is far from clear that a normative inhibition was necessary to cause nuclear non-use against isolated Iraqi forces in the 1991 case.

Tannenwald has argued that “in contrast to the tentative nature of the norm during the Korean war, this time officials themselves were the leading articulators of the importance of the taboo and of the disastrous military, political and moral consequences that would attend any violation of the by now long tradition of non-use (Tannenwald 1999: 459).” A closer inspection of the discourse of President Bush reveals that Tannenwald’s evidence does not support her thesis; it is inherently possible that a normative inhibition was unnecessary to cause nuclear non-use. While Bush was certainly aware of the military consequences, it appears that the consequences were first and foremost perceived as non-normative. The majority of discourse from other elites cited is similarly hardly evidence that a normative inhibition is a necessary cause of non-use.

As Colin Powell was preparing to leave for Saudi Arabia in mid October 1990, Dick Cheney posed a question to him to which he responded; “Lets not even think about nukes. You know we’re not going to let that genie loose (Powell 1995: 486).” When Joint Chiefs of Staff officers developed a military plan with many tactical weapons being used in the desert battlefield, Powell had the plan destroyed after showing it to Cheney. Tannenwald concludes from this that;

These kinds of convictions, which go well beyond arguments from utility to those of identity and community, involve a deeper discourse of ‘civilisation.’ They illustrate a constitutive effect of the taboo, showing how the taboo works in deeper, more fundamental ways. By the time of
the Gulf War – in contrast to 1945 – Americans had come to see use of nuclear weapons as contrary to their perceptions of themselves (Tannenwald 1999: 460).

Firstly, an examination of Powell's discourse lends little credibility to the first part of this claim. As Scott Sagan has noted, this implies not that nuclear use was morally wrong or unthinkable, but that it was undesirable (Sagan 2004: 83). Like Bush, Powell displayed concern for human rights norms, and worried about reducing civilian casualties and unnecessary Iraqi casualties. The language used to describe these preferences is not that used to argue for U.S. nuclear restraint. Secondly, it may indeed be true that most Americans had come to see nuclear weapons as representing an identity that they had long struggled to resonate with. However although the nuclear taboo may well be working in these deeper, more fundamental ways, it appears to be having much more of an effect on average Americans than on their President and his advisers. Their language suggests that the normative stigmatisation associated with nuclear weapons had little effect on them. It is no coincidence that one commentator describes George Bush's decision-making style as characterised by "risk aversion, caution and prudence (Rockman 1991: 29)."

Similarly, John Sununu's response to Tannenwald in an interview that "we just don't do things like that" hardly testifies to the effects of a norm associated with nuclear weapons on nuclear policy preference. Tannenwald cites a newspaper report noting that C.I.A. director at the time, William Webster, said that a U.S. decision to breach a 45-year-old taboo against nuclear weapons use would be seen as so "appalling" it should not be considered in the crisis. However without knowing what the word appalling was referring to this is not evidence of the effect of a normative inhibition. Although Webster, unlike Bush, did not have the authority to authorise
nuclear weapons, the word 'appalling' may well have meant very different things than what 'horrible' meant to Bush.
Conclusion

That a normative inhibition on the first use of nuclear weapons may well have been unnecessary to produce American self-deterrence in 1991 provides telling considerations for the issue of recalibrating deterrence theory. Studies of deterrence theory in recent decades have shown that psychological biases challenge the empirical utility of the rational actor assumption in cases between two nuclear states. The above examination suggests that in the case where we should expect the normative inhibition on nuclear weapons to be the strongest, it is actually secondary or unnecessary in effecting policy outcomes. Cognitive biases and value heuristics critically affected elite policy preferences for nuclear non-use on the 1991 Gulf War case. Thus rather than being wrong, deterrence theory is incomplete. What is required is an incorporation of psychological biases rather than the normative inhibition associated with nuclear use. Specifically, assessing how risk aversion leads to nuclear non-use in conflicts between two nuclear states and nuclear and non-nuclear states is an important avenue for future deterrence research. Fundamentally however, the findings above point to the need for deterrence theory to take account of the psychological challenges to the rational actor assumption.

Indeed, this study suggests that the normative element responsible for the history of nuclear non-use against non-nuclear states is best considered a tradition rather than a taboo. It may reinforce otherwise cognitive biases and non-normative strategic calculi through serving as a focal point suggested by Goldstein and Keohane. This is far from the idea of a nuclear taboo that stigmatises nuclear weapons as morally inappropriate, constituting the identity of the actor concerned in
ways concurrent with its value structure. This does not mean however that there have
never been times when the tradition of nuclear non-use against non-nuclear
adversaries was best considered a taboo. The effects of the nuclear taboo need not
have incrementally increased over time. A number of other trajectories are possible.

The possible centrality of a cognitive bias in the 1991 Gulf War case points to
the importance of psychological heuristics in the key cases preceding it, such as the
Korean and Vietnam wars. Whilst an important factor mitigating non-use here is
nuclear retaliation by Soviet forces, there is no reason why the nuclear taboo must
have consolidated over time. While there appears good reason to believe that this
should coincide with more salient external effects, this does not necessarily follow.
This line of reasoning is based on the presupposition that the nuclear taboo originates
in society and gradually grows and effects military elites and, more importantly,
American (and other) Presidents’ in the process. However it is just as likely that as
the nuclear taboo increasingly effects society at the popular and grass roots level that
its saliency at the elite level is minimised. Equally feasible is the possibility that a
President exhibited particularly moral preferences towards nuclear weapon use and
possession and refrained from nuclear use against a non-nuclear adversary when the
normative inhibition against nuclear use was otherwise relatively impotent in
mitigating wider societal logics. The history of the nuclear taboo is a matter for
subsequent research subsequent to Tannenwald’s seminal book length treatment,
especially as new documents gradually become available. It appears likely that the
personality of the President is of much importance to the effects of a normative
inhibition on nuclear first use. It is curious that Tannenwald has not seriously
explored the possibility that the evolution of American Presidents are more central to
nuclear non-use than a normative inhibition. After all, she did note that “if
Eisenhower had been president before Truman, the development of the taboo might have proceeded quite differently—or not at all (Tannenwald 2005: 33-34).”

Of particular concern for future research is the interface between cognitive predispositions, the vagaries of personality and normative logics of legitimacy in producing foreign policy preferences. Interest in personality and especially psychobiographical approaches began to wane by the 1970s, with the development of alternative psychological frameworks and a shift in orientation toward more parsimonious and empirically testable theories (Levy 2003: 257). However it may be the vagaries of personality, however ungeneralisable into theory, that determine the relative causal association, and more specifically, whether normative logics of legitimacy can mitigate cognitive biases. This is an important area for future research into prospect theory and nuclear non-use against both nuclear and non-nuclear adversaries.

Schelling has argued that the convention of the non-use of nuclear weapons has been based on a fear that nuclear weapons could not be contained once introduced into combat (Schelling 1994: 8). He has later written that:

I have devoted this much attention to the nuclear taboo in the belief that the evolution of that status has been as important as the development of nuclear arsenals. The non-proliferation effort has been more successful than most authorities can claim to have anticipated; the accumulating weight of tradition against nuclear use is no less impressive and no less valuable. We depend on non-proliferation efforts to restrain the production and deployment of weapons by more and more countries; we may depend even more on universally shared inhibitions on nuclear use. Preserving those inhibitions and extending them, if we know how, to cultures and national interests that may not currently share those inhibitions will be a crucial part of our nuclear policy (Schelling 2000).
Indeed, as Tannenwald noted, the non-use of nuclear weapons since 1945 remains the single most important phenomena of the nuclear age (Tannenwald 1999: 433). Little is known of the causes of nuclear non-use against non-nuclear adversaries by countries other than the United States. Although there is a degree to which they would be pressured by American diplomacy to refrain from nuclear use, studies assessing the causal mechanisms that led to nuclear non-use in other countries are required. This will be vital to perpetuate the tradition of nuclear non-use outside the U.S. Given that much current U.S. proliferation policy depends on active counter-proliferation, such studies are sorely needed.

Further conclusions regarding the future saliency of the nuclear taboo cannot be made until studies detailing its path dependency and positive and negative feedback processes have been conducted. This will outline whether the normative inhibition associated with nuclear weapons has developed over time, and what its future prospects are. The conclusion may well be that the personality of the President is critical, however ungeneralisable into theory. Such studies will provide critical evidence as to whether global anti-nuclear weapons movements can contribute at all to the final Presidential preference for nuclear non-use. They should also be able to assess whether Tannenwald’s claim that “as the (nuclear) taboo develops, it becomes increasingly internalised in the belief systems of decisionmakers and institutionalised within governments,” has held throughout history and will hold into the future (Tannenwald 2005: 13). Far from clear however is that a nuclear taboo, or other normative inhibition associated with the first use of nuclear weapons, is necessary for the non-use of nuclear weapons against non-nuclear states.

The findings of this paper suggest that the success of the NPT has been responsible for Bush’s frame of gains and the resultant preference for nuclear non-
use. On the other hand, it is likely that the current Bush administration, of which many advisers served under Bush senior, view the current security environment in the frame of losses. This could have disastrous consequences for the administration and the world. After all, a risk taking propensity encouraged by viewing the security environment in the loss frame encourages further risks when they may leave the administration worse off than before the original risks were taken. Of particular interest is why the new non-state terrorist threat, central to the Bush administration’s foreign policy since September 2001, has caused the frame of loss to prevail.

The NPT is central to containing nuclear proliferation. In this context, its future is of central importance. Of particular importance is how the three nuclear weapons states not party to the treaty, India, Pakistan and Israel, will be incorporated. Mohamed El-Baradei, head of the International Atomic Energy Agency, has noted that “our traditional strategy - of treating such states as outsiders -- is no longer a realistic method of bringing these last few countries into the fold.” Moreover, “either we begin finding creative, outside-the-box solutions or the international nuclear safeguards regime will become obsolete (El Baradei 2005).” The success of the NPT over the next few decades will remain critical to whether the tradition of nuclear non-use is abandoned by the United States or some other nuclear state.

When commenting on nuclear non-use in the Falklands Island conflict, George Quester notes that “the non-use of nuclear weapons has always been taken for granted.” He proceeds to speculate whether “this can always be taken for granted in the future (Quester 1986: 123)?” While it is by no means certain that the effects of normative inhibition associated with nuclear weapons will strengthen over time, it is not clear as to what effects this will have for the likelihood of future nuclear use against non-nuclear adversaries. Tannenwald has argued elsewhere that “if the
discourse about weapons is recast as one of environmental, medical, and humanitarian issues rather than simply one of security, it may be easier to ban and regulate weapons (2001: 52).” This study has shown that if President Bush conceptualised the problem of nuclear weapons similarly to that of human rights then this claim is correct. The critical implication of this is that much can be done at the grass roots level to effect nuclear use against non-nuclear adversaries, and perhaps nuclear adversaries as well. This rests on the assumption that such social activism is the chief cause of the norm associated with nuclear weapons.

Based on the above evidence however, it is very likely however that Bush did not view the two issues similarly, and irrespective of how much human rights and nuclear weapons norms resonate with each other at the societal level, it appears that such issue linkage did not permeate the thinking of President Bush in early 1991. The salience of a discourse throughout society and its ability to effect that of other issues through issue linkage may say nothing about its effect on American Presidents. Such a causal nexus requires further study; Presidents could be affecting the discourses just as it is alleged that the discourses affect Presidents. Nonetheless, even if it is true that the nuclear taboo has grown in strength over time, such grass roots social activism may do little to affect the likelihood of nuclear use.

Rather than focussing on nuclear weapons themselves, such movements may well be best advised to direct their attention to the perpetuation of the NPT. While its past success in containing nuclear proliferation was central to Bush’s preference for nuclear non-use against Iraqi forces in 1991, the current Bush administration has shown far less acknowledgment of the regimes achievements. Indeed, given the relatively small number of states known to possess a nuclear capacity, and the fact that most states have signed it, there are grounds for arguing that the NPT is central to
the history of nuclear non-use. Further research may find that trans-national social activism directed at the NPT, rather than nuclear weapon use policies themselves, may affect President George W. Bush in a way that the norm associated with nuclear weapons did not affect his father. Ensuring that the current administration comes to appreciate the past benefits and future possibilities of the NPT may well be the important contribution to nuclear non-use that such movements could provide. At any rate, the future of the NPT is central to the future of nuclear non-use. The manner in which the NPT is valued by President George W. Bush, if at all, and later administrations, may well however be on the subconscious and non-normative grounds of containing nuclear proliferation and potential future nuclear use through risk aversion.

Finally, a brief reflection on the two instances of nuclear use in conflicts is in order. Both of course were against a non-nuclear adversary. Although the only two instances of nuclear use in conflict were against a non-nuclear state, such use occurred at the end of the most severe conflict of the twentieth century where total annihilation of adversaries was a goal shared by more than one state. Such a goal has been rare since then, at least between states armed with nuclear weapons. The likelihood for nuclear use against a non-nuclear adversary, or a nuclear adversary, might increase with the recurrence of severe international conflict.

The duration of American hegemonic unipolarity is critical here. Because nuclear weapons were only developed at the end of World War II, it is hard to predict if they would have been used had Hitler come into possession of them in the early 1940s. It is certainly not clear that he would have refrained from nuclear use. The nuclear age has occurred against the beginning of intense American-Soviet geo-strategic rivalry that lasted through to the 1980s and unsurpassed American structural
dominance in the last fifteen years. It is problematic to assess the likelihood for nuclear use against a nuclear or non-nuclear adversary in a period without the given of American hegemony. Indeed, in such a post U.S. hegemonic world the NPT or some functional equivalent may not exist. Clear incentives exist for a Chinese or perhaps European hegemon to establish a similar treaty to the NPT. Such a hegemon's nuclear policy however, in the aftermath of the successful challenge to the U.S., cannot be known for the very same reason that the manner in which U.S. hegemony will get successfully challenged, as well as the resulting balance of power, is also hard to predict.

The implications of this are that the relevance of the above investigation may be limited to the period of American hegemony. This is ironic; it seems intuitive that it is precisely the end of American hegemony that will minimise the threshold of nuclear use against a nuclear or non-nuclear adversary and thus increase the likelihood of nuclear use. Perpetuating U.S. supremacy and concomitantly containing nuclear proliferation has been and will continue to be the central balancing act of U.S. nuclear policy. Whether the NPT constitutes the reference point against which the current Bush administration and future administrations assess nuclear gains and losses may therefore indeed be the crucial determinant of the prospects of nuclear use against non-nuclear as well as nuclear adversaries in the coming decades.
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