

Strengthening Nonproliferation

Ward Wilson



BASIC

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Executive Summary

Nonproliferation is essential. If nonproliferation fails, in the long run, nuclear war is unavoidable. However, current nonproliferation measures could unintentionally promote nuclear proliferation rather than discourage it.

The current consensus is that proliferation decisions are largely based on security and much of the nonproliferation regime is designed around this assumption. The United States guarantees the security of states and the Non-proliferation Treaty itself includes security assurances and so-called “negative security assurances.” The emphasis on security is unmistakable. However, thinking about nonproliferation solely in terms of security is counterproductive.

Nuclear weapons are not only extraordinarily destructive military weapons. They have also come to be, over time, icons of national power. As the dangers of the Cold War recede and as the length of time since nuclear weapons were last used lengthens, it becomes increasingly plausible for leaders and citizens alike to tell themselves that nuclear weapons will never be used. They are not, it might be argued, really weapons; their only purpose is to serve as icons of power—tokens of influence, modernity, and great power status. A nonproliferation regime that only considers the problem from a military security perspective not only fails to undermine important drivers of proliferation, it inflates values that can lead to proliferation.

Although the reputation of nuclear weapons as the most important military weapons in a state’s arsenal was vivid in the early years after 1945, over time that reputation has faded. Almost seventy years of nonuse by nuclear-armed states has led to growing doubts about the military value of nuclear weapons. However, their continued salience in international relations could lead some to believe that their real importance is not as actual weapons but as political symbols.

Nonproliferation is difficult. The nonprolifera-

tion regime is “chronically troubled, beset by crises and setbacks and possible defections, amidst fears for its future and doubts about its adequacy.”¹ By conceiving of the problem as only a security one, and focusing on security assurances, the architects of the nonproliferation regime have made nonproliferation more difficult. The world is a diverse place, and nonproliferation policies that acknowledge the multiplicity of possible motives for acquiring nuclear weapons are bound to be more effective. The measures of the current nonproliferation regime misses one of the key motivations for building nuclear weapons. As a result, restorative action must be taken to deflate the value of nuclear weapons as icons of national power. One of the most powerful motives for nuclear weapons proliferation today goes almost entirely unaddressed. In fact, many of the security measures intended to reinforce the nonproliferation regime may actually undermine it. Urgent action is required.

Introduction

Nonproliferation is essential. Human beings have many characteristics--the ability to think rationally, the capacity for love, a remarkable ability to invent, and others--but one of the saddest and most dangerous is our capacity for folly. The history of the human race is replete with evidence that even the wisest, most responsible states can take foolish actions that in retrospect are inexplicable.² Imagining that we can live indefinitely with nuclear weapons is to imagine that we can do what no humans beings have yet done: resist forever the pull of folly.

Allowing the slow spread of nuclear weapons insures that eventually by accident, miscalculation, or madness, a nuclear war will occur. The humanitarian consequences of even a small nuclear war would be appalling beyond our ability to imagine, and the consequences of a larger nuclear war could threaten the survival of civilization. Nonproliferation, therefore, must receive our best efforts. However, the measures that have been put in place to prevent proliferation are surprisingly weak. There is little hope, over the long run, that they can ultimately contain the spread of nuclear weapons on their own.³

The security paradigm

The nonproliferation regime is a loose collection of treaties, regulations, and agreements that are talked about collectively, but which were not designed to be a system. It has two main rings. The inner ring, a welter of security treaties enacted in the 1950s and 1960s, was primarily intended to insure security in Europe, Asia and the Middle East: the North Atlantic Treaty Alliance (NATO), the Warsaw Pact, the Soviet Union's relationship with China, the United States and Japan's mutual defense treaty, the U.S. treaty with South Korea, the U.S. defense treaty with Taiwan, the U.S., Australian, New Zealand treaty (ANZUS), and others.⁴ These treaties and alliances sprang up primarily because of the competition for power in the Cold War. They were not primarily aimed at nonproliferation, but security. An important secondary purpose, however, was to dissuade the non-nuclear-armed from acquiring nuclear weapons.

Some of these treaties were abandoned, but the ones that remain, like NATO, are part of the underlying structure of the international order. Their nonproliferation role has only increased over time. Today they are often justified entirely in terms of nonproliferation. It is easy to see why most observers conclude that the bedrock of all nonproliferation efforts is security.

The second, outer ring of the regime, was constructed largely in the period from 1970 to the present and is organized around the Nonproliferation Treaty (NPT). Its aim is to make it more difficult to obtain the technologies and materials that could be used to make nuclear weapons.⁵ These two rings--the older security-focused ring that limits demand and the later supply-restricting ring--are far from watertight. North Korea built a nuclear arsenal despite being a signatory of the NPT (it later withdrew), and there is considerable frustration that the regime has not been able to stop the enrichment efforts of Iran.

Despite the uncoordinated way in which the nonproliferation regime grew up, it is informed by a remarkably uniform set of views. Most strategists and political thinkers are certain that security is the more important factor, or perhaps the only real factor, in nuclear weapons proliferation decisions.⁶ National survival, they argue, is far more important than any other consideration, and nuclear weapons are arguably the only weapons that put national survival into the balance whenever they are present. History seems to validate this view: throughout the history of proliferation, when political leaders have decided to acquire nuclear weapons they have uniformly cited security considerations as their primary reason for acquiring the weapons.

Michael May, a distinguished scholar of nuclear policy, for example, argues that security is the key factor that counters the desire for nuclear weapons. He writes, "only strong security arrangements will restrain demand."⁷ Political scientist Dr. Bradley Thayer asserts definitively that "the cause of nuclear proliferation is the insecurity of states . . ." and, "Nuclear weapons are sought to make states secure."⁸ Even scholars who argue that other factors play an important role in decisions to acquire nuclear weapons often give security concerns primacy of place or set discussions about these factors within a realist perspective that revolves around security.⁹

This near unanimity, however, is a weakness of the nonproliferation regime. The world is a diverse place, with many views and beliefs. Even if the security view of nuclear proliferation is correct, it is unlikely to be the only view. Other views, perhaps incorrect ones, but still thought to be valid by those who hold them, are likely to exist. If they do, it is important to pay attention to them. People do take action on the basis of mistaken beliefs.

Icons Instead of Reality

Nuclear weapons are real weapons. They make real explosions that create very real destruction. But they have only been used once, some sixty-eight years ago. It is often said that their only real use is as deterrents. Nuclear weapons are the most powerful weapons humans have invented, and they provide the ultimate guarantee of survival for states. These are the attitudes that states that want to limit the spread of nuclear weapons have used as a guide for thinking about nuclear weapons and nonproliferation for over sixty years.

But what if there are states that do not see decisions about acquiring nuclear weapons in the way that the current consensus in nuclear-armed states does? What if they do not see proliferation questions as questions of security? What if they take people at their word when they say that nuclear weapons are not really intended to be used? What if they mistakenly believe that nuclear weapons are not military weapons but rather icons of power? Rather than real weapons with real capabilities; what if they look at nuclear weapons and see something like religious icons--expensive items crafted with great care, placed in secluded places where they are venerated, never used for any practical purpose, and which are believed to protect the people who admire them? What if leaders see nuclear weapons as icons of power rather than weapons?

Most people would argue that leaders who view nuclear weapons as icons rather than real weapons are mistaken. The question here, however, is not whether such leaders are right or wrong, but 1) whether such

a mistake is possible, 2) whether it is likely, and 3) if it is possible and likely, what impact such a mistake would have on nonproliferation efforts. Would leaders who saw nuclear weapons as icons view efforts to discourage their spread in the same way that leaders who viewed nuclear weapons as the ultimate security weapon? Viewed from this different perspective, is it possible that efforts to discourage proliferation based on security might be counterproductive with people who see nuclear weapons as icons? Could those efforts, in fact, inadvertently encourage proliferation?

This study will examine these questions: Is it possible to imagine that nuclear weapons are merely symbols of power and not weapons at all? How likely are states to make this mistake? Could a convincing narrative of nuclear-weapons-as-icons be constructed? How persuasive would it be? Who would likely be persuaded by such a narrative? How would current nonproliferation efforts be viewed from such a perspective? If some states are likely to mistake nuclear weapons for icons, how should policy be reshaped in order to discourage those states from proliferating?

Not always realistic

The primacy of the security paradigm comes from realism. It might be argued that the reason realism is the dominant way of thinking about nuclear weapons is that the consequences of a nuclear war would be so destructive that no one could mistake the danger. And danger begets realism. As Samuel Johnson said, "Depend upon it, Sir, when a man knows he is to be hanged in a fortnight, it concentrates his mind wonderfully."

But there is strong contrary evidence to this assertion, and it comes from the field of nuclear war. If danger forces a focus on reality, and if a greater danger forces a greater focus on reality, then nuclear war ought to concentrate our minds. We ought to talk about nuclear war only in the most realistic, factual ways. But many people--including people who make nuclear weapons policy for a living--talk about nuclear war not in the most objective way, but in terms of religious prophecy or ancient myth.

Consider how often, for example, we casually refer to nuclear war as "Armageddon." Armageddon is actually the name of a hill in the Bible that is proph-

esied to be the site of the Final Battle and the End of Days. Similarly, think about how often we refer to nuclear war as apocalypse. Apocalypse is a series of myths in various cultures--Christian and non-Christian--that foretell the end of the world. There is no obvious reason why a religious prophesy and a series of cultural myths about the end of the world from thousands of years ago should be the most realistic description of a twenty-first century form of warfare.

It might be argued that these vivid and familiar words are used simply to focus attention and signal the seriousness of nuclear war. But the fact is that notions from these myths have leaked into our thinking about nuclear war and influenced the debate.

Apocalypse is a story with similar elements across cultures and time periods. It generally runs like this: A small, devout sect, living in a world overrun with sin, maintains its purity by holding fast to strict rules and observances. A great catastrophe occurs, sometimes as a battle, sometimes as sudden natural disaster, sometimes as an act of God. The world is destroyed, often in a single day. But the small sect survives to start anew in a world washed clean of sin. Elements of this story appear in descriptions of nuclear war. It is common to hear people say that a nuclear war "could be over in a matter of hours." It is perhaps even more common to hear people assert that a nuclear war "would kill everyone and destroy the world." These notions are familiar from apocalypse stories.

But they bear little relation to the best objective estimates of what a nuclear war would be. A nuclear war is unlikely to kill all humans. There are roughly 730 million people living in the southern hemisphere where there are no nuclear weapons and no nuclear targets. A nuclear war would probably be long. The evidence of history suggests that the larger the death toll in a war, the longer the war tends to last. In the 1950s strategists acknowledged this reality by talking about the possibility of a "broken-backed" war, one in which both sides were badly devastated, but neither was defeated, and both refused to give in. Military forces would continue to fire nuclear weapons as they became available, and methods of delivery were improvised.¹⁰

"But a nuclear war would lead to the end of everything," some might say. "Nuclear winter will inevitably destroy all crops and eventually all humans."

Various scenarios of economic or environmental collapse are possible after a nuclear war. But they are speculations about complex systems that we do not fully understand. Focusing on one possibility out of many is not objective. It is, simply, unrealistic to conclude that a nuclear war would automatically mean "the end of everything."

There is, as well, the possibility that a nuclear war would begin with a limited exchange of nuclear missiles and then peter out as leaders were too appalled to continue with mindless destruction. It's worth remembering that President Truman cancelled the third atomic bombing scheduled for Japan, he said, because he couldn't stand the thought of "killing all those kids." There is no certainty that a nuclear war would result in all the weapons available being used.

Instead of accurately portraying the likely events of a nuclear war, we have reshaped them to fit a story that goes back at least 2,000 years. When a thing is shorn of its actual characteristics--transformed--so it can be shoehorned into a familiar story, that is not solid evidence that we are dealing with it in a factual way.

Apocalypse seems to hold a powerful attraction for the human psyche. It has appeared in many cultures and many time periods from the ancient world to the present day.¹¹ Our fascination with apocalypse makes fertile study for social psychologists. The point here, however, is that the repeated use of the term "apocalypse" to describe nuclear war is clear evidence that we are not always entirely realistic when it comes to nuclear weapons. We cannot rule out the possibility, therefore, that leaders in countries making decisions about acquiring nuclear weapons might not always use simple realism as their guide. It is possible, in other words, that symbols and icons play a role in such a choice.

Symbols are common

Icons are a kind of symbol, and humans use symbols quite a lot. We're not the only species that use symbols.¹² But we are the species that uses them the most. Symbols play numerous essential roles in our lives.

From the moment we wake up in the morning,

until we go to bed at night, and even while we dream, we interact with symbols. Language is written with symbols, words often don't just refer to a simple object in the world, they can also resonate with symbolic meaning. Symbols play an essential part in economic life. What is money, after all, but a symbolic representation of economic value? Some people argue that art is entirely made up of symbols. We buy cars as symbols of strength, sportiness, or luxury; we buy houses as symbols of taste or wealth; we even buy clothes because we believe that they "say" something that transforms our identity. Cars, clothes, houses, language, money, art, tattoos, traffic signs, poker chips, sports team mascots, religious symbols, professional insignias, and on and on--we constantly use symbols.

Symbols are not only ubiquitous, they have a remarkable power to get fixed in our heads. They acquire a life of their own, and we forget that they are not the larger thing they symbolize, just ordinary objects we use to stand for those larger things. Money, for example, is just paper with certain ink, pictures, and numbers on it. But by handling it every day, by guarding it and yearning after it, we forget that money is just paper. Through regular use and social reinforcement it becomes the thing it symbolizes. It's not until we're washed ashore on a desert island with a pile of paper money that we realize that, while it may have enormous value in a society, on an island it's only real use is for starting fires.

It makes sense to assume that, just as we use symbols in every other part of our lives, we also use symbols in international relations. Symbolizing power is a notion that would probably make some international relations theorists uncomfortable, since rationality is such a large focus of their thinking. But symbol-using humans are not entirely rational.¹³

Weapons as icons

Some strategists see armies, navies and air forces as tools--collections of capabilities that are either effective or not. But others--particularly social scientists--increasingly see militaries in a more complex way.¹⁴ Here, for example, political scientist Michelle Murray talks about how militaries affect the way nations perceive themselves.

To understand this phenomenon, it is necessary to look at their symbolic meaning as emblems of the modern state, which overshadows their functional utility. For instance, many developing countries invest precious resources in their militaries, yet maintain "only a single squadron of four or five fighter aircraft--too few to offer many strategic benefits, but enough to constitute a respectable air show." In these cases, states arm not because weapons perform a particular security function--they are effectively useless as instruments of national defense--but rather because such practices are constitutively linked to the maintenance of sovereignty and state identity.¹⁵

Michael Howard argues this same point when he says that at one time navies were "a status symbol of universal validity which no nation conscious of its identity could afford to do without."¹⁷

If it is possible for militaries to play a role in shaping a nation's sense of its identity, why couldn't particularly impressive and prominent weapons play a similar role? Why couldn't certain weapons serve as a sort of shorthand for a country's greatness? One could argue that at one time the thickness and height of the walls that surrounded your city were the measure of your power. At other times, the number of armored knights you could field was a yardstick of power. Two such iconic weapons that deserve closer inspection are dreadnoughts and chariots.¹⁶ Both demonstrate how weapons can be used as icons, but also suggest how nuclear weapons could be seen as playing a similar role, because they have many characteristics in common.

DREADNOUGHTS

The British launched the *H.M.S. Dreadnought* in February 1906. The ship was their newest battleship, and it was an important break with past battleships. It was larger (20,000 tons), faster (it could achieve and maintain speeds of 21 knots), it carried only large guns (ten of the new 12 inch guns), and it used steam turbines (rather than reciprocating piston engines). It represented both an increase in size and a significant advance in technological sophistication over previous battleships. And it created a sensation.

"The *Dreadnought* drew huge crowds at public displays, it inspired advertising and entertainment, and it gave its name to a range of projects and products that had little to do with the navy directly. . . .

There were *Dreadnought* songs, poems, books and films.” At Southend, where the ship was moored, the main pier had to be closed again and again because of dangerous crowds as large as 20,000. Its image plastered the covers of popular magazines. In London, where over a million people reportedly watched the arrival of the fleet, it became, in the words of one historian, “an omnipresent icon.”¹⁸

While the reaction in the United Kingdom was profound, it was surpassed by the impact the news had around the world. Eventually the name of this ship became the name for the entire class of newer, bigger battleships that resulted. Diplomats, admirals, and government officials discussed the urgent need for battleships of their own. Soon states were “building equivalent dreadnoughts at an astonishing rate. Not since the macrogalley building orgy of the Hellenistic monarchies had the world seen a naval arms race of such intensity and with such a wholehearted commitment to large ships.”¹⁹

The Japanese, fresh from their triumph at *Tsushima*, responded almost immediately to the Dreadnought with their own *Satsuma* and continued building all-big-gun ships as rapidly as their limited industrial base would allow. The French, though no longer much interested in sea power, would not long resist the trend, and by 1911 the first true Gallic dreadnought, *Jean Bart*, was sliding down the ways. In 1910 the Italians added the nineteen thousand ton *Dante Alighieri* and kept on building. The Russians, after losing virtually their entire fleet in 1905, were naturally susceptible to dreadnought fever, lay down the *Pervozvannyi* class as early as 1906 and then the *Gangut* class in 1911. Even Austria-Hungary, with precious little seacoast to defend, built the twenty thousand ton *Viribus Unitis*. Those that could not build dreadnoughts of their own, like Turkey and Brazil, simply ordered them built by others.²⁰

Similarly, in the United States a major ship building effort got under way. “The relationship between a strong fleet and a successful foreign policy was so vital in [President Theodore] Roosevelt’s eyes that he assumed personal control over the service, serving as de facto as his own naval secretary through his entire administration.”²¹ The *H.M.S. Dreadnought*, in other words, not only introduced a new class of battleship, it touched off a massive arms race.

It is perhaps not surprising that the *H.M.S. Dreadnought* had such a dramatic effect. During this period

of history battleships were often used as symbols of power. When states wished to intimidate smaller, less powerful nations, they often sailed one of their battleships off its shores. Even though a lone warship could not mount a serious assault on a nation, the symbolic reminder of the state’s superior military, more advanced technology, and willingness to use it were often sufficient to force an adversary to give in. This “gunboat diplomacy” was a familiar and often used tactic in the 1900s.²² Battleships were already used as diplomatic symbols before the *Dreadnought* arrived, and it is easy to see how the dreadnoughts could come to be seen as countable icons of power.

But it wasn’t just smaller countries where people imagined that dreadnoughts would have an effect. The German Kaiser told the King of Italy “All the years of my reign my colleagues, the Monarchs of Europe, have paid no attention to what I have to say. Soon, with my great Navy to endorse my words, they will be more respectful.”²³ State leaders and common folk alike not only believed that iconic dreadnoughts would bring real power, they also believed that they would create that most cherished of human attitudes: respect.

This new class of warship became the standard of modernity and military capacity. Within a short time there was a fevered concentration on the number of dreadnoughts a nation possessed. That number, and how it compared to the number of ships that competitors had, now became an intense focus of foreboding and debate. It is fair to say that the competition between Germany and the United Kingdom over this new class of capital ships ignited deep suspicion and distrust between the two countries, and probably contributed to the outbreak of the First World War. After the war, one of the first arms control treaties of the twentieth century, the Washington Naval Treaty of 1922, focused on battleships, demonstrating the extent to which the *H.M.S. Dreadnought* had incited the belief that battleships were the central issue of power.

Dreadnoughts were big, impressive, used the latest technology, and expensive. With a rapidity and a completeness that seems to defy rational explanation, dreadnoughts became icons of power. They represented national military power, technological sophistication, international stature, and influence. But in some other, more important sense, they also came to repre-

sent the identity of the nations that possessed them. Britons who were proud of the *H.M.S. Dreadnought* were also, at the same time, expressing pride in Great Britain and--to the extent they identified with their state--with themselves. Dreadnoughts became emotionally important for millions of people and affected their sense of their own power and pride.

This is particularly striking because dreadnoughts had real military limitations and did not actually play a very large role in either the First or Second World Wars.²⁴ There was only one fleet action where large ships played a significant role, Jutland, and it was indecisive. Despite the extent to which they were icons during this period, by the early 1900s, battleships were already near or at the end of their dominance. The United Kingdom found to its chagrin that dreadnoughts in World War I were particularly vulnerable to submarine attack. The fact that stealthy, small submarines could sink "the queen of the oceans" violated what seemed to many strategists the proper order of things. The extent of the threat that submarines posed can be measured by the fact that in the negotiations around the Washington Treaty of 1922, the United Kingdom suggested that submarines be banned all together. (A suggestion that was not adopted.) But within a few years an even greater danger emerged to the notion that battleships were supreme: airplanes. By the early years of the Second World War it was clear that, while battleships were useful for shore bombardment, they were vulnerable to submarine and aircraft attack. The British suffered a series of shocking losses in the opening days of World War II when battleship after battleship was sunk. Conclusive proof was provided--if any were needed--in the waning days of the war when the Japanese battleship Yamato, the largest and most heavily armed battleship in the world, set out to attack U.S. naval forces supporting the invasion of Okinawa. Bombarded and torpedoed mercilessly from the air while barely out of port, the Yamato, along with four of the eight destroyers escorting her, was sunk in a matter of minutes. Thousands of Japanese sailors drowned. The Yamato never even got within sight of U.S. ships.

The *H.M.S. Dreadnought* was a relatively unimportant improvement in the development of battleships, a type of weapon that had been evolving for at least 500 years. It did not, despite the hype, represent much of a military advance over past battleship de-

signs. A case could be made that the first battleship made entirely of steel (the French *Redoubtable*) was a far more radical advance. But something about the *H.M.S. Dreadnought* turned it into an icon of power, and as an icon--rather than as simply a military weapon--it had enormous impact.²⁵ The social, diplomatic, and military influence of the *H.M.S. Dreadnought* demonstrates the way in which military weapons can become symbols: symbols of power, symbols of national pride, symbols of international standing. Even though the weapon itself was a relatively minor advance in a class of weapons that was rapidly losing its relevance to modern war, as an icon it shaped political and military decisions and changed the course of international relations. Its iconic value was far greater than its military utility justified.

CHARIOTS

Chariots, like dreadnoughts, had a reputation that far outpaced their actual military utility. Emerging out of the central Eurasian landmass in 2000 BC, by 500 BC chariots had spread as far as the Chinese dynasties in the east, and the Celtic tribes of the British Isles in the west. Like dreadnoughts they were "costly and difficult to produce."²⁶ They embodied the latest technology. The metallurgy for their axles and wheels was not widespread. They employed horses, which were also expensive and relatively rare. And they were terrifying. The poorly trained and poorly equipped foot soldiers of the era could easily be scattered by a team of two or even three horses across, bearing down on them. The Assyrians, in particular, used chariots to great effect in their campaigns to subdue most of the Middle East in the years 900 to 600 BC.

As a result, "[a]mong the Achaean Greeks, Assyrians, Egyptians, Vedic Indians, and Chinese of the Shang and Chou dynasties--virtually across the gamut of agriculture-based militarism--the horse-drawn chariot marked the focal point of aristocratic warfare . . ."²⁷ Many of the ancient stone plinths in the Near East erected to record the conquests and deeds of rulers during this era proudly depict chariots on the battlefield. They became what might be described today as "must have" weapons.

But chariots had real military drawbacks. A chariot was "a rickety, unstable vehicle, barely controllable on all but the smoothest ground."²⁸ Most ancient

charioteers were armed with bows, but “[j]ust how was a warrior expected to fight from so precarious a perch--to let go with both hands, while standing on the erratically bouncing platform and fire an arrow with any degree of accuracy?”²⁹ Charioteers armed with swords had difficulty reaching their opponents (imagine leaning far out of a bouncing car), and arming charioteers with spears risked them being driven, flying, out the back of the chariot if they impaled someone heavier than they were.

In the end, it became obvious that chariots were more reputation than reality. As long as they intimidated, they were successful. But well-trained infantry with long spears, if they maintained formation, could devastate charging chariots. The importance of chariots is not explained by their actual capabilities, but by their role as iconic symbols of power. “It was this power to terrorize, to appear to be what it wasn’t, that enabled the chariot to sweep triumphant across Eurasia . . .”³⁰ The Romans, those quintessentially pragmatic soldiers, delivered the final judgment on the military utility of chariots by reserving them for one purpose and one purpose only: carrying conquerors in parades.

These two examples could be multiplied many times.³¹ One could argue, for example, that the “bomber gap” of the fifties and the “missile gap” of the sixties were both cases in which bombers and missiles for a time became symbols of international competition, generated outsized media attention, created an overemphasis on numbers, and assumed an importance far greater than their actual military value.

Weapons are used as symbols of power; they are transformed into icons. These icons come to be regarded as essential. But their importance in people’s minds is not always matched by their military usefulness.

Characteristics of iconic weapons

Dreadnoughts and chariots have some striking similarities. First, when they were introduced they were seen as revolutionary. Second, that revolution stemmed in part from the fact that they relied on the very latest in technology. The turbine engines and the emphasis on big guns for dreadnoughts both re-

quired technological innovation. The use of horses and the metal in the axles and wheels of the chariots were similarly new (although new technology spread much more slowly in the ancient world). Third, both were difficult and expensive to build. Only the richest kingdoms could afford to purchase horses (which were not widely domesticated at the time). Third, and perhaps most importantly, they were big. They were impressive and inspired awe. Dreadnoughts were larger than previous battleships. On the battlefield horses were large and impressive. Both dreadnoughts and chariots left an indelible impression on contemporaries of powerful, intimidating weapons.

What makes this extended diversion into history worthwhile is the close analogy between dreadnoughts and chariots on the one hand and nuclear weapons on the other. Nuclear weapons share these same four characteristics with dreadnoughts and chariots. They were seen as revolutionary weapons. They were such an important break with the past that they would shape the way people viewed human history. Commentators declared that henceforth history would be divided into the pre-nuclear and nuclear ages. They required mastering new and difficult science. They were expensive and challenging to build--the enrichment of uranium still poses enormous manufacturing challenges. Third, nuclear weapons immediately impressed all those who saw their gigantic mushroom cloud as god-like weapons. General Thomas Farrell, as he watched the fireball of the first nuclear test rise into the night sky, recalled, “Thirty seconds after the explosion came, first, the air blast pressing hard against the people and things, to be followed almost immediately by the strong, sustained, awesome roar which warned of doomsday and made us feel that we puny things were blasphemous to dare tamper with the forces heretofore reserved to the Almighty.”³²

Revolutionary, the newest technology, expensive, and impressive--nuclear weapons are very similar to these other weapons that became icons of national power. The similarities suggest that it is not unreasonable to imagine that people might easily see nuclear weapons as icons.

Evidence

If policymakers in a state that is considering acquiring nuclear weapons tentatively concluded that nuclear weapons were not actual weapons but were instead icons of power, would they be able to assemble evidence to support their conclusion? Icons, remember, are objects that are expensive items crafted with great care, placed in secluded places where they are venerated, never used for any practical purpose, and which are believed to protect the people who admire them. Is there evidence in the history of nuclear weapons that might tend to confirm the hypothesis that nuclear weapons are not really military weapons but simply symbolic? Could reasonable people really see the world through a nuclear-weapons-as-icons lens and ignore the security lens? What evidence could a scholar trying to build a case for the nuclear-weapons-as-icon view be able to assemble?

Their Nonuse

The first and most important piece of evidence confirming the symbolic nature of nuclear weapons is that they are never used. Useful tools can be identified by their many scuffs and wear marks. They never look pristine because they are a part of almost every project. Nuclear weapons, on the other hand, have been used just once. If they are truly important military weapons, how could they have sat on the sidelines during the scores of wars that have occurred since 1945? If someone began with the hypothesis that nuclear weapons were icons rather than weapons, wouldn't this piece of evidence strongly support that conclusion?

Their shrinking military scope

Further confirmation for the hypothesis that nuclear weapons are merely icons never intended to be used would come from the fact that some of the major nuclear powers have radically reduced both the number and military role of nuclear weapons.

In 1945 nuclear weapons were seen as important weapons with many uses. In the first fifteen years after their introduction most people would have readily

agreed that nuclear weapons undoubtedly conferred absolute security. And their military importance can be gauged by the size of the arsenals that were eventually created. Once the Soviet Union detonated a nuclear weapon, both the United States and the Soviets raced to build extraordinary quantities of the weapons in increasingly diverse configurations. There were bombs to be dropped from planes, warheads on missiles, anti-submarine depth charges, artillery shells, torpedoes, land mines, backpack nuclear weapons—a tremendous variety of weapons. And as the years passed, the numbers of weapons climbed extraordinarily. By the 1970s the United States and Russia had a combined 70,000 nuclear weapons of various types and sizes.

But if the initial growth in the size of nuclear arsenals tells us something about the extent to which people believed that nuclear weapons were vital, the subsequent decline of those arsenals would be strong evidence for policymakers convinced that nuclear weapons are icons. In the 1986 U.S. President Ronald Reagan and Soviet President Michael Gorbachev agreed to cut U.S. and Soviet arsenals by half, and subsequent disarmament agreements have continued the trend.

But the reductions in the U.S. and Soviet arsenals were not simply reductions in numbers. In some ways the more important story was the shrinking of the scope of nuclear weapons. All those diverse nuclear weapons were retired. On September 27, 1991, U.S. President George H. W. Bush announced a series of measures to reduce the U.S. nuclear weapons arsenal with a particular focus on short range battlefield weapons. Whole categories of weapons were retired and scheduled for eventual dismantling. Nine days later, the Soviet Union announced a similar series of measures to reduce the number of their tactical weapons.

Today U.S. and Russian nuclear arsenals are barely a quarter of their size at their highest point. The United Kingdom and France have also reduced the size of their (admittedly much more modest) nuclear arsenals. These large-scale reductions in both the size and variety of nuclear arsenals by the two largest nuclear powers could certainly be read as a vote of no confidence in the military value of nuclear weapons.³³

Further support for such a conclusion can be seen in the experience of the first thirty years of nuclear weapons. Initially, strategists in the United States felt that nuclear weapons would have a broad and profound impact. Eventually, they came to realize that the scope of nuclear weapons was much more limited. Anyone trying to evaluate the military importance of nuclear weapons would see this evidence as significant.

For example, it was believed that nuclear weapons might prevent all forms of war. J. Robert Oppenheimer, the man responsible for the scientists developing the U.S. bomb, is supposed to have said to friends that nuclear weapons made war impossible. This commonly held belief, however, turned out to be wildly overdrawn. War has been infrequent in Europe, but it has been frequent and bloody in other parts of the world. One could look, for example at the battle deaths for wars that have most captured world attention: the Vietnam War with 2 million, the Korean War with 1.2 million, the Chinese Civil War (1946-1949) with 1.2 million, the Iran/Iraq War (1980-1988) with 644, 000, and the Afghan Civil War (1978-2002) with 562,000. But even though these are significant wars with enormous death and destruction, they do not in any sense represent a full accounting.³⁴

Another claim commonly made in the first years after the development of nuclear weapons was that they assured success in war. A state with nuclear weapons could not be bested on the battlefield, it was thought, because it could always turn to its superior nuclear weapons to carry the day. This early idea also turned out not to be true. As U.S. troops took heavy losses in a stalemated war in Korea, U.S. President Eisenhower urged the members of his national security council to consider the use of nuclear weapons. But in the event, military officers studying the options could not identify an acceptable way for nuclear weapons to deliver a decisive blow. The Korean War seemed to show that even nuclear-armed states could be fought to a draw. The lessons drawn from the Vietnam War and the Soviet occupation of Afghanistan were even more damaging. Nuclear weapons did not stave off humiliating defeat in either conflict: both the U.S. and Soviet Union found that nuclear weapons did not assure success on the battlefield.

One could argue that nuclear weapons did not affect the outcome of these wars because the stakes

were not high enough or that the leadership of the nuclear-armed states were insufficiently bloodthirsty. And perhaps that is the case. But it is also the case that observers could view the outcome of these conflicts and conclude that the military utility of nuclear weapons was not as great as had been predicted. It would be hard to argue that nuclear weapons have lived up to the initial appraisals of their importance and value. The record of slow, steady reduction in the military role of nuclear weapons could easily be taken as strong evidence of their merely symbolic role.

This evidence of decline in the military value of nuclear weapons is amplified by current trends in weaponry. The whole trend in warfare is away from the kind of weapons that nuclear weapons are. Nuclear weapons are big weapons, almost clumsy in their enormous size. They necessarily destroy more than the intended target. The trend in warfare over the last forty years, however, moves strongly in the opposite direction. The weapons that are widely and frequently used are drones and small, carefully guided missiles. Increasingly, weapons are becoming smaller, smarter, more intelligent, and more precise. The trend in war is toward weapons that are more tightly targeted rather than those that necessarily kill tens or hundreds of thousands. If this is the case, if increasingly the trend is away from the kind of weapons that blast entire cities, wouldn't policymakers who already suspected that nuclear weapons were merely intended as icons feel that the trend of history was on their side?

HIROSHIMA

Finally, recent scholarship has challenged the one undisputed military success of nuclear weapons. Nuclear weapons are unusual in that there isn't much real evidence to base our ideas about them on. Unlike most weapons, nuclear weapons have only really been field tested once: at Hiroshima and Nagasaki. We only have one real data point for judging their military usefulness. Initially it was believed that their use "shocked" Japan's leaders into surrendering. U.S. Secretary of War Henry L. Stimson, in the first semi-official appraisal of their military capabilities called them "psychological weapons."³⁵ He argued that they had a unique ability to coerce and deter an adversary.

Much of the assessment of nuclear weapons' distinctive "shock" value, on which so much thinking

about nuclear war and nuclear deterrence are based, comes from this single piece of evidence. After all, the physical effects of nuclear weapons were carefully explored in thousands of tests in isolated parts of the world. But their ability to coerce leaders, their impact on the decision making process, is mostly judged by the outcome of the bombings of Hiroshima and Nagasaki. These two events, therefore, make up a good deal of the support for assessments of the military value of nuclear weapons. It was these bombings that brought American politicians and military men to call nuclear weapons “the winning weapon.”

But even this most powerful demonstration of the military utility of nuclear weapons has recently begun to be challenged.³⁶ Historians going over archives in Moscow, Washington, and Tokyo have uncovered a picture quite different from the one that emerged shortly after the end of World War II. It now appears that Japan’s leaders were far more concerned with the Soviet declaration of war and invasion of Manchuria, Sakhalin Island, and other territories on the night of August 8, 1945, than they were by the atomic bombing of Hiroshima or Nagasaki. They *said* they surrendered because of the atomic bombs because it made a better explanation for losing the war. Who could be blamed for being defeated by a miracle weapon? Although both bombings destroyed the cities they were aimed at, it is no longer clear that nuclear weapons had the shocking effect on Japan’s leaders that was once thought.

How would policymakers inclined to doubt the military importance of nuclear weapons read this evidence? If the one field test of nuclear weapons doesn’t validate their particular military utility, but instead shows that they are simply bigger, clumsier bombs, wouldn’t that tend to confirm that they are unlikely to be used militarily? And if they are not intended for military use, doesn’t that confirm their entirely symbolic purpose? Although we might not agree with policymakers who view nuclear weapons as icons rather than real weapons, it is easy to see how they might imagine that they have a point.

Their strangely undiminished role

Finally, leaders inclined to believe that nuclear weapons are primarily icons rather than weapons

can point to the prominent role they seem to play in world affairs. Of course, commentators in nuclear-armed states might object to the belief that the role of nuclear weapons in the world has diminished considerably. The Cold War, and the nuclear arms race that was in many ways its most visible symptom, are both gone. Nuclear crises like the Cuban Missile Crisis no longer occur. A case could be made, based on evidence, that nuclear weapons are fading into obscurity.

But there is also support for the opposite view. Nuclear-weapons-as-icons theorists could point to a number of pieces of compelling evidence as well. Nuclear weapons remain the bedrock of U.S. security arrangements around the world. The most important military alliance in the world, the NATO alliance between European countries and the United States, is an alliance that is founded on nuclear extended deterrence. It would be possible to argue that nuclear weapons are essential to the very nature of NATO. Secretary of State Clinton recently declared that “[A]s long as nuclear weapons exist, NATO will remain a nuclear alliance.”³⁷ In addition, nuclear weapons lie at the heart of the U.S. defense and security treaties with Japan and South Korea. They were historically the threat that the U.S. used to prevent the invasion of Taiwan and, presumably, they are still a part of the U.S. reassurances to Taiwan.

Another strong piece of evidence about the importance of nuclear weapons is that disputes about them are so intense that they threaten to escalate into war. Israel has threatened to attack Iranian nuclear facilities if Iran does not forgo its nuclear ambitions. North Korea’s leader, angered at what he considers U.S. inspired persecution, not only rattled the nuclear saber, but was photographed with maps showing the flight paths of missiles to U.S. cities.

Finally, nuclear weapons remain important in the deliberations of international bodies. The United Nations, the International Atomic Energy Agency (IAEA), the Nuclear Suppliers Group, and other bodies expend time and energy thinking and debating about nuclear weapons. When these bodies meet, the implicit message they are sending is that nuclear weapons are a matter worth attending to.

So the case for nuclear-weapons-as-icons could be based on fact. There is real evidence that could

be used to support this view. Nuclear weapons have not been used in over sixty-eight years. Initial expectations about their military value turned out to be wildly overstated. The arsenals of many nuclear-armed states, including the two leading nuclear-armed states, have significantly shrunk. The great variety of types of nuclear weapons dwindled down to a few types. But the world still seems--to a certain extent--to revolve around them. Their day-to-day military value is clearly small, but their influence, it could be argued, is undiminished. Who could blame someone for suspecting that the weapons' value lies in something other than their military utility? Who could blame a policy maker who became convinced that nuclear weapons are essentially icons of power? --That their importance comes from their ability to represent power and influence, rather than their practical capabilities?

Nuclear Icon Narrative

What would policy shapers in a state that had misperceived nuclear weapons for symbols say to themselves about other states and their decisions to acquire or not to acquire nuclear weapons? Could they build a convincing narrative that nuclear weapons are merely symbols? Would such a narrative support or undermine a decision to acquire nuclear weapons?

Nuclear weapons as icon theory

What would a theory of nuclear weapons as icons be like? Could scholars in a state in which policymakers viewed nuclear weapons as icons develop a coherent picture of the world in which nuclear weapons had no military value but were simply icons?

A theory of nuclear-weapons-as-icons would posit that nuclear weapons were primarily icons of power rather than weapons in the traditional sense. Yet despite their status as mere icons (or perhaps because of it) they remain enormously important in international politics, elevating the status of their possessors

while at the same time increasing their influence. Such a theory would provide powerful support for a decision to acquire nuclear weapons.³⁸ After all, if nuclear weapons have little military value and are unlikely to be used, then they are objects of enormous value that pose little danger to their possessors. And they are useful as a source of national pride and identity.³⁹ If nuclear weapons are icons, it is not only a sensible move to acquire them, it is a prudent move. Icons are valuable in part because they are held in relatively few hands. If every state had nuclear weapons, their value as icons would be somewhat diminished. Therefore, it makes sense to acquire them as soon as possible, before their value declines.

THE DANGER

It might be thought that the nuclear-armed states' frequent warnings about the enormous danger of nuclear weapons would deter would be nuclear states from deciding to proliferate. The difficulty with the danger of nuclear war is that it is an entirely *theoretical* danger. No one has experienced full-fledged nuclear war. Various studies and books warn that its consequences will be dire, but as the last real use of nuclear weapons fades farther and farther into the past, it is easier to dismiss these warnings. Icon theorists might ask, "Given the power of the nuclear taboo over the last sixty-eight years, why should we take the danger of nuclear war seriously?"⁴⁰

But, it might be objected, why do the nuclear-armed states continue to warn of the danger of nuclear war if the danger is nearly non-existent? Nuclear-weapons-as-icon theorists could answer that nuclear-armed state continue to warn of the danger associated with nuclear weapons so that they can keep them to themselves. By exaggerating the danger, they might argue, the nuclear-armed states both inflate the value of nuclear weapons (emphasizing their enormity at the same time that the remind people of their horror), and enhancing their own role (as the only states responsible enough to handle such an awesome responsibility). The dangerousness of nuclear weapons is a key part of their value as icons.

States that have decided to build nuclear weapons would be unlikely to reveal their views on the iconic nature of nuclear weapons. After all, if nuclear weapons are awesome weapons of danger and destruction they are far more important than if they are

simply symbols of power. One could expect that even people who believe in the iconic nature of nuclear weapons would be at pains to reveal their beliefs lest they undermine the value of the weapons they were struggling to acquire.

This means that the absence of states or scholars writing about the notion that nuclear weapons have only symbolic value, does not prove that states do not take this theory seriously. They have a built in motive for keeping their skepticism about the military value of nuclear weapons secret.

The receding danger

Much of the thinking in nuclear-armed states about nuclear weapons is based on a belief in their enormous danger. The need for constant vigilance, the power of nuclear deterrence, the importance of nonproliferation--all these flow from the fact of the danger that nuclear weapons represent. Nuclear-armed states live with this sense of danger and have deeply internalized it. It has become part of the background reality of the present world for them: ever present, hardly worth mentioning.

But as time has passed, this vivid sense of danger might have faded for icon states. After all, it has been seventy years since nuclear weapons were used. That is a great deal of time in international affairs.

Nuclear weapons, although present in abundance, were not used during the Cold War--the most important conflict of the last seventy years. Two great alliances faced each other over a divide fueled by deep hostility. Yet the weapons weren't used. Numerous crises occurred, proxy wars were fought, promises were broken, covert operations inflicted damage, personal animosities arose--but nuclear weapons were not used.

It is not necessary for nuclear-weapons-as-icons states to understand what principle is at work here. Perhaps there is such a thing as a nuclear taboo. Perhaps it is simply a habit of nonuse. Perhaps the nuclear-armed states simply exaggerate the danger in order to increase the influence of nuclear weapons. For whatever reason, the weapons have not been used. And with each year that passes it seems less and less likely that they will be used.

If the danger from nuclear weapons is not real, or if it has been significantly exaggerated, icon states might ask themselves, why not build these weapons? They are important icons of status and influence. We want to have status. If the danger is not so great--and history seems to show that it is not--then why not own the icons that bring so much power in their wake?

DETERRENCE

The existence and importance of nuclear deterrence is well-explained by an icon theory. Icons must have the power to protect those who worship them, but since icons cannot actually do anything except sit quietly in church alcoves, non-natural powers must be ascribed to them in order for them to be able to accomplish this protecting function. Although there is a great deal of carefully reasoned literature it would be possible for icon theorists to dismiss this work with a wink and a nudge. Nuclear deterrence is, after all, unprovable. It's operation is invisible--working only in the minds of those who are deterred. It does, however, make an ideal reason for resisting calls for the abolition of nuclear weapons. Without the protective value of nuclear deterrence, how would states justify their continued possession of nuclear weapons?

The ongoing discussion of nuclear deterrence by nuclear-armed states, in fact, could easily be seen as reinforcing the idea of nuclear weapons as icons. Icon theorists could argue, "Deterrence is fundamentally symbolic. It is certainly not a real use of nuclear weapons because no one dies. If their main diplomatic and political use is symbolic, why doesn't it make sense to believe that they are symbols?"

There are also frequently repeated statements by proponents of nuclear weapons that could add credence to this view. Proponents in nuclear-armed states (and elsewhere) repeatedly say, "No one really intends to use nuclear weapons. They are only intended for deterrence." Icon theorists could point to these oft-repeated statements and ask "What sort of weapons are never used?" The obvious answer is: *symbolic* weapons.

The large deterrence literature claiming the existence of a protective power of nuclear weapons that cannot be seen but that is counted as vital could be cited as support for the notion that nuclear weapons are icons, not weapons.⁴¹

One of the key outcomes of seeing nuclear weapons as icons is that their value can fluctuate widely. When something has symbolic importance its value is whatever people agree it will be. Different people can value an icon differently. An object with a practical utility, on the other hand, is more tied to the real world. A hammer made from styrofoam will quickly prove to be ineffective at driving nails. Actual experience will inform judgments about its value. But a symbol can grow or decrease in value unrelated to the real world. Therefore, in some ways, nuclear weapons as icons are more valuable than nuclear weapons as weapons. They can represent national greatness, they can signal technological sophistication, they can generate international influence. And since there are no ways to accurately measure the impression of greatness, states can be easily deceived into expecting far more from nuclear weapons than they can actually deliver.

But they are also more dangerous as icons. Because there is no reality to ground expectations, nuclear weapons as icons can cause leaders to have outlandish hopes and expectations. It is relatively easy to imagine a leader, carried away by an inflated sense of the impressiveness of his nuclear arsenal, forcing the issue in a crisis and touching off a war. Geoffrey Blainey argues that wars occur when states disagree about their relative power.⁴² Nuclear weapons seen as icons make miscalculation much more likely.

The nuclear weapons as icons theory, wrong-headed though it may be, could be supported by considerable evidence and would maintain internal consistency and logic. It is an important theory whose implications matter.

History: if nuclear weapons are icons

There is, of course, a whole history of nuclear weapons decisions. States have been choosing to build or not to build nuclear weapons for almost seventy years. Any theory, including an icon theory, would have to be able to explain this history. Would it be possible for nuclear-weapons-as-icon scholars to construct a fairly convincing narrative of the history of nuclear proliferation (and nonproliferation)? Is it possible to create a persuasive narrative in which nuclear weapons mostly play the role of icons?

In fact, it is surprisingly easy to build a narrative in which the value of nuclear weapons is considered to be symbolic rather than military. The United States and Russia, of course, built their initial arsenals based on security concerns. But the eventual reductions in those arsenals fit quite nicely with nuclear-weapons-as-icons thinking. “Why,” icon advocates might ask, “did the superpowers give up on their commitment to all those nuclear weapons? Nuclear war fighting doctrine calls for large numbers of weapons in order to strike large numbers of targets. The physical capabilities of the weapons haven’t changed. How is it possible to explain the drastic reduction in the numbers of nuclear weapons if the United States and Russia still believe in the military importance of nuclear weapons?”

Similarly, a nuclear-weapons-as-symbols advocate might argue: “The drastic reductions in nuclear weapons made by the United States and Russia make sense if they lost faith in the military value of nuclear weapons. But if they no longer believe in the military value of nuclear weapons, why would they resist total elimination? Why do they continually argue that it will not be possible to get rid of nuclear weapons for another 100 years? Only the belief in nuclear weapons as icons explains the data.”

UNITED KINGDOM

Nuclear-weapons-as-icons scholars would have no difficulty explaining the United Kingdom’s decision to build nuclear weapons. Considering the very close relationship between the United Kingdom and the United States, their recent alliance during the Second World War, and their many shared cultural and historic ties, the decision to build a nuclear arsenal should strike realists as confusing. The United Kingdom was not directly threatened by the Soviet Union because the Soviet Union was a land power and the United Kingdom was an island. The security of the United Kingdom was also buttressed by the NATO alliance, signed in 1947, which pledged the United States to defend Great Britain if she were attacked.

In light of the close connection between the two countries, the NATO pledge of defense, and the fact of the United States nuclear arsenal, the United Kingdom’s decision might seem like a contradiction. Nuclear-weapons-as-icons theorists, however, would see it as perfectly natural. Nuclear weapons are not,

they might argue, really military weapons, they are symbolic weapons, used to assert modernity and importance. The United Kingdom was in the process of losing much of her empire in the post-war era and the urge to have an icon that would offset the empire on which the sun was setting, is understandable.

CHINA

The nuclear arsenal of China has always been something of an anomaly. For the world's most populace country, with the world's second largest economy, and with the largest military in terms of manpower, China has a very small nuclear arsenal. Estimated at around 250 warheads, it is fourth largest in the world, just behind France's arsenal. And the Chinese have never seemed very interested in nuclear weapons. They have been slow to upgrade their missiles. They have rarely used their nuclear weapons to make threats. For years they emphatically proclaimed that they would never use nuclear weapons first. They do not keep their warheads mated with their missiles, in other words, they have no long-range missiles on ready alert. Although the United States has tested nuclear weapons more than 1,000 times and the Russians tested more than 700, the Chinese exploded nuclear devices only 45 times. Although they do not report on their arsenal as both the United States and Russians do (they have never been a part of the treaties that require such reporting), experts estimate that the number of missiles the Chinese have that could reach the continental United States is around 40.

From a realist perspective it is difficult to explain the history of the Chinese arsenal. Their first nuclear test was in 1964. The 1960s and the 1970s saw the great expansion of nuclear arsenals in the United States and Russia, with the U.S. arsenal climbing from 18,000 to more than 24,000 and the Russian arsenal climbing from 1,600 to more than 30,000. China's arsenal, by comparison, never got larger than 500 weapons, and during this period topped out at 250. If the Chinese believed that nuclear weapons were militarily important, and as they watched the U.S. and Russia increasing their arsenals, why didn't they build an arsenal to match their two rivals? China was considerably poorer than either the United States or Russia, but even so, it had the economic might necessary to build thousands and perhaps tens of thousands of nuclear weapons. Why didn't it?

Nuclear-weapons-as-icons scholars would argue that from the beginning China did not misjudge nuclear weapons. Unlike the U.S. and Russia, which mistakenly believed through the first thirty years of the Cold War that nuclear weapons had real military value and that it was necessary to have an arsenal that made war fighting possible, China realized from the outset that nuclear weapons were simply icons. It was only necessary to have a token force because their value was in the way they symbolized power, not in having the huge number necessary to actually fight with.⁴³

FRANCE

France also supplies good evidence for the nuclear-weapons-as-icons theorists. France was only indirectly threatened by the Soviet Union (Germany lay between them), and as one of the founding members of NATO, France was protected by the same guarantee of security that the United Kingdom operated under. The French decision to build a nuclear arsenal, from a realist perspective, is again something of a puzzle. After all, if France built nuclear weapons because of the threat of a Soviet invasion of Europe, why did Italy, Belgium, Switzerland, Sweden, and various other countries not build such an arsenal?

An answer could be constructed from the symbolic value of nuclear weapons. Like the United Kingdom, the end of World War II brought a painful adjustment to France's status. Unlike the United Kingdom, French pride had already been wounded by the defeat of 1940. France had a large overseas empire that began rebelling almost as soon as the war was over. Traditionally France had played an important role in Europe as the largest and most powerful nation. But in the world after the Second World War the United States, Russia, and other powers held center stage. It was clear that France would be, at best, a middle-sized power with little ability to shape world events. France, once the center of culture, learning, scientific achievement, literature and so many other important elements of civilization, would struggle to maintain its status as a great power. And if the two halves of Germany reunited, France would not even be the most powerful country in Europe.

Viewed from the angle of prestige and influence, it does not seem surprising that the French decided to build a nuclear weapon.

ISRAEL

Surrounded by hostile Arab states, it is not difficult to build a realist case for Israel's initial decision to build nuclear weapons. It is more difficult to explain why Israel has persisted in keeping its nuclear arsenal. Two factors make the Israeli decision to retain nuclear weapons seem contradictory: their strong alliance with the United States and their experience in the 1973 war.

U.S. support for Israel is extraordinarily strong. Given this fact and the fact that Israel has had success using conventional weapons against its enemies, one could build a case for Israel abandoning nuclear weapons. Of course, inertia, caution, and all the other reasons that hold countries back from accepting new or novel security arrangements would make perfectly adequate reasons to explain Israel's unwillingness to give up nuclear weapons.

Their experience in 1973, however, is another matter. In 1973 Israeli forces in the occupied territories were attacked by Egyptian and Syrian forces in a full-scale conventional war. The puzzle here is to understand what the leaders of Egypt and Syria were thinking. Everyone knew that Israel had nuclear weapons--it had been reported in *The New York Times*. Israel is quite a small country (at its narrowest point it is only 9 miles across) and any attack can quickly become an existential threat. If nuclear weapons confer real military advantage, how could Egypt and Syria have expected their attack to succeed?

Nuclear-weapons-as-icons theorists would argue that Israel's unwillingness to give up nuclear weapons is perfectly explicable. Even though the weapons do not confer military advantage, Israel holds on to these weapons as a symbol of safety. Great power rhetoric regularly refers to nuclear weapons as "the ultimate guarantee" of state survival. Even though they have seen nuclear weapons fail to ward off attack with their own eyes, Israel's leaders continue to hold onto nuclear weapons for their residual iconic value.

INDIA

The case for India's nuclear weapons being more symbol than weapon is particularly strong. India first tested a nuclear device in 1974. They claimed the test was of a "peaceful" nuclear device, and subsequently did not deploy actual nuclear weapons (warheads, delivery systems, etc.) for another 24 years. How is

it possible to explain this 24 year delay? If nuclear weapons are important military weapons, surely the first step after successfully mastering nuclear explosions is to organize the production of nuclear bombs and the means for their delivery? If the weapons were intended to deter an attack by China, how could they do so if they were not weaponized?

Icon theorists would argue that the sequence of events is perfectly understandable. India exploded a nuclear device in order to acquire the symbolic benefits of nuclear weapons--prestige, modernity, international influence--without the expense and opprobrium of building the weapons. The statements of Indian government officials during this period reinforces the notion that having a nuclear weapons capability--but not weaponizing--can be seen as a desirable position by some states. Ambassador Kanwal Sibal, deputy chief of mission at the Indian Embassy in Washington, wrote in a policy statement for *Arms Control Today* in 1993, "We have demonstrated our capability in 1974, but our record of not weaponizing the option since then has been exemplary, and stands out as a singular example of unwavering restraint in the atomic age."⁴⁴ His statement reflects pride, rather than, say, concern about their vulnerability as a result of not yet having weaponized.

It is not clear why India decided to weaponize after 24 years. However, this 24 year period of using a non-weaponized nuclear capability as a symbol, icon theorists could argue, speaks loudly to the iconic value of nuclear weapons.⁴⁵

PAKISTAN

Like India, Pakistan went through a period when it probably could have weaponized a nuclear arsenal, but apparently chose not to. Pakistan had a nuclear weapons program since the early 1970s, and by the mid-1980s had enriched significant quantities of weapons-grade uranium. It also tested missile systems beginning in the late 1980s. But in 1993, for example, Ali Sarwar Naqvi, minister counselor for public affairs at the Pakistani Embassy in Washington, wrote, "In its peaceful nuclear pursuit, Pakistan has achieved a certain capability which we consider very important in the security context of the subcontinent, but a political decision has been made not to manufacture, acquire or develop a nuclear weapon."⁴⁶

The United States believed that both states--In-

dia and Pakistan--had the capacity to build nuclear weapons by the early 1990s.⁴⁷ India's nuclear test on 28 May 1998 was followed by five rapid tests by Pakistan and the weaponization of both arsenals. Because Pakistan did not conduct a "peaceful test" as India did, it is not possible to know how long Pakistan had the capacity to build nuclear weapons but chose not to weaponize. But it was at least six years and probably longer.

The fact that two states chose not to weaponize for significant periods of time provides considerable support for the notion that nuclear weapons are more symbols than actual weapons. During this period neither country showed a great deal of interest in concepts of nuclear war-fighting, worst case scenarios, extended deterrence, or second strike capabilities.⁴⁸ They didn't, in other words, pay attention to the subjects that would indicate that they were thinking about their nuclear weapons as weapons.

NORTH KOREA

North Korea's path to a nuclear arsenal is a curious affair. It seems much more like a bargaining chip than a security requirement. More will be said about North Korea's program below, but suffice to say that it is not strong evidence that military necessity drives states to acquire nuclear weapons. Scholars trying to build a case that nuclear weapons are icons could bend the facts of the North Korean case to support their theory with little difficulty.⁴⁹

SOUTH AFRICA

South Africa's decision to destroy the secret arsenal of nuclear weapons it had created is peculiar if nuclear weapons are simply weapons. If the world is, as the realists say, an anarchic place where survival is always at risk, then the decision to surrender weapons in hand is inexplicable. The decision to surrender their arsenal, seen from the icon theorists point of view, is still difficult to understand, but it is not quite so incomprehensible. Surrendering a valuable symbol is easier to understand than surrendering a guarantee of survival.

KAZAKHSTAN

The experience of Kazakhstan, one of the three former Soviet republics that ended up with nuclear weapons on their soil after the breakup of the Soviet Union but decided to give them up, can be interpreted

as support for the icon theory.⁵⁰ If nuclear weapons are the ultimate guarantee of national survival, then a country perched between two nuclear-armed states ought to insist on having them. But if nuclear weapons are merely symbolic icons, then a decision to forego them is not wholly consistent with the icon theory. It isn't exactly support, but it is not proof that the theory is invalid, either. Icon theorists could tell themselves that some states will (wrongly, according to icon theorists) not want nuclear weapons as icons, but that this is part of the natural diversity of opinion among states.

THE NONPROLIFERATING STATES

Nine, ten, or perhaps more states (depending on how you count) have had nuclear weapons programs but eventually decided not to build nuclear weapons. Many scholars attribute this willingness to forego nuclear weapons to security assurances provided by the United States or others. Icon theorists could make serious objections to this line of thought, however.

"International relations," they could argue, borrowing an argument from realists, "go on in a state of anarchy. Danger exists because you cannot rely on promises. If an enemy promises not to attack you, a realist would scorn you for accepting that enemy's word." They might go on to argue, as realists often do, "Only military force provides security in an anarchic world." But this way of seeing the world raises powerful objections to the argument that U.S. security assurances have prevented nuclear proliferation. U.S. nonproliferation experts rarely question the value of these assurances. But if a state cannot believe the promises of an enemy, why would it be sensible to believe the promise of a friend? --Even if that friend were the United States. Icon theorist can pointedly ask, "Why should security assurances work in a realist world? They depend, after all, on promises." In a truly anarchic world, in which security is something that each state must provide for itself, relying on the assurances of others is inconsistent with realist theory. Icon theory, by contrast, would not face these troubling difficulties. States deciding not to build nuclear weapons do not violate important tenets about security, they simply do not feel that they need the symbolic recognition that goes with acquiring nuclear weapons.

The history of decisions to acquire or not acquire

nuclear weapons can be rather neatly explained by a theory that accords nuclear weapons the status of icons and argues that they have little military value. Like all single-motivator theories, it fails to explain all of the cases cleanly, probably because the motivations for building nuclear arsenals are complex. But it is possible to imagine policy makers who are contemplating nuclear weapons seeing the world through the lens of nuclear-weapons-as-icons and being convinced by what they see.

Policy implications

Is it possible that policy makers in states actually view nuclear weapons as more symbol than weapon? And if they do see these weapons in this light, should this change the approach to nonproliferation? Knowing that states may be looking at the situation from this perspective, is it possible to modify the non-proliferation regime so that decision makers are discouraged from making a decision to acquire nuclear weapons?

An easy mistake to make

Imagine Martian anthropologists coming to the United States in 1946 and staying for seventy years. They are polite, long-legged, and reserved--taking copious notes on their slim, silver tablets and saying little. Imagine one of them develops a particular interest in human security arrangements and undertakes an in-depth study of nuclear weapons policy. How would it be possible for this Martian to distinguish nuclear weapons from religious totems? Primitive people here on earth worship a great obelisk. They seem to be in awe of it, they believe it keeps them safe, and they see it as a repository of great power. Periodically, they bring it out of the village and parade it around on a giant trundled platform. If you had not seen nuclear weapons used in war, how would you distinguish between them and magic totems of power?

Again, nuclear weapons are real weapons that

are formidably dangerous. But this fanciful example highlights how the case for nuclear weapons as icons is potentially quite strong. Government officials in non-nuclear-armed states might have been tempted to adopt this way of seeing nuclear weapons. And clearly, observers who drew this conclusion would have facts and cogent arguments to back up their position. We might not agree with them. But it would not be possible to say that their position is entirely fanciful or constructed without reference to facts.

Given that such a position is clearly possible, is it also likely? Are there now scholars and government officials who quietly disbelieve the military value of nuclear weapons and yet are still drawn to the idea of their country possessing the “ultimate weapon”? If the notion were far-fetched or supported by little evidence, or had obvious inconsistencies, we could dismiss the question. But given the factual support for the position and its ability to plausibly explain the history and actions of many states making decisions about nuclear weapons, it seems likely that some of those scholars, government officials, and others have looked at the evidence and drawn the conclusion that nuclear weapons are just symbols. It seems likely that there are already some unknown number of scholars and government officials in non-nuclear-armed states that believe or suspect that nuclear weapons are primarily icons rather than weapons. And it seems even more likely that the longer nuclear weapons remain unused, the greater the chance people will see nuclear weapons in this way.

Iran and North Korea

The two most recent cases of nuclear proliferation, or in the case of Iran of movement toward proliferation, could be seen as evidence that the nuclear-weapons-as-icons point of view is taking hold. Both Iran and North Korea seem to value nuclear weapons as icons more than as military weapons.

North Korea's journey to a nuclear arsenal was a long and torturous one. It began its nuclear program in the 1960s with the acquisition of a small research reactor. In the early 1980s suspicions were raised that North Korea was seeking a weapons program when they built facilities to produce and separate plutonium. If North Korea saw nuclear weapons as a securi-

ty necessity, however, their subsequent behavior is inexplicable. In 1985 they signed the Non-proliferation Treaty.

States that see a dire security threat do not temporize or go back and forth. President Z. A. Bhutto is famously supposed to have said that acquiring nuclear weapons would be so important to Pakistan that to do it Pakistanis would be willing “to eat grass.” This is a good measure of the sorts of steps that desperate states are willing to take. A state that saw nuclear weapons as essential for survival would have gathered the resources needed to build an arsenal in the least time possible and then sprinted to acquisition. The behavior of the United States which undertook crash program to build nuclear weapons during World War II is a good example of the behavior of a state that is serious about acquiring nuclear weapons.

North Korea, however, spent the next fifteen years alternately shutting down its nuclear program and starting it back up. Alternately making very public nuclear-sounding threats and categorically stating the importance of its nuclear program, and then making more peaceful sounding statements. Granted, it had strong incentives each time it shut down or scaled back its program. Each time it agreed to do so it received substantial assistance from other states, particularly the United States. But a state that truly sees its survival threatened does not use the weapon that is the key to its survival as a bargaining chip.

A state that believed that nuclear weapons were icons of power, however, might well use its nuclear weapons program as a way to get recognition, attention, and aid. There is at least a plausible case, therefore, that North Korea sees nuclear weapons as icons of power rather than as real weapons to actually be used. In fact, the very prominence of nuclear weapons in their rhetoric might suggest that they do not really take the weapons seriously as weapons. Would a state that truly believes in the danger of nuclear war so casually threaten an attack on an adversary whose nuclear advantage was so lopsided?

Iran’s path toward nuclear weapons has been similarly tortuous, public, and filled with twists and turns. Again, if they really were determined to build nuclear weapons they would have embarked on a path similar to the United States during World War II: single-minded and unwavering. If Iran had decided

to build nuclear weapons at all costs, doesn’t it seem likely they would have built them by now? After all, it only took South Africa five years to build nuclear weapons. Iran has apparently been at work on weapons capacity for almost 10 years now.

Many experts agree that Iran wants to build the capacity to make nuclear weapons, but does not appear intent on actually weaponizing. It wants to tip toe up to the nuclear weapons line, but not actually cross over it. This is inexplicable behavior from a military point of view. Why would you almost build weapons crucial to your security but not quite do so?

On the other hand, if you view nuclear weapons as icons of power, if they are symbols of technological sophistication, if what you’re interested in is showing that you could build them if you wanted to, then Iran’s behavior makes a great deal of sense. If it is possible to acquire all the symbolic benefits of nuclear weapons—respect, influence, regional power—without actually building the weapons, then why not tip toe up to the line and leave it at that? There appears to be at least a good circumstantial case that Iran views the iconic importance of nuclear weapons as greater than their military value.

Two cases does not make a trend. It may be that the next state to acquire nuclear weapons will be one that fully believed in the military value of those weapons. On the other hand, two cases could be the early indicators of a trend. It might be that as the memory of the Cold War fades, and as it becomes harder and harder for states to believe in the danger that nuclear weapons pose, that there will be increasingly be states that view nuclear weapons as icons rather than weapons.

Encouraging proliferation

If there are states whose security elites view nuclear weapons as icons rather than weapons, what impact should this have on nuclear weapons nonproliferation policy? How should a robust nonproliferation policy take the possibility that some states see nuclear weapons differently into consideration? As we’ve discussed, most nonproliferation thinking in nuclear-armed states focuses on security: most nonproliferation efforts are shaped and directed by the belief that security is the key motivator. How can

nonproliferation policy be modified to accommodate the possibility that some see the problem through a nuclear-weapons-as-icons lens.

States that see nuclear weapons as icons would be alive to the importance of the weapons. They would be disinclined to be concerned with security issues--with maintaining strong command and control measures, with thinking through war fighting strategies, with thinking about all the practical side of treating nuclear weapons as weapons. These issues wouldn't interest them. They would be very interested, however, in the role that nuclear weapons play in the social game on international diplomacy. How do people talk about nuclear weapons? How do they affect treaties? Are people willing to make concessions because of them? How important do they seem in the interactions between states?

Seeing nuclear weapons from a security perspective and from a very different icon lens naturally causes different conclusions to be drawn about actions taken to buttress nonproliferation. In fact, a narrow focus on security by nuclear-armed states could lead to inflation of the iconic value of nuclear weapons. Consider. A nuclear-armed state wishes to stress the military value of nuclear weapons, so they write in their annual defense posture statement that nuclear weapons remain a key part of their national security. From the perspective of the nuclear-armed state, this is a rather unexceptional statement about the way in which nuclear weapons contribute to their defense. But to a state that suspects that the military value of nuclear weapons is a sham, the message that is transmitted is quite different. Since their military value is suspect, the fact that they are described as "key" signals that they are, at the least, very valuable icons of power. Weapons that have no plausible military use but which are still designated "key" to defense obviously have a very high symbolic value. A moderately ordinary statement about military power is read as a reaffirmation of the singular nature of nuclear weapons as icons of power.

Or again: the United States wants to reassure its allies that the NATO alliance remains strong. To do this, from a security perspective, you focus on the thing that provides the security: nuclear weapons. In order to prove the strength of the alliance, you make your commitment to nuclear weapons absolutely clear. Therefore, Secretary of State Clinton says that

"[A]s long as nuclear weapons exist, NATO will remain a nuclear alliance." The key security element has been identified and the U.S. commitment to it made unmistakable.

One of the key drivers of the NATO alliance when it was originally formed, and one of the most important reasons for its continuing importance (according to many experts), is the argument that a nuclear guarantee of safety from a nuclear power (originally just the United States, now also the United Kingdom and France) would dissuade other states from acquiring nuclear weapons. Nuclear assurances have been an essential part of the nonproliferation regime. So Secretary of State Clinton's statement could be seen as simply an expansion on an existing guarantee.

However, viewed from a nuclear-weapons-as-icons perspective, this statement sends the wrong message. Icon states look at this statement and they don't hear a message about U.S. commitment. They hear the United States saying something like, "The value of nuclear weapons is so great that nothing else could so strongly cement our relationship with our most important allies. No other action we could take--trade arrangement, verbal promise, placement of conventional military forces--would be as persuasive as a promise that this relationship will always be organized around nuclear weapons. Nuclear weapons, in other words, are the most valuable tokens of friendship and commitment in the world."

By focusing on security, the United States and other states inadvertently send the message that nuclear weapons are the most important object in relations between nations. Surely that is not the message that they intended to send. But viewed from the icon perspective, it is unmistakable. And such a message not only sends the value of nuclear-weapons-as-icons higher, it is a strong inducement to acquire nuclear weapons.

There is also the difficulty of projected links between nuclear weapons and power that--while they do not actually exist--appear to exist. The most important of these is the fact that the members of the United Nations Security Council are all nuclear-armed states. This state of affairs is, however, a historical accident. The Soviet Union, the United Kingdom, and France were given their permanent seats on the Security Council because of their status as victors at the

end of World War II and (especially in the case of the United Kingdom and France) their traditional roles as great powers. Each of these three acquired nuclear weapons after their appointment to permanent status on the Security Council. But even though there is no basis in fact for the perception, many still believe that, in order to sit on the most important body in the UN, it is necessary to possess nuclear weapons. It could be argued that People's Republic of China replaced the Republic of China (Taiwan) in 1971 because the People's Republic of China had nuclear weapons. A more persuasive argument would be that the People's Republic of China deserved its seat because of its enormous population, emerging economy, and traditional status as a great power. However, the impression that nuclear weapons are the necessary ticket to the great power club remains.

If you want to join a club and the membership fee is quite high, before you spend all that money you will try to assess whether it will be worth it. Do the members of the club seem to end up with access to important people and relationships? If you notice that the membership card seems to be quite influential--it opens doors, cements relationships, impresses people in negotiations--that would be strong evidence that paying the fee for the membership card was worth it.

Nuclear-weapons-as-icons states want to join the club of influential world powers. They see nuclear weapons as their membership card. They watch the great powers to see whether the card is an important part of what makes them influential. Every time the nuclear-armed states emphasize nuclear weapons, they encourage other states to believe that those weapons are membership cards that they have to have.

Deflating the symbolic value

Different states will desire nuclear weapons for a mix of reasons, with no single factor as the determining one. Security surely was the most important factor in nuclear weapons thinking at one time. But as the Cold War recedes, as the only use of nuclear weapons recedes in time, it seems increasingly likely that states will discount the military importance of nuclear weapons and emphasize other aspects of the weapons in explaining their importance. It isn't nec-

essary to tease apart this complex set of motivations here. All that's necessary for our purposes is knowing that nuclear weapons are valued differently by different nations. States will acquire or not acquire nuclear weapons not because of one motive, but because of a series of different motives.

Given that it is possible for different states to evaluate the worth of nuclear weapons differently, the task of those who want to limit the spread of nuclear weapons should not be to insist on their way of viewing the problem, but to develop methods of discouraging proliferation that connect with all of the likely motives for acquiring nuclear weapons. Rather than trying to persuade states that they see nuclear weapons wrongly, it makes sense to take their views seriously, and devise arguments that--in those states' own terms--are persuasive reasons for not acquiring nuclear weapons.

If the international community is serious about nuclear nonproliferation it is not sufficient to use a single, one-size-fits-all, security-based approach. If it is likely, or even possible, that other views of nuclear weapons could serve as drivers of proliferation, then developing policies that take those drivers into account is a priority.

The chief problem with security-only nonproliferation thinking is that steps to reinforce security can inadvertently encourage proliferation if states view those steps through a nuclear-weapons-as-icon lens. There are reasons for encouragement, however. It ought to be possible to construct policies that deflate the symbolic value of nuclear weapons without reducing their military effectiveness. Military effectiveness is not strongly tied to perceptions--the weapons either destroy things or they don't. Therefore, it ought to be possible to reduce perceptions of the symbolic importance of nuclear weapons without significantly undercutting their military value.

Specific steps

In order to accommodate the reality that some states may look at nuclear weapons as symbols more than weapons, it makes sense to modify the behavior of nuclear-armed states who wish to discourage proliferation. There are a number of specific steps that could be taken to deflate the overinflated symbolic

value of nuclear weapons. No one of these steps will be sufficient in itself to counter the exaggerated notion states may have of the symbolic value of nuclear weapons, but if they applied in combination it may be possible to slowly reduce the perceived value of nuclear weapons as icons.

It ought to be possible to construct policies that deflate nuclear weapons without effecting their military usefulness. It ought not to be necessary to make drastic changes in the military configuration of a state's nuclear forces. The things that are said, however, and the role that nuclear weapons are allowed to play in alliances, will have to be considerably changed. States that see nuclear-weapons-as-icons do not look, primarily, to the military readiness of nuclear weapons to judge their iconic value. They watch the interaction among states and listen to the statements of government representatives of nuclear-armed states. In order to deflate the symbolic value of nuclear weapons it is not necessary to significantly reduce military preparedness, but it is necessary to make wide-ranging changes in the things that are said about them.

1. CONVENTIONAL EXTENDED DETERRENCE

The most important step that nuclear-armed states could take to deflate the symbolic value of nuclear weapons is to substitute conventional assurances for nuclear ones. If nuclear assurances are the only ones which can cement an alliance, then nuclear weapons are not only valuable symbols of power, they are absolutely required for any nation whose foreign policy depends on strong alliances with others.

The notion that only nuclear weapons can cement an alliance is a dangerous fallacy. Relationships between states, as relationships between people, are not cemented by weapons systems. They are based on strong promises and actions that confirm those promises. It is a fundamental misunderstanding of human nature to imagine that alliances can only be strong where nuclear weapons are present. This is the most important step that can be taken to reduce the symbolic value of nuclear weapons.

2. DE-ALERTING

Nothing signals the crucial nature of nuclear weapons more than their constant alert status. By keeping them always at the ready, nuclear-armed

states appear to be saying that these are the weapons they cannot do without. They are such vital weapons that they have to be kept at the ready even during peacetime when no threat is on the horizon.

There are numerous ways to protect nuclear weapons that are not ready to launch. The simplest is being careful to hide the weapons, but there are other measures that could be taken to keep the arsenal safe while still allowing some substantial part of it to be preserved even after a sudden first strike. In fact, taking weapons off alert ought to make some weapons easier to store and hide, since land-based missiles are often based in fixed locations that are known to the enemy.

3. DECLARATORY STATEMENTS

States that support nonproliferation efforts and that take the possibility of other states seeing nuclear weapons as merely icons seriously must alter the tenor and content of the statements they make about nuclear weapons. Official planning documents, policy statements, and public pronouncements that emphasized the crucial nature of the role of nuclear weapons are sure to further inflate the iconic value of nuclear weapons. Statements that devalue nuclear weapons, no the other hand, such as President Obama's statement that United States policy was to seek the eventual elimination of nuclear weapons, are helpful.

4. SUSPEND MODERNIZATION PROGRAMS

Pouring billions of dollars into modernization programs--either for weapons or for weapons facilities--inevitably signals that nuclear weapons are important and worth having. Suspending efforts to modernize these weapons and the facilities that build and maintain them would strongly undermine the iconic value of nuclear weapons.

5. NO THREATS

Nuclear-armed states should abstain from using nuclear weapons threats during crises. Brandishing nuclear weapons in this way is rarely necessary. It is not likely that anyone in a confrontation with a nuclear power will forget the fact that their adversary is armed with nuclear weapons. Reminding adversaries of the presences of nuclear weapons is unnecessary. It is also not necessary to use nuclear weapons to signal that a crisis is now serious. There are many ways to frame a message so that an adversary understands the

depth of your commitment without having to mention this or that weapon.

When nuclear-armed states resort to nuclear threats, they send the message that nuclear weapons are valuable tools in diplomatic crises, that they can influence the behavior of states, and that the nuclear-armed states believe that nuclear weapons are the “ultimate threat.” Nuclear threats increase the perceived value of nuclear weapons.

6. HUMANITARIAN CONSEQUENCES

Acknowledging that the humanitarian consequences of the use of even one nuclear weapons would be unacceptable would reduce the symbolic value of nuclear weapons. It would acknowledge that nuclear weapons are weapons first and foremost and not symbols to be painlessly used whenever the need was felt. It would focus attention on the real risks of accidental nuclear use, including the possibility of nuclear war.

7. FURTHER DISARMAMENT

Continued disarmament would, of course, send the strongest signal that nuclear weapons were of little symbolic value. The belief that nuclear weapons will soon be gotten rid of is the strongest argument that they lack real symbolic power. A currency that will soon be abolished is not a currency that one wants to invest in.

OTHER MEASURES

Nuclear-armed states should endeavor to fully understand the possibilities for deflating the symbolic value of nuclear weapons and explore other options to do so. Possibilities include no-first-use pledges, deemphasizing nuclear weapons in service colleges, or agreements that the military value of nuclear weapons is small. In particular, if the United States published credible plans for a powerful conventional response to a hypothetical attack with 1 to 5 nuclear weapons, it would undermine the notion that nuclear weapons are essential for responding to nuclear attacks. There may be other measures as well that scholars and government officials may discover by giving attention to the matter.

Conclusion

Efforts to promote nonproliferation that see the world through a single lens cannot provide an accurate view of that world. Emphasizing the importance of nuclear weapons, as current nonproliferation measures often do, may well be counterproductive. Some states may see nuclear weapons as symbols, rather than weapons, and actions that inflate their value as symbols make proliferation more likely. Whether the notion that nuclear weapons are more icons of power than weapons is correct or not, there is a sound basis of fact and coherent body of thinking that supports the notion. As the amount of time increases since the last use of nuclear weapons, the likelihood that states will tend to believe that nuclear weapons are primarily symbols rather than weapons will increase. It is necessary, therefore, if we are serious about nonproliferation to take strong measures to deflate the symbolic value of nuclear weapons.

Endnotes

¹ Miller, Steven E., *Nuclear Collisions: Discord, Reform & the Nuclear Nonproliferation Regime* (The American Academy of Arts and Sciences, 2012), p. 1.

² Tuchman, Barbara W., *The March of Folly: From Troy to Vietnam* (New York: Ballantine Books, 1984).

³ Miller, Steven E., *Nuclear Collisions: Discord, Reform & the Nuclear Nonproliferation Regime* (The American Academy of Arts and Sciences, 2012). See also Fahmy, Nabil, 'An Assessment of International Nuclear Nonproliferation Efforts After 60 Years', *The Nonproliferation Review*, Vol. 13, No. 1 (2006): 81-87.

⁴ Also the 1947 Inter-American Treaty of Reciprocal Assistance (Rio Treaty), the 1951 Mutual Defense Treaty between the Philippines and the United States, the 1954 Southeast Asia Collective Defense Treaty (SEATO) dissolved in 1977, the 1955 Central Treaty Organization (CENTO) dissolved in 1979, the 1960 Treaty of Mutual Cooperation and Security between the United States and Japan, and the 1962 Nassau agreement, a defense treaty with the United Kingdom.

⁵ Nonproliferation measures include the NPT, signed by 189 states but with the important exceptions of Israel, India, Pakistan, and North Korea. The United Nations Security Council Resolution 1540 requires all UN member states to establish and enforce domestic controls to prevent proliferation, to refrain from supporting non-state actors seeking WMDs, and to adopt and enforce effective laws to inhibit the efforts of the proliferation process. The International Atomic Energy Agency (IAEA) oversees the research, development and use of nuclear power plants for energy. In this capacity it also establishes safeguards and manages inspections to insure compliance. Voluntary groups (the Nuclear Suppliers Group, the Missile Technology Control Regime (MTCR) and the Wassenaar Arrangement) supplement these efforts with efforts that include national control laws, licensing, information sharing, and export restraints. Finally, a multitude of regional and state-led efforts like the Organization for Security and Cooperation in Europe (OSCE) and the Association of Southeast Asian States (ASEAN) focus broadly on regional security issues, while also providing a forum for discussion on nucle-

ar weapons-related controls. The Proliferation Security Initiative (PSI), a U.S.-led coalition, was launched in 2003 and has expanded to include 100 member states focuses on the prohibition and disruptions of illicit transfers of WMD materials.

⁶ The nonproliferation debate is vast, however, useful starting points are: Sagan, Scott D., 'Why Do States Build Nuclear Weapons?: Three Models in Search of a Bomb', *International Security*, 21/3 (1996): 54-86; Ogilvy-White, Tanya, 'Is There a Theory of Nuclear Proliferation? an Analysis of the Contemporary Debate', *The Nonproliferation Review*, (1996): 43-60; Brown, Michael E., Owen R. Coté, Jr, Sean M. Lynn-Jones, and Steven E. Miller, *Going Nuclear: Nuclear Proliferation and International Security in the 21st Century* (Cambridge Massachusetts: The MIT Press, 2010).

⁷ May, Michael M., 'Nuclear Weapons Supply and Demand', *American Scientist*, Vol. 82, No. 6 (1994): 526-537, p. 526.

⁸ Thayer, Bradley A., 'The Causes of Nuclear Proliferation and the Utility of the Nuclear Nonproliferation Regime', *Security Studies*, 4:3 (1995): 463-519, p. 465, 474. For a similar viewpoint, see Tagma, Halit Mustafa Emin, 'Realism At the Limits: Post-cold War Realism and Nuclear Rollback', *Contemporary Security Policy*, 31:1 (2010): 165-188.

⁹ See, for example, Lavoy, Peter R., 'Nuclear Proliferation Over the Next Decade: Causes, Warning Signs, and Policy Responses', *The Nonproliferation Review*, Vol. 13, No. 3 (2006): 433-454.

¹⁰ Brodie, Bernard, *Strategy in the Missile Age* (Princeton, New Jersey: Princeton University Press, 1971), p. 160-64.

¹¹ Variations on the apocalypse story appear in the Christian Bible (Revelation), the Jewish Bible (Daniel), and in the Quran (Sura 81). But it appears in religions and cultures outside the Abrahamic tradition as well. There are apocalyptic writings in the ancient Zoroastrian religion, in Chinese writings from the 4th century, and in the Norse tradition. And apocalypse is not peculiar to any one time period. Although it was particularly common in biblical times, it also appears in Europe in the 3rd through 5th century Sib-

ylline Oracles, in the 15th century in the writings of Nostradamus, in the 16th century in political uprisings in Germany and England, and at the turn of the 19th century in millenarian movements. As recently as 2012 there was widespread talk in international media (although it was mostly done with a wink and a nudge) about the end of the world foretold by the Mayan calendar. See Wilson, Ward, *Five Myths About Nuclear Weapons* (New York: Houghton Mifflin Harcourt, 2013), pp. 14-15.

¹² Chimpanzees and other primates, for example, can learn sign language to communicate.

¹³ In fact there is considerable research being done in neuroscience that argues that we are considerably less rational than we have thought for the last 300 years. A scholar at Harvard has even put forward a well argued and documented case that we are driven by forces mostly buried in our subconscious and that our conscious mind is more like a talkative passenger than a driver of our actions. Wegner, Daniel M., *The Illusion of Conscious Will* (Cambridge, MA: Bradford Books, 2002).

¹⁴ See Rublee, Maria Rost, *Nonproliferation Norms: Why the States Choose Nuclear Restraint* (Athens, Georgia: University of Georgia Press, 2009); Katzenstein, Peter J. (ed.), *The Culture of National Security* (New York: Columbia University Press, 1996); Suchman, Mark C., and Dana P. Eyre, 'Military Procurement as Rational Myth: Notes on The Social Construction of Weapons Proliferation', *Sociological Forum*, Vol. 7, No. 1 (1992): 137-161; and Flank, Steven, 'Exploding the Black Box: the Historical Sociology of Nuclear Proliferation', *Security Studies*, 3:2 (1993): 259-294.

¹⁵ Murray, Michelle, 'Identity, Insecurity, and Great Power Politics: the Tragedy of German Naval Ambition Before the First World War', *Security Studies*, 19 (2010): 656-688, p. 664.

¹⁶ Quoted in Murray, Michelle, 'Identity, Insecurity, and Great Power Politics: the Tragedy of German Naval Ambition Before the First World War', *Security Studies*, 19 (2010): 656-688, p. 675.

¹⁷ The notion of weapons having cultural or political roles beyond their simple military function seems in-

comprehensible to some people. Technology is an impersonal force, developing largely outside the control of human beings, in this view. Whatever the technology allows, that is what people will do, it is argued. For alternative views on the cultural influences that shape technological development, see, for example, Ellis, John, *The Social History of the Machine Gun* (London: The Cresset Library, 1975); Perrin, Noel, *Giving Up the Gun: Japan's Reversion to the Sword, 1543-1879* (David R. Godine, 1979); and Bulliet, Richard W., *The Camel and the Wheel* (Columbia University Press, 1990). And O'Connell argues that weapons were so tightly connected to social and cultural factors that changing weapons could result in a revolution in social relationships. ". . . arms were so bound up with ritual and culture--not just biology and tradition but economic and political reality--that fundamental changes often implied a restructuring of society itself." O'Connell, Robert L., *Of Arms and Men: a History of War, Weapons, and Aggression* (New York: Oxford University Press, 1989), p. 34.

¹⁸ Blyth, Robert J., Andrew Lambert, and Jan Rüger, *The Dreadnought and the Edwardian Age* (Farnham, Surrey: Ashgate, 2011), p. 9-10.

¹⁹ O'Connell, Robert L., *Of Arms and Men: a History of War, Weapons, and Aggression* (New York: Oxford University Press, 1989), p. 227.

²⁰ O'Connell, Robert L., *Of Arms and Men: a History of War, Weapons, and Aggression* (New York: Oxford University Press, 1989), p. 228.

²¹ O'Connell, Robert L., *Sacred Vessels: the Cult of the Battleship and the Rise of the U.S. Navy* (New York: Oxford University Press, 1991), p. 104.

²² Sir Charles Harding, in a minute from the Foreign Office emphasized the importance of the navy to diplomacy: "the whole question of our naval strength in foreign waters is one which intimately affects this Department and that the successful pursuit of a policy in foreign countries must necessarily be dependent upon the requisite naval force being available to support it in case of need." One historian summed it up simply by saying, "the Royal Navy was an instrument of deterrence and coercion. Blyth, Robert J., Andrew Lambert, and Jan Rüger, *The Dreadnought and the Edwardian Age* (Farnham, Surrey: Ashgate, 2011),

pp. 52-53.

²³ O'Connell, Robert L., *Of Arms and Men: a History of War, Weapons, and Aggression* (New York: Oxford University Press, 1989), p. 227.

²⁴ "It was," as Admiral Sir Reginald Bacon, a member of the Committee on Designs, clearly stated, 'the advent of long-range shooting, and not the Dreadnought herself, which made all existing battleships obsolete.'" Quoted in Jones, Archer, and Andrew J. Keogh, 'The Dreadnought Revolution: Another Look', *Military Affairs*, Vol. 49, No. 3 (1985): 124-131, p. 126. O'Connell comments that supposed improvements in accuracy were largely imaginary. "Had radar-based range finders and electronic computers been in existence, dreadnoughts could have been effective weapons; but with extant fire control, the great ships were preordained to relative impotence." O'Connell, Robert L., *Sacred Vessels: the Cult of the Battleship and the Rise of the U.S. Navy* (New York: Oxford University Press, 1991), p. 119.

²⁵ Richard Hough writes, "That she survived so long in the world's armories was evidence of the dreadnought's power to inflame men's imaginations." Cited in O'Connell, Robert L., *Sacred Vessels: the Cult of the Battleship and the Rise of the U.S. Navy* (New York: Oxford University Press, 1991), p. 7.

²⁶ O'Connell, Robert L., *Ride of the Second Horseman: the Birth and Death of War* (New York: Oxford University Press, 1995), p. 119.

²⁷ O'Connell, Robert L., *Ride of the Second Horseman: the Birth and Death of War* (New York: Oxford University Press, 1995), p. 119.

²⁸ O'Connell, Robert L., *Ride of the Second Horseman: the Birth and Death of War* (New York: Oxford University Press, 1995), p. 119.

²⁹ O'Connell, Robert L., *Ride of the Second Horseman: the Birth and Death of War* (New York: Oxford University Press, 1995), p. 119.

³⁰ O'Connell, Robert L., *Ride of the Second Horseman: the Birth and Death of War* (New York: Oxford University Press, 1995), p. 120.

³¹ An interesting example in reverse is the ancient Ro-

man rejection of the bow as a weapon. "The Roman army was by its nature confrontational; its central aim was to close with the enemy and chew through his formations. Under the circumstances, the bow must have been rejected as much for what it symbolized as for its actual tactical qualities." [emphasis added] Armored knights, similarly, came to be seen as icons of power. "As is common of weapons in nature specialized to enforce dominance, the vestments of heavy cavalry were extremely formidable visually, relying on a heavy measure of implied threat. The Middle Ages was a time overlaid with symbolize, and the charging armored juggernaut and the crenellated battlements of the medieval castle took their places as the prime archetypes of coercive power, images of such potency that they would endure long past their tactical demise, to condition weapons choice right into the industrial era." O'Connell, Robert L., *Of Arms and Men: a History of War, Weapons, and Aggression* (New York: Oxford University Press, 1989), pp. 74, 92.

³² Robert Jungk, *Brighter Than a Thousand Suns* (New York: Harcourt Brace & World, Inc., c1958), p 201.

³³ Kristensen, Hans M., and Norris, Robert S., 'Global nuclear weapons inventories, 1945-2013,' *Bulletin of the Atomic Scientists*, 69 (2013), pp. 75-81, <http://bos.sagepub.com/cgi/collection/nuclearnotebook>.

³⁴ Lacina, Bethany, and Nils Petter Gleditsch, 'Monitoring Trends in Global Combat: a New Dataset of Battle Deaths', *European Journal of Population*, 21 (2005): 145-166. For the wars listed see page 154. For Asian and African wars see page 159.

³⁵ Stimson, Henry L., 'The Decision to Use the Atomic Bomb', *Harper's Magazine*, 194/1161 (1947): 97-107.

³⁶ Wilson, Ward, *Five Myths About Nuclear Weapons* (New York: Houghton Mifflin Harcourt, 2013).

³⁷ Meyer, Oliver, "NATO Chief's Remark Highlights Policy Rift," *Arms Control Today*, May, (2010), http://www.armscontrol.org/act/2010_05/NATO.

³⁸ Interestingly, Richard Betts argues that based on the prestige value of nuclear weapons, one would expect that the states most likely to acquire nuclear

weapons would be “states that are emerging as dominant regional power centers with plausible pretensions to being great powers.” Betts names Iran, Brazil, Nigeria and Indonesia as the states most likely to want nuclear weapons in the near future. As a result, nuclear-weapons-as-icons theorists could point out that none of these states currently faces a plausible military threat that would justify the acquisition of nuclear weapons. Betts, Richard K., ‘Paranoids, Pygmies, Pariahs and Nonproliferation Revisited’, *Security Studies*, 2:3-4 (1993): 100-124, p. 107.

³⁹ See Chafetz, Glenn, ‘The Political Psychology of the Nuclear Nonproliferation Regime’, *The Journal of Politics*, Vol. 57, No. 3 (1995): 743-775, particularly the section entitled “Social Identity and World Politics.” See also Murray, Michelle, ‘Identity, Insecurity, and Great Power Politics: the Tragedy of German Naval Ambition Before the First World War’, *Security Studies*, 19 (2010): 656-688.

⁴⁰ Tannenwald, Nina, *The Nuclear Taboo: the United States and the Non-use of Nuclear Weapons Since 1945* (New York: Cambridge University Press, 2007).

⁴¹ The nuclear deterrence literature is vast. A good place to begin is Freedman, Lawrence, *The Evolution of Nuclear Strategy* (New York: St. Martin’s Press, 1981).

⁴² Blainey, Geoffrey, *The Causes of War* (New York: The Free Press, 1973).

⁴³ For more on China see, for example, Lewis, Jeffery, *The Minimum Means of Reprisal: China’s Search for Security in the Nuclear Age* (Cambridge, Massachusetts: The American Academy of Arts and Sciences, 2007).

⁴⁴ Quoted in Reynolds, Rosalind R., ‘Nuclear Proliferation: the Diplomatic Role of Non-weaponized Programs’, *INSS Occasional Paper 7*, (1996), p. 14.

⁴⁵ For more about the Indian case see, for example, Perkovich, George, *India’s Nuclear Bomb: the Impact on Global Proliferation* (Berkeley, CA: University of California Press, 1999).

⁴⁶ Quoted in Reynolds, Rosalind R., ‘Nuclear Proliferation: the Diplomatic Role of Non-weaponized Programs’, *INSS Occasional Paper 7*, (1996), p. 14.

⁴⁷ CIA Director Robert Gates testified to Congress in 1992 that though the U.S. had “no reason to believe that either India or Pakistan maintains assembled or deployed nuclear bombs . . . such weapons could be assembled quickly.” Quoted in Reynolds, Rosalind R., ‘Nuclear Proliferation: the Diplomatic Role of Non-weaponized Programs’, *INSS Occasional Paper 7*, (1996), p. 15.

⁴⁸ George Perkovich, quoted in Reynolds, Rosalind R., ‘Nuclear Proliferation: the Diplomatic Role of Non-weaponized Programs’, *INSS Occasional Paper 7*, (1996), p. 16.

⁴⁹ For more on North Korea see, for example, Chang, Gordon G., *Nuclear Showdown; North Korea Takes on the World* (New York: Random House, 2006).

⁵⁰ It can, in fact, be interpreted any number of ways. It can be interpreted as support for the idea that nuclear weapons are not very militarily useful. But the point here is what the decision might look like if you were trying to build a coherent view of nuclear weapons history based on a theory the posited that nuclear weapons are icons.

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