

STS 152: Nuclear Weapons, Risk and Hope

[Prof. Martin E. Hellman](#)

Handout #7, November 4, 2010

Reading

Read this handout and any references that I indicate are part of this reading assignment.

Critical Thinking

We've discussed how both the negative and positive nuclear possibilities become more conceivable when broken down into a sequence of small moves. Some moves that appear to take us in the positive direction might entail risks of their own, in which case those added risks need to be compared to the reduction in risk also produced. Only if the move's risk reduction dominates its risk creation does it really take us in the positive direction. This section explores a possible early move – applying critical thinking to root out false premises in our world view – that seems potentially risk free because it does not require changing our military or nuclear posture. Initially, deterrence and all other military options can stay exactly as they are today. The only thing that would change is our perception of where and when to apply those options, and changes would only be made when our new, more rational world view demanded it.

The only potential risk that I have been able to find¹ is that, by becoming more rational, our deterrent may be less credible. That's because, as noted in a 1995 STRATCOM report [Essentials of Post-Cold War Deterrence](#):

Because of the value that comes from the ambiguity of what the US may do to an adversary if the acts we seek to deter are carried out, it hurts to portray ourselves as too fully rational and cool-headed. The fact that some elements may appear to be potentially "out of control" can be beneficial to creating and reinforcing fears and doubts within the minds of an adversary's decision makers. This essential sense of fear is the working force of deterrence. That the US may become irrational and vindictive if its vital interests are attacked should be part of the national persona we project to all adversaries.

Of course, the same risk-benefit analysis that should be applied to proposed, seemingly positive moves also should be applied to STRATCOM's recommendation. The risk of appearing "irrational and vindictive" with respect to using our nuclear arsenal would seem to outweigh the benefits. Added weight for that belief comes from the fact that one of the most frequent

¹ If you can find other possible risks, please bring them to my attention. This is a new section of this seminar and may need some tweaking.

arguments in favor of nuclear deterrence is that no one in his right mind would start a nuclear war. It seems very risky for nuclear deterrence to depend on our leaders *being* rational, while *appearing* irrational.

There are many ways to practice critical thinking, but perhaps the most important first step is to recognize that much of what we think of as absolute truths are, in fact, mere beliefs. It is easy to see this in terms of past errors in human thinking, such as believing the earth to be flat, or that the sun revolved around the earth, but harder to see in terms of society's currently cherished beliefs.

Critical thinking requires discarding things we thought we knew if they turn out not to be true. But, more frequently, critical thinking involves adding a perspective that our previous world view lacked. In that case, rather than forcing us to discard our old idea, critical thinking adds a new dimension to our understanding.

A good example from science is the nature of light. In the 17th and 18th centuries, scientists argued whether light was a particle or a wave. Newton, for example, was in the particle or corpuscular camp. In the late 19th century, Maxwell developed a set of four elegant equations that clearly showed light was a wave. The particle nature of light came to be seen as a quaint theory that no educated individual could possibly embrace. Thus, when in 1900, Max Planck could only explain "black body radiation" by assuming that light was emitted in packets of a fixed size, he saw this as "a purely formal assumption," and did not recognize its importance. Giving the particle nature of light any more prominence probably would have felt like going back to the incorrect thinking of two centuries earlier. Five years later, Albert Einstein's work on the photoelectric effect helped him recognize that light, while at times exhibiting wave-like behavior, at other times behaved like a particle. By expanding his world view from one where light must be either a wave or a particle to one where light could exhibit both properties, Einstein laid the foundation for quantum mechanics, a branch of science that has given us many modern marvels, including integrated circuits. Such paradigm shifts always involve embracing what previously seemed to be patently false or impossible.²

This type of critical thinking fits the story of the three blind men and the elephant:

² My own invention, joint with Diffie and Merkle, of public key cryptography, while not in the same league as the discovery of quantum mechanics, also involved breaking out of a mindset that had restricted thinking in the field. Roughly 100 years prior to our discovery, the field had been modernized by (correctly) requiring that all secrecy reside in the key. With that requirement, how could the key be public? The answer lay in recognizing that there could be two keys, one public and one secret.

Three blind men who have never experienced an elephant stumble onto one – literally. The first one finds the tail and is sure that the elephant is a rope. The second, who has run into the leg, is sure this is a tree. The third touches the trunk and knows it is a serpent. As frequently happens when people with such incompatible perspectives meet, they start to argue and eventually come to blows. Each has a piece of the truth, but so long as they assert that their perspective is the whole truth, it becomes a falsehood. Only by opening their minds to new perspectives can they come closer to the truth.

The story of the blind men and the elephant helps explain a saying that otherwise might be enigmatic: *The greatest value is in the opposing point of view*. If you and I agree on something, we cannot learn from one another. But, if we disagree, there is a chance that we can learn something new from one another. Note that the saying was not: *The greatest value is always in the opposing point of view*. Sometimes the other point of view really is wrong. But, until we truly open our minds to the opposing point of view, it is impossible to determine whether the other person really is wrong or merely appears wrong from our vantage point. I can attest that often this is not easy to do, but well worth the effort.

While critical thinking is applicable in many areas, and I first used it to resolve seemingly insoluble conflicts in my marriage. But here, where our goal is to reduce the risk of a nuclear disaster, we need to apply it to national security and international relations. Without calling it critical thinking, we have already applied it to several assumptions on which society is operating:

- Nuclear deterrence is not broken, and it would be dangerous to try and fix it.
- Even if change were desirable or needed, it is impossible. Look at Russia's resurgent nationalism, not to mention the nut jobs running North Korea and Iran.
- Even if change were possible, I as an individual have no role to play.

Whether or not you agree with me that the above assumptions are wrong, I hope you found it helpful to examine them in greater detail than usual. In that same spirit, I encourage you to apply critical thinking to the following, additional societal beliefs. I look forward to hearing your perspectives when we discuss them in class – especially if your views differ from mine:

1. The US is the world's sole remaining superpower.

The United States spends more on its military than the rest of the world combined. That gives us unique capabilities, yet Russia can destroy us in under an hour. That leads to two questions: Are

we the sole remaining superpower, and if not, what risk do we incur by mistakenly believing that we are? Examples of this thinking that I found in a quick Google search:

For them [jihadists] to be seen to defeat the sole remaining superpower in the same place [the border area of Afghanistan and Pakistan] would have severe consequences for the United States and the world. [[Testimony of Secretary of Defense Robert M. Gates](#) before the Senate Armed Services Committee, December 2, 2009]

Because the United States' overwhelming military might has deterred North Korea in the past, some senior American officials say there is no reason to think that Pyongyang would act irrationally in the future and threaten the world's sole remaining superpower with a missile strike. [[New York Times article](#) published June 23, 2000]

Prime Minister Suleyman Demirel of Turkey, a veteran of decades of political intrigue and the victim of military coups, offered some cautionary advice to President Bush on a visit here this week. Toppling President Saddam Hussein of Iraq, Mr. Demirel said today, would be a bad way to begin as the world's sole remaining superpower in the eyes of dozens of fragile new democracies. [[New York Times article](#) published February 13, 1992 – note that this came from a Turk, not an American]

... they [the rest of the world] want to know exactly what the world's one remaining superpower is able to do and willing to do. [[transcript of “Special Report With Brit Hume.”](#) October 20, 2008]³

2. America’s military strength allows us to impose our will.

This is closely related to #1 above. I see evidence for this belief in some American actions, as well as in calls for the US to undertake yet others. Some of this comes from outside the country. For example, one colleague who recently hosted a South Korean diplomat told me the man asked him why the US didn’t force North Korea to give up its nuclear weapons, something my colleague saw as wishful thinking. While I have the impression that this belief is widespread, I was surprised that a web search found only a few instances, for example:

³ Speaking of having one’s frame of reference shattered: Wanting to see more liberal and more conservative takes, I first searched on “sole remaining superpower” (without the quotes) restricted to the New York Times web site. I got 95 results. I searched again, restricted to Fox News’ web site and got 8 results, only one of which was relevant. I expected to see many more references on Fox. Without restricting to any one site, I got 92,300 results. Putting quotes around “sole remaining superpower” lowered that to 10,800 results.

THOUSANDS OF INNOCENT Americans were attacked and murdered on 11 September 2001. ... There is much to do – and the time is limited. Before us is either our finest hour or what the enemy intends as our last hours. We must be smart, impose our will, and prove that the enemy has made a profoundly stupid mistake. [[Aerospace Power Journal article](#) by Col. Richard Szafranski, USAF (Retired), Spring 2002]

3. Russia is a modern day Nazi Germany that only understands force.

This is often put in terms of the danger of appeasing Russia. While appeasement theoretically has other connotations (see #4 below), it has become a codeword for Neville Chamberlain's agreeing to Hitler's takeover of Czechoslovakia. Rather than "peace in our time" (Chamberlain's infamous claim on his return to England), appeasement now is seen as a prelude to World War II, with Hitler made stronger by such concessions. Here I was surprised at how many web pages I found. Searching on "russia appeasement" (without the quotes) gave 596,000 results. Here's a sample:

Is that "appeasement" we see sidling shyly out of the closet of history? ... As those of a certain age will recall, "appeasement" encapsulated the determination of British governments of the 1930s to avoid war in Europe, even if it mean capitulating to the ever-increasing demands of Adolf Hitler. ... It is impossible to view the Russian onslaught against Georgia without these bloodstained memories rising to mind. [[Newsweek editorial](#) subtitled "The historical reasons why the West should intervene in Georgia," August 11, 2008.

Russia: Appeasement or confrontation? [Title of [an article in International Real Estate Digest](#), May 12, 2007. This article relates to [an incident](#) that could have resulted in Russia and Estonia, a member of NATO, coming to blows. While Russia is not blameless, [neither is Estonia](#).]

What Russia needs most: Civil society engagement, not appeasement [Title of an [OpEd in The Christian Science Monitor](#), February 10, 2010]

Does Russian Appeasement Include Joining the WTO? [Title of a [blog post](#), September 20, 2009.

The EU's Appeasement of Russia [Title of [an article by Uffe Ellemann-Jensen](#), former Danish Minister for Foreign Affairs, April 30, 2007. This article concerned Ukrainian membership in the EU.]

Obama's Appeasement: The Obama administration chose an historic month to appease the Russians by reneging on the U.S. proposal to place ballistic missile defenses in Poland and the Czech Republic. September 1st of 2009 was the 70th anniversary of the Nazis' unprovoked attack on Poland. [[An article in *The Weekly Standard*](#), a neocon magazine]

4. Appeasement only postpones the inevitable day of reckoning. Better to stand up to bullies early on, when they are weaker, than later when the fruits of appeasement has made them stronger.

As noted in the introduction to #3 above, appeasement has come to mean buying short term gain (Chamberlain's vain belief that appeasing Hitler meant "peace in our time") at the expense of long term pain (facing a stronger Hitler when his appetite proved insatiable). Yale Prof. Paul Kennedy's article [A Time to Appear](#) questions that myth. It appeared in the July-August 2010 issue of *The National Interest*, the magazine of the Nixon Center. Key excerpts follow:

"APPEASEMENT!" What a powerful term it has become, growing evermore in strength as the decades advance. It is much stronger a form of opprobrium than even the loaded "L" word, since Liberals are (so their opponents charge) people with misguided political preferences; but talk of someone being an Appeaser brings us to a much darker meaning, that which involves cowardice, abandoning one's friends and allies, failing to recognize evil in the world – a fool, then – or recognizing evil but then trying to buy it off – a knave. Nothing so alarms a president or prime minister in the Western world than to be accused of pursuing policies of appeasement. Better to be accused of stealing from a nunnery, or beating one's family. ...

There was a time when appeasement was an inoffensive, even a rather positive term. ... Even today, Webster's dictionary's first definition of "appease" is "to bring peace, calm; to soothe," with the later negative meaning [associated with Nazi Germany] being, well, much later in the entry. ...

Even as the great powers entered the twentieth century, one of the most exceptional acts of appeasement, and repeated conciliation, was occurring – yet it is something that very few American pundits on appeasement today seem to know anything about. It was Great Britain's decision to make a series of significant territorial and political concessions to the rising American Republic.

For example, in 1895 London decided on a diplomatic solution (read: concessions) regarding the disputed Venezuela–British Guiana border they had spent more than five decades arguing over because of the belligerent language coming out of Washington on the side of Caracas. In 1901, the cabinet overruled Admiralty opinion and agreed that Britain would give up its 50 percent share of a future isthmian (i.e., Panama) canal, to which it was perfectly entitled under the Clayton-Bulwer Treaty signed with the United States in 1850 to guarantee the waterway remained neutral. In 1903, London outraged Canadian opinion by siding with the U.S. delegates over the contentious Alaska–British Columbia border. Yet another retreat. Kaiser Wilhelm II, who so eagerly reckoned to benefit from an Anglo-American war that distracted his European rival, was bewildered that the British kept giving way – kept appeasing – when it was obvious to most naval observers that the far larger Royal Navy could have spanked the nascent U.S. fleet. London did not see things that way ... better to buy the American imperialists off, preserve their enormous mutual trade across the Atlantic and save the cost of defending Canada. Sometimes, giving way made sense. In this case, appeasement worked, and arguably played a massive role in helping to bring the United States to an official pro-British stance as the two great wars of the twentieth century approached. Curiously, I have never seen any of our current American neocons and nationalists declare it was a bad thing that Britain essentially surrendered over the isthmian canal, Venezuela, the Bering Sea seal fisheries and the Alaska boundary. ...

the basic problem [is] ... when do you know that the revisionist state is never going to be appeased by small-scale, or even middle-size, concessions? ... When do you say to yourself, “This guy can only be stopped by the threat of serious armed force and, most probably, having to use that force”? How do you know that the concession you just reluctantly made was not the last one needed? After all, Hitler assured the West that acquiring the Sudetenland was his final objective. Was it? By late 1938, Churchill was arguing that appeasement was just feeding a crocodile with smaller and smaller tidbits until it finally turned on you, and many Britons were at last beginning to agree and wanted stiffer actions. But it really wasn't until Hitler's March 1939 conquest of the rump state of Czechoslovakia – breaking his Munich promises and seizing a country without any Germans in it – that the die was cast. By the time of his move against Poland six months later, appeasement was finished, and within a year of fighting, the Appeasers, the “guilty men,” were to be execrated for the rest of time. No wonder that policy became the greatest insult you could throw at any later political opponent. ...

Certainty about such matters only comes, I suspect, with hindsight; and there we are all wise, because we know what happened. It was wise, we now know, for the English to give up Calais to France in 1558 because they would no longer be tied to the Continent. It was wise for Stalin to stay on reasonable terms with the Japanese during the 1930s and early 1940s because he couldn't afford a Far Eastern war while Nazi Germany was preparing to blast its own way eastward. It was wise, clearly, for then-President Charles de Gaulle to extricate France from the Algerian bloodbath in the early 1960s – though “clearly” was not a word used by the French nationalists who sought to assassinate the general. It was wise, very wise, not to go to nuclear war over the Korean, Hungarian, Berlin and Cuban crises. It was wise, we can now see, for the United States to abandon the colossal encumbrance of Vietnam.

5. As with appeasement, isolationism is a short term solution that creates much larger, long term problems. The United States must be constantly vigilant, searching out and attacking evil doers before they become stronger.

This belief also can be traced to World War II. Woodrow Wilson's 1917 request for a declaration of war against Germany portrayed that war as the one that would make the world safe for democracy. When the results were far different, many Americans became disillusioned with interventionist policies and retreated into isolationism. When the Second World War broke out, isolationist sentiment made it difficult for FDR to oppose Hitler. To get elected in the 1940 presidential election, Roosevelt felt the need to promise “not send American boys into any foreign wars.” As with Chamberlain's 1938 appeasement of Hitler, isolationism is now seen as a horrible mistake that made the Second World War more devastating than needed.

In my view, the problem is not with criticizing isolationism. In today's interconnected world, ignoring external threats and opportunities would be disastrous. The problem is with the second sentence: the assumption that, if isolationism is bad, then interventionism is good, and more intervention is even better. Each possible intervention needs to be judged on its own merits, and no single policy (always intervene or always stay isolated) is optimal.

The problem here is symptomatic of a more general error, namely black and white thinking. In relation to nuclear weapons, this frequently is seen as an assumption that the only alternative to business as usual is immediate and complete nuclear disarmament. Such straw men need to be seen for what they are.

6. Nuclear weapons form a protective umbrella.

While never stated so blatantly, “nuclear umbrella” is a frequently used term. Examples include:

15 years ago ... U.S. Defense Secretary William Perry ... clarified that European NATO countries would be covered by the U.S. nuclear umbrella regardless of whether nuclear weapons are stationed on their territory. [February 15, 2010 [OpEd](#) in *The New York Times*]

The United States has maintained a nuclear umbrella over South Korea since the Korean War. [October 2006 [article](#) on NukeStrat.com]

U.S. President-elect Barack Obama's administration will offer Israel a "nuclear umbrella" against the threat of a nuclear attack by Iran. [December 11, 2008 [article](#) in Israeli newspaper, *Haaretz*]

While the term “nuclear umbrella” is used in different ways, the most frequent implication is that the threat of American nuclear retaliation will protect our allies from all aggression. The image of an umbrella protecting one from the rain gives a positive impression, and critical thinking would examine whether or not that image is appropriate. Such an examination seems very much in order given that a Google search on “nuclear umbrella” found 330,000 results.

7. Thousands of nuclear weapons are needed for deterrence.

While rarely, if ever, stated so baldly, there is evidence for this belief in the strong resistance to efforts such as the New START Treaty, which would reduce both American and Russian nuclear arsenals from 2,200 to 1,550 warheads. In considering how many nuclear weapons we need, it helps to remember that President Kennedy was deterred from attacking the Soviet missiles on Cuba out of fear that even one or two might survive and retaliate by hitting American cities. It also would be good to review my [summary statement](#) (and its list of endorsers) which asserts that “a few hundred [nuclear weapons] would more than deter any rational actor and no number will deter an irrational one.”

8. Our nuclear deterrent is safe, secure and reliable.

A Google search on *nuclear deterrent safe reliable* produced 137,000 results. Examples include:

As long as these weapons exist, the United States will maintain a safe, secure and effective arsenal to deter any adversary, and guarantee that defense to our allies. [President Obama’s [speech in Prague](#), Czech Republic, April 5, 2009.]

For most of the nuclear era, successive U.S. administrations of both parties regarded periodic nuclear testing as essential to the maintenance of a safe, reliable and effective nuclear deterrent. [Peace Through Strength [argument](#) in favor of nuclear testing. While no date was given, it refers to a September 2009 Jason report, so it appeared after that and no later than my finding it in November 2010]

A safe, credible, secure and reliable U.S. nuclear deterrent requires a modern infrastructure and strategic force structure, no matter what level of nuclear weapons we deploy. [[U.S. Nuclear Deterrence in the 21st Century: Getting it Right](#), a white paper, July 2009. This paper has many other similar statements.]

This policy would be backed up with programs that assure that our nuclear forces are safe, secure, and reliable, and in sufficient quantities to perform their deterrent tasks. [[Final Report](#) of the Congressional Commission on the Strategic Posture of the United States, May 2009]

There are variations on the words used, with *credible* sometimes substituted for *reliable*, but the point is the same. *Safe*, *secure* and *reliable* have [specific meanings](#) within the nuclear weapons industry, and some of the above quotes undoubtedly have those specialized meanings in mind. But such statements mislead people who interpret those words in their more usual sense, as most undoubtedly do. Nuclear weapon safety requires “positive measures to prevent nuclear weapons involved in accidents, incidents, or jettisoned weapons, from producing a nuclear yield,” but says nothing about how safe nuclear deterrence is, in and of itself. In fact, my paper “Risk Analysis of Nuclear Deterrence” appears to be the first attempt to quantify the latter level of safety or risk.

9. Missile defense will make the world safer. Defense is vastly preferable to holding whole nations hostage.

Perhaps the best expression of this yearning for a more moral approach to nuclear weapons is President Reagan’s March 23, 1983 so-called [Star Wars speech](#):

[We currently] rely on the specter of retaliation, on mutual threat. And that's a sad commentary on the human condition. Wouldn't it be better to save lives than to avenge them? ... Let me share with you a vision of the future which offers hope. It is that we embark on a program to counter the awesome Soviet missile threat with measures that are defensive. ... I call upon the scientific community in our country, those who gave us nuclear weapons, to turn their great talents now to the cause of mankind and world peace, to give us the means of rendering these nuclear weapons impotent and obsolete. ... This

could pave the way for arms control measures to eliminate the weapons themselves. We seek neither military superiority nor political advantage. Our only purpose one all people share – is to search for ways to reduce the danger of nuclear war. ... As we cross this threshold, I ask for your prayers and your support.

On the surface, missile defense appears preferable – both militarily and morally – to nuclear deterrence, but as always, the devil is in the details. First, there is the question of whether it is possible to render nuclear weapons “impotent and obsolete” through missile defense. This is sometimes stated in terms of creating a “leakproof umbrella” that would be 100% effective against offensive missiles. After scientific studies rejected that goal as wishful thinking, proponents of missile defense shifted to other arguments, but I believe that many secretly hold that dream. I suspect that large segments of American society also view missile defense through a simplistic filter, similar to that expressed by President Reagan.

A second problem concerns strategic stability. If the United States were to approach having a significant missile defense – and especially if the dream of a leakproof umbrella ever should seem possible – Russia would have a strong incentive to prevent completion of the system, even if nuclear threats were required. It well might seem preferable to risk nuclear war while both sides were equal, than to wait until Russia was at our mercy. This situation is similar to the arguments that were made for attacking Iraq in 2003. In 2002, speaking of Iraq’s nuclear program, [Condoleezza Rice stated](#): “The problem here is that there will always be some uncertainty about how quickly he [Saddam Hussein] can acquire nuclear weapons. But we don’t want the smoking gun to be a mushroom cloud.”

Other issues surrounding missile defense that would benefit from critical thinking are contained in my blog posts, [Is our hand in the nuclear cookie jar?](#) and [Missile Defense: A Play in One Act?](#), both of which are part of this reading assignment.

10. Russia has nothing to fear from NATO expansion.

While NATO was formed as an alliance in opposition to the Soviet Union, in today’s post-Cold War world, it is often said that Russia has nothing to fear from NATO expanding right up to its borders. In February 2010, former Secretary of State Madeleine Albright [told a group](#) of Moscow university students, “This is a new NATO ... Its enemy is not Russia.” Russia sees things differently, as evidenced by the headline of the article which says “she tried to convince a dubious Russia on Thursday that NATO is not its adversary.” If Russia’s fears were totally unfounded, it still would be wiser to inquire why it feels that way rather than dismiss its fears as

delusional. (It took me a long time to learn this in my marriage, so I have some sympathy for Albright's missing that point.)

Digging a bit deeper shows that Russia's fears do have some basis in fact. As noted on page 17 of [handout #5](#), in July 2009 a number of leading Eastern European political leaders wrote an [Open Letter To The Obama Administration](#) condemning the Russian invasion of Georgia while totally overlooking that Georgia attacked first. Going further, the letter called for "contingency planning, prepositioning of forces, equipment, and supplies for reinforcement in our region in case of crisis as originally envisioned in the NATO-Russia Founding Act." And, as noted on pages 15-16 of [handout #5](#), Vice Admiral Ulrich Weisser (Ret.), who was head of the policy and planning staff in the German Ministry of Defense from 1992 to 1998, [claims that](#) "Poland and the Baltic states use every opportunity to make provocative digs at Russia; they feel themselves protected by NATO and backed by the U.S." If you have the time, re-reading the section starting on page 6 of handout #5 entitled *Not One Inch Eastward*, would be very relevant to this issue.

11. North Korea torpedoed the *Cheonan*, proving that that nation is a dangerous loose cannon that will only respond to military force.

On March 26, 2010, the South Korean ship *Cheonan* broke in two and sank near the Northern Limit Line separating North and South Korea's waters, with the loss of forty-six sailors. The [official investigation](#) concluded:

... we have reached the clear conclusion that ROKS "Cheonan" was sunk as the result of an external underwater explosion caused by a torpedo made in North Korea. The evidence points overwhelmingly to the conclusion that the torpedo was fired by a North Korean submarine. There is no other plausible explanation.

The mainstream media largely accepts the results of that investigation. Initially, I too did not question those results. They seemed so authoritative, coming from an international investigation team that had reached a unanimous conclusion. That perspective is reflected in [my first blog post on the subject](#) which contrasted the sinking of the *Cheonan* with that of the *USS Maine* in Havana harbor in 1898: "Forensic evidence is much clearer in the sinking last month of the South Korean corvette *Cheonan*, with North Korea almost surely at fault." However, alternative news services to which I subscribe showed that things were not that cut and dried.

Even that first post raised doubts of a different nature. It quoted a reputable source, former CNN correspondent on North Korea, Mike Chinoy, [as saying](#), "lost in the often breathless media coverage is a critical fact — the attack did not occur in a vacuum. Indeed, in crucial ways, it is

the entirely predictable outcome of an abrupt shift in North-South relations – produced not by the actions of Kim Jong Il, but by the policies of President Lee Myung-bak’s administration in Seoul.” Chinoy went on to explain that the Northern Limit Line was not an internationally agreed upon boundary, but one established by the United States. He also noted that “these disputed waters have been the scene of numerous naval confrontations that occasional turned deadly,” including one just six months earlier which, [according to the New York Times](#), “[left] one North Korean vessel engulfed in flames.” Initially, the sinking of the *Cheonan* seemed like tit-for-tat payback, an issue that was rarely mentioned in the mainstream media. Instead most media coverage presented this as one more instance of a crazy nation run by a nut job dictator, with the implication being that rational discussions would get us nowhere.

Soon afterward, I came across information that raised additional questions. Some of this information related to how much control the South Korean Ministry of Defense had over both the evidence and the international commission, but the most serious issue concerned a dissenting member of the commission who been removed at the request of the South Korean military. This dissenter published [an open letter](#) alleging that the evidence did not point to a North Korean torpedo as the cause of the disaster, but rather suggested that the *Cheonan* had run aground, collided with a ship trying to rescue it, and sunk as a result. See my [second blog post](#) on this subject for details. Both the dissenter and a member of the South Korean National Assembly who criticized the report were charged by their government with defamation, which some reports allege is a criminal offense in South Korea. My [third blog post](#) on the *Cheonan* contains a South Korean Defense Ministry rebuttal, but notes that it does not deal with the five most serious allegations. My [last blog post](#) on the issue related to pictures that the South Korean military had used as the basis for claiming that torpedo parts allegedly recovered from the area where the *Cheonan* had sunk were identical to a North Korean design. A colleague of mine who is knowledgeable in this area showed me why that conclusion was not supported, and soon afterward the South Korean military confirmed that the two photographs [did not match](#), but blamed this on a “mistake by a working level staff” who had used the wrong picture.

I am not saying North Korea is innocent, just that the evidence appears highly inadequate at this point in time. This was noted, for example, in the beginning of my last *Cheonan* blog post:

North Korea may well have sunk the *Cheonan*, as concluded by the South Korean military-led investigative team. But meetings with some of my colleagues who have extensive experience in that part of the world, can be summarized by what one of them said to me: “The evidence presented by the LAPD in the O. J. Simpson trial was so

bungled that more was needed to convict. Roughly the same is true of the South Korean military's indictment of North Korea in the sinking of the *Cheonan*.”

Handout #3's section on North Korea deals primarily with nuclear proliferation, but is highly relevant for applying critical thinking to our perspective on that nation. If you have time to review that material, it would be helpful.

Summary

Critical thinking is essential for exposing false assumptions and conclusions, but is very time consuming. I spent at least two days composing these notes, even though most of the material was already in my possession. Many things that I thought I knew had to be researched further, and even after that effort, there were points that I believe to be facts but that I had to call allegations. Given that none of us have that kind of time to apply to every issue that comes before us, how are we to ever reach conclusions and act on them? I have two suggestions.

First, we need to do a kind of triage. Most issues are not important enough to expend so much energy, but some demand that we be as certain as possible before taking action. It boils down to the likely consequences. Buying a new computer is a significant purchase, but one where the cost of making a decision on incomplete data cost at most tens or hundreds of dollars. Some research is in order, but it would be irrational to invest more of one's time on that process than the likely savings. At the other extreme, decisions to go to war can cost many thousands – and potentially billions – of lives, as well as billions or trillions of dollars. I therefore propose that the deepest critical thinking be applied to questions of war and peace, and particularly before taking actions that might lead to war. Unfortunately, history shows that is rarely, if ever, done:

- The *USS Maine* probably was not sunk by the Spanish, yet it precipitated the Spanish-American War.
- World War I was sold as the war to make the world safe for democracy, which it did not.
- The second Gulf of Tonkin incident, which provided the legal basis for Lyndon Johnson's Vietnam buildup never occurred.

- Contrary to statements at the time, American support for Afghan *mujahideen* fighting the Soviets started before the Soviet invasion, [almost in the hope](#)⁴ that the Soviets would invade.
- The 1988 downing of an Iranian airliner by the *USS Vincennes* may have been a consequence of a [much larger alleged subterfuge](#)⁵ in which almost half of Iran's navy was sunk by American warships.
- The two major justifications for invading Iraq have been found to be groundless. Claims that Saddam Hussein collaborated on the 9/11 attacks [have been disavowed](#) by former Vice President Cheney. Possession of WMD's also turned out to be unfounded.

I conclude with a relevant story from [Plato's Apology](#). Socrates was perplexed when the Delphic Oracle declared him wisest of men. Comparing how much there was to know with how little he knew, this made no sense to Socrates. But since these were words from God, Socrates felt he must investigate. He went to those in Athens who had reputations as being wise, and found a constant pattern. These people knew more than Socrates about their specialties, but made the fundamental mistake of assuming their wisdom extended to areas where they knew very little. Finally, Socrates understood what the Oracle meant:

... the truth is, O men of Athens, that God only is wise; and in this oracle he means to say that the wisdom of men is little or nothing; he is not speaking of Socrates, he is only using my name as an illustration, as if he said, He, O men, is the wisest, who, like Socrates, knows that his wisdom is in truth worth nothing.

It is particularly hard to remember that ancient truth at a place like Stanford where one's worth is judged by how much he or she knows. But that makes it all the more important to try.

⁴ This link is to an English translation of a French article. I have the original in my library, but it appears to have disappeared on line. If anyone would like the original one, I can send you a copy. I checked the translation and it is accurate.

⁵ This link is to a 1992 ABC TV newscast by Ted Koppel, but I was unable to find it on ABC's web site. That raises questions, but given that 1992 preceded the Internet and stories on official web sites are sometimes removed, it is not damning evidence. Given the completeness of the report and the risk associated with an outright forgery, I believe it to be accurate, but am not certain.