The Grand Unified Theory of Nuclear Terrorism Response

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Introduction: What is it?

The Grand Unified Theory of Nuclear Terrorism Response is a series of principles, assembled from extensive research, to help benefit state actors, counterterrorism efforts, and civil society in understanding and responding to the threat of nuclear terrorism. This theory seeks to achieve this goal in three ways:

1. *Minimizes Jargon.* This theory seeks to explain many different views of nuclear terrorism, from deterrence to methods of combatting international arms dealing, while using as little jargon as possible, so that ordinary people can understand how nuclear terrorism works, and what it would take to make it more or less of a threat.
2. *Provides for the reliable and transparent use of force.* The Grand Unified Theory of Nuclear Terrorism Response (hereafter referred to as simply "The Grand Unified Theory.") seeks to provide a simple framework for decision-makers deliberating before taking action, a set of actionable principles for soldiers and other counterterrorism forces during the action, and a way for the public and the governments to evaluate the results of taking action concretely and objectively and learn from any mistakes made.
3. *Coordinates multiple parallel theories about how to think about and respond to nuclear terrorists.* The Grand Unified Theory is not something pulled from the ether, it is assembled from the theories and research of other, more experienced scholars. It does not seek to contradict or prove other theories wrong but simplifies and assembles them so that anyone can understand, discuss, and debate an issue that few people currently understand.

To achieve these three things, each of the principles has a distinct and memorable name. The author has also included a glossary of terms for the few that this theory found necessary for simplicity. Additionally, this theory specifies when every principle should and should not be applied, to better assist readers in understanding their role in nuclear terrorism response, and how each principle interacts with others. More knowledgeable readers have the option of supplementing this theory with the numerous links embedded throughout.

Summary:

The Grand Unified Theory of Nuclear Terrorism Response (the G.U.T) is a set of principles designed to help government, counterterrorism, and civil society understand and respond to the threat of nuclear terrorism. It achieves this goal by minimizing jargon, providing a simple framework for reliable and transparent use of force, and coordinating several parallel theories of thinking about and responding to nuclear terrorists. The theory includes principles such as the Escalation of Force Framework, the Maximalist Approach to Nuclear Counterterrorism, the Principle of Absolute Determination, and a framework for fiduciary counterterrorism. To help readers better understand their and their governments' role in responding to nuclear terrorism, the theory also specifies when each principle should and should not be applied and how each principle interacts with the others. The G.U.T is intended to increase public awareness of the threat of nuclear terrorism and to promote a public dialogue about what should be done about it. With appropriate feedback, improvement, and funding, it will increase the chances that good solutions will be found to the problems posed by nuclear terrorism, and provide a framework on which other movements can build. Ultimately, it seeks to provide a foundation for everyday people who want to understand what concerns they should have about nuclear terrorism and give them the basis to determine what governmental actions are acceptable and which are not, providing a democratic way for people to support or hold their governments accountable.

Why is it Necessary?

Charles Ferguson and William Potter write in their book, *The Four Faces of Nuclear Terror* "In the new security environment … the explosion of a nuclear weapon by a terrorist group appears more likely than thermonuclear war." Graham Allison also stated that the likelihood that terrorists would successfully explode a nuclear bomb somewhere in the world in the decade ahead was "more likely than not." More specific estimates say that the chances of nuclear terrorism in the next decade is 19% and the cost of an attack to be 4 trillion US dollars alone, excluding what an attack may contribute to the chances of nuclear and great power war. If that estimate is correct, significantly more attention and resources should be given to addressing nuclear terrorism than are currently. In addition, The nonprofit 80,000 Hours estimates the chance of nuclear war to be 10-85% in the next century, and these are not two unrelated threats. They are both complementary and go hand in hand with another one of 80,000 Hours' most pressing problems: Great Power War. Nuclear exchanges could be sparked by accident, and the probability of one is greatly increased when a nuclear weapon hits key infrastructure, due to the nature of uncertainty and the fog of war. On the other side, a nuclear exchange greatly increases the chances of nuclear terrorism, as societal breakdown and mass fatalities remove key barriers to terrorists acquiring nuclear material and covertly making it into a weapon.

All-out nuclear war would also greatly increase the chances of success for terrorists stealing a fully operative nuclear weapon, as theft is more likely to go unnoticed. How does this risk contribute to a great power war? Simply put, if a nuclear explosion happens on a key facility of a country, everyone looks to the country's international rivals that have nuclear weapons. This is known as the problem of misattribution, and most nuclear weapons states either are or have been in the past great powers. By this alone, great power war is far more likely. Add in the issues of deterrence erosion and preemptive strikes on nations suspected to have caused the attack, and nuclear terrorism is a problem area that deserves serious consideration. Unfortunately, Nuclear terrorism as a category is, at least concerning funding, neglected. The US, for example, does not have a budget category for specifically undermining nuclear terrorism, and while counterterrorism as a category is rumored to be funded in the billions (the exact number is classified) there is little evidence to support the idea that any of this funding is being intentionally devoted to tracking down terrorists' efforts to build nuclear weapons, as demonstrated by US ignorance of Syria's nuclear efforts before the now famous Israeli military strike codenamed Operation Outside the Box.

The first step in addressing any issue is public awareness and support. Nuclear terrorism is a problem that is not isolated to one or a few nations but is a problem that can arise and be stopped, all across the world. The public should not be ignorant of an issue that has the potential to alter world order and plunge the world into nuclear war, but currently, no frameworks exist for communicating and justifying action around nuclear terrorism to the public. For this reason, the author seeks to create a set of comprehensive terms outlining how the public should consider and respond to the threat of nuclear terrorism. The Grand Unified Theory of Nuclear Terrorism *Response* does not address the issues of nonproliferation or principles for preventing terrorists from arising in the first place due to the difficulty of non-experts addressing those issues adequately but seeks to provide for all a framework for thinking about a threat that could affect us all, so that both government and civil society can act responsibly and transparently to address one of the worlds most neglected major problems. The G.U.T. seeks to address the issue of nuclear terrorism in a few ways. First, it seeks to raise public awareness and promote public dialogue over what should be done about the threat of nuclear terrorism. Public awareness and advocacy in a democracy is one of the best ways to unify polarized societies towards mitigating a shared risk, and especially awareness about nuclear terrorism, which will most likely intentionally target civilians. Second, it greatly increases the chances of good solutions being found to the problems that this type of terrorism presents, as it lowers the barrier of entry for presenting new and innovative ideas from weeks of study to a few principles. Third, it gives a framework for other movements to build on, to justify spending to address an important and neglected problem, and finally, it can help align various stakeholders, including government, law enforcement, academia, and international organizations towards the noble goal of mitigating one of the world's largest potential problems.

Definitions:

Terrorism:

The definition of the word terrorist is controversial and there is, unfortunately, no universally agreed-upon definition. It is absolutely necessary to have a definition for terrorism, however, creating such a definition that every country can agree on is near-impossible. The definition this theory uses is one based on academic consensus used by Carsten Bockstette in his paper *Jihadist Terrorist Use of Strategic Communication Management Techniques*: "Terrorism: political violence in an asymmetrical conflict that is designed to induce terror and psychic fear (sometimes indiscriminate) through the violent victimization and destruction of noncombatant targets. Such acts are meant to send a message from an illicit clandestine organization. The purpose of terrorism is to exploit the media in order to achieve maximum attainable publicity as an amplifying force multiplier in order to influence the targeted audience(s) in order to reach short- and midterm political goals and/or desired long-term end states."

Nuclear Terrorism:

This definition is much more widely agreed upon, however, there are far fewer examples of nuclear terrorism to base state response on than there are of ordinary terrorism, leading to a few widely-agreed-upon definitions that may not be entirely accurate. The one this paper will use is one that this author has found is generally agreed upon, the definition used in the paper "Terrorismo radiológico y nuclear: definición, naturaleza, escenarios y disuasión" or, translated, meaning "Radiological and nuclear terrorism: definition, nature, scenarios and deterrence". The definition used is: *Nuclear terrorism: "*The use of nuclear materials or devices by terrorist organizations, to cause harm, force political change, and/or instill fear for political or ideological purposes. It involves the unauthorized[1] acquisition, possession, or use of nuclear weapons by terrorists, as well as their targeting of civilians or critical infrastructure with nuclear or radiological materials."

[1] This definition includes any nuclear terrorists who act independently. Regardless of their funding, groups are included if they have the capacity to decide whether or not to stage a nuclear attack, regardless if they actually do so. If an attack is instead planned and ultimately executed by a government through a terrorist group, that is considered a state-sponsored attack, and therefore an act of war. In the case of a state-sponsored attack, some of the principles, such as the maximalist approach, may not apply.

Nuclear-Capable Node (NCN):

This definition is not used elsewhere in academia. In this paper, it is used to refer to "any node of a terrorist network that has inside knowledge about nuclear weapon creation and is capable of sharing that knowledge with other terrorists." Ideally, nuclear counterterrorism should focus on entirely eliminating all nuclear-capable nodes in every terrorist network. These nodes do not need to be killed, however. Capture and interrogation, followed by relocation or imprisonment, may prove more beneficial to learning from and eliminating nuclear-capable nodes, also leaving open the decidedly risky option of recruitment if a government so desires. The language of "[blank]-capable nodes" could work hand in hand with terrorist social network analysis efforts, allowing nodes in a network to be labeled as Nuclear-capable, Chemical-capable, and Biological-capable to concretely identify which parts of a terrorist network are most dangerous.

Part 1. The Terrorist:

The Principle of Partial Unpredictability:

Nuclear terrorists are never completely predictable, nor are they ever completely unpredictable.

Even if you think you know what the terrorists will do or what their reasoning will be, plan and consider as many other outcomes as possible. You cannot behave as if a terrorist who may be driven by any number of things will respond to your actions exactly as you hope they will. You may be able to accurately predict what they do, but you must always consider and address several other scenarios. Verify every source of information, and if you cannot verify the sources, act carefully. Terrorist sources are generally acting with well-understood motivations and can be turned or eliminated relatively easily. Terrorists may have acted relatively rationally[2] and predictably in the past, but consideration should be given to how much uncertainty counterterrorism is acting under, and what other objectives the terrorists could be trying to achieve. Still, when a terrorist network goes nuclear, the stakes are too high for you to leave the fate of millions up to your understanding of terrorists and their behavior. The paper *Radiological and Nuclear Terrorism: Definition, Nature, Scenarios and Deterrence* establishes this point well, saying "Terrorist groups are essentially different in

[2] Rational here is used in the game-theoretic sense, defined as "a player who is able to choose the outcome that has the maximum possible payoff." Predictable is used normally.

nature from state actors and follow different logics, so they cannot be approached according to classical paradigms. It can be assumed, therefore, that terrorist groups are not fully rational or predictable actors (Garcia 17)"

This principle applies: Whenever an entity is interacting with, whether that be to try to stop or aid, nuclear terrorists.

This principle applies less: When there is a good information source within the terrorist network, but even then, counterterrorism forces should prepare for the possibility that this source is fake. Again, the stakes are too high for nuclear counterterrorism to hinge on the reliability of a source.

The Maximalist approach to Nuclear Counterterrorism:

Always pursue every means necessary to counteract nuclear terrorists, including and especially negotiation.

In nuclear counterterrorism, undermine terrorist efforts using every available means and resource at one's disposal. Have an unwavering commitment to achieving a desired outcome by exploring and utilizing all potential avenues, strategies, and resources, regardless of their complexity or potential challenges, no matter what standard policy is. This principle encourages individuals, organizations, or entities to adopt a comprehensive and relentless strategy to undermine nuclear terror. The focus is on leaving no stone unturned, exhausting all possible options, and not shying away from taking calculated risks.

Ideally, this principle should be used along with a clear *Escalation of Force Framework,* also known as a *Use of Force Continuum* so as to be able to clearly justify all violations of law to the public and other nations. At its very center, the maximalist approach should operate from a perspective of controlled urgency, because no matter what international laws are broken and what sovereignty is violated, similar to the principle of Retroactive Justification, the risk of the death of millions is far more important. Entities will have to use means typically frowned upon to pursue the wider goal of collective safety.

Negotiation is one of these typically frowned upon means. There may be a Western policy of never negotiating with terrorists, but most countries end up negotiating with them anyway. In the case of nuclear terrorists, *negotiation does not mean inaction*. If you can

identify which group is building the weapon, and see if you can negotiate with them. At worst, this negotiation goes nowhere, and you may be able to get some useful information from the negotiation or stall time. At best? The terrorists have reasonable political demands, and the network can be disarmed without risking lives. When death is on the line, it makes no sense not to attempt to eliminate the threat by every means possible, including negotiations, while at the same time doing everything else possible to stop the massacre of innocent people. Some may object and say that conceding to terrorists' demands when they have a nuclear weapon is unreasonable, however, the author would counter with the argument that if it is so hard to attain nuclear weapons, and the terrorists are willing to give up their weapon for the pursuit of some political goal, negotiation is reasonable, especially when the consequences of not negotiating could cost tens of millions of people their lives.

This principle applies: When there is a choice between violating a less-serious law or moral (like state sovereignty and jurisdiction) that is traditionally applicable and stopping nuclear terrorists. The threat of terrorism outweighs state sovereignty. See the Principle of Retroactive Justification for examples.

This principle does not apply: When "every means necessary" becomes "every means possible." This principle does not justify torture, the intentional killing of civilians, or any other intentional inhumane act or crime against humanity.

The Principle of Absolute Determination.

Clearly Establish Boundaries and be Absolutely willing to Enforce Them.

With terrorists, and especially nuclear terrorists, any use of force against civilians is unacceptable and would be met with appropriate retaliation, but is the terrorist network aware and taking the threat seriously? Maximize clarity. Deterrence only works if the response is Certain, Swift, and Severe, so communicate far and wide exactly what boundaries you are setting, and your absolute willingness to respond with force if they are crossed. This allows you to clearly explain if you have to use force to stop nuclear terror and make an example of any group that crosses those lines.

This principle is a strategic guideline that revolves around the clear and unwavering establishment of boundaries, backed by a resolute commitment to enforce them. This principle is particularly relevant due to the immeasurable threat caused by nuclear terrorism,

a threat that overwhelms any excuses not to communicate as clearly as possible. The principle of absolute determination has 4 parts:

1. Clearly Establish Boundaries.

   Start by setting explicit and well-defined boundaries that should not be crossed. In the context of countering nuclear terrorism, this could mean delineating the actions, behaviors, or scenarios that are absolutely unacceptable. This could include any use of force against civilians, the transportation of further nuclear material or weaponry, the continued creation of a nuclear weapon, or even the transfer of large numbers of assets within a terrorist network. Clarity and Minimized Ambiguity: Ambiguity is detrimental when dealing with threats. The Principle of Absolute Determination emphasizes the need to be crystal clear about the consequences of crossing the established boundaries. This clarity leaves no room for misinterpretation or miscalculation on the part of potential threats. Ambiguity is too costly a strategy when counteracting nuclear terrorism, so minimize it at all costs. Effective communication plays a crucial role in this. To deter potential terrorists or threat actors, it's important to widely communicate the boundaries that have been set and the consequences that will follow if those boundaries are breached. This author takes the position that classical deterrence theory is the simplest and easiest to enact when dealing with terrorists. Communicate the lines you have laid down to the public, both because of other terrorist groups, and to justify action and rally public support if these clear lines are crossed. Garcia emphasizes this in *Radiological and Nuclear Terrorism,* saying "Any deterrence strategy against nuclear terrorism should be approached in a flexible manner, modifying and adapting traditional conceptions. To this end, I recommend that counterterrorism efforts focus on the intentions and capabilities that are behind a terrorist threat and on possible state countermeasures through the appropriate permutation of classical deterrence theory, in this case, that of punishment and deprivation. (Garcia 18)"

2. Commit to Enforcing those Boundaries.

   The key here is to ensure that the established boundaries are not just empty words but are fully backed by a firm willingness to take action if those boundaries are violated. This commitment is essential to project strength and deter potential threats. Counterterrorism efforts should Explain exactly what the response will be and fully

prepare, and be seen preparing, to enact it if the lines you have set are crossed, and the general public should hold them accountable if they do not.

3. Make an Example of Those who Cross those Boundaries.
   If a group or individual does cross the set boundaries, the principle means that responding with force, should not only neutralize the immediate threat but also be used to send a powerful message to others who might consider similar actions. Communicate the terrorist group's failure and it may dissuade other terrorist networks. This act of making an example reinforces the credibility of the established boundaries. Make sure, however, not to disclose the specific counterterrorist operation to prevent other networks from learning from and improving their operations, in accordance with the Hydras Principle.
4. Always keep in mind ethical considerations:
   It is essential to ensure that any actions taken are consistent with ethical and legal standards. Striking a balance between an assertive response and adherence to human rights and international norms is crucial. See the Maximalist Approach to Nuclear Terrorism for more context. In essence, the "Principle of Absolute Determination" combines clear communication, unyielding commitment, and strong deterrence to create an environment where potential threats understand the consequences of their actions and are dissuaded from crossing established boundaries. It also ensures that, if necessary, the response is decisive, swift, and proportional to the threat posed.

This principle applies: When communication with terrorists is possible, either directly or indirectly, and if a threat by nuclear terrorists is stopped.

This principle does not apply: If there is an imminent attack and little time to lay out and discuss deterrence, and when action is absolutely necessary. It also does not apply if all boundaries set are immediately crossed. If that is the case, then further boundaries should not be set until the consequences of violating the previous ones have been enacted.

The Hydras Principle.

Every terrorist network learns from the mistakes of its predecessors, so counter-terrorism efforts must first isolate the terrorist network before eliminating it, or information will invariably reach other networks and their job will get much harder.

The Hydras Principle draws its analogy from the mythological creature Hydra, a serpent-like monster with regenerating heads. In this context, the principle says that tackling the threat of nuclear terrorism requires addressing not just the immediate danger posed by a single nuclear weapon but also the underlying network responsible for its creation and potential proliferation. Just as cutting off one head of the Hydra resulted in the growth of two more, merely addressing one weapon without dismantling the network behind it could lead to further threats, and if you simply kill one hydra (a metaphor for a terrorist network) without isolating it, others will learn from its demise and be harder to counter next time. There is more than one Hydra, and terrorist networks are always learning from each other and potentially even collaborating with each other. Before eliminating a network or node, isolate it to keep others from learning from their mistakes.

This principle takes a network approach to nuclear terrorism, drawing heavily from this article by analysts Nancy Roberts and Sean Everton. The first step is to comprehend the intricate web of individuals, organizations, and resources involved in the creation and possible deployment of nuclear weapons. This includes understanding the financial, logistical, and ideological support that sustains the network. The approach taken to eliminate a terrorist network must be comprehensive. It's not enough to focus solely on the immediate threat of a single nuclear weapon; instead, efforts must be directed toward dismantling the entire network responsible for its existence, to prevent even the specific knowledge of how a nuclear plot was almost carried out from escaping. Like the Hydra, if only one head is severed (one weapon is neutralized), the network might attempt to create a new one, having learned from its mistakes and gotten harder. By targeting and eliminating the entire network, the principle seeks to prevent the re-emergence of threats in the future.

Successfully dismantling a terrorist network, especially one involved in nuclear threats, often requires collaboration between intelligence agencies, law enforcement, and international partners. Sharing information and coordinating efforts can help to disrupt the network's operations, but only if the network itself cannot easily share information and

coordinate its efforts. Many of the key ways to disrupt operations involve targeting the financial and logistical support that sustains the network (see the framework for fiduciary counterterrorism) weakening its capabilities, and strategically eliminating methods of communication as well. By cutting off funding, resources, supply chains, and communication, the network's ability to function and carry out its activities can be seriously hampered. Dismantling a terrorist network involved in nuclear threats is a complex, long-term endeavor, but one that, when it comes to nuclear terrorism, cannot fail. To successfully neutralize a terrorist network, operations need to observe the network, isolate the hubs of communication and other important hubs within the terrorist network, and then simultaneously take these key nodes into custody, along with any incriminating evidence, digital or physical, as in the assassination of Osama Bin Laden[3]. The Hydras Principle proposes that to truly eliminate the threat of nuclear terrorism, one must target not just the individual weapons but the entire network behind them. By dismantling the network and disrupting its operations, the principle aims to prevent the regeneration of threats and contribute to long-term security and stability.

This principle applies: Always.

[3] Although a significant amount of the information on Bin Lladen's hard drives was simply for entertainment, enough usable information was found to justify the effort expended in securing them.

Part 2. The Weapon:

The Iceberg Principle.

Every nuclear weapon has a network behind its creation.

Creating a nuclear weapon is incredibly hard, requiring terrorist networks to steal weapons-grade uranium or plutonium or buy it on the black market, shape it, and assemble it into a functioning weapon, all while being in a sanctuary where their activities are not noticed. This means that every terrorist network that can produce a concrete nuclear threat, whether in the form of a nuclear weapon or dirty bomb, can theoretically produce the weapon again if, for instance, the delivery of their weapon is undermined by counterterrorist efforts. To avoid a scenario where the same network gets stopped repeatedly, constantly learning from their mistakes and improving, every nuclear-capable node of the network must be neutralized. If a few are allowed to escape counterterrorism to other networks, they may have enough knowledge to continue efforts to successfully carry out a nuclear strike, so time and money should be allocated to making sure no NCNs spread, allowing for a nuclear terrorist threat to be definitively eliminated.

This principle applies: Whenever the goal of counterterrorism is the total elimination of a threat.

This principle does not apply: When the goal of counterterrorism is damage control and simply stopping an attack. In that case, effort should be spent in stopping delivery of the actual weapon, not addressing the network.

Fiduciary Counterterrorism: A Framework.

Undermine Terrorists' capability to acquire the necessary material for weaponry at four key chokepoints: The Source, The Finance, the Sale, and the Site,

The word Fiduciary means some very specific things that readers should keep in mind. It is defined in financial settings as "somebody who manages money or property for somebody else, usually called the beneficiary. A fiduciary must act in the best interests of the

beneficiary at all times" What this framework seeks to undermine is the trust between the terrorists and their financial security, the trust between them and their sources of information, their trust that they are even being sold anything, the trust they have in that what they are being sold is genuine, and the trust that even if the rest of it is true, they won't get caught mid-sale.

1. *The Source:*

Every terrorist network gets their weapons from somewhere, and before any sale, the network must find out what they could buy and communicate that to arms dealers who have what they need. Usually, this is done through a source, often called a broker, who informs the terrorists of what they have and informs the arms dealers of what the terrorists need. This source is crucial for nuclear terrorists, for it is through this source that they can bypass the need to steal their resources from all over the globe and likely get caught doing so. If this source is corrupted, either spying for an independent group or is just a fraud, the trust the terrorists have for the source and people like him is severely hurt. This chokepoint is also the perfect point that entities attempting to undermine nuclear terrorists can begin with, as the technology required to create a nuclear weapon is very specific and easily identifiable. The methods groups can use to turn and control the source and other key figures in the international arms trade are beyond the scope of this paper, but an excellent summary of the current state of arms dealing can be found here.

2. The Finance:

Terrorists need to get money somewhere and transfer enough money into one place to buy the necessary material. Very few terrorists hold money centrally. Although the total financial capacity of a network could be very high, transferring large amounts of money to a single place to buy something may require persuading a large number of individual terrorist cells to send money to a particular part of a network. Making such a transfer without severely damaging the network's operational security and risking intense curiosity from the rest of the network that could lead to detectable rumors of a nuclear plot is challenging. Counterterrorism should focus more on developing improved systems for detecting the transfer of money within covert networks, as well as analyzing such transfers for traces of a large sale.

3. The Sale:

With every sale, the buyer needs to know that something is actually being sold. With terrorists, this is doubly true, as a simple sting operation could derail their entire plan. For this reason, counterterrorism should, as it has in the past, undermine trust between the terrorist network and the sale, mostly by making sure that as large a percentage of sales of nuclear material are fake as possible, and by attempting to catch the terrorists in the middle of the exchange. If the percentage of fake sales to real sales is high enough, terrorists will be unwilling to risk being caught and should resort to more dangerous means such as actively stealing material themselves.

4. The Site:

Every transfer of nuclear material happens somewhere, and if law enforcement can't stop it from happening ahead of time, it should seek to capture both the seller and the buyer if possible. Unfortunately, in most cases, it is not possible to predetermine the location of a transfer, and the transaction, although simultaneous, may happen in multiple locations, for instance, the money is transferred into a bank account digitally in one location, and the nuclear material is deposited in a safe in another. There is reason to believe that buyers and sellers of big-ticket illegal items, like nuclear material, work directly with the seller, forgoing the usual need for a broker. Such an arrangement would avoid needing the banking system or the need for a third party, but a significant risk of cheating on both sides would be introduced. Direct intersection would also eliminate anonymity, providing the perfect opportunity to take the buyer, the seller, and the material into custody. The possibility of reliable intelligence for the location of such a transaction unfortunately remains extremely low, so this strategy should be used to back up the other four.

This Framework should be applied: When terrorists are actively seeking either nuclear material or other equipment necessary to build a nuclear weapon, both through black and grey markets and more conventional means.

This Framework should not be applied: When terrorists already or already can build a rudimentary nuclear weapon or dirty bomb. Efforts in that case should be dedicated to applying some of the other principles stated here, especially the Maximalist Principle of Nuclear Counterterrorism.

The Principle of Retroactive Justification:

If a state actor can definitively prove that the use of force stopped nuclear proliferation to terrorists, their use of force is retroactively justified.

In an era where the global security landscape is riddled with threats, the potential acquisition of nuclear weapons by non-state actors, especially terrorists, should be prevented at nearly all costs. The Principle of Retroactive Justification delves into the realm of state responses to such threats, recognizing that proactive measures to thwart nuclear proliferation can be challenging and legally questionable, yet in some cases imperative. By focusing on the outcome of these actions, the principle seeks to justify some actions retroactively. The author contends that, in circumstances where a state actor's intervention has conclusively curbed the transfer of nuclear technology or materials to terrorist entities, international judgments should acknowledge the intention and effect of their actions. This principle, if properly applied, helps prevent catastrophic scenarios that could arise from the misuse of nuclear weaponry. Historical precedent and contemporary security analyses add credence to the Principle of Retroactive Justification. The 1981 Israeli airstrike on the Osirak nuclear reactor in Iraq serves as a compelling example. Israel's unilateral military action was vehemently criticized at the time, yet subsequent developments revealed that the strike had effectively dismantled Iraq's nuclear program, impeding its potential weaponization. This case underscores the principle's premise that the outcome of an intervention can and should alter initial perceptions of its legitimacy.Furthermore, contemporary discussions on counterterrorism efforts emphasize the need for innovative and multifaceted approaches to prevent nuclear proliferation. Diplomacy, sanctions, and intelligence cooperation are vital tools, but the principle recognizes that there may be instances where the use of force is the last viable option and should be utilized.

This principle applies: When force is the last viable option, and clearly achieves its goal of eliminating an international threat.
This principle does not apply: When there are more effective ways of getting rid of a threat. This principle does not advocate for unchecked militarism but rather seeks to provide a framework for evaluating the aftermath of such interventions.

Other Principles:

Due to the nature of this paper's content being limited to five thousand words, many principles were left out. The ones included are included not in order of importance, but to give overall examples of what the contents of the G.U.E will be. If given the time, legitimacy, and resources, the author will expand these out, likely in book form, to truly serve as the comprehensive framework the Grand Unified Theory of Nuclear Terrorism was meant to be.

The Response:

The Justified Unilateral Action Principle:

Concrete nuclear threats justify unilateral action.

The Collective Necessity Principle:

Collective threats should be dealt with collectively.

The Principle of Least Inaction

Inaction usually leads to the worst possible outcome.

The Levi Response Equilibrium:

In counterterrorism operations, maximize accuracy, secrecy, and speed, but keep them at equilibrium.

Excluded Categories:

Due to the word limit, three categories were also excluded from this document, these categories were:

The Act:

Application:

and Case Studies:

Conclusion:

Just because acts of nuclear terrorism haven't happened yet doesn't mean that they won't. Just because every country on Earth agrees that nuclear terrorism is a bad thing doesn't mean that a rogue actor isn't going to be able to create a weapon of mass destruction and use it to destroy a small nation. No one person or state can fully address this threat, it will take the coordinated action of many smaller nations and several world powers, but their combined power needs to be held in check. The first takeaway the author wishes for readers to understand is that in a democratic society, the people need to understand, support, and counterbalance government action. If the public doesn't understand an issue how are they to fulfill this purpose? The goal of this paper is to create a set of comprehensive and

expert-guided principles to help people, experts, and counterterrorism forces understand, discuss, and communicate how to respond to, and in the future prevent nuclear terrorism. This paper is only the beginning, an introduction for readers to dive more deeply into understanding nuclear terrorism. In the future, given more time, resources, and legitimacy, the author will attempt to expand and improve the grand unified theory, this time in the more comprehensible form of a book, but for now, it serves its purpose as a framework for responsible citizens and government alike to bridge the gap between experts and civil society, and allow for more transparent, accountable, and effective action to counter a threat that we all face.

The second key takeaway from this report is that force should be a last resort in nuclear counterterrorism, however, it is often the most effective option, and far too often the only one. In situations that require force, governments should use force to eliminate a direct threat to international order, and the public should support the appropriate use of force, knowing that global stability is something that every society depends on. Conversely, government action against rogue nuclear forces should be justified and publicly communicated. They should be held accountable for overreacting or overextending, costing lives. In those situations, the author intends for these principles to help the public hold their governments accountable for their actions.

The last conclusion that the author would like to communicate is that individual effort cannot keep the world safe from nuclear terrorism. Nor can any one policy protect against nuclear terrorism, but perhaps many overlapping policies can come close. These principles are recommendations gathered from dozens of experts on nuclear terrorism and assembled into a readable format, a smaller step of a much larger goal. There is more work to be done, and more people are needed to make it happen. Successful safeguarding requires governments, NGOs, and civil society to work towards a common goal, but, together, with public support, a few of the evils released by nuclear proliferation may be put back in Pandora's box.

Acknowledgments:

First and foremost, I would like to thank Peter and all the other staff at Non-Trivial for the experience I have had, collaborating with others, discussing, and even arguing about important topics. It's been great.

Next, I would like to thank my *fellow fellows* at Non-Trivial. Thanks, Rhea and Abhinav in

the Informal Biosecurity Group for helping me get started on my journey. Thanks, Bhavika for facilitating. Ian, thank you for the fascinating discussions we've had on all sorts of topics, and for your feedback on this very document. Ludwig, thank you for your feedback and for being willing to collaborate. Emma, thank you for being such a fantastic person to bounce ideas off of, and to commiserate with when the research gets hard, I hope you enjoy Project Hail Mary. Saheb, thanks for the fun I've had working with you on other things, as well as your feedback on this project. Joshua thank you for the discussions we've had, and for the work you've done on my document. I wish us both the best of luck with the NTI proposal, and with your project. Xavi, thanks for all the conversations we've had and for being willing to shoot my ideas down when they get too preposterous. Thanks, Eyosiyas for always being on call to have a constructive discussion, and thanks Ariana for serving as my comedic foil, a person to rant with, debate opponent, and just generally keeping me grounded. Finally, thanks to everyone at Non-Trivial who helped me along the way, and especially to the anonymous person I can't track down whose comment on my project idea turned my proposal from a group of principles to a grand unified theory.

Did I say finally? Actually, the final people I need to thank are the judges who are reading this document, and who have had the patience to go through this entire thing. I hope you find it worthy of expansion and improvement.

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