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Perceptual Framing of Homeland Security

Linda Kiltz and James D. Ramsay

ABSTRACT

This article analyzes the phenomenon of homeland security through the development of four conceptual lenses that were created out of the existing literatures in criminal justice, public administration, organization behavior, risk management, international relations, and the overlap between them. *Using terrorism as a proxy for the homeland* security enterprise, these conceptual lenses include: (1) homeland security as a criminal iustice problem which views terrorism as a crime; (2) homeland security as a international relations problem which views terrorism as a war; (3) homeland security as an organization design problem which views terrorism as a network of sub-state transnational actors; and (4) homeland security as a collaborative nexus which views terrorism as a complex mixture of social, political, economic, and environmental issues; that is, lens 4 represents an overlap of lenses 1-3. Each conceptual lens consists of theories, practices, values, beliefs, and assumptions that serve to shape how homeland security is conceptualized. We recognize that homeland security is a broad field applied science that incorporates natural, technological, and manmade hazards and threats. Perhaps to best exemplify the complex and evolving nature of the homeland security enterprise, terrorism can be an effective proxy for how homeland security might be conceptualized and how a theoretical foundation might be structured. These conceptual lenses highlight how perceptual filters can significantly alter how individuals and organizations understand and explain phenomena or events.

INTRODUCTION

We see the world, not as it is, but as we are—
or, as we are conditioned to see it.
- Steven R. Covey in The 7 Habits of Highly
Effective People

Surprise occurs the moment we realize our view of the world no longer matches reality.
- Wayne Burkan in Wide Angle Vision

"Would you tell me, please, which way I ought to go from here?" "That depends a good deal on where you want to get to," said the Cat. "I don't much care where," said Alice. "Then it doesn't matter which way you go," said the Cat. "So long as I get SOMEWHERE," Alice added as an explanation. "Oh, you're sure to do that," said the Cat, "if you only walk long enough."

- From Alice's Adventures in Wonderland, by Lewis Carroll

At 8:46 a.m. on September 11, 2001, American Airlines flight 11 crashed into the North Tower of the World Trade Center in New York City. Initial reports by the media stated that an airplane had crashed into one of the towers in what to many appeared to be an accident of some kind. This belief was supported by eyewitness accounts that described the airplane to news reporters as a small commuter plane or "a smaller plane." 2 Sean Murtagh, a CNN producer, stated minutes after the attack, "I just witnessed a plane that appeared to be cruising at slightly lower-than-normal altitude over New York City, and it appears to have crashed into – I don't know which tower it is - but it hit directly in the middle of one of the World Trade Center towers."3 When Murtagh was asked about the type of aircraft he reported it was a "two engine jet, maybe a 737...a large passenger commercial jet." 4 In attempting to explain what was happening from an accident narrative, the CNN reporter asked Murtagh if the plane had difficulty flying in which he responded, "Yes, it did. It was teetering back

and forth, wingtip to wingtip, and it looks like it crashed into, probably, twenty stories from the top of the World Trade Center." 5 President Bush also reported that he thought the initial crash was an accident: "I was sitting outside the classroom waiting to go in, and I saw an airplane hit the tower – the TV was obviously on, and I use to fly myself, and I said, "There's one terrible pilot." And I said, "It must have been a horrible accident." 6

The idea that this event could have been a terrorist attack was not evident in the initial news reports of the 9/11 attacks, even though in 1993 Ramzi Yousef, a nephew of Khalid Sheik Mohammad (the mastermind behind the 9/11 attacks) and six co-conspirators had detonated a 1,500 pound bomb in the underground parking garage of the World Trade Center that killed six people and injured more than 1,000.7 The goal of this attack was to devastate the foundation of the north tower in such a way that it would collapse onto its twin, thus causing the collapse of both. 8 As a nation we initially did not perceive that we were under attack by al Qaeda although this organization was responsible for carrying out a number of highly destructive suicide bombing attacks against the United States before 9/11 including the 1998 attacks against the American embassies in Nairobi, Kenya, and Dar es Salaam, Tanzania, and the attack on the USS Cole off the coast of Yemen on October 12, 2000. This perception rapidly changed, however, when United Airlines Flight 175 struck the South Tower of the World Trade Center at 9:03 a.m. on September 11, 2001.

Immediately after the second airplane crashed into the WTC, reporters on ABC, Fox, and NBC news began talking about a deliberate attack. Charles Gibson of Good Morning America stated, "It looks like a concerted effort to attack the World Trade Center in New York... A concerted attack is underway." 9 One of the first witnesses of the event interviewed by CNN reported, "I believe it was intentional. It was flown deliberately into the building... There was nothing wrong with the airplane."10 President Bush reported that when he was told that a second plane had hit the World Trade Center, "I knew that when I got all the facts that we were under attack, there would be hell to pay for attacking America." ¹¹ By evening on September 11, 2001 the shock and surprise turned to anger as Americans realized that America was under attack.

On that day, nineteen men affiliated with al Qaeda, an Islamic terrorist organization, hijacked a total of four passenger jets. ¹² Two of these planes crashed into the World Trade Center, one airplane crashed into the Pentagon in Arlington County, Virginia killing 184 people, and the last aircraft crashed into a field near the town of Shanksville in rural Somerset County, Pennsylvania as passengers and members of the flight crew attempted to retake control of their plane from the hijackers. Excluding the nineteen hijackers, a confirmed 2,973 people died and thousands were injured as a result of these attacks. ¹³

Since the 2001 attacks, the term homeland security has been used regularly in the media and in our daily lexicon. Our "war on terrorism" has had a significant impact on US domestic and foreign policies and on the lives of people throughout the world. Fear of future terrorist attacks has spawned the development and creation of massive governmental programs, agencies, and policies aimed at protecting our homeland. For example, at the federal level, a massive reorganization merged twenty-two distinct federal agencies into the Department of Homeland Security; this was the largest restructuring of the federal bureaucracy in fifty years. 14 It is clear that homeland security has been a prominent public policy focus since September 11, 2001 in part because overwhelming government response was needed to protect the United States from future terrorist attacks, and because political and public expectations made it so.

DEFINING HOMELAND SECURITY

Though the term homeland security is used in our common language on a regular basis, a review of the literature shows that there is no consensus on the meaning of homeland security. A frequently cited definition of homeland security is from the 2002 National Strategy for Homeland Security. The federal government defined homeland security as "a concerted national effort to prevent terrorist attacks within the

United States, reduce America's vulnerability to terrorism, and minimizing the damage and recover from attacks that do occur." 15 This definition has been expanded under President Barak Obama to include other hazards after the catastrophic events of Hurricane Katrina. The Obama administration's current strategy focuses on terrorism as the foremost of many threats, defining homeland security as "a concerted national effort to ensure a homeland that is safe, secure, and resilient against terrorism and other hazards, where American interests, aspirations, and way of life can thrive."16 The most current federal definition of homeland security reflects much of what the nation has learned about homeland security policy, strategy, and tactics over the last decade. It arises from the February 2010 Quadrennial Homeland Security Review (QHSR) which refers to homeland security as an enterprise, or an inherently collaborative and joint effort of federal, state, local, tribal, private sector, and nongovernmental partners with a common interest in the well being and public safety of America. The QHSR states:

Homeland security describes the intersection of evolving threats and hazards with traditional governmental and civic responsibilities for civil defense, emergency response, law enforcement, customs, border control, and immigration. In combining these responsibilities under one overarching concept, homeland security breaks down longstanding stovepipes of activity that have been and could still be exploited by those seeking to harm America.¹⁷

The conceptual lenses in this article were developed because there is no coherent theory to date that explains the phenomenon of homeland security and are built on the assumption that the primary focus of homeland security is on the threat of terrorism versus natural hazards. ¹⁸ One method that can be used to begin to build a theory of homeland security is to adapt and blend applicable theories from a number of academic disciplines that have relevance to homeland security issues and challenges.

The terrorist attacks on the World Trade Center in 1993 and in 2001 and our government's response have been explained in part by theories from the fields of political science, criminal justice, public administration, sociology, and others. However, each of these discipline-specific theories and their corresponding paradigms offer but a piece of the picture in understanding homeland security policy and the threat of terrorism as a social and political phenomenon. The purpose of this article is to gain a better understanding of homeland security by looking at this phenomenon through multiple conceptual lenses or paradigms.

Paradigms are "a set of assumptions, concepts, values and practices that constitutes a way of viewing reality for the community that shares them," especially in an academic discipline. 19 A paradigm shapes how we see the world and helps to explain the world to us. Paradigms are like internal maps that we carry with us in our brains, often subconsciously, in the form of images, assumptions, stories, theories, and principles, that condition how we perceive the world, make judgments, and solve problems.²⁰ Our paradigms are formed not only by our early experiences as children within our families and communities, but also through our educational experiences and training. More importantly, paradigms heavily influence how we see current events as well as whether we will be aware of new problems, how we perceive and understand new phenomenon, and how we choose to solve problems.

For example, immediately following the events of 9/11, homeland security was largely viewed as a series of efforts designed to counter terrorism. For example, President Bush declared that "homeland security encompasses those activities that are focused on combating terrorism... Such activities include efforts to detect, deter, protect against and, if needed, respond to terrorist attacks."21 Given the above statement, what first comes to mind when you read the term deter? What is meant by the concept of deterrence as it relates to terrorism? A law enforcement officer or a scholar in criminology would mostly likely have very different definitions and theories of deterrence than someone who works in the military or a scholar in international relations or risk management.

For criminologists, deterrence occurs when someone refrains from committing a

crime because he fears the certainty, swiftness, and severity of legal punishment.22 Deterrence from an international relations perspective, on the other hand, refers to a policy aimed at dissuading an adversary (usually a nation state) from using military force to achieve its foreign policy objectives through the threat of military retaliation. ²³ A risk management perspective of deterrence might include the effects of failed control procedures, including the relative inability to safeguard assets or to ensure accurate reporting. If we take the term deterrence from criminology, we would assume that we are going to deter terrorism by passing new legislation raising the penalties for specific criminal acts that may be defined as terrorism. However, if we use the theories of deterrence from an international relations perspective, we would assume either covert intelligence operations or military action would be used against terrorist threats. Both of these uses of deterrence pose unique policy solutions that may not be effective against some forms of terrorism we are likely to face in the future.

BUILDING A THEORY OF HOMELAND SECURITY USING MULTIPLE FRAME ANALYSIS

In order to understand the challenges in developing homeland security theory, it is critical to incorporate the complex and dynamic nature of the homeland security enterprise. However, rather than trying to understand each of the many challenging issues characterizing homeland security at the same time, it is logical to simplify the task by concentrating on a single challenge. For this article, we choose the challenge of terrorism. In turn, three perspectives, or conceptual lenses, are identified from the literature that can each be used independently, or in combination, to understand the problem of terrorism. The lenses derive from the criminology and criminal justice literature, the international relations literature, and the public administration and political science literature. Each conceptual lens in multiple frame analysis consists of theories, practices, values, beliefs, and assumptions that serve to

shape how the threat of terrorism is perceived as a problem, and how the problem should be resolved in the form of homeland security policy and programs. These conceptual lenses highlight how perceptual filters can significantly alter how individuals and organizations understand and explain phenomena or events. The first lens, criminal justice, views terrorism (the proxy for homeland security) as a criminal justice problem. The second lens views terrorism as an international relations issue. The third lens views terrorism as an organization design problem. In addition, a fourth lens is described. The overlap of the previous three lenses suggests that the homeland security enterprise might also be understood as a collaborative nexus of each of the other viewpoints. This article will describe the characteristics and assumptions of each of these conceptual lenses based on a comprehensive literature review and their subsequent application to homeland security as described in the 2002 National Strategy for Homeland Security. In addition, this article will demonstrate that although each lens has a distinct contribution to what homeland security is, each of the lenses work together on many issues and challenges of homeland security as a collaborative nexus of methods and strategies. Hence where the three lenses overlap offers a distinct contribution to what homeland security is as

The article is organized as follows. Part One describes the characteristics of the first lens, homeland security as a criminal justice problem, viewing terrorism as a crime. Part Two describes the second lens, homeland security as an international relations problem, viewing terrorism as war. Part Three describes the third lens, homeland security as an organization design problem that views terrorism as a network. The characteristics of each lens are based on those items most frequently represented in the literature. However, there is no one paradigm or clear consensus in the academic disciplines on how the entirety of homeland security is understood, and therefore what homeland security policies might be most effective against the threat of terrorism.

Scholars and practitioners in criminal justice, international relations, and public

administration bring different educational backgrounds, experiences, values, and beliefs to their study of historical events and new phenomena. Thus, these individuals may see completely different things when they look at the same events.²⁴ (See figure 1.) Joel Barker wrote, "What may be perfectly clear and visible to one person is invisible to another because of differing paradigms." 25 As a caution, the authors note that viewing the world through a given conceptual lens is like looking at a distant object through a straw; while it allows a person to focus on one specific aspect of an issue, the nature of the perspective tends to oversimplify complex issues by blocking out the larger view. Similarly, it may also block the viewer's ability to look at the event from an alternative

vantage point. Ultimately, given the complex and dynamic nature of the homeland security enterprise, if we are to understand it we must find a way to consider homeland security issues and challenges, like terrorism, from multiple perspectives. Additionally, we have to have the ability to put our own (perhaps preferred) perspective aside so we can understand homeland security from a variety of points of view. Thus, to form a theoretical foundation of homeland security, we will use multiple perspectives, or lenses, to consider the challenge of terrorism. Each conceptual lens will be described distinct theories, definitions, meanings, and strategies. (See Figure 1.)

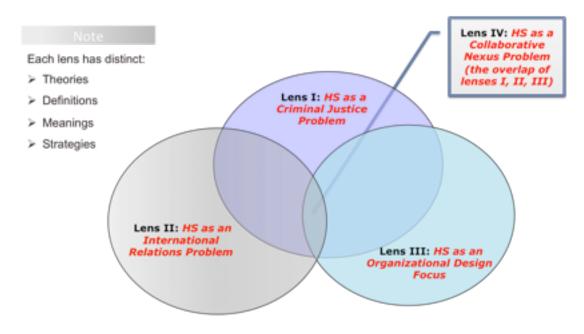


Figure 1: Multiple Frame Analysis

LENS I: HOMELAND SECURITY AS A CRIMINAL JUSTICE PROBLEM – TERRORISM IS VIEWED AS A CRIME

By looking at terrorism as crime and through a criminal justice lens, key characteristics of homeland security and terrorism are highlighted. First, the criminal justice lens perceives terrorism as a crime that is politically motivated. Theodore Honderich defines political violence as:

[The] use of force against persons or things; a use of force prohibited by law, directed to a change in the policies, system, territory of jurisdiction, or personnel of a government or governments, and hence also directed to changes in the lives of individuals within societies.²⁶

Unlike other offenders investigated by the FBI, those identified as terrorists have committed or are suspected of having committed crimes for political reasons. However despite the motivation, acts of terrorism can include crimes such as murder, kidnapping, arson, and destruction of property which are acts designated to be illegal by state and national criminal codes.

Second, terrorism is defined as an act of violence whose purpose is to coerce or intimidate a government or population to obtain political or social benefits.²⁷ For example the federal statutes on terrorism define international and domestic terrorism as:

Activities that involve violent acts or acts dangerous to human life that are a violation of the criminal laws of the U.S. or of any state, and appear intended to intimidate or coerce a civilian population; to influence the policy of a government by intimidation or coercion; or attempt to affect the conduct of government by mass destruction, assassination or kidnapping.²⁸

What distinguishes acts of terrorism from common crimes is that the act is motivated by political, ideological, and religious intent in order to create a mood of fear and that the victims are always innocent.

Third, terrorism is distinct from ordinary domestic crime in a number of ways. Criminals are characterized as opportunistic, impulsive, self-centered, and undisciplined.²⁹ For most criminals, crime is a way for

obtaining goods and violence is employed as a means to obtain money or material goods for the criminal's own self-interest. Terrorists, by contrast, normally plan their operations and their violent acts are intended to have consequences (political or social) and make a symbolic statement about a political cause.³⁰ In addition, terrorists are motivated by ideology, while criminals are generally not committed to any specific ideology. Finally, most criminals avoid committing crimes in public and are oriented toward escape. Terrorists, however, use political violence to gain public attention for their cause; they train and prepare for their missions, and are attack oriented.31

Fourth, counter terrorism strategies to prevent and deter terrorism can be found in part in crime prevention and deterrence theories. A primary purpose of criminal law is to deter or to dissuade a person from committing a crime because he/she fears being punished through fines or incarceration. Deterrence theory from the perspective of criminologists assumes that individuals are rational actors who choose to obey or violate the law by a rational calculation of the risk of pain from incarceration, social stigma, or death penalty versus the potential pleasure and economic gain derived from a criminal act. 32 Homeland security policy since 9/11 has included activities focused on deterring terrorism by passing legislation (i.e., PATRIOT Act) that created new terrorism related crimes, such as acts of violence against mass transportation systems, and made penalties more severe for those convicted of such crimes.³³ The primary weakness of using legal sanctions as a deterrent to terrorism is that the actual or perceived threat of formally applied punishment by the state has not been proven to provide a significant marginal deterrent effect as it does with criminals.34 And, in addition, the challenge presented by asymmetric transnational actors is that they are difficult to prosecute by US law. This point is made more significant given the inability to form coherent international bodies, policies, and laws that have reasonable potential to be enforced so as to be able to deter anything. Take for example the problem Somali pirates pose to the international shipping community.

Law enforcement agencies often employ crime prevention strategies to complement deterrence strategies. Among the most visible crime prevention measures are those that include various forms of target hardening and increasing the physical security of potential targets of crime. Target hardening includes the installation of locks, bars for windows, intruder alarms, fences, and other devices that make crime more difficult to carry out. Other situational crime prevention strategies include physical, electronic, and procedural measures that serve to deter criminals from attacking, detecting them if they do attack, delaying them so they can be apprehended, and denying them access to certain targets.35 These types of measures were clearly seen after 9/11 at airports, government buildings, and port facilities where new fences, barricades, scanners, and surveillance systems were adopted.

Lastly, the criminal justice lens identifies homeland security as a criminal justice problem that should be handled by local, state, national, and international law enforcement agencies. Law enforcement agencies are concerned with preventing and deterring crime, gathering evidence, determining the guilt of the individuals responsible for a particular act, and apprehending and bringing the perpetrators to trial. The criminal justice approach offers a broad range of counterterrorist strategies to deter, prevent, and respond to terrorism that is quite different from an international relations and organizational design perspective. Because acts of terrorism are inherently criminal behaviors under the laws of the nation and states, local and state law enforcement agencies play a major role in counter terrorism. In many state and local homeland security plans, law enforcement agencies are assigned tasks that include gathering intelligence and sharing information through joint terrorism task forces, protecting key infrastructure and assets, doing surveillance and preventive patrols, responding to bomb threats and other disasters, and conducting investigations. 36

The contemporary criminal justice system in the United States has played a key role in homeland security when terrorism has been perceived as a crime, because all parts of the criminal justice system are activated when an individual or group commits an act of terrorism within the United States and they are caught, prosecuted, and found guilty of the crimes. The criminal justice system consists of three main components: law enforcement agencies charged with investigating crimes and apprehending suspects; the court system where a determination is made whether a suspect is guilty as charged; and the correctional system charged with treating and rehabilitating offenders and with incapacitating them.

In the criminal justice lens, local, state, and federal law enforcement agencies play a critical role in homeland security. At the national level, the Federal Bureau of Investigation (FBI) has been designated the lead federal agency in investigating terrorist groups in the United States and acts of terrorism directed at Americans overseas. The FBI received this authority through a series of presidential directives and legislation including President Reagan's national security decision directive 30,37 the Omnibus Diplomatic Security and Antiterrorism Act of 1986,38 and President Clinton's Presidential Decision Directive 39.39 Although the FBI has had this role for over twenty years, throughout most of the 1990s counterterrorism was not seen as the priority in this organization. Before 9/11, the highest priority goal for the FBI was the reduction of violent crime, including organized crime and drug and gang related violence.40 However since the terrorist attacks on 9/11, the highest priority for the department has been to protect Americans by preventing acts of terrorism.41

The International Association of Chiefs of Police (IACP) argue that all "terrorism is local" and that regardless of the global and international connections, any actual terrorism attack is going to occur at the local level and it will be local first responders who will initially deal with the attack. 42 As first responders to a terrorist attack, local police officers will be responsible for assessing the crime scene for hazards, calling for and providing medical assistance, identifying victims and witnesses, securing the crime scene and physical evidence, and notifying supervisors and investigators who will be handling the case. 43 In addition to

responding to and investigating terrorist attacks after they occur, local police are required to be more proactive in preventing and detecting acts of terrorism through intelligence gathering and analysis and by completing threat and vulnerability assessments in their jurisdictions. ⁴⁴ From the criminal justice perspective, terrorism is considered a criminal matter to be handled by local, state, and national law enforcement agencies. Law enforcement is concerned with gathering evidence, determining the guilt of the individuals responsible for a particular act, and apprehending and bringing the perpetrators to trial.

Criminal justice is not only viewed in the United States as a system, but also as a process that takes offenders through a series of decision points beginning with the investigation of a crime and arrest of suspects, to adjudication where guilt or innocence is determined in a trial, and

concluding with correctional treatment and release.⁴⁵ While the actual process is more complex than this and can vary based on if the crimes are classified as misdemeanors or felonies, what is critical about this process is that it is bound by specific constitutional procedures and protections. The formal justice process implies that criminal defendants charged with a serious crime are entitled to a full range of rights under the law including the right to refuse to answer questions when placed in police custody, the right to a speedy and public trial by an impartial jury, and the right to have trial procedures subject to review by a higher authority, to name a few. This lens identifies homeland security as a criminal justice problem that is best resolved by utilizing the institutions and processes of the criminal justice system (see Table 1 for a summary).

Table 1: Characteristics of Lens I - Terrorism as a Criminal Justice Problem

ANALYSIS	CRIMINAL JUSTICE FRAME
Definition of Terrorism: Key characteristics	Terrorism defined as a crime that is politically motivated and is an illegal activity Act of violence whose purpose is to coerce or intimidate a government or population Many types of crimes can be committed in a terrorist act
Key Theories explaining violent behavior from the following levels: Individual Organization/group Nation state International/world system	Terrorists can be distinguished from ordinary criminals Theories from criminology and criminal justice help to explain terrorist behavior by groups and individuals and include: deterrence, general strain, routine activity, rational choice, and crime prevention theories
Primary Homeland Security Strategy: • Goal/purpose	Focus on investigating crimes, gathering evidence, apprehending suspects, and successfully prosecuting suspects for crimes. Homeland security efforts focus on crime prevention strategies, intelligence gathering, enhancing law enforcement powers, and increasing penalties for crimes related to terrorism.
Organizations	 Law enforcement agencies, especially the FBI, and those organizations that make up the criminal justice system. Often reactive to crimes versus proactive.

LENS II: HOMELAND SECURITY AS AN INTERNATIONAL RELATIONS PROBLEM -TERRORISM IS VIEWED AS A WAR

This lens conceptualizes terrorism as a form of warfare and is grounded in an international relations foundation, thus presenting key characteristics that are distinct from the other lenses. First, homeland security is linked to national security in protecting the United States and its interests at home and abroad. In the wake of the terrorist attacks on September 11, 2001, the United States required a guiding vision to outline our national strategy to combat the terrorist threat at home and abroad. Under President George W. Bush five new strategies were published,46 relating to specific aspects of homeland security and combating terrorism, in addition to an updated National Security Strategy. Although there are many definitions of national security, the US armed forces defines national security as a:

...collective term encompassing both national defense and foreign relations of the United States. Specifically, the condition provided by: 1) a military or defense advantage over any foreign nation or group of nations; 2) a favorable foreign relations position; or 3) a defense posture capable of successfully resisting hostile or destructive action from within or without, overt or covert.⁴⁷

While national security is typically considered the purview of the military referring to the aggregate of foreign and domestic security issues facing America, homeland security might best be considered a civilian function. In policy and practice, the homeland security enterprise includes the combined domestic efforts of federal, state, local, and private organizations focused on, at a minimum, preventing, deterring, and responding to acts of terrorism within the homeland as well as efforts to harden and protect critical infrastructure, efforts to improve emergency planning, response and recovery, intelligence gathering and disseminating, and policy development that supports all these efforts.

The 2002 National Security Strategy provides a broad framework for strengthening US security in the future. It also identifies the national security goals of the United States, and describes the foreign policy and military capabilities necessary to achieve those goals. These goals included combating terrorism around the world by disrupting and destroying of these organizations, strengthening homeland security, and fostering cooperation with allies and international organizations to combat terror. 48

This link between homeland security and national security is also highlighted in President Obama's National Security Strategy, 2010 (NSS). One of the significant differences between the 2002 and 2010 national security strategies was President Obama's decision to merge the concepts of national security and homeland security more closely as well as to abandon the doctrine of pre-emption. Obama argued that the 2010 NSS complemented "our efforts to integrate homeland security with national security, including seamless coordination among Federal, state and local governments to prevent, protect against, and respond to threats and natural disasters." 49 Among the major objectives of the 2010 NSS are to prevent terrorist attacks on and in the United States through the use of intelligence, law enforcement, and homeland security capabilities, and to disrupt, dismantle, and defeat al Oaeda and its terrorist affiliates in Afghanistan, Pakistan, and around the world.50 The concept of defeating global terrorist networks and insurgencies is supported by military and international relations theories that view terrorism as a form of asymmetrical warfare, which is the next component of the international relations lens.

Second, seen through this lens, terrorism is perceived as a strategy of asymmetrical warfare that is directed at people, particularly civilians and noncombatants, in violation of the laws of war.⁵¹ This perception is clearly articulated by President Bush in the *National Security Strategy* of 2002, in which he states, "The United States is fighting a war against

terrorists of global reach. The enemy is not a single political regime or person or religion or ideology. The enemy is terrorism — premeditated, politically motivated violence against innocents." ⁵² Terrorism from this perspective is an act of violence the purpose of which is it to coerce or intimidate a government or population in order to obtain primarily political goals but the violence is perpetrated using asymmetric methods and strategies.

Presumably, most transnational terrorist organizations realize they are much smaller and weaker than national armies and cannot fight and win the more powerful side under conventional rules of war. 53 This indeed is the heart of the asymmetry between traditional military power and modern terrorist organizations such as al Qaeda or Hamas. Thus, the weaker terrorist organization uses unconventional methods of fighting, such as the use of car bombs and suicide bombers against civilian targets, assassination of political leaders, attacks against information systems and critical infrastructure, and environmental destruction.⁵⁴ The attacks by al Qaeda on September 11, 2001 revealed how unconventional (asymmetric) strategies can be effectively used to inflict mass casualties, and have tremendous political, social and psychological effects.

A third element of this lens is that terrorism is a form of psychological warfare that targets civilians as a means of instilling fear in a population. Wheeler writes, "terrorism, a psychological technique relying on the effects of surprise and shock to unnerve or to coerce, aims at an opponent's eventual demoralization and surrender on the issue in dispute." 55 By brutal acts against civilians, terrorists seek to sow fear in a population as a whole in the hope that this will destabilize the society and alienate people from support of their government. 56

Fourth, this lens recognizes that terrorism is perpetrated by individuals, domestic and transnational groups, and agents of nation-states. Of particular concern is state sponsored terrorism and its impact on the world system.⁵⁷ International relations scholars have written extensively about how terrorism can be used as a tool of foreign policy by nation states as a means of balancing power in the world system, of

destabilizing hostile regimes, and of avoiding direct military confrontation with a more powerful nation state.⁵⁸ A weaker nation state and transnational organizations will use terrorism as a foreign policy strategy over conventional warfare because conventional warfare will simply be too costly in terms of personnel and resources. This was clearly seen during the Cold War where the former Soviet Union was involved with a wide range of terrorist movements throughout the world that attempted to destabilize and embarrass the United States and our allies.⁵⁹ behavior of the former Soviet Union, Iran, and other nation-states as state sponsors of terrorism, as well as the behavior of transnational terrorist organizations, can be explained in part by a wide range of international relations theories⁶⁰

Within a month of the 9/11 attacks the United States launched a large-scale military operation in Afghanistan to overthrow the Taliban regime harboring al Qaeda, to find Osama bin Laden, and to defeat terrorist elements in the country. President Bush warned that the United States would not just respond after being attacked in the future, but would exercise the right to self defense by acting preemptively against terrorist organizations to prevent them from doing harm against our nation.61 The doctrine of preemption – of attacking an enemy based on legitimate evidence that an attack is imminent – replaced deterrence as a key principle of US foreign policy under the Bush, Reagan, and Clinton administrations.

The doctrine of deterrence has been a key principle of US foreign policy since the 1950s. In its most general form, deterrence is defined as the power to persuade one's opponents that the costs and/or risks of a given course of action outweigh its benefits.⁶² Thus, an adversary can be deterred by the threatened use of military force, as well as by other types of threats/rewards that can include economic or trade sanctions or the promise of economic aid. To be a credible deterrent against possible threats, the United States must not only maintain a stable deterrent posture by having a readiness to use military force when needed, but also must be able to convince an adversary that we have the will and power to punish an adversary severely.⁶³ Many scholars have

noted that in the 1980s and 1990s, US foreign policy failed to deter terrorist attacks because we failed to communicate to groups such as al Qaeda that the United States was willing and able to inflict significant damage on their organizations in the event of an attack.⁶⁴ In fact prior to 9/11, the United States had consistently failed to retaliate in any meaningful manner against terrorist attacks by Islamic radicals such as those against the World Trade Center in 1993, the US embassies in East Africa in 1998, and the USS Cole in Yemen in 2000. A primary weakness of deterrence theories in international relations is that many are directed against nation states, not individuals or transnational terrorist organizations, which are today primarily sub state actors.

In the realm of international relations, globalization has had a significant impact on actors in the world system. Globalization is a dynamic process that has involved the integration of economic markets, nationstates, and technologies, and has made the transnational movement of money, goods, people, and ideas much easier to accomplish. 65 As a result, extensive webs of interdependence have been created that have had negative and positive impacts on the world system. Among the negative aspects is the anti-globalization backlash that has arisen in some regions of the world. A number of scholars have argued that the increased threat of transnational terrorism in the post Cold War era can be explained in part by organizations and communities fighting against globalization and the spread of American political, economic, and cultural influence. 66 For example, Samuel Huntington in The Clash of Civilizations, argued that the spread of western influence militarily, economically, politically, socially, and culturally has created intense resentment among Muslims and this will result in future conflicts. 67 Further, Benjamin Barber also argues that terrorism is a reaction to the international forces of globalization because it threatens traditional community structures based on kinship, religion, or ethnicity.⁶⁸ According to economist Joseph Stiglitz, anti globalization attitudes in developing countries are due to the fact that globalization has made some of these countries worse off than before, including

those in the Muslim world.⁶⁹ In the Muslim world, globalization has not only been seen as a force that is undermining traditional values, but also as a source of economic exploitation by the West, particularly the United States.⁷⁰ To kindle the anger and frustration of the population and recruit members to their ranks, radical elements within these societies, such as Hamas or al Qaeda, make claims that wealthy nations are exploiting them to gain more power and wealth at the expense of weaker nation states and communities. Thus, terrorist violence by groups and individuals may be the result of feelings of intense anger, aggression and frustration due to environmental conditions such as globalization, deprivation or oppression. 71

Finally, the international relations lens views terrorism as a form of warfare that is an international relations problem that should be handled by national intelligence agencies, the State Department, the National Security Council, and the United States military. Wherein homeland security issues are involved, these agencies are focused on the national security of the United States and are concerned with preventing, deterring, and responding to international terrorism through a broad range of offensive and defensive counterterrorism strategies.

Terrorism experts often organize counterterrorist options into three classifications that include: (1) diplomacy, financial controls, military force, intelligence, and covert actions; (2) legal, repressive, and conciliatory responses to terrorism; and (3) targeted and untargeted prevention (i.e., target hardening).72 Counterterrorism options can vary from the use of military force and intelligence operations to diplomacy and social reforms. Military forces are deployed in covert operations using special operations forces, in suppression campaigns using military strikes to destroy or disrupt terrorist personnel and infrastructure, and in preemptive attacks to prevent terrorist attacks in the future. For example, the United States responded to terrorist acts of aggression with military operations in Afghanistan in response to 9/11/01 as well as in Libya after the Berlin Disco bombing in 1986.73

Nonmilitary, repressive options include nonviolent covert operations such as disinformation campaigns, intelligence gathering and analysis, economic sanctions, and enhanced physical security of possible targets or target hardening. Conciliatory counterterrorism options do not involve the use of force or other repressive methods and can include diplomacy to negotiate acceptable resolutions to a conflict, and social reforms to address the root causes of terrorism. The Legal responses to terrorism include actions, such as economic or trade sanctions instituted by international organizations such as the United Nations and World Court.

Each of these options has been used by various administrations to prevent, deter,

and respond to terrorism, but some of these options can pose significant ethical and legal dilemmas for policy makers. The importance of preemption and deterrence in preventing terrorist attacks by transnational terrorist organizations and nation states is central to the development of these responses when viewed through the international relations lens. Regarding terrorism and counter-terrorism, this lens views homeland security as an international relations problem that is best addressed by utilizing the institutions and processes of the US national security apparatus (See Table 2 for Summary.)

Table 2: Characteristics of Lens II - Terrorism as War

ANALYSIS	INTERNATIONAL RELATIONS FRAME Post Cold War
Definition of Terrorism: Key Characteristics	Rise of transnational actors with no state sponsors Increase in sectarian terrorist groups Terrorism is a strategy of asymmetrical warfare that is directed at civilians or noncombatants in violation of the laws of war Is a rational strategy whose purpose is to coerce or intimidate a government or population in order to obtain political, social or religious goals Is a form of psychological warfare as a means of instilling fear in a population
Key Theories explaining violent behavior:	Terrorists can be distinguished from insurgents though there is overlap between the two Theories from international relations help to explain terrorist behavior by non state actors include: globalization theories
Primary Homeland Security Strategy: • Goal/Purpose	homeland security strategy. Focus is on creating and implementing long term grand strategies related to GWOT. Serves to promote US national interests at home and abroad. Homeland security is linked to counterterrorism efforts that include diplomacy, military force, intelligence gathering and analysis, covert actions, targeted and untargeted prevention, financial controls and economic sanctions
 Organizations 	DoD, State, NSC, Intelligence Community

LENS III: HOMELAND SECURITY AS AN ORGANIZATIONAL DESIGN PROBLEM – TERRORISM IS VIEWED AS A NETWORK OF TRANSNATIONAL ORGANIZATIONS

In Lens III - Homeland Security as an Organizational Design Problem/Terrorism as Network – a number of characteristics are highlighted. This lens views homeland security from an organizational design and public administration perspective. First, this lens focuses on the importance of the design and structure of the government organizations tasked with homeland security and counter-terrorism. The argument is that rational, hierarchical, bureaucratic designs and practices are likely to face significant challenges in deterring, preventing, and responding to terrorism attacks in the future because they are not well suited for operating in complex, unstable environments. Yet in the wake of 9/11, passage of the Homeland Security Act of 2002 created one of the largest bureaucratic organizations in Washington, DC. The Department of Homeland Security (DHS) was created to centralize the resources and expertise of twenty-two diverse federal agencies into a supra-bureaucracy ostensibly in order to achieve greater coordination in homeland security within federal agencies and with state and local government and the private sector.

How best to accomplish homeland security is one of most complex problems that must be addressed by our elected leaders and government organizations at the local, state, and federal levels. The coordinated execution of agreed upon programs and policies in homeland security is fundamentally the responsibility of not only DHS, but also for a vast network of government agencies, nonprofit organizations, and private enterprises working in a concerted effort to prevent, deter, and respond to terrorist attacks within the United States. Though a network of organizations is involved in these homeland security efforts, the primary structure of government organizations is a hierarchical model with bureaucratic organizational structures. 77 Bureaucratic structures are often

described as having a clear hierarchy in which there is supervision of lower offices by higher ones, a clear chain of command and authority, established rules, policies and procedures (red tape), a division of work, and clear lines of communication which is best suited for stable and predictable work environments.⁷⁸ However, organizations dedicated to homeland security often operate in environments that are dynamic, complex, and uncertain, thus requiring an organic network structure that is highly decentralized, flexible, and adaptable.⁷⁹ The large-scale failure of the federal government in responding to Hurricane Katrina in 2005 clearly highlighted the coordination challenges faced by traditionally bureaucratic organizations.

A number of public administration scholars argue that network governance structures are the most effective in responding to increasingly complex social and political problems that span across organizations and levels of government.80 Network models of organizations and governance are significantly different than hierarchical models. 81 First, while hierarchies have a single authority structure created under a chain of command, networks have a divided authority structure. Second, in a hierarchical structure activities are guided by clear goals and well-defined problems, while in a network there are various and changing definitions of problems and goals. Third, a network is a highly organic structure that is decentralized and may integrate multiple levels of government and a variety of private and nonprofit organizations in order to deliver a service or meet policy goals. One of the greatest strengths of a network structure is its ability to bring together a group of experts and resources to solve problems in a rapidly changing and shifting environment. These capabilities are critical in preventing, deterring, and responding to the vast array of threats to the homeland. Homeland security is a shared responsibility with Congress, state and local governments, the private sector, nonprofit organizations, and the American people. To effectively integrate and coordinate these diverse stakeholders into homeland security efforts, network governance structures (i.e., fusion centers,

interagency policy centers, multinational law enforcement, and data sharing Memos of Understanding, etc.) will need to be created and maintained at multiple levels.

The next element of this lens focuses on the organizational culture, mission, and strategies of the agencies involved in homeland security. How terrorism, as well as other threats, is defined and conceptualized is determined largely by the lead agencies involved in homeland security, particularly the Department of Homeland Security, Department of Justice, Department of Defense, and the organizations associated with national intelligence and national security. As a result, counterterrorism policies and programs will take on the character of these organizations. For example, the FBI has historically taken a traditional law enforcement approach to counter terrorism whereby agents respond to crimes after they have occurred to gather evidence and build a case for prosecution (this was clearly seen in their handling of the 1993 World Trade Center bombing). following 9/11 and the subsequent passage of the PATRIOT Act, the FBI has attempted to become more proactive.

Strategy is often driven by policy, which is in turn driven by world events. Strategic responses to policy can often develop particular organizational culture and structure. Chandler defines strategy as "the determination of the basic goals and objectives of an enterprise, and adoption of the courses of action and the allocation of resources necessary for carrying out these goals."82 In the public sector, an agency's strategy can be articulated in its enabling legislation that defines its purposes and by its strategic plans, mission statements, policies, and adopted goals. For example the Homeland Security Act of 2002 states the mission of the Department of Homeland Security is to:

Prevent terrorist attacks within the United States; reduce the vulnerability of the United States to terrorism; minimize the damage, and assist in the recovery, from terrorist attacks that do occur within the United States; and carry out all functions of entities transferred to the Department, including acting as a focal point regarding natural and manmade crises and

emergency planning.83

After 9/11, the FBI also changed its mission priorities and identified prevention of terrorist attacks as its number one priority. Both these examples illustrate how an organization can change its structure to accommodate a shift in policy, and strategy – in this case, a greater emphasis on counterterrorism. Some have argued that this focus on terrorism by DHS left the agency unprepared for large-scale natural disasters such as Hurricane Katrina.⁸⁴ The growing number of natural disasters combined with the increasing number of murders and drug related violence on the US-Mexican border, and the increasing threats to our cyber infrastructure led to a significant change in the mission of the Department of Homeland Security. Under President Obama, DHS has five homeland security missions: (1) preventing terrorism and enhancing security; (2) securing and managing borders; (3) enforcing and administering immigration laws; (4) safeguarding securing cyberspace; and (5) ensuring resilience to disasters.85 Strategy formulation and changes typically begin with an assessment of the opportunities and threats in the external environment and is an on-going process for government organizations such as DHS.

Organizational culture is very important to organizations and culture change is a critical component of organizational transformation. Organizational culture is defined as "the set of values, guiding beliefs, understandings and ways of thinking that is shared by members of an organization and taught to new members as correct." 86 Edgar Schein argued, "Culture matters because it is a powerful, latent, and often unconscious set of forces that determine both our individual and collective behavior, ways of perceiving, thought patterns, and values."87 In turn, cultural elements determine strategy, goals, and modes of operating. For example, because law enforcement agencies, such as the FBI, perceive terrorism as a crime, their counterterrorism strategies must be underpinned by the guiding principle of the rule of law and implemented through the criminal justice approach.

Understanding organizational cultures helps to explain some of the interorganizational and intra-organizational conflicts that occur in implementing policies and programs in homeland security. A conflict highlighted in the 9/11 Commission Report was between the FBI and CIA in sharing intelligence information on suspected terrorists. An example of this conflict can be illustrated in part by the drastically different organizational cultures and strategies of the intelligence community and the law enforcement community.

The culture of intelligence-driven organizations differs from those of pure law enforcement organizations. 88 While (foreign) intelligence organizations are interested in long-term infiltration, active and passive monitoring, and deterrence, 89 the law enforcement bias is to arrest and prosecute. Also, the primary goals of an intelligence organization include principle elements in the intelligence cycle such as: (1) determining what intelligence should be collected to advance national interests; (2) systematically collecting that raw intelligence; (3) applying analytical tools to the raw information in the development of informed judgments; and (4) sharing that finished intelligence with national level policymakers and other officials with a demonstrated need to know. "Tradecraft" or the how, where, and why intelligence gathering takes place, is of utmost importance.90 Recruitment of sources and penetration of groups operating in the United States is highly valued by intelligence organizations. Finally, there are fewer legal restrictions on overseas CIA operations than FBI investigations at home or abroad.

By contrast, the primary goal of law enforcement is to respond to criminal activities, and to deter future crimes. In general, this goal is achieved by rigorous investigation of criminal activities and close cooperation with prosecutors. Discrete, individual criminal cases are the driving factor in law enforcement organizations, while broader trends and relationships among social variables - such as political, economic, and military factors - drive intelligence organizations.91 When law enforcement entities operate within the United States, civil liberties and the rights of US citizens are of paramount concern. As a result, the FBI is governed by a complex range of investigative guidelines and polices, and statutes and constitutional limits when intelligence is being gathered in the United States against foreign agents or US citizens. 92 This lens not only focuses on the organizations involved in homeland security but also on the organizational structure of terrorist groups.

Threats to homeland security come from terrorist organizations or movements often in the form of loosely linked networks of varied groups. These groups can range from highly organized and trained operatives (e.g., Ramzi Yousef) to groups of potential actors who lack training or stable organizational structures (e.g., Black September). Today's terrorist networks are different than past terrorist organizations in their design, technology, and tactics and pose unique challenges. 93

Terrorism research often includes studies on how terrorist organizations are structured and how these structures have changed and adapted to their environment. In the past, the tendency was to assume that terrorists belonged to identifiable organizations with relatively clear command and control structures (pyramid organization) and a defined chain of command, as well as a defined set of political, social, and economic objectives.94 Recently, terrorist organizational structures have evolved into more loosely linked network structures to survive in a constantly changing threat environment with a distributed control and command structure (if one exists at all). As law enforcement, intelligence, and military operations have successfully found and captured operatives in terrorist organizations, these groups have had to find new ways to evade authority, to become more adaptable and resilient, and to ensure their organization would survive if the main leaders were captured or killed.95

Arquilla and Ronfeldt, in their study of terrorist organizations, define a network as "a set of diverse, dispersed nodes that share a set of ideas and interests and are arrayed to act in a fully intermitted networked manner.⁹⁶ Arquilla and Ronfeldt argue that these networks have little or no hierarchy or official authority.⁹⁷ Also decision-making and operations are decentralized; thus tactical operations can be initiated and carried out

locally without central leadership. 98 The network organization often has a decentralized cell structure consisting of a small group of people and a team leader. The leader is usually the person with the most experience; he or she is responsible for ensuring the tasks of the cell are carried out and for communicating and coordinating with other cells. Since 9/11, al Qaeda has made numerous transformations and has

morphed into a multidimensional network of networks. The challenge in homeland security is in designing governance structures and networks that are effective and efficient at preventing, deterring, and responding to terrorist attacks and other natural and manmade hazards. (See Table 3 for a summary of this lens.)

Table 3: Characteristics of Lens III - Terrorism as a Network

ANALYSIS	ORGANIZATION OF NETWORKS FRAME
Definition of Terrorism: Key Characteristics	Terrorism is seen as a network of autonomous groups and individuals that are motivated by a common ideology but may have diverse goals and tactics Terrorists are rational actors who organize according to their mission, tasks, and threat environment Terrorist organizations have many structures including hierarchical, umbrella and network structures
Key Theories explaining violent behavior from the following levels: Individual Organization/Group Nation state World System	In the terrorism literature, network theories are used to explain the behavior of terrorist groups Includes social network theories
Primary Homeland Security Strategy	Literature from PA and organizational theory used to explain how US government agencies organize to prevent, deter and respond to terrorism
Goal/Purpose	 Given the complex nature of homeland security, network structures are needed but at time of 9/11 attack the network governance literature was in its infancy Network structures are different than hierarchies but networks are needed to deal with the wicked problem of terrorism Design, develop and coordinate a network governance structure including all levels of government, business and non profits in a collaborative effort to deter, prevent and respond to terrorism. Need to align organizational structures to mission, strategy, tasks, technology and operating environment Organizational culture is important to change efforts and framing how homeland security and terrorism are perceived
→ Organizations	Pre 9/11, FBI, FEMA and State Dept. were designated as lead agencies; these agencies were organized like traditional government bureaucracies with hierarchical structures First responders using ICS will form the first networks in responding to attacks.

LENS IV – HOMELAND SECURITY AS A COLLABORATIVE NEXUS OF NETWORKS, CRIMINAL JUSTICE, AND INTERNATIONAL RELATIONS – TERRORISM IS VIEWED AS A COMPLEX MIXTURE OF SOCIAL, ECONOMIC, ENVIRONMENTAL PROBLEMS⁹⁹

The previous discussion indicates that homeland security may appear to function differently depending on one's viewpoint. It follows that homeland security can legitimately be "in the eye of the beholder;" that is, homeland security means different things to different people. Further, the previous discussion indicates that the policies, strategies, and even the tactics employed in the ongoing struggle against transnational, asymmetric terrorism would be different when conceived and executed through one lens as opposed to another. Referring again to Figure 1, it becomes apparent then that perhaps it makes sense to investigate what the overlap in the three lenses may mean; that is, that the overlap itself is a separate lens with which to view homeland security strategies, organization, operations, or tactics. We will explore the emergent construct of environmental security as an exemplar of this lens.

Consistent with a multi-lens theory of homeland security, we have described the term "homeland security" as a construct that tends to be dynamic (e.g., its meaning changes over time), and is value-laden (e.g., it can mean different things to different constituents). Understanding that what is and what is not homeland security is also context dependent, enables it to be addressed in a wide spectrum of levels of analysis (ranging from individual to global/ transnational) and policy. In order to properly frame the importance of global climate and public health in a security paradigm, there are several major forms or frameworks of conceiving security that are pertinent to consider. These include the concepts of transnational, international, and national security; homeland security; environmental security; and human security.

In 2010, Pakistan experienced its worst flooding in a century, and Russia was plagued with record heat and widespread wildfires that choked the region with smoke and killed hundreds. Both of these events were related, and were potentially tied to climate change, which may have contributed to an unusual alteration in the high altitude jet stream. This unusual phenomenon brought both the devastating heat to Russia and helped push large amounts of moisture-laden air into Pakistan, where almost 20 percent of the country was flooded. In addition, both the record flooding in the American Midwest, and second most deadly tornado season (killing almost 500 people) occurred in 2011. All of these events may eventually be tied in part to global warming-related weather pattern/climate changes, but regardless of the causality of these specific events, these are but a few of the types of extreme climactic events that are predicted by climate change models. What the field of environmental security is primarily concerned about is the relationship between global and regional climates and how that influences cascading failures in human and ecological systems.

Global warming and the resultant changes to climate around the world are among the biggest challenges humanity faces. As such, policy makers and security strategists should not consider global warming a distant or abstract problem. Rather climate change/ global warming represent a challenge that all nations need to participate in solving. And taken together with various other related challenges including peak oil (and related energy resource pressures), growing water and food shortages, and population growth, transnational crime and asymmetric insurgencies, combine to become a more significant human security concern. 100 discussed below, governments and militaries around the world, including the United States Pentagon, have begun to recognize this concern. For example, hunger is already a rising global problem, reducing decades-long improvements. This has been caused in part by rising food and fuel prices, which will vary but worsen overall with reduced oil and gas supplies caused by "peak oil" production drops. Rising hunger has respectively been the result of crop failures and water shortages from climate change, and rising demand from both population growth and rising demand for high-quality, high-input foods like meat (the latter related to rising wealth in countries like India, Brazil and China). Many food, water, and oil-stressed poorer nations have reached political and social tipping points that culminate in mass migrations or social and political unrest which can eventually lead to their governments failing (e.g., failed states and large scale regional disruptions such as the Arab Spring uprisings).

As a part of the larger domain of homeland security, the main goals of environmental security (ES) include stabilizing natural systems that ultimately impact national security, including those systems affected by global warming. Hence the concept is that sustainable natural systems lead to sustainable security. Hunger, water and fuels shortages, and disease each adds to the misery felt by society and to political instability. Subsequently, political instability tends to motivate radical acts, terrorism, wars, and other political violence and economic distress as we have recently witnessed in the conflicts in northern Africa and the Middle East. Therefore, ES challenges traditional security concepts by its focus on mitigation strategies such as (1) building sustainable economic systems and reducing population growth rates as much as possible; (2) eliminating/reducing poverty and enhancing education, which would help stabilize population growth and build a healthier and an employable population base; (3) stabilizing and restoring Earth's critical environmental systems, such as forests, soil, oceans and fisheries, and fresh water supplies that will support future economic activity and growth; (4) reducing greenhouse gas emissions, to reverse the rising atmospheric levels from their current, and future, unsustainable levels; and (5) achieving sustainable energy policies, including improved energy efficiency (better use of energy consumed) and alternative energy sources (such as solar, wind, geothermal, biofuels, etc.) to replace the fossil fuel shortages already looming.

By its nature, environmental security challenges certain traditional notions of national security and homeland security. ES must include many non-traditional security players - including agencies such as the Environment Protection Agency (EPA), the National Aeronautics and Space Administration (NASA), and independent and government scientists doing research on climate change-related issues, technologies, etc. Even some states, such as California, have independently enacted climate securityrelated legislation to reduce GHG emissions through regulation and tax incentives. 101 In light of the intersection of global climate change and the resulting impact on the political economies and governments around the world, we might define environmental security as:

An interdisciplinary study of the affects of extreme environmental or climatic events which can act locally or trans-nationally to destabilize countries or regions of the world resulting in either geopolitical instability, resource conflicts or vulnerabilities in critical infrastructure, or some combination of these.

The discussion above clearly points out how environmental security exemplifies the overlap of the international relations, criminal justice, and networks lenses. Recently the 2010 QDR recognized for the first time the national security implications of climate change and energy dependence by stating:

The rising demand for resources, rapid urbanization of littoral regions, the effects of climate change, the emergence of new strains of disease, and profound cultural and demographic tensions in several regions are just some of the trends whose complex interplay may spark or exacerbate future conflicts.¹⁰²

As an example of the QDR's concerns, consider the challenges peak oil represents to US homeland security. Persistent access to affordable fossil fuels like oil is not only core to the ongoing health of the US economy, but its success depends on effective international policy networks, transnational law enforcement structures, and international relations. For instance, energy use/inputs in the form of oil and gas-related products (e.g.,

nitrogen fertilizers, fuel for farming), machine production, and transportation of food to distant markets have become central to modern agriculture productivity and food distribution. The rising price of oil is thought to be caused, at least in part, by a combination of the inevitable depletion of oil and gas reserves (supply) and rising global use of fossil fuels and transportation (demand). Since food production in the developed world is incredibly oil intensive, as the price of oil increases, the price of food

follows. Clearly a political concern in the United States, rising food prices are particularly traumatic for those in less developed countries. Consequently, as food becomes increasingly expensive, mass migrations of populations seeking better opportunities can be expected. Such migrations become major stressors to the economies and governments of both receiving nations and to the nations who are losing the skills and talents of their populace.

Table 4: Characteristics of Lens IV - Terrorism as a Collaborative Nexus

ANALYSIS	ORGANIZATION
Definition of Terrorism: Key Characteristics	Terrorism is seen as a result of radicalization in less developed countries due to vulnerabilities in social and political and economic systems arising from extreme weather events, resource scarcity or mass migrations of people.
Key Theories explaining violent behavior from the following levels: Individual Climate Change Nation state World System	Radicalization, mass migration, resource-based conflicts, failed nation states. Examples include Somalia, Afghanistan, Palestine.
Primary Homeland Security Strategy: • Goal/Purpose	Given the complex nature of homeland security, national security strategy needs to be more inclusive of root causes of radicalization. Diplomacy and cooperative international agreements Design, develop and coordinate international agreements that address root causes of radicalization such as the UN's Millennium Development Goals Reduce the relevance of terrorist groups, provide economic opportunities and stable social/political structures
 Organizations 	UN, NATO, UNESCO

CONCLUSION

The purpose of this article is to begin the effort to build a theoretical foundation for homeland security by creating a framework based on four distinct conceptual lenses developed from the academic literature in the fields of criminology, international relations, organization studies, risk management, and public administration. These conceptual lenses include (1) homeland security as a

criminal justice problem, with terrorism viewed as crime; (2) homeland security as a international relations problem, with terrorism viewed as war; (3) homeland Security as an organization design problem, with terrorism viewed as a network of transnational, sub-state actors; and (4) homeland security as a collaborative nexus of the law enforcement, diplomatic, and network lenses that culminates in the notion of environmental security. Each conceptual

lens consists of theories, practices, values, beliefs, and assumptions that can serve to shape how critical events are perceived, and as such, how these events are understood and the problems addressed in the form of homeland security programs and policies. The fields of criminology, organization theory, public administration, and international relations each bring unique theoretical perspectives that contribute significantly to our understanding of homeland security, but none of the lenses individually provides an adequate picture of the challenges of homeland security theory or policies needed to address modern threats and hazards.

Homeland security is a complex problem that spans many academic disciplines, professions, and organizational boundaries. It encompasses both foreign and domestic policy issues, and involves government organizations at all levels, as well as businesses, nonprofit organizations, and citizens. In fact, homeland security is so complex that multiple perspectives are needed to analyze the phenomenon because one perspective simply misses too much, or fails to see critical pieces of the problem that need to be addressed. Thus, further research should be encouraged that is interdisciplinary and seeks to break down some of the disciplinary barriers within the field of homeland security. This requires a focus on processes and incentives that will bring scholars and policymakers with these different perspectives together.

It is clear that conceptual lenses heavily influence whether we will be aware of new problems, how we give meaning to what we observe, and how we perceive or understand new phenomenon. Unexpected changes are often difficult to perceive, let alone address because they simply are not captured within our mental maps or conceptual lenses that we use to make sense of the world. To ensure we are not surprised by another 9/11, it is critical that we continue to broaden our conceptual lenses as it relates to homeland security.

In the rapidly changing environment of the information age, problems are constantly morphing into new forms, thus the life cycle of any particular solution is likely to be very short. Thus, an important challenge for scholars and government leaders is to lead the process of continuing to analyze our existing conceptual lenses as they relate to homeland security, as well as to lead the process of constructing new conceptual lenses. A useful next step would be to apply the lenses to a number of terrorist attacks and conduct a multiple case study. Multiple frame analysis can be used to analyze critical cases such as the attacks on the World Trade Center in 1993 and 2001. A comparative analysis of these two events can be conducted to see how our conceptual lenses and perceptions have changed over time. In addition, further research is needed on the lenses used in multiple frame analysis in order to more clearly define the theories, concepts, definitions, and principles in each. Also, additional lenses can be added to the framework such as those that look at homeland security from an emergency management, public health, or risk management perspective and applied to other cases. Also, further research is needed to understand how these conceptual lenses are formed and shared, and changed within government organizations, as well as among elected officials. The use of multiple lenses in analyzing complex phenomenon such as homeland security is important because when used alone, one perspective or lens can miss key elements and captures only a small part of the phenomenon we are observing. Using multiple perspectives allows us to develop explanations that help us understand specific aspects of homeland security as well as identify alternative paradigms that serve to help transform our theories, traditions, rules, and standards of practice.

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- ⁹⁹ The section on environmental security used as a collaborative nexus for homeland security is adapted from Chapter 8 "Environmental Security" by T. O'Sullivan and J. Ramsay from the text *Introduction to Homeland Security*, ed. Keith Logan and J Ramsay (Westview Press, 2011), ISBN 978-0-8133-4598-7.
- 100 At this time, human security is a compelling notion that would include in its scope national security, environmental security, transnational security, and of course, each nation's notion of homeland security. Like homeland security, human security suffers from a well accepted definition and a robust theoretical foundation. A thorough treatment and articulation of the multidimensional, complex construct of "human security" and its theoretical underpinnings are beyond the scope of this paper, but would be a welcome addition to the growing literature on security and its ties to peace studies, sustainability and international relations.
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