Securitizing Systems

by

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I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.
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Abstract

Securitization is the process by which subjects move from the mundane to "worth securing". What a group of people consider to be "worth securing" reflects how they understand that subject's value in relation to their lives. A dominant trend in securitization studies has been the use of speech-act theory to allocate the "source" of security to some specific dominant influence; speech-act securitization is not necessarily coercive, but it privileges the act of declaring security, and only offers that privilege to a handful of actors. This paper instead proposes that declaration is not the dominant aspect of securitization. Rather than stemming from communication, security is a feature of a social system that exists within communication. Securitization is an autopoeitic (in the language of social theorist Niklas Luhmann, whose work this paper draws upon heavily) process that allows society to adapt and respond to threats and change in specific ways.

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Introduction

The concept of security is often misrepresented by the more specific and evocative "military security", but most serious scholarship since the end of the Cold War has taken a sharp step back from this reductionist viewpoint. Human security, ecological security, economic security, political and cultural security equally have their own threats and referents. A more general perception of security now hinges simply on the distinction between secure and insecure, regardless of societal sector. Entire populations seem to enact and are subjected to security discourses constantly. The obvious example is the sense of panic that seemed to overwhelm public discourse in the days and weeks immediately following the attacks on the World Trade Center on September 11th, 2001. Stock exchanges, public buildings, and suburban elementary schools emptied, while basements and rural churches across North America filled. Responses to security events are anything but purely political or military, and their consequences are various and often unexpected.

One of the primary aspects of security studies should be the study of public decision-making and policy-making. Much can be written about the psychological states of individuals and the nature of individual safety, but the responses to security situations with the widest impact, and with the most profound implications, are in a society's seats of decision-making power. Primarily, how does security or insecurity affect public life, and secondarily, how is security language invoked in the policy process? Informally, the principals of countless elementary schools in cities, suburbs, and maybe even in Dyersville, Iowa, made decisions with public implications to send students home on September 11th, 2001, in the name of security. Formally, security-themed policymaking has its own obvious example in the USA PATRIOT

Act, which was signed into American law a month after the September 11th attacks and reauthorized by President Barack Obama last year.

Security and policy come together in a relatively well-established principle in International Relations studies called securitization. Essentially, as threats emerge, they enter public discussion as policy issues; that is, governmental business-as-usual is totally adequate to contain a threat, in the sense that it can be neutralized through new legislation or status quo enforcement of existing policies. Through the process of securitization, policy issues are elevated to the status of "security issues". The most significant difference between policy issues and security issues is the tacit understanding that security issues require solutions that go above-and-beyond what the government is equipped or even allowed to do under normal circumstances. Facing a security threat, people that live in more or less free states are usually willing to sacrifice some of their freedom to secure against some perceived threat, such as in the case of the USA PATRIOT act, when Americans allowed their government to conduct surveillance on civilians, access wire taps without a warrant, and generally circumvent constitutional rights in circumstances where terrorism is suspected. Securitization is normally attributed to a speech act of some agent with perceived security-authority, who "declares" security. President Obama or Prime Minister Stephen Harper can declare security, and so can news media. The power of the call for security is directly correlated with the source's ability to reach a wide number of people, so high-ranking political officials and 24-hour news networks tend to hold most of the security-declaring authority.

There are several different models for how securitization works, but they all take as their starting point the 1995 book *Security: A New Framework for Analysis* by Ole Waever, Barry Buzan, and Jaap de Wilde, usually referred to as The Copenhagen School definition. Models of

securitization based on the *Copenhagen School* definition are concerned with determining exactly how an item moves from qualifying for politics to qualifying for security. One thing most models have in common is that they look to speech act theory for a basic explanation of the process by which discourse influences audiences and informs policies. Security language has the character of performative acts; expressing the presence of a threat is a social act involving a sender and receiver who operate under arbitrary conventions that affect their behavior.

The most significant and enduring contribution of Buzan, Waever, and de Wilde is the understanding of security actions as somehow "above" policy actions, and the necessary invocation of particular modes of response to abnormal threats. By explaining the process by which that intensification occurs as a speech act, they defined securitization as a rhetorical or persuasive process. In other words, targeted security messages from influential sources convert individuals from states of security to insecurity, much the same way as a professor instructs a classroom or a friend wins an argument. Traditional security definitions are interested mostly in tracking how those arguments are made, and understanding what makes a successful securitization move, attempting to determine when they become sufficiently persuasive that their audience fulfills an important requirement for securitization: "requiring emergency measures and justifying actions outside the normal bounds of political procedure" (Buzan, Waever, and de Wilde 23), such as in the case of the USA PATRIOT Act.

With this thesis, I aim to expand the focus of security studies by de-centering the human participant in the securitization process. Rather than analyzing securitization as a communication process, I am interested in defining security by its place and function in society itself. Using Niklas Luhmann's social systems theory in particular, I have built a securitization model that operates outside of the minds and wills of individual agents, organizations, political parties, and

states. The binary of security/insecurity is a feature of society itself, not just a product of communication.

Chapter 1: A History of Security

The concept of security has often been limited to (or misrepresented by) the more specific and evocative "military security", but most serious scholarship since the end of the Cold War has taken a sharp step back from this reductionist viewpoint. Beginning in the early 1980s, a variety of scholars began arguing for a "widening" of the scope of security studies: Richard Ullman's 1983 article "Redefining Security"; Egbert Jahn, Pierre Lemaitre, and Ole Wæver's paper *Concepts of Security: Problems of Research on Non-Military Aspects* in 1987; Joseph S. Nye, Jr. and Sean M. Lynn-Jones' 1988 article "International Security Studies" (and Nye's 1989 paper, "The Contribution of Strategic Studies: Future Challenges"); Jessica Tuchman Matthews' 1989 article "Redefining Security"; Neville Brown's 1989 article "Climate, Ecology and International Security"; Neta C. Crawford's 1991 article, "Once and Future Security Studies"; Helga Haftendorn's 1991 article "The Security Puzzle: Theory-Building and Discipline-Building in International Security"; J. Ann Tickner's 1992 book *Gender in International Relations: Feminist Perspectives on Achieving Global Security*; Ole Wæver, Barry Buzan, Morten Kelstrup, and Pierre Lemaitre's 1993 book, *Identity, Migration and the New Security Order in Europe*. What scholars began to recognize, as the bipolarity and military obsessions of the Cold War wound down and the Soviet Union eventually disintegrated, was that human security, ecological security, economic security, political and cultural security equally have their own threats and referents. Three prominent theorists who worked towards "widening" security studies were Barry Buzan, Ole Wæver, and Jaap de Wilde, colleagues at the Copenhagen Peace Research Institute in the early 1990s, and they articulated the widening movement in their book, *Security: A New Framework for Analysis*, published in 1997. The framework that they developed, and its key

concepts, including securitization, became known in international relations studies as the Copenhagen School.

Buzan, Wæver, and de Wilde trace the widening debate to a sense of dissatisfaction with how narrow field had become, due mostly to "the military and nuclear obsessions of the Cold War"; while military security was obviously at the forefront even through the 1960s, international relations studies was repeatedly challenged in the 1970s and 1980s by its inability to respond to rising economic and environmental agendas, and again in the 1990s, with concerns about identity, culture, and transnational crime that emerged with the breakup of the Soviet Union, Czechoslovakia, and Yugoslavia, and restructuring throughout Eastern Europe as a whole (Buzan, Wæver, and de Wilde 2). Many scholars, with the Copenhagen School as somewhat of a focal point, began working to widen the scope of security studies as a result; however, there was not unanimous consent in the security studies community, and many traditionalists resisted the expansion of the field, reasserting the primacy of military security. Widening its scope, many argued, would make security studies incoherent (2). *Security: A New Framework for Analysis* was a major breakthrough; its writers and supporters argued that it presented a coherent, intersubjective framework for the analysis of security issues ranging far beyond "military security".

Two key concepts in international relations studies are its set levels of analysis and its division of sectors. It is necessary to contextualize claims about international relations topics within this discourse; moreover, these two concepts will prove valuable in bridging the gap between existing security theory and Luhmann's social systems theory.

Levels of analysis in international relations studies refer to "objects for analysis that are defined by a range of spatial scales, from small to large" (5). While international relations is nominally charged with the interaction of nations, spatial scales are important—obviously, goings-on at the local, regional, or even global level can resonate with any other level in significant ways. Levels, then, are "locations where both outcomes and sources of explanation can be located" (5). On one side of the scale, the largest level of analysis is international systems; as Barry Buzan and Richard Little note, "At some point during the period of European expansion, all existing international systems of local, regional and super-regional scale were incorporated into a single global-scale international system" (Buzan and Little 42). Currently, there is only one international system, although at any given point in history this is not necessarily true. The next level of analysis, descending by scope, is international subsystems, or groups of units within the international system that have specific relationships of interdependence, or particularly intense interactions with each other; such as the European Union, the ex-Soviet Union, and to a lesser extent organizations like NAFTA, NORAD, OPAC, and others. Following international subunits is units, primarily referring to states or nations, and increasingly multinational corporations, which are actors "sufficiently cohesive and independent enough to be differentiated from others and to have a standing at higher levels" (Buzan, Wæver, and de Wilde 6). There are two further levels that international relations studies breaks international systems down into: subunits, "meaning organized groups of individuals within units that are able (or that try) to affect the behavior of the unit" like bureaucracies and lobbies, and individual human actors (6). These levels serve a heuristic purpose in international relations studies: they "enable one to locate the sources of explanation and the outcomes of which theories

are composed" (6). While discussions are obviously prone to state-centrism, this framework allows for some consistency in developing theories of international processes.

Another key concept for discussing international relations theories is sectors: the military sector, the political sector, the economic sector and so on. Within the aggregate interaction of two states, or two individuals, or systems, or so on, there are specific types of interaction with specific purposes. Buzan, Wæver, and de Wilde write:

> One way of looking at sectors is to see them as identifying specific types of interaction. In this view, the military sector is about relationships of forceful coercion; the political sector is about relationships of authority, governing status and recognition; the economic sector is about relationships of trade, production, and finance; the societal sector is about relationships of collective identity; and the environmental sector is about relationships between human activity and the planetary biosphere (7).

Barry Buzan's 1991 book, *People, States and Fear: An Agenda for International Security Studies in the Post-Cold War Era,* explains the use of sectors in security analysis, specifically:

> Generally speaking, the military security concerns the two-level interplay of the armed offensive and defensive capabilities of states, and states' perceptions of each other's intentions. Political security concerns the organizational stability of states, systems of government and the ideologies that give them legitimacy. Economic security concerns access to the resources, finance and markets necessary to sustain acceptable levels of welfare and state power. Societal security concerns the sustainability, within acceptable conditions for evolution, of traditional patterns of language, culture and religious and national identity and custom. Environmental security concerns the maintenance of the local and the planetary biosphere as the essential support system on which all other human enterprises depend (Buzan 19).

As early as 1991, then, Buzan refers openly to sector-specific securities; this reference to a multiplicity of securities would not have been the case prior to the widening movement that he was a part of in the previous decades, as "security" would have exclusively suggested military security. Sectors and patterns of specific types of interaction contributed significantly to the widening of security theory; like levels of analysis, as an established tool in international

relations scholarship, it allowed for the dispersion of security into a wider concept. The writers of *Security: A New Framework for Analysis* point out the importance of sectoral analysis, but also note its limitations: "Relations of coercion do not exist apart from relations of exchange, authority, identity, or environment. Sectors might identify distinctive patterns, but they remain inseparable parts of complex wholes" (Buzan, Wæver, and de Wilde 8). The purpose of "disaggregating" security by selecting its results in particular sectors is primarily meant to reduce complexity; sectors are useful for security analysis, but they cannot completely explain the security phenomenon.

A final note about the state of international relations theory from which the body of works on security that will be discussed here emerged: just as issues of identity, human rights, and the environment seemed to emerge as the Soviet Union fell, there was another significant trend that was actually caused, in part, by the end of the bipolarity of the Cold War. Regionalism became a more significant force than it had been in decades; by its sheer destructive potential, the Cold War had been an organizing force for global relations, regardless of what side or how involved any unit actor was in the conflict. Without that organizing factor, regions shifted in significance; in terms of levels of analysis, regions were always (to varying degrees) subsystems, but with the end of Cold War bipolarity, they emerged as truly important.

Prior to the Copenhagen school's redefinition, and prior to these significant shifts in world order and understanding, security was primarily understood and discussed by the use of security complex theory (Buzan, Wæver, and de Wilde refer to it as "classical" security complex theory). That is, security only emerges as a significant factor within certain contexts, referred to in theory as complexes. The inspiration for complexes as the "unit" for security situations in most security theory comes from a definition of security that sees "human collectivities" as

relating to each other in terms of threats and vulnerabilities, either with each other or the environment. In either case, security threats exist as part of a relationship, as opposed to growing independent of one; security and insecurity emerge between two actors (nation and nation, nation and government, government and government, nation and environment, and so on) (10). Buzan, Wæver, and de Wilde trace this emphasis on relationships in understanding security issues as early as 1950 (John H. Herz's "Idealist Internationalism and the Security Dilemma," published in the journal *World Politics*), through the 1960s (Arnold Wolfers' book, *Discord and Collaboration: Essays on International Politics*, published in 1962), and the 1970s (Robert Jervis' 1976 book, *Perception and Misperception in International Relations*); they note that "The emphasis on the relational nature of security is in line with some of the most important writings in security studies …, which have stressed relational dynamics such as security dilemmas, power balances, arms races, and security regimes" (10).

According to security complex theory, the most likely and significant subjects of security complexes are states, as they are the key unit in the political and military sectors, and it construes security as mostly a product of those two sectors. From an international system perspective, all states that make up the system are integrated in some kind of security interdependence; events in one part of the system will never go unnoticed in other parts of the system. However, the relationship between proximity and insecurity is on a curve: insecurity is disproportionately more likely the closer a potential threat is geographically. Security complexes develop in regions, and they reflect relationships between the states (or theoretically, other unit-scale actors, although security complex theory is mostly concerned with states). Buzan, Wæver, and de Wilde write: "The normal pattern of security interdependence in a geographically diverse, anarchic international system is one of regionally based clusters, which we label *security complexes*" (11).

Security complexes must maintain three key components to continue to exist: the arrangement of units among them must remain differentiated (there is no more complex if all but one state cease to exist), patterns of amity and enmity among the units involved, and the distribution of power among the units of the complex (13). In reality, these aspects of the security complex relationship are shifting all the time; the primary question that this theory deals with is if these changes work "to sustain the essential structure, or do they push it toward some kind of transformation" (13)? Ultimately, this theory operates similarly to sector analysis: by disaggregating the international system and subsystems into state units, analyzing security complexes focuses attention on regions where proximity incites insecurity, and the results of that insecurity are most easily measurable—by answering the question of whether a security event maintains the status quo or encourages some kind of transformation, and if the latter is true, what kind of transformation.

The primary goal of *Security: A New Framework for Analysis* and other "widening" texts was to shift the centre of security analysis away from military security and allow for more serious discussion of non-military security issues; because the state is so clearly associated with military and political security in particular, and less so with other types of security, any new framework ought to de-centre the state as the primary unit of analysis. For Buzan, Wæver, and de Wilde, this meant moving beyond the security complex theory. Which leads to several questions: what happens to security patterns when the state is no longer the primary unit of measure, and when the political and military sectors lose their primacy? How does a theory of security that privileges interstate relations so blatantly account for environmental security issues, economic security issues, or cultural security issues? In the wake of the successful "widening"

movement, security complexes become only a part of the bigger picture, and it becomes clear that a new definition of security is needed.

Security issues occur when an existential threat is posed towards a particular referent, usually resulting in some kind of emergency measures—a response above and beyond what would typically fall under the responsibility and reach of whatever body is responding. One of the most significant distinctions that needs to be made in analyzing security and security issues is the line between processes of politicization and processes of securitization: how is an analyst sure that an existential threat exists, or that the measures taken were indeed extreme? In the context of a traditional military-political understanding of security, the referent being secured is the state, and security is only about the survival of the state (21). Buzan, Wæver, and de Wilde explain the significance of qualifying "existential threats" when they write:

> If one can argue that something overflows the normal political logic of weighing issues against each other, this must be the case because it can upset the entire process of weighing as such: 'If we do not tackle this problem, everything else will be irrelevant (because we will not be here or will not be free to deal with it in our own way)' (23).

When considering security in all sectors of society—not only military-political security, but also economic security, societal security, environmental security, and so on—it becomes clear that there is no universal standard based on human lives alone.

The writers of *Security: A New Framework for Analysis* are necessarily clear on the basic requirements for security issues to be correctly identified, and their confluence is what makes up the process they refer to as securitization, which is the focus of this paper. They explain:

> 'Security' is the move that takes politics beyond the established rules of the game and frames the issue either as a special kind of politics or above politics. Securitization can thus be seen as a more extreme version of politicization. In

> theory, any public issue can be located on the spectrum ranging from nonpoliticized (meaning the state does not deal with it and it is not in any other way made an issue of public debate and decision) through politicized (meaning the issue is part of public policy, requiring government decision and resource allocations or, more rarely, some other form of communal governance) to securitized (meaning the issue is presented as an existential threat, requiring emergency measures and justifying actions outside the normal bounds of political procedure (23).

It is important to clarify that even though security issues can and do arise in sectors other than the political sector—and that is the most significant contribution by this book to security discourse—analyzing the response to those security issues still concerns the political system, because responding to social events and effectively articulating society is what politics exists for. Politicization and securitization are essentially categories of political interpretation and response to security issues, whether they are political or not, simply because that is what politics does. A stable and effective political system should be well-equipped to handle security issues, so they study of securitization is also an evaluation of the ability of policymakers' ability to act as representatives of their communities and respond appropriately to security issues.

Most of *Security: A New Framework for Analysis* is comprised of Buzan, Wæver, and de Wilde's thoughts on unique security concerns for different sectors; identifying patterns of securitization beyond traditional military-political ones, and outside of conventional security complexes. Because the other significant theory in this paper is Niklas Luhmann's social systems theory, which categorizes systems of interaction in society based on their functions and the division between function systems, the parallels are quite clear; it is also worthwhile, then, to review the Copenhagen School's assessment of security concerns in the various sectors, which also happen to be function systems in Luhmann's theory.

The familiar military sector is as apt a place to start as any; its referent object (the core object "at risk" in a security situation) is typically the state—the military is an apparatus of the state with the purpose of protecting it, so when the state is in a position of risk it is the military sector that responds. The writers do point out that it is "…possible to imagine circumstances in which threats to the survival of the armed forces would elevate those forces to referent object status in their own right," and that "For many of the advanced democracies, defense of the state is becoming only one, and perhaps not even the main de facto function of the armed forces" (22); that is to say that while militaries respond to security situations that threaten the state, the state is not necessarily the only referent it attempts to protect, and the military also serves a broad variety of other purposes, such as peacekeeping and humanitarian intervention—tasks that cannot be construed as related to existential threats to the state they serve or as emergency action. That means the military is not only a "security" apparatus, but a whole sector that can be engaged or disengaged from security situations altogether; in Luhmann's language, it means that the military is more likely to be an independent function system, separate from politics and the state. In terms of a military security agenda, the relationship between the military and politics is a very tight and well-established one:

> The modern state is defined by the idea of sovereignty—the claim of exclusive right to self-government over a specified territory and its population. Because force is particularly effective as a way of acquiring and controlling territory, the fundamentally territorial nature of the state underpins the traditional primacy of its concern with the use of force (49).

So while the military and political spheres are separate, the military acts within both; if there is an existential threat to the state, the military acts in the name of security, while other military activities, like peacekeeping, do not take on this additional meaning. We can only speak of military security matters, then, in situations where the political sector is somehow endangered.

The typical threats to sovereignty include internal threats like militant separatists or revolutionary, terrorist, or criminal organizations, and the external threat of other states (50).

The political sector itself can also become securitized, and existential threats to it are also defined traditionally in terms of state sovereignty; however, threats to the ideology of the state are also considered "security" issues because ideology is similarly important but not defensible by the military—ideology is a uniquely political security issue (22). While the military sector covers military threats to the state, nonmilitary political concerns "spread out in two directions. First, they include the equivalent nonmilitary threats to political units other than states. Second… we can think of political security in defense of system-level referents, such as international society or international law" (141). The political sector is probably the most complicated; it is the widest sector because all security is more or less political in that politics is ultimately what defines threats and responses; politicization is obviously political, and by extension securitization is also political. In a sense, "societal, economic, environmental, and military security really mean political-societal security, political-economic security, and so forth" (141).

The economy (economic sector) also has its own threats, referents, and logic of securitization. The most commonly threatened referents in the economic sector are individual firms and businesses; they can be threatened by bankruptcy or by changes to laws that make them illegal or less viable. Peculiarly, in the market economy, there is the expectation that these firms will come and go; it is possible to securitize the survival of economic firms—and the 2008-2009 American federal Troubled Assets and Relief Program "bailout" certainly falls under this category—they are usually allowed to fail, because economic securitization runs counter to the incentives system that makes the market economy function (95). It is also possible for entire national economies to face existential threats—such is the situation that several Western

European states face as of the writing of this paper—and in those cases the right to survival is much more likely to be claimed. These cases are exceptionally rare, but Buzan, Wæver, and de Wilde note the secondary security significance of activity in the economic sector, with the conclusion that all economic activity is security activity because success and failure typically triggers "overspill" in every other sector, from the ability of states to "maintain an independent capability for mobilization", the security of supply (particularly foreign oil), to fears of the political and military consequences of global inequality, trade in drugs and weapons of mass destruction, and even pollution (116). While only the threat of a global economic collapse is a clear, uniquely economic security concern, the security consequences of all economic activity are significant.

The societal sector also has its own referents—"large-scale collective identities that can function independent of the state" like nations and religions—as well as its own threats and agenda (22). Buzan, Wæver, and de Wilde write:

> Only rarely are state and societal boundaries coterminous. This provides a first motive for taking societal security seriously (for example, in thinking about the security of the Kurds), but second, even the state and society "of the same people" are two different things (and, when they are referent objects for security, they generate two different logics). State is based on fixed territory and formal membership, whereas societal integration is a much more varied phenomenon—possibly occurring at both smaller and larger scales and sometimes even transcending the spatial dimension altogether. For international security analysis, the key to society is those ideas and practices that identify individuals as members of a social group (119).

Despite the varied nature of "societies" as referents, the writers list several common issues that are often construed as threats to societal security; these include migration ("*X* people are being overrun or diluted by influxes of *Y* people"), horizontal competition ("although it is still *X* people living here, they will change their ways because of the overriding cultural and linguistic

influence from neighboring culture *Y*"), vertical competition ("people will stop seeing themselves as *X*, because there is either an integrating project… or a secessionist-"regionalist" project… that pulls them toward either wider or narrower identities"), and depopulation, which "threatens identity by threatening its carriers" (121).

The final sector analyzed in depth in *Security: A New Framework for Analysis* is the environmental sector; environmental securitization can cover the survival of individual species (including humans) to habitats and ecologies, up to the survival of the climate and entire biosphere. If political security is the most broad, environmental security is the most contested; some, like Norman Myers in his 1993 book *Ultimate Security: The Environmental Basis of Political Stability* approach environmental security as the ultimate goal of secure societies, while traditional security analysts criticized increasing focus on environmental issues as security concerns early on (Daniel Duedney's "The Case Against Linking Environmental Degradation and National Security", published in the journal *Millenium* in 1990 is one such portrayal); at the same time, others wrote about environmental security as a cut-and-dry traditional military-political security issue (Thomas Homer-Dixon's "On the Threshold: Environmental Changes and Acute Conflict," published in 1991), or a social welfare issue (Buzan, Wæver, and de Wilde note that Article 140R of the Treaty of the European Union is one such document) (71).

Whatever the case may be, Buzan, Wæver, and de Wilde find the case for two separate agendas that exist for the environmental sector—concurrently political and scientific ones. The scientific agenda is "typically embedded in the (mainly natural) sciences and nongovernmental activity," and "constructed outside the core of politics, mainly by scientists and research institutions, and offers a list of environmental problems that already or potentially hamper the evolution of present civilizations" (71). On the other hand, the completely separate political-

environmental security agenda is contained within governments and "consists of the public decisionmaking process and public policies that address how to deal with environmental concerns" (72). This division is particularly important because the scientific agenda structures the environmental security debate more than science structures any other debate; to make opinions and decisions on environmental security, we rely completely on our interpretation of publicly-available scientific information—this extra step is not present in any other kind of public security debate. The writers list several environmental security issues, which make up the bulk of the debate: the disruption of ecosystems, which includes climate change; energy problems, including depletion of resources and pollution; food problems, including poverty, famine, and soil degradation; population problems, from growth and consumption to migrations and epidemics; economic problems resulting from unsustainable models of production and growth-related instability; and civil strife, including the environmental damage that results from war, and human violence that results from environmental degradation (74). The writers make one more observation about patterns of response to environmental security issues; while there is a community that securitizes environmental issues on a global level (the scientific agenda), they have almost no political power—environmental securitization has a mixed track record, but the past tends to suggest that successful securitization only happens at the local level and in response to an actual catastrophe, while global political securitization of large-scale referents like the biosphere itself has proven all but impossible (91).

The writers of *Security: A New Framework for Analysis* are largely concerned with the role that sectors play in successful securitization moves (a securitization move is a speech act which defines security issues as such—securitization is the study of securitization moves and

their success or failure). One possibility is the institutionalization of security in sectors, as they write:

> Securitization can either be ad hoc or institutionalized. If a given type of threat is persistent or recurrent, it is no surprise to find that the response and sense of urgency become institutionalized. This situation is most visible in the military sector, where states have long endured threats of armed coercion or invasion and in response have built up standing bureaucracies, procedures, and military establishments to deal with those threats (28).

The existence of institutionalized security practices means that trauma is not a necessary component for securitization; unlike the specific case of environmental security, where securitization seems to only be possible in response to individual events so far, it is possible for certain referents to be "always, already" securitized—the example that the writers use is uttering "dikes" in The Netherlands, which implies urgency in any situation, because the dikes are always protecting Dutch cities from the tides (28).

Institutionalized security makes possible the idealization of national security; states like North Korea that can manage an "at-war" state as its status quo, which effectually silences internal opposition to government sovereignty. This leads to the writer's admission that "Our belief, therefore is not 'the more security the better'" (29); securitization should always be considered a failure to deal with issues politically, which is a failure of the public system to respond routinely to threats to its daily activity.

Another negative factor in Copenhagen securitization is the inequality of actors' ability to declare security; certain actors have more influence and capacity to make securitizing moves, and while to a certain extent it that influence is concurrent with public and political responsibility, this inequality would obviously privilege certain types of referents and securitization moves. The possibility of a securitization move's success will "vary dramatically

with the position held by the actor" (32). Security threats are therefore equally constructed by "the social conditions regarding the position of authority for the securitizing actor—that is, the relationship between speaker and audience, and thereby the likelihood of the audience accepting the claims made in a securitizing attempt," and the features of the alleged threat itself (33).

The book ultimately argues that security should be studied as a wider phenomenon than a solely military-political one, because there is so much activity and interplay between other sectors; security decisions, even military ones, are drawn from the aggregate of security situations in all sectors. As I will discuss in the next chapter, security behaviour is therefore a formalization of one of the key concepts of Niklas Luhmann's social systems theory: irritation and resonance, or the meaningful interaction between functionally differentiated systems; that is, security behavior is a result of the irritation and resonance between social systems.

Security: A New Framework for Analysis represented a necessary advancement in the field of security studies that had been slowly taking hold in the decades preceding it; it was revolutionary and admirably comprehensive, but it does have some shortcomings, which I hope to address with the injection of Luhmann's social systems theory. Most significantly, the Copenhagen theory of securitization is not predictive in any way: it does not explain why things happen the way they do, so much as it categorizes results from a mostly historical perspective. Because it is not predictive, the theory cannot be prescriptive; it gives little direct advice to policymakers on how to best deal with—and prevent—security situations. These shortcomings are largely a result of an anthropocentric insistence on the roles played by individual human actors; social systems theory can be used to de-centre those human subjects, in order to better understand securitization as a social-functional process—hopefully, a predictive one.

Chapter 2: What is Social Systems Theory?

Niklas Luhmann's social systems theory principally rests on the rejection of the anthropocentric idea that "current society can be successfully analyzed on the basis that it is (or should be) fundamentally humane, and that it is, on principle, an assembly of human beings". Instead of human beings forming society through their own organization and interaction, society is actually made up of communication systems that enact certain necessary social functions; any event that happens within society is better explained as a function of systems than it is a human action. According to systems theory, human beings cannot be the primary building block of which society is built, because, as Hans-Georg Moeller surmises: "Human reality is too complex to be subsumed under the single heading of 'human being'" (*Luhmann Explained* ix).

The systems that fundamentally make up society are broad, but clearly delineated by the functions they provide. The economic system essentially serves to reduce shortages and satisfy needs, which is achieves with varying success with the codified behavior of payment and in the medium of currency. The legal system regulates conflicts, creating and following the code of legal/illegal, and with the medium of jurisdiction—legal authority. The medium of politics is power, and by codifying power, politics is able to make and enact "collectively binding decisions" for large groups of otherwise discontinuous human beings. There are several systems: science, religion, education, and a handful more. Each system is differentiated from the others, and each one has a function and serves a purpose, with its own code and medium (29).

By contrast, human individuals in society take part in all of these systems, sometimes simultaneously—it is entirely possible to communicate economically with currency while engaging in another kind of communication, in person, on a cell phone, or online. The

opportunities for human individuals to play social roles are limitless, but that is problematic: if human subjects are equally capable of acting economically, politically, legally, or within the context of any of these systems—and they are—it makes it more difficult to define those systems as separate. For Luhmann, the simpler solution was to define society by its functions, and allow humans the role of environment for that constructed society. Only once a means of differentiating systems—and social systems theory is that means—is achieved can one begin to analyze the interaction between humans and systems, systems and other systems, and even humans and other humans. Reevaluating society this way provides an opportunity to organize social concepts more thoroughly, because removing the human element reduces complexity.

Consider an individual, walking up to a cash register and buying a chocolate bar. There are two ways to conceive of that exchange: is he a human being, communicating with another human being, with money and goods as the grounds of that communication? This traditional explanation is imperfect, because it stops at the action; it ignores the production systems that went into creating the chocolate bar, building the store, and even hiring the clerk that sold the chocolate bar. Conceiving of purchasing as a communicative act is adequate in that it explains the action, but inadequate in that it provides no context; without context or additional information, it is difficult to make any significant observation about how society functions just by observing that transaction. The necessity of further information that this kind of explanation carries with it was too complex for Luhmann—instead, he believed that it was much easier just to consider the systems at work in the first place (a broader view of the scene but also more focused); rather than a human man communicating his desire to purchase a chocolate bar, that event was really just the economy functioning as a system, which includes the production of the chocolate, packaging and marketing, the construction of the store and hiring of employees, and

the exchange of goods for currency. A systems explanation therefore de-centres human subjects; their actions are necessary, because without the customer there would be no need for the product (or, more accurately, without shortages there is no need for a means of exchange), but humans are not the reason why exchanges like this are possible, nor is their participation the best measure of society.

Essentially, the first step to thinking about systems as Luhmann might is to consider social events that seem to revolve around humans and human interaction, and shift the focus to realize that it is much simpler if you consider them as just events that involve humans. Buying a chocolate bar becomes "a chocolate bar becoming bought", which is an articulation of the economy function system. Voting becomes "the system of political power distributing itself via a social procedure". Trudging through Afghanistan in a camouflage uniform is no longer a man fighting a war so much as it is a war happening, with men and women as participants. Ultimately there is a total and irreconcilable gap between the reality of what it means to be an individual human being and what it means to be an election, or what it means to be a war, or even what it means to be a transaction or a depression or any social event. In Luhmann's words, "it is conventional to assume that humans can communicate…. Humans cannot communicate; not even their brains can communicate; not even their conscious minds can communicate. Only communication can communicate" (8). We are habitually (and possibly necessarily) anthropocentric, so these events are almost universally conceived of in a particular way, but that conception is over-complicated and difficult to justify.

Consider the process of voting: we can and do semiotically construe casting a vote as non-language communication, like the act of purchasing. However, is it the act of casting a vote that is the meaningful communication act in an election? Isn't the message that the election has a

result, rather than that the individual (subject) has attempted to sway the election (6)? Politics achieves politics; communication communicates; the economy spends and saves.

Luhmann recognized that this kind of division between humans and their attempts to influence systems exists all the way down to the human subject—and so does human tendency to blur over irreconcilable divisions. Consider the classic philosophical question of the mind-body duality: how do mind and body fit together to form unique individual human beings? From a systems perspective, the question is neither answerable nor important: the psychic system and the biological system are two obviously discrete systems. Their processes have obvious beginnings and endings, and it is not difficult to tell the two apart. Luhmann divides the "individual human subject" even further, adding communication as another discrete system present in the human being (9). Just as thought is separate from the body, communication is more or less separate from both—one cannot speak out loud to his neighbor, allow them to process it and think their response without saying it, and still know what their response is. They must articulate it to be understood. Returning to Luhmann's most famous line: "Only communication can communicate". Moeller adds, "When two people talk to each other—even the most intimate lovers—their minds and bodies are still outside of the communication, not inside it" (8).

Systems theory is then the theory of how independent systems—so independent that one could imagine a membrane surrounding each one—relate to each other. How does the lover engage the mind and body of another, using communication? How do politics and the economy relate to each other? How does the individual psychic systems of humans articulate through communication systems their designs on political, economic, legal, religious, or education systems? Luhmann builds a map of these systems, and it is important to recognize that society itself has its boundaries. There are systems of life: human bodies and brains, ecosystems and

wildlife, bacteria and so on. There are also systems of consciousness, which seem to be limited only to human minds. Finally, there are systems of communication, or as Luhmann refers to them, social systems (9). Society exists in social systems; therefore human beings are only partial subjects of society; their minds and bodies live outside of it, but through communication systems they participate in it. Moeller explains how Luhmann fit the systems together: "Each system is in the *environment* of others. Communication needs the environment of living and psychic systems, just as a fish needs water. But this is also true vice versa: To be a system, a system must have an environment" (9). The environment (other systems) provides systems with a backdrop for their necessary interaction. Instead of total isolation, Luhmann suggests that systems should be understood as operationally closed: economic systems only communicate with economic systems, political with political, and so on, or else they cease to be economic systems or political systems (15). Because they're closed, systems can develop mechanisms that they use to observe the environment they exist in, which happens to be made up of other systems; like how the human brain gathers sensory input as a means to observe the physical environment. The brain doesn't have real contact with the physical world, it's just "photo-chemically or acoustically stimulated". In Luhmann's words, "…from these irritations and with its own apparatus, the system produces information that does not exist in the environment, but only has correlates out there" (17).

Luhmann refers to the necessary interactions between systems and the other systems in their environment as structural coupling. Even though systems are closed, they still depend on their environment; communication cannot happen without human bodies, even if it is not produced by human bodies. Language couples communication and psychological systems, and other systems are similarly coupled. The significance of operational closure, though, is that the

coupling of systems is not automatic or even necessarily clean. Like the brain using sensory data to interpret its environment, there is always a sort of dissonance: thoughts do not just turn into communication. Any interaction between systems works in all cases like the brain using sensory data to create a second-order representation; in Luhmann's terminology, a system that originates some kind of interaction "irritates" another, and the recipient "resonates" with that irritation (40).

Ultimately, Luhmann's theory describes society as a variety of large, communication-based systems that can be identified by their functions: politics, the economy, law, and the mass media are some of the more prominent ones. They all operate and grow separately from each other, and there's no super-system to observe or guide anything. They are all the way they are because historically, they became that way. They do not necessarily need to work the way they do and will not necessarily stay the same for very long. What is important that even though they are separated by their functions, and there is always dissonance, they all have their own means of observing other systems and responding. In Moeller's words, "The economy can look at all other systems from an economic perspective and can "interpret" the "whole" society economically. Likewise, science—and within it social science, and within it, social systems theory—can look at the "whole" of society and interpret it scientifically"(25).

Luhmann also provides a model for how systems function and interact. First, these systems can always be identified by their particular "codes" (25): the legal system operates on the code of legal and illegal, and it communicates on the basis of that distinction. The political system communicates power on the basis of the distinction between government and opposition, science operates by the code of true and false, religion by immanence and transcendence, and the economy by payment and nonpayment (29). Whether something is legal or illegal, immanent or transcendent, or true or false, however, is actually up for dispute; systems interpret events like

these by developing "programs" on the basis of their code: examples of social programs that Moeller provides are concrete laws, constitutions, and even cultural norms: they serve as guidelines for the processing of social codes (25). Political programs include ideologies and party programs; science's programs are theories and methods; dogma and Holy Scriptures are religious programs; budgets are the programs of the economy (29). Social systems need stability, in the form of predictable behavior, to ensure their ongoing success; therefore, each system develops its own "media" to make certain types of communication more routine; currency, stocks, and bonds are the media which make economic communication consistent (26), while jurisdiction, power, truth, and faith, through convention, serve as the media of other function systems (29).

Systems can also irritate each other in established and predictable ways: politics clearly influences the economy with legislation that makes certain kinds of economic events more or less likely, like tariffs and taxes. Politics and law negotiate constitutions. The law influences the economy via constructs of ownership and contracts, the economy influences education by way of certification and degrees, and so on (38). At the same time, it is possible for systems to attempt to irritate other systems with less predictable success: political communication about unemployment is common but extraordinarily ineffective, in that it takes the guise of economic communication, but is ultimately just political—it incites more talk about policies and regulations, and communicates only politicians' positions on the economy, while being incapable of actually creating more jobs (36).

To this point, I have described systems almost as conscious entities—one could imagine the political system deciding that it is incapable of affecting the economic system, or denying politicians' requests to have an impact in any other arena. Obviously, this is an exaggeration; at

the heart of systems theory is the mechanism by which function systems form: what Luhmann calls autopoiesis. The term comes from Aristotle's distinction between *praxis*, something one does for the sake of itself (Moeller's example is going for a swim), and *poesis*, something one does to create a product (like painting or writing): an *auto*poietic is then one which is its own product (12). Function systems rise out of behaviours that are self-fulfilling; in this way, social systems theory uses the concept of autopoiesis to explain the growth of a social system—either society as a whole or a specific function system (a system forms on the basis of its fulfilling a certain function). Communication is the origin, requirement, and result of autopoiesis as a mechanism for social production: as Moeller puts it, communication becomes to society as living is to an organism (21). This is primarily why social systems theory is disinterested in individual human beings: their presence is not what defines or determines the outcomes of function systems, only patterns of communication; society consists only of "communication 'events', such as communication by language, gestures or money" (22). "Communicational sequences", or patterns of autopoietic communication behavior establish their own shapes and boundaries, based on trends and convention; that communication is predictable is predicated on what Luhmann refers to as the "double-contingency": communication hinges not only on the expectation that we understand, but also that we expect to be understood (22); when we attempt to pay for goods at a store, we expect that the store will accept certain standard means of payment; when we vote in an election, we expect that our vote will have the same significance as every other vote, and will be treated the same way. Convention solves the problems of contingency, which is why communication trends are socially predictive; as Moeller explains, "communication that is not understood does not continue" (22): convention preserves itself, while non-convention is unintelligible and therefore cannot be spread. If communication is to society as living is to an

organism, doing the bare minimum of consistently resolving the double-contingency is like breathing (23): it allows systems to continue to exist.

Considering autopoiesis, it is not difficult to imagine how society has evolved. Large communication systems have grown around the heuristics that allow certain social functions to be performed over and over again. For example, the economic system grew from the social need of solving the contingency of payment and nonpayment for the exchange of goods, while the political system grew from the social need for distributing power for collective decision-making, and so on. Discourses can become systems if they are required for the continuation of society and the outcome of their use becomes predictable. Predictability is a requirement for stability, and where there is social stability it is a result of functioning social systems. The functional differentiation that Luhmann recognized in late 20th Century western society and which endures in 21st Century global society is not innate, and he never suggested that it was; instead, he understood it as an emerging reality that allowed complex society to carry about its daily business (41).

Chapter 3: Securitizing Systems

The goal of this paper is to re-frame securitization within the context of Niklas Luhmann's social systems theory; by removing the original theory's anthropocentric insistence on human actors and relationships as the basis of security situations, one can develop a clearer picture of the societal circumstances from which security situations emerge. By no longer insisting that security is a discursive speech act, a systems-based theory of securitization will focus solely on events and responses—the true constituents of the securitization process. The result is a concept with dual meanings: "securitizing systems," meaning both "systems that securitize," and "the autopoeitic process that induces security states in systems".

As previously discussed, Luhmann's systems are functionally differentiated—that is, totally separate from each other in terms of the functions they serve and the events that take place within them—but they do interact. Luhmann refers to processes of interaction between differentiated systems as "irritation"—when an event in one system causes a reaction in another—and "resonance"—the reaction within a system that is irritated. For the most part, this interaction is unpredictable (similarly, securitization from the dominant Copenhagen school theory is only analyzable, not predictable); one way to further develop both theories is to approach securitization as a specific kind of interaction between systems (we could say there is both "security-irritation" and "resonance-in-security/resonance-insecurity"). What is needed is a re-focusing of securitization theory which, by de-centering unpredictable (and unnecessary) human individuals in the process, would constitute a predictive category of inter-systems irritation and resonance. With a predictive theory of how security situations are created and evolve within systems, policymakers can make better public decisions regarding the handling, and even prevention, of those situations. As Hans-Georg Moeller noted about Luhmann's theory,

the behaviour and realities of human beings are too chaotic to serve as useful units of measure for society and its events; by removing the chaos of individual human interaction (and replacing it with an emphasis on systemic reactions to situations, particularly the various ways systems predictably and consistently irritate each other), a more stable concept of securitization will emerge.

The first question that must be answered, is where does security "fit" into Luhmann's black-and-white world of differentiation and systems? There are several possibilities: is security a part of the political system? Is it primarily part of the military system—and is the military system even a system at all? Accounting for a wider, Copenhagen school definition: could security be a system all its own?

While explicit references to the military in Luhmann are rare, Daniel Lee writes that Luhmann suggested the existence of a military system in his final work, *Die Gesellschaft der Gesellschaft* ("The Society of Society")—a functionally separate military society that works at its own task but communicates with the other societies in its environment (Lee 328). A simplification of security, down to basic military activities of aggression and defense, might define the task of this military society; however, this is an obviously inadequate definition. Not only does "security" constitute a broader set of behaviours than military ones, but the military system also plays non-security roles, like peacekeeping and administering humanitarian aid. It is similarly easy to make security appear to be a task of the political system (and similarly easy to dispel that illusion); politics is concerned with the distribution of power, and sovereignty is clearly a part of the power system, but this cannot account for ecological security, societal security, or economic securities.

The question of whether security could possibly be its own system is more complex; partially because it is difficult to qualify whether security is itself a social "function" or something else entirely. But this possibility must be left open, because security clearly does not fit entirely (or even well) within any previously discussed function system. According to Luhmann, systems become differentiated from their environment because they evolve through the function that they serve; for example, the political system has evolved to distribute the power to negotiate public decisions, the mass media system has evolved to distribute information and construct public opinion, and the economic system has evolved to distribute surpluses and eliminate shortages within communities. Each of those systems experiences periods of securitization, so it is impossible that security could itself be a system with any real differentiation. It is also unlikely that security would be considered a societal function, *per se*, because as Barry Buzan, Ole Wæver, and Jaap de Wilde correctly assert in *Security: A New Framework for Analysis*, neither states of security nor insecurity are preferable to a state unencumbered by any security discourse—the natural state of systems is *non-security*, and insecurity and security statuses are only indicative of some failure of business-as-usual to sustain itself.

The reality of security as a social systems phenomenon is that it actually articulates a different feature of social systems environments altogether; it actually does this so well that it sheds some new light on how systems interact. Luhmann often refers to "irritation" and "resonance" as a sort of grammar for interaction between differentiated systems, but because so much of his work focuses primarily on proving the differentiation and analyzing individual systems in isolation, these processes seem more like an afterthought—his reluctant and paradoxical explanation for the otherwise unexplainable overlap of systems that are supposed to

operate separately. The process to which Luhmann mostly attributes the differentiation and evolution of systems is autopoeisis; however, the unique nature of security as a specific type of irritation lends some new significance to the interaction between systems, and even suggests another question: could there be other specific types of irritation, like security, that contribute to the autopoeitic process? States of insecurity and securitization are inter-systems phenomena; they are constructed by patterns of irritation and resonate appropriately.

There are two meanings of the phrase "securitizing systems"; the first (chronologically) refers to the process that mirrors autopoeisis that induces insecurity in systems. The relationship between military and political systems is fixed: the military system exists to guarantee sovereignty for states, which it usually does by some combination of staffing borders with soldiers, taking up defensive postures, gathering military intelligence, and even becoming aggressive when necessary; the political system distributes and legitimizes power in societies and states, including the authorization to operate military bases at borders. They are two separate systems with two separate but complimentary roles and goals—the military protects the sovereignty effectually distributed by the political system, and the political system legitimizes an official military system (national armies having almost completely replaced the variety of unmanageable and small militias that were popular at one point). However, if some issue were to emerge in either system—we can imagine the phrase "state of emergency" as equivalent to "state of insecurity", so for the political system this could mean a coup attempt, or for the military system it could mean an attack from a rival military—there becomes a need for deeper compatibility, or at least an intensification of communication. A process of negotiation begins: does the event necessitate a "state of security?" This question parallels Buzan, Wæver, and de Wilde's requirement that the existence of an "existential threat", and "emergency measures

taken" be proven before recognizing a particular situation as a security one. Even once a security situation has been established in one system or another, the negotiation process is intensified; imagine that a military outpost has been attacked, and the consensus among officers stationed there is that they will need to make some kind of counter-attack, which they are not normally authorized to do. In most modern states, the military system lacks political will, and must engage with the political system to make sure extraordinary actions they take are legitimate. In this case, the political system must seek advice from military experts, and either decide to legitimize further military action or deny it. There are obviously states where the military and political systems are much more closely related than this; these states are the result of long-term securitization, where the bureaucratic lines of cross-system communication have been so well-exercised that the process is expedited, like the familiar firing of neurons across pathways burned in memory. If the situation were reversed, the same process would occur; if some kind of coup occurred, an endangered government would appeal to the military for help. In turn, the military must interpret the political situation as best they can—victims as always of the restrictions of second-order observation, it is unlikely that any military is particularly good at this, but it is still a necessary step—and either aid the incumbent government or change allegiances; ultimately, it is in the military's best interest to judge which is most likely to succeed, and therefore continue to provide legitimacy and legality to the ongoing operation of the military.

These security processes are not unique to the political and military systems; consider so-called economic emergencies or security situations in the economic system. The systems-securitization process is at work here even more openly, because as the writers of *Security: A New Framework for Analysis* explain, there is a certain expectation of failure in most modern economies; individual firms are expected to come and go, either succeeding or falling to

competition, but always driving the market forward. More often than not, when firms are existentially threatened, there is no security "conversation"—the firm goes bankrupt and its members move on. In some cases, like the still very recent "bailouts" of major American automotive companies and banks firms attempt to argue that they are integral to the ongoing health of the market itself—a securitizing move. Just like in the military example, such an economic emergency induces communication with the political system, which is the only one capable of legitimizing the claim that a firm is integral and making the publicly-binding decision to re-route funds from elsewhere to a failing business; however, the politicians who make that decision are only making it based on their imperfect interpretation of advice from economists on what those economists believe will fix the economy, and their decisions and policies are still never guaranteed to have any real economic effectiveness.

It may seem that security and securitization are features of the political system because it appears to always be involved; however, this is just the case because politics serves a regulatory role, which Buzan, Wæver, and de Wilde address, and Luhmann also acknowledges the significance of that system as the one which distributes power, or the "right to do". However, security is not a function of politics, because the political system is as often the subject of security as any other, whether secured by the military system as in the example previous, or by another, such as the economic system: taxation, itself one of the more "permanent" pathways of inter-system communication, whereby the economic system acknowledges the need for government to function and voluntarily contributes the funds it is asked for, is a deeply entrenched form of security.

From a systems perspective, the first part of securitization is actually this process of inter-system negotiation, where states of emergency are determined and emergency patterns of

interaction is established. It makes sense: the normal state of security is after all non-security, just as the normal state of a system is differentiation. When securitized, systems become increasingly reliant on patterns of inter-system communication; because the nature of a system's second-order observation of another system is typically poor, and because of another factor—the necessary immediacy of response to emergencies—a high likelihood of failure or inadequate response to security situations seems almost entrenched in the process of securitization. Analyzing past and current security situations (in the next two chapters), it seems that failure to respond to security threats adequately or appropriately is extremely common; often, the miscalculation of risk and pressure to respond in certain ways becomes a matter of life and death.

To address the secondary meaning of the phrase "securitizing systems", it has become clear that it is systems which securitize, as well as being the subjects of the autopoeitic securitization process. Not only does this systems-based explanation of securitization no longer rely on individual humans and their interests—for the most part an unmanageable unit of analysis—but it demonstrates the usually understated significance of the interaction of systems in their environment. Perhaps most importantly, this combination of securitization and systems theories recognizes that the primary reason for overreaction and inappropriate response to security situations is comes at the confluence of two accountable and manageable factors: ineffective communication between systems which are naturally differentiated, and the pressure to respond immediately. Enabling policymakers—those who are typically given the task of interpreting and responding (in word) to security situations—to make better security decisions therefore comes down to two goals: to minimize the resistance of differentiation by developing entrenched pathways of communication between systems (opening an ongoing discourse between, for example, the economic and environmental sectors, mirroring the fixed relationship

of the political and military sectors in many states), which would in turn reduce the pressure of the need to respond immediately, by shortening the process of negotiation.

The remainder of this paper is comprised of two case studies, which further demonstrate the compatibility of systems theory and security studies, and exhibit the systems securitization process. The first examines in further detail the "singularity" of security situations, where the combination of inadequate pathways of communication and pressure to respond can often lead to disaster. By studying the case of Osama Bin Laden and the terror attacks on the World Trade Centre in New York City on September 11th, 2001, we can root out some of the sources of additional pressure that contributed to one of the most catastrophic failures by a government to respond appropriately to a security threat in recent history. The second case study examines the ongoing failure, despite various and constant attempts, to effectively securitize the environment as a referent; using this new approach, we can analyze the shortcomings of earlier attempts, and propose a new approach to securitizing the environmental system.

Chapter 4: Threat Conception

Systems theory is useful as a means of identifying what the security feature of society is, but systems explanations are also available for the individual stages of the securitization process: threat perception and conception, mediation, public, political, economic, and military reactions are all specific forms of what Luhmann calls irritation and resonance: the formal interaction between functionally differentiated but structurally coupled systems.

To begin thinking about the stages of how security happens, consider this question: how did Osama Bin Laden become a threat to the United States of America? There are a handful of unsatisfactory answers: the obvious explanation is that his influence in radical circles, funding, and elusiveness are the features of Bin Laden that made him powerful in his own particular way, but that fails to explain how he really became viewed as nearly an existential threat to the United States. Even the success of the act of terror he orchestrated on September 11, 2001, while totally shocking and devastating, really could not have made him an existential, or even substantial threat to the United States. While the attacks led directly to almost 3000 casualties, in hindsight it is difficult to equate 3000 deaths as proof of an imminent threat to the safety and stability of the country, even if they are civilian deaths resulting from an act of apparently warlike aggression. It is even more difficult to reconcile with the fact that, throughout Operation Enduring Freedom, the incursion into Afghanistan in response to the attacks, 1966 American service men and women lost their lives, and 4474 more in the subsequent Operation Iraqi Freedom (*Faces of the Fallen*). Numbers are not available for civilian deaths in Afghanistan and Iraq in the last ten years, but that number is obviously much higher still. The curious justification for wars in two countries in response to the attacks has already been widely questioned, but this example (and the answer to that seemingly simple question) demonstrates a principle of systems theory that

will be very useful in discovering how security works. The simple systems answer to the question is that there is no way Osama Bin Laden, or any other individual human being, could threaten the safety, stability, or likelihood of enduring existence of any state or organization, ever. It is not possible, because human beings are not commensurate with social structures; Osama Bin Laden can no more threaten the existence of the United States of America with terrorist attacks (even an equally successful attack every day for fifty years would affect only about 15% of the current U.S. population, around 300 million strong) than President Obama can go to Congress and announce that the United States do not exist anymore.

However, it seems equally impossible that an attack like the ones that occurred on September 11th could ever go unnoticed or unanswered. From a systems perspective, this demonstrates a relationship: events of extreme shock in multiple systems induce communication between systems; events like this can be considered a dramatic moment that fire up the pathways of communication like nerves connecting body parts. Here we can attempt to identify several formal types of Luhmann's irritation and resonance, the means of inter-system communication. The systems involved in this case were political, economic, and biological, and each was engaged in the event uniquely; their engagement was also separate from each other, although the complexity of events like these often gives the appearance of coordination. The economic timeframe involved the creation of the World Trade Center, the growing focus of world trade in New York throughout the 20th Century, the disruption caused by the economic-participatory "silencing" of the buildings collapsing, and the aftereffects of the attack, the collapse of the towers, and the wars that followed. The political timeframe begins with the rise to prominence of the United States in world affairs, the global political significance of New York as one of the world's largest cities, the anti-American political ideals of a terrorist faction, and the resulting

public debate and new policies following the attack. For all systems involved, the morning of September 11th constituted a significant event that incited intersystem communication. However, while it would seem that in response to the event, American society itself "changed gears" or "came together", this isn't the case—each system reacted separately.

As Luhmann explains, politics is simply a means of distributing power to make decisions; politicians can promise to fix economies or right international wrongs, but the only power they actually have is to make decisions and give instructions. The economic system similarly encompasses only the flow of capital. Most of the events that followed the September 11th attacks were located firmly and completely in either one of these systems; however, two systems clearly adopted behaviours of "irritation": the political system and the mass media system. Through public decision making and policy making, politics often wields its power in such a way that it irritates other systems; introducing tariffs or banking regulations make it easier or more difficult for the economy to act economically in certain ways, the creation of new laws similarly affects the legal system, and the political system can even attempt to influence the biological world with environmentalist legislation; however, it's important to remember that this is only second-order influence: policies and politicians cannot actually try criminals for their crimes, improve air quality, or "fix" the economy. In the same way, politics only creates policies and divides the responsibility for creating those policies. In the same way, the mass media is a system that deals only in information: mass media, even news media which most "directly" reflects events that take place in other systems, creates and presents information. For example, serious news organizations present politics via the same information-creation mechanisms as television shows like *The West Wing*; the only difference is the degree of the suspension of disbelief. Viewers know they are meant to interpret images of Barack Obama as "the President" while

images of Martin Sheen are instead "the President, on *The West Wing*". Neither President Josiah Bartlet nor President Barack Obama is any more real in the mass media system than the other.

It is significant here to return to the concept of the human being in systems theory: namely, that systems theory has no concept of a human being. On September 11, 2001, the President George W. Bush who sat quietly in a Florida classroom was a separate entity from the mediated, second-order representation of him on TV and in newspapers; this may seem obvious, but it is more important as a demonstration how the mass media resonates with systems and agents. The fundamental dissonance between what it means to be a participating human subject (that is, a subject that is involved in society, rather than one that society revolves around)and what it means when a traumatic event happens is poorly translated by news media because they can only interpret as media—politics, law, and the economy are all equally disadvantaged in their own way by the necessity of their second-order interpretations of non-political, non-legal, or non-economic events—and this leads to imperfect understandings and re-presentations of concepts that belong to certain systems. The best example of this dissonance in action is the rush for political and mass media systems to grapple with the legal concept of justice in the wake of tragedies and traumatic events. Imperfect understandings can often lead to imperfect responses; one example of such a pandemic is the treatment of terrorism as an act of war. So far, then, we have evidence of two unique types of systemic dissonance: the first, such as the curious case of Osama Bin Laden, is a result of systems' inability to deal with human subjects due to the limitations of their means of interpreting everything outside their own boundaries; the second, exemplified by the distinction between terrorism-as-war and terrorism-as-crime (and the failure to recognize one from the other), is dissonance that results from Luhmann's notion of irritation and resonance between systems. Generally speaking, terrorism is conflated with, and responded

to as though it were another type of organized, violent events: war. However, in most cases, the organized and violent event which terrorism usually has more in common with is crime. Unfortunately, mass media and political systems have a tendency to imperfectly interpret terrorist crimes as acts of war, because the results of terrorist crimes seem to be so far beyond the scope of what society considers crime. That is, it looks like war because of the outcome, because the damage inflicted by it looks like the damage inflicted by war. However, this is an imperfect understanding of war—one which is mostly based in history and experience (two data sets that are equally skewed by the second-order nature of representation. The mistake here is to define war by its results instead of its purpose, but it is perhaps a necessary mistake, because the purpose of war is trending towards obsolescence. War is difficult to classify in social systems theory, at least as it exists in the 21st century.

The prominence of democracy has significantly altered how power is distributed and legitimized; for the most part, politics has replaced war in most cases. Only a few hundred years ago, it was possible to win power of a region by winning enough battles; now, that seems less and less likely. That is not to say that wars are not fought for political reasons, and ultimately it seems that the concept of war fits within the boundaries of the political system. Political wars can still attempt to adjust the distribution of power, even if that outcome is unlikely. If war is political, politics ought to be able to come to terms with war; that is why the missteps following the September 11th attacks would be confusing, if we assume the attacks were an act of war. The American government opted to respond with sweeping measures, new policies, and what they considered at the time a response-in-kind, resulting in a decade of war in two countries and countless more casualties, and culminating in the spectacular and bizarre execution of an old, sick, man in hiding. Ultimately, none of it made very much sense at all. The dissonance of

systems in trauma lives in situations that seem to make no sense. Osama Bin Laden was never the kind of threat to sovereignty in the sense that Alexander the Great, Napoleon Bonaparte, or even Adolf Hitler could represent; he was a criminal. Crime is the subject of the legal system (*Rechtssystem*, to Luhmann). Which of those involved in the attacks were really starting a war? Nineteen hijackers died when they flew planes into buildings, one more was never allowed into the country (*The 9/11 Commission Report* 11), and Osama himself remained in hiding the entire time. In the aftermath, it was difficult to know what kind of resources this criminal mastermind had at his disposal, and that in itself was obviously frightening, but at the same time the most significant reason terrorism (or popularly but somewhat inaccurately, "asymmetrical warfare") is effective is surprise. Wars are about power and establishments that exist, they are relatively predictable, and they have trajectories: you are at war until the war ends. Terrorist attacks are like crimes: they are singular events. In the sense of actually securing human lives from danger, which was more effective: installing better locks on cockpit doors and hiring more air marshals, or fighting two wars and hunting down an old man hooked up to a dialysis machine?

The value of this reevaluation of the response of the American government, as it relates to systems theory and securitization, is that it demonstrates the consequences of acting under the pretense of the types of imperfect understandings that a systems-based perspective is particularly well-suited to rectifying. Politics, the mass media, the economy, and indeed all systems, down to the psychological systems of human individuals are not particularly good at recognizing the limitations of their interpretations. It is not dishonesty that makes politicians say they can fix the economy, bring a criminal to justice, increase literacy rates, or save a rainforest; most necessarily believe they can, because there is a tremendous pressure for them to actually achieve these goals. Luhmann notes frequently that systems are not permanent, and neither are the relationships

between them; it is historical chance alone that determines what systems make up society and how they do it, in any given place at any given time. It would appear that, especially when it comes to questions of security (whether it be national military security, ecological security, human security, or any other), this is a period of unprecedented pressure on political systems to be effective in practically impossible ways. Systems theory is not a political theory, but so much is asked of the political system, especially as it relates to the topic at hand, that it is impossible not to emphasize its importance and the nature of its relationship with security.

Ultimately, then, how do we use systems theory to answer the question of the case of Osama Bin Laden? The first possibility is that this man orchestrated a plot and attacked American civilians on American soil, directly causing nearly 3000 deaths and destroying or damaging iconic structures that represented the economic and military strength of the United States, and in response the American government hunted him down halfway across the world for a decade, bringing him to justice. The completeness of that story is mostly heuristic. A man cannot attack an economy or a government, so he chooses symbolic targets: this is a case of systemic irritation. Does destroying the World Trade Center really destroy the American economy? That is, of course, impossible: gold, oil, and gas prices spiked for about a week (Makinen 20), stock markets were evacuated for the day (with only the one in New York staying closed for several days, mostly for the removal of debris), but stores and banks stayed open and business continued as usual. In this case, the actual economic resonance of the attack was minimal; surprising, considering this was obviously a primary target. Another goal of the attackers, according to the 9/11 Commission Report, was to "rid the world of religious and political pluralism, the plebiscite, and equal rights for women" (*The 9/11 Commission Report* xvi), but the legal system hardly resonated with this irritation. These were the two areas where

significant change to the nature of American life, should that really be the goal of some attacker, would be all that possible. Instead, the most profound areas of resonance were in individual human psychological systems, the mass media system, and the political system. Furthermore, in both the mass media and political systems, the resonance was not primary; the media resonates with all events fairly indiscriminately, and even the political system resonates with a mediated conception of public opinion more than it does with individual events.

The American government as a political system did still resonate primarily with the attack in some typical ways: true to the principle of second-order representation, the political system perceived a threat to its integrity, or at least an attempt to threaten it, constructed a political understanding of the event, and responded politically. Equally clear, however, is that the system overreached in its response, and this is difficult to reconcile with the fact that the actual political threat of the attacks was almost nonexistent. If there had been pro-terror, pro-Bin Laden, or anti-World Trade Center activists with political power in the United States, they would have likely seen an immediate and significant drop in their influence following the attack, and that would be a political-systemic response to the event that made sense, but obviously there were no such politicians of any real significance in the United States at the time. The closest example would be the public fallout suffered by televangelist Jerry Falwell, after blaming homosexuals and other minority groups in America for the attacks. New laws were made to make air travel more secure, and broad new police powers to investigate domestic terrorism were passed; these represented relatively logical political responses to the traumatic event. But the most conspicuous, dramatic, expensive, and expansive political response to the event was the declaration of a confusing new "war on terror". Earlier, we analyzed the conflation of terrorism and war in the wake of the attack, and discovered an imperfect understanding of what terrorism

is at the root of it; in the war on terror, we see the intensification and extension of that case of more or less mistaken identity. As a political response to a crime clearly perpetrated by individuals, huge-scale military action seemed out of place to many, particularly critics of the government; initially, it appears that the government would have agreed.

In November 2002, the National Commission on Terrorist Attacks Upon the United States (commonly referred to as the 9/11 Commission) was set up to answer the questions: "How did this happen, and how can we avoid such tragedy again?" (xi). For two years, the Commission worked mostly in a vacuum, away from the pressure of daily administration, to come up with an official explanation of the attack and make recommendations for future government action. As policymakers, the members of the Commission had an intimate understanding of the realistic boundaries and limitations of what policy can achieve, and working in relatively quiet reprieve from public interests and mass media, they created a surprisingly unambitious document. While it would be impossible to summarize its nearly 600 pages, themselves a summary of literally millions of pages of documents and thousands of hours of testimony, it is worthwhile to include relevant excerpts that might hint at the justification for military involvement in Afghanistan or elsewhere:

1. "The U.S. government must identify and prioritize actual or potential terrorist sanctuaries. For each, it should have a realistic strategy to keep possible terrorists insecure and on the run, using all elements of national power" (367)
3. "…the United States and the international community should make a long-term commitment to a secure and stable Afghanistan, in order to give the government a reasonable opportunity to improve the life of the Afghan people. Afghanistan must not again become a sanctuary for international crime and terrorism. The United States and the international community should help the Afghan government extend its authority over the country, with a strategy and nation-by-nation commitments to achieve their objectives" (370)

5. "The U.S. government must define what the message is, what it stands for. We should offer an example of moral leadership in the world, committed to treat people humanely, abide by the rule of law, and be generous and caring to our neighbors. America and Muslim friends can agree on respect for human dignity and opportunity" (376)
6. "Where Muslim governments, even those who are friends, do not respect these principles, the United States must stand for a better future. One of the lessons of the long Cold War was that short-term gains in cooperating with the most repressive and brutal governments were too often outweighed by long-term setbacks for America's stature and interests" (376)
9. "A comprehensive U.S. strategy to counter terror-ism should include economic policies that encourage development, more open societies, and opportunities for people to improve the lives of their families and to enhance prospects for their children's future" (379)

The rest of the 41 recommendations are decidedly pragmatic: they range from how funding for intelligence programs ought to be handled, managing the composition of oversight bodies, making funds available for public emergency broadcasting, and establishing a national standard for emergency response, the Incident Command System. It seems odd that the most significant revelation of the 9/11 Commission Report is that legislators know how to legislate; but in light of the public pressure and the more immediate actions of members of the American government, the document makes sense—as limited as the provisions are, they are realistic. Without pressure or trauma, even in the case of this traumatic event, its writers are well aware of the boundaries of their influence and purpose.

Interestingly, the imperfect understandings of "irritation" events that plagues security decision making, as exemplified by the American government's response to the 9/11 terror attacks, is not inherent in the relationship between the political system and any other system; that is, the political system, at its most functional levels, is generally aware of its capabilities and limitations. But is there a feature of the makeup of social systems in the 21st Century that makes systems more likely to resonate with irritation in unexpected ways? Is there a feature of society

that essentially intensifies the urgency attributed to security situations? One possible explanation is the feedback loop caused by the interaction of systems that can only interact via second-order representations.

Second-order cybernetics is a significant topic in much of Luhmann's work on systems; Hans-Georg Moeller summarizes it in his attempt to discover "what is real" in systems theory: "If reality is conceived as a cognitive construct, as an effect or correlate of observation, then descriptions of reality become descriptions of observation". Simplified: "observation loses its simplicity" (*Luhmann Explained* 71); there's no such thing as pure observation of reality because observation becomes part of the construction of reality. Second-order cybernetics is the name for this phenomenon. Most significant for Luhmann is the incompleteness of second-order representations; Moeller calls this a "blind spot" (73).

According to Luhmann, the peculiar relationship between politics and the mass media is a consequence of functional differentiation and second-order observation; in other words, the dissonance that occurs as a result of incomplete or imperfect cross-system communication is a defining feature of both politics and the mass media, because one of the central focuses of politics has become its need to deal with its observation by the mass media. In democratic states (or states that use the discourse of democracy), governments need to be responsive to, or at least appear to be responsive to, "public opinion"—which, despite its name, is actually synthesized by the mass media. The mass media is the only way something as broad as a "public" opinion could actually be articulated, but in reality it is simply constructed as information, as the mass media actually functions. Because of this, any government that wants to appear responsive to public opinion can only really observe the mass media—and most importantly, how the government is observed by the mass media. This means that in traumatic situations like the 9/11 attacks,

governments must be representative in a third-order sense: they respond to the media response to individuals. When the response to such an event is significant enough that it become the subject of a "public opinion"—and a strong response is characteristic of "security" behavior, as we will see—the new public opinion is created by means of feedback through the mass media. This third-order nature of communication, involving individuals, the government, and the mass media systems are a possible explanation for the escalation of security situations; security situations can therefore be partially defined not only by the imperfect responses they typically incite, but also by the feedback present in communication that pertains to the situation. This feedback loop mechanism is a symptom, and possibly the cause, of the undue responsibility placed on modern democracies to overreach their jurisdiction and act beyond their means.

The controversy and consequences of the American government's response to the attack are well-documented. The war-response to the terror threat is just one kind of security behavior, and terrorism is only one type of modern security situation, but this example reveals some key elements of how security works in a social system. Security is not only about specifically targeted, declarative messages, as traditional theory on securitization suggests; securitization is in many ways created by types of communication, but it does not originate in communication, which is significant. Looking at the individual systems that respond to "security" events, and how they respond individually before interacting with each other, we can find a pattern of representations and interpretations that negotiates the security situation, which is primary, to the securitization response, which is an equal product of the situation itself and the systems that respond to it. This suggests, unlike Copenhagen securitization, that "security" situations exist as a feature of society, not just a function of communication.

Chapter 5: Ecological Security

One of the most compelling questions raised by a "widened" view of security is the ongoing uncertainty about our ability to recognize environmental threats and respond in any meaningful way. Ecological securitization has been on some agendas since at least the 1960s, but it is a movement that seems to this day to still be in its beginning stages. Those who work towards securitization of the environment ought to be concerned with their track record of inability to convince populations to take the necessary steps towards conservation and instill sustainability and ecological balance as human values. Conservatively speaking, we are a half-century into the movement to change the way human society relates to its natural surroundings, and huge percentages of the global population continue to embrace the Western-industrial model of mass production and mass waste.

If the failure to fix environmental problems is a failure of the discourse surrounding it, Luhmann is unconvinced: in *Ecological Communication*, he explains that sociological study of the discourse of environmental protection is mostly concerned with:

> …how society reacts to environmental problems, not how it ought to or has to react if it wants to improve its relation with the environment. Prescriptions of this sort are not hard to supply. All that is necessary is to consume fewer resources, burn off less waste gas in the air, produce fewer children. But whoever puts the problem this way does not reckon with society, or else interprets society like an actor who needs instruction and exhortation (and this error is concealed by the fact that he or she does not speak of society but of persons) (Luhmann 133).

This reveals the central truth about the environment from a systems perspective—or, more precisely, the central misgiving about *talking about* the environment: unlike every other referent previously hinted at or discussed, the environment is not actually a part of society. Social systems theory is, after all, a theory of society, which is constructed through communication and

comprised of differentiated function systems; the environment is obviously functional, but it is not social, and therefore it cannot be a *social* system. Moreover, if securitization is the opening-up of communicative pathways between differentiated systems, how can any system communicate via irritation and resonance with the natural environment, a non-system that is not constructed by communication and therefore cannot communicate? It is possible to securitize a government or a firm because securitization is a social tool that protects social constructs (in all of these cases, the term social refers primarily to construction by communication, and secondarily to capacity for systems communication).

Ecological securitization, then, can only be the result of securitizing practices determined by "experts" that we believe to be "environmentally friendly"; that is, the ecological agenda is the social construct that has to be defined and securitized. Solving environmental concerns could very well be as simple as Luhmann suggests—but how does one convince a people to control their population, or use fewer resources, when there are equally convincing arguments (particularly economic ones) for the opposite course of action? The result is an otherwise unheard-of third-order communication "gap" between social action and ecological change. We have already discussed at length the significance of the second-order nature of all inter-system communication; the uncertainty and imperfectness introduced in translation affects political charges on economic concerns, or economic solutions to societal problems, and so on. In the case of the ecological agenda, laws are made and dollars spent on interpretations of an interpretation—political, economic, societal, legal, religious, and so on, decisions on the environment are assessments of the body of analytical work by experts who themselves are interpreting whatever data they can find; the chaos and uncertainty of second-order representation is here exponentially increased. The main concern for a "securitizing systems"

analysis of the environmental security agenda becomes: how does the relationship between social systems and physical systems affect the environmental security agenda? Is it possible to form a kind of bond between social and physical systems that is similar to the communicative one formed via securitization between differentiated social systems? Without a better-established primary relationship between society and its physical environment, it seems unlikely that society will find the tools to protect and restore the Earth.

There is of course one other prominent "connection" between biological and social systems that Luhmann discusses in depth, and which may provide some guidance for negotiating the relationship between society and ecology: the classic philosophical question of the mind-body duality. In his book on Luhmann and philosophy, *The Radical Luhmann*, Hans-Georg Moeller notes that the history of this question dates back to Plato, who deals with it in both *Phaedrus* and *The Republic*, among other works (*The Radical Luhmann* 51). Moeller explains the three main dimensions of the contingency as such:

> First, an *ontological* distinction between different ways of being: physical and intellectual being. Whatever is, is either physical or intellectual, or contains elements of both. Second, an *epistemological* distinction between different kinds of knowledge: whatever we know, we either know through our senses or our mind, or through a combination of both. And, third, an *ethical* distinction with respect to what we value, and accordingly, how we live: we strive toward either material or ideal goods, or a mixture of the two (51).

Determining the exact nature of the relationship between physical and intellectual being, knowing, and valuation has been a central question of Western religion and philosophy since Plato (52), but the general trend has been towards a necessary "common sense" blurring of the lines between physical and intellectual realities—however stimulating it is to decipher the gap between the two, most social human activities (those that serve social functions like participating

in economic and political systems, especially) are considerably simplified by the assumption that humans are complete entities:

> The triple dualism is still both academically and in ordinary life a most essential commonsense ontological, epistemological, and ethical concept. While the dominance of the soul over the body is no longer an accepted theory, there is still something like a common consensus that the world is made up of the physical and the intellectual, that we can know things either through reflection or experience, and that we can act according to material or ideal values (54).

Luhmann's solution to the duality is to expand it to a triadism: he adds as a third concept communication, which equally constitutes the human individual alongside mind and body. The second-order cybernetics of mind interpreting body and communication, body interpreting mind and communication, and communication interpreting body and mind is the "*system/environment* configuration" that serves as a grammar for the daily combination of these three identities (56). Luhmann's designation of social function systems as "systems" is not in the least bit a metaphorical one; he means to suggest that social systems (communication) operate much the same way (autopoietically, and operationally closed) as physical systems (the body, or in this case, the natural environment), and psychological systems (the mind). Moeller describes the human body as a physical system:

> All operations within living systems are life operations, such as biochemical processes, hormonal processes, neurological processes, and so on. Each system functions by continuing its own operations with further operations of the same kind. The immune system, for instance, continues to function by immune reactions. It cannot continue to function by visual operations. The system's function cannot be taken over by the visual system, or vice versa. A system is not a body *part* or an organ that can be potentially replaced by a spare part. One cannot transplant an immune system. Nor can it be amputated like an arm or taken out like the appendix. The view of the body as a biological-life system including a number of subsystems is therefore substantially different from a mechanistic view of the body as a whole consisting of parts (57).

Life systems, just like communication systems (and psychic systems) are autopoietic: that is, they evolve and continue to exist via their own processes, and not with input from outside of the

system. As Moeller writes, “Any biological system is the effect of the evolution of life…. Systems change by evolving” (57).

Especially prominent in systems theory, the human mind and the human body are totally separate and disparate entities that nonetheless manage to work in some concert. They are not separate like the political and economic systems are separate, because those are both social function systems and constructed by communication, but actually completely different types of systems in each other’s environment. In the same way, the social function system is not only functionally differentiated but typologically and more or less incomprehensible to the natural world. Communication systems still exist in the environment (in Luhmann’s sense) of the natural world like a body’s immune system exists within the body but without a central organ or housing, but there is no significant, established “connection” that can defeat the contingency of social-ecological interaction.

The relationship between society and the environment is mechanically similar to the relationship between human minds and human bodies, but as of yet it lacks a grammar of interaction or even a routine of cooperation. Because the contingency of social-ecological interaction is more or less “undefeatable”, it is impossible to socially securitize the environment. Advocates of the ecological security agenda must therefore work to bridge that gap; just as securitization is only possible between social systems with established routines of interaction that minimize the uncertainty of second-order representation in inter-system communication, “common sense” routines of symbiotic interdependence can make ecological causes more comprehensible and approachable by social function systems.

Judging from the ongoing success of humans every day who manage to defeat the mind-body duality and negotiate a working relationship between their psychic, physical, and communicative component systems, it seems likely that ecological securitization approaches that can successfully integrate a similarly-styled social-ecological relationship into "common sense" ought to be the most successful. Unfortunately, after briefly consulting with myself, I do not believe that I would psychologically react to harm to my lawn in the same way as I would even a blister on my left foot (by which I do not mean that I would experience pain, which is physical, but that I would immediately alter the way I place weight on that foot while walking and standing, so as not to irritate the condition until it can heal); this seems to suggest that the strength of the relationship between social systems and the environment has perhaps not been fully negotiated yet.

If securitization is a response within society to social emergencies in its various sectors, and we can claim that securitization is a process which establishes and maintains the communicative connections that hold all possibility for interaction between those various systems, then we can also claim that the mind-body construction has already been securitized: human individuals derive some practical use from their combination, so that combination has become a primary one in social interaction. The assumption that a human being has a mind and a body which are intrinsically linked (strictly speaking, their linking is only environmental and not intrinsic, because they are operationally separate) is privileged, and relatively "secure", as far as concepts go.

Ultimately, society does not actually need to exist (it only proceeds to exist), and it is unlikely to continue to exist if the natural environment of the planet is existentially at risk; the question of the future of ecological security is then: is society self-aware enough, and can it self-

correct adequately enough, to regulate the health of the biological-environmental necessities for its existence?

Here, we will consider some texts that argue for a more thorough effort in securitizing the natural environment, to determine roughly the extent to which environmental activists enable and foster a more fundamental cognitive connection between society and the environment. Based on what we have already discussed about environmental security and securitization in general, those efforts that appeal to or attempt to instill a "common sense" bond between the two will be more likely to be successful in provoking social responses.

In "Environmental Security: Concept and Implementation", Braden R. Allenby (an American environmental scientist and lawyer who has written extensively on the environment and national security issues) writes that the necessity of environmental security is a product of a world that is increasingly aware of the constraints of its environment, and recognizing for the first time that human economic activity affects "a number of basic global and regional physical, chemical, and biological systems" (Allenby 5). The article was written in 2000, and cites a handful of early- and mid-1990s sources as examples of the onset of this realization.

Allenby recognizes some inefficiencies in the way policymakers and the public interpret and react to environmental concerns, the most significant being the inability of individual humans or human organizations to achieve extremely long-term goals:

> …consider for a moment the policy structures that the concept of environmental security potentially affects, such as foreign policy, security policy, environmental policy, and science and technology policy. All of these generally function in the short term and focus on the interests of a specific geographic area. Limits arise either from political structures—such as terms of office, or the physical boundaries of national states—or, more fundamentally, from human psychological boundaries. Few people think beyond a time horizon of a few years,

> and a geographic range of miles. Many of the natural and human systems with which national security and environmental policy in the broadest sense must deal, however, lie far beyond these intuitive boundaries (6).

He uses stratospheric ozone depletion as an example: mitigating the damage caused by human factors that cause it, like CFCs, takes decades, even after their use has been completely discontinued. Environmental systems can take an extraordinarily long time to recover from damage caused by human activity: "The natural systems whose perturbations cause global climate change have responses measured on time scales from (possibly) decades, to centuries, to millennia" (6).

Allenby writes that, even as recent as 2000, the extent of the integration of environmental considerations in national security and policy agendas would be best characterized as "overhead", or ancillary to the primary functions of national agendas. He argues that there must be a revolution in environmental thinking from security experts and policymakers, as well as consumers, producers, and society itself—the goal should be "a broader transition of environmental issues from 'overhead' to 'strategic'", or integral to all social activity (7).

Allenby's conclusions closely mirrors the predictions of this paper, that environmental issues in the world of natural systems must somehow be integrated with social systems before environmental issues can be successfully securitized. However, he reveals some existing social trends which complicate this kind of integration: it "inevitably results in a certain level of conflict with existing legal and policy structures—including, for example, those dealing with consumer protection, government procurement, antitrust, trade, or, in this case, national security" (7). These existing structures come into conflict with the environmental security agenda because they have been created over the years by organizations without any significant knowledge of or concern for their environmental impact. One of the more significant examples of this conflict,

with already visible environmental consequences, is the use of MILSPEC and MILSTD manufacturing standards in the United States (and equivalent manufacturing standards in other countries). Because the military is usually one of the largest purchasers of goods in most states, a significant percentage of all manufactured goods is made to meet these standards; however, until very recently, those standards were only requirements for durability and quality in military conditions, and they never had any environmental constraints. The overuse of CFCs in manufacturing can be traced back, in part, to MILSPEC and MILSTD standards, because CFCs were "at the time a critical material in electronics and metal piecepart manufacturing, as well as the maintenance of high performance technology systems—in other words, they were an integral part of the operation of the military forces of the United States" (8). He quotes a study that estimated that half of all CFC-114 use worldwide for the manufacture of circuit boards was accountable to US MILSPEC and MILSTD manufacturing standards (Morehouse 149).

The transition from understanding environmental concerns as "overhead", as in the case of outdated manufacturing standards and the damage they continue to cause in various parts of the world, to "strategic", in terms of responsibility for establishing responsible standards at the national level, is a largely political interpretation of the wider need to establish a more fundamental pattern of interaction between the natural environment and society. It is not an uncommon argument, and a second, economic perspective can be found in Hunter and Amory B. Lovins' article, "Pathway to Sustainability", and their concept of natural capitalism. The Lovins' argue that industrial capitalism is inherently flawed because it "does not value, but rather liquidates, the most important forms of capital" (Lovins and Lovins 13)—being the well-being of the environment that supports all life and therefore industry, itself. They argue that industrial capitalism was successful because when it rose to prominence there was a scarcity of skilled

people resources—plenty of labourers, but few scientists and professionals—which it overcame with methods that used abundant natural resources inefficiently and produced extraordinary amounts of waste (14). They also note that in the developed world in the 21st Century, the opposite is the case: there is an overabundance of educated "people resources" and a scarcity of natural resources. Their proposed principles of "natural capitalism": reduced resource usage, the elimination of the concept of waste entirely by instead characterizing it as "unsaleable production" (14), shifting from a goods-focused to a service-based economy, and heavily investing in the restoration of the earth, are all aimed at countering the effects of decades of industrial capitalism by inverting the ratio of people resources to natural resources in the production of goods. At the heart of their argument—which is an ideologically charged one—is that first assumption: that the single most important resource is the health of the natural environment. Their argument is situated inside of an ideological framework that has successfully integrated the natural environment (natural systems) and society (social systems); natural capitalism seems idealistic, but in light of the demonstrated need for such a system-environment connection, it may not be that ahead of its time.

One of the most significant early works on environmental security (Buzan, Wæver, and de Wilde refer to it in *Security: A New Framework for Analysis* as one of the premiere arguments for "widening" the national security agenda) is Jessica Tuchman Mathews' "Redefining Security", which first appeared in *Foreign Affairs* in 1989. Mathews traces various regional environmental concerns, such as population growth, resource overuse, loss of genetic diversity, soil degradation, and land ownership, through the local political stress and direct economic results they cause, to the resulting national and global instability that makes them true national security concerns. She argues that even fairly insignificant policies can have dramatic

environmental results, such as in the Philippines, where logging contracts are typically shorter than ten years, so there is little incentive for companies to re-plant, which has led to a reduction over the 20th Century from 17 million hectares of forest land to only 1.2 million hectares by the 1980s (Mathews 166); however, environmental concerns can have similarly dramatic political, economic, and social results themselves, such as in Sub-Saharan Africa, where resource exports make up 25% of the region's GDP, even though 75% of the population lives off of those same resources, ironically causing local shortages (167). Mathews concludes that there are plenty of opportunities to reverse environmental degradation, but the inability of populations and governments in particular to adapt is overwhelming: subsidies, pricing policies, and international trade laws encourage resource depletion to the point where many communities have no choice but to continue trajectories they understand are unsustainable, and population control is a particularly difficult subject of discussion in many places (172). Like Allenby, she concludes that one of the most significant barriers to environmental security is that the threat is "distant and diffuse, so it is difficult to motivate a dramatic shift in global priorities" (173). Like the Lovins', she also argues that GNP ought to be reinvented, so that it includes resource depletion in its calculation "in order to reflect environmental prerogatives", since GNP is "the chief guide for economic policy-makers" (173). She refers to the same need for mass psychological-reconfiguration as the need for a "new politics", but its foundation is the same as the goals that apparently motivate so many environmental security activists, and she clearly recognizes the need for new thinking on a fundamental level.

In *Ecological Communication*, Luhmann explains that society needs to continue to communicate through communication at all costs; essentially, it constructs the status quo of its environment entirely for the sake of continued sense-making. The values that make up that

sense-making are variable, but the grammar of the process is what makes communication possible. He writes:

> Consequently, somehow and somewhere society will have to thematize the connections between its own operations and environmental changes as problems of continued operations, if only for the sake of finding resonance within social communication, So the key question becomes how society structures its capacity for processing environmental information (Luhmann 32).

Because ecological information needs to be double-processed, Luhmann seems to doubt society's ability to respond to non-urgent/exceptional local ecological dangers (116); historically speaking, he would be correct. Building some kind of pattern of communication that takes environmental well-being as common-sense and the environment itself as integral to society is no small task; while there is a sort of precedent for the heuristic of common-sense integrating a system and its environment as two social function systems might irritate each other in the mind-body-communication triadism, it seems to be exceptionally difficult to establish a similar system-environment relationship. Unfortunately, gauging the success of activists like Mathews, Allenby, and the Lovns', current policies and treaties, or popular movements calling for environmental security is beyond the scope of this paper. Anecdotally though, that new understanding seems to have begun to take root; without much effort, I was able to find three very different arguments for environmental securitization that all voiced that need—it seems as though enough efforts to securitize the environment work along these lines that such a shift in the relationship between society and the environment is possible in the future.

Conclusions

Within the context of social systems theory, it seems that the most accurate way to conceive of security is as a verb: it has its roots in certain events and "happens" throughout the various responses to those events. Security refers to the decision to react to threats and the various social processes of threat conception and reaction as much as it refers to the state of becoming insecure or secure. In the language of Luhmann's social systems theory, the security response is a formal process of irritation and resonance—a specific kind of inter-systematic behaviour. Moreover, it is possible that security is not necessarily only social: physical and psychic systems may also be subjected to securitization through a sort of common-sense mental acrobatics that imbues non-social systems with social value. Conceiving of security as a specific type of irritation and resonance implies a more structured grammar of interrelation between systems and their environment than Luhmann typically wrote about, and it puts forward the question of what other formal types of irritation and resonance might exist in functionally differentiated societies, and what roles those specific forms might play.

Missing from this reconstruction of security as a social feature is an answer to the mostly ideological questions of when to securitize and how much security is a good thing for a society. Instead, it should be taken as a dissection of the social process of securitization only; that is, if you have a security agenda, this is how securitization happens.

As mentioned in the opening pages of this paper, the structures and responsibilities of public decision-making are profoundly significant for studying security. Security studies ought to be a study of how security decisions are made, or alternatively, how populations collectively perceive and react to threats through the bodies of public decision-making: representatives in government and their own avenues of self-representation. This relationship of security

discussion-through-government is not unique to "traditional military-political security threats", but a feature of the way public decisions are made, and relates to every kind of security threat to any sector of society.

This discussion on how security arises and functions is based on Barry Buzan, Ole Wæver, and Jaap de Wilde's seminal text *Security: A New Framework for Analysis*, which defined securitization by the specialization of the public discourse around security issues: that is, issues only become security issues when the public representatives in government can no longer respond in typically representative ways and must go above-and-beyond the regular duties and powers of government because the issue has become somehow elevated from politics-as-usual.

By introducing this definition to Luhmann's social systems theory, we can understand more about the process as it happens outside of the minds and intentions of individuals. De-centering the human participant in the securitization process allows us to define security as a feature of society, rather than just a product of communication acts. Ultimately, we find that security is a process of communication between systems and their environment, or what Luhmann refers to as irritation and resonance. In other words, security is a mechanism that allows systems to observe their environment, and it is therefore a key piece of the grammar that enables environments of systems to fit together.

The resulting concept that comes out of a comparative study of Luhmann's social systems theory and Buzan, Wæver, and de Wilde's securitization theory is a phrase with two meanings: "securitizing systems", which refers to both "systems that securitize other systems autopoietically" and "the process by which security states emerge in systems". Securitization is

therefore a process of the negotiation, establishment, and maintenance of lines of communication between function systems in response to some external threat.

Policymakers are enablers of security, and as public representatives, they also tend to be monitors of the interrelation of social sectors in informal ways. They are usually given the task of interpreting and responding (in word) to security situations; however, without an accurate understanding of what security really is and how the systems they observe become securitized, it is difficult to know how to react. Evidence suggests that there is little guidance or standard for reaction, and in hindsight, political overreaction and inappropriate responses to security situations are anything but rare. Policymakers may be enabled to make better decisions by understanding where bad security decisions come from: as discussed earlier in the discussion on the response to the events of September 11th, 2001, the typical factors accountable for security policy mistakes are ineffective coordination and the pressure to respond immediately. Policymakers concerned with responding to security threats, as well as activists concerned that certain threats remain too far from the policy spotlight, should work in times of insecurity, security, and non-security alike to monitor the coordination of social sectors and fix pathways for communication through ongoing discourse, which would in turn reduce the negative effects of public pressure by drastically shortening the processes of negotiation that all too often become immediately necessary in addressing social threats.

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