

GAMES OF INFORMATION: INFORMATIONAL AND NORMATIVE
INFLUENCES OF MEDIA STRUCTURES ON THE LIKELIHOOD OF
MILITARIZED INTERSTATE DISPUTES

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Doctor of Philosophy

by

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

GAMES OF INFORMATION: INFORMATIONAL AND NORMATIVE
INFLUENCES OF MEDIA STRUCTURES ON THE LIKELIHOOD OF
MILITARIZED INTERSTATE DISPUTES

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a candidate for the degree of doctor of philosophy,

and hereby certify that, in their opinion, it is worthy of acceptance.

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DEDICATION

To my mother, Emy, who introduced to me early in life the pleasures and value of reading

To my father, Jose, who may have tipped the hand of destiny when he gave me the name,
張書城

To Jane, Jerry and Jimmy, a younger brother could neither wish nor hope for a better set of older siblings

To my in-laws, John, Kaz and Ems, who have made me a part of their families

To my nieces – Lorraine, Chloe, Audrey, Kaitlin and Patricia – who are a constant reminder of the magic in childlike wonder and unconditional love

To Danny and Joyce, and Cheyanna and Tylynn, who welcomed me into their home and into their hearts

To the countless Filipino families who have adopted me; though I am far away from home, because of all of you, home has never been far away for me

And to the journalists and novelists, in the Philippines and all over the world, who nurtured the dream that the written word can change the world...

That dream is still alive. I still believe.

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ABSTRACT

This dissertation examines the influence of media freedom on foreign policy, specifically, the decision of leaders to use militarized force in resolving international disputes. It begins by revisiting the libertarian ideals of the Founding Fathers and creating a game-theoretic model of the libertarian arguments for a free press. The central argument of this study is that an open media industry – one where journalists are free to report the news and express a diverse range of opinions without fear of political and legal reprisal from government – engenders an environment wherein international disputes are settled through bargaining and negotiation, instead of military might. An examination of conflict involvement and level of media freedom of about 180 countries from 1980 to 2001 shows that pairs of countries with free media environments are least likely to be involved in militarized interstate disputes. A total of 50,278 dyad-years were analyzed using logistic regression models. This dissertation proposes that a free press plays a crucial role in overcoming information asymmetries and activating the structural constraints preventing leaders from engaging in costly militarized disputes.

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CHAPTER ONE

INTRODUCTION

When the Founding Fathers enshrined freedom of speech and of the press in the First Amendment, they envisioned a fledgling American democracy that would benefit from the open exchange of ideas.

At the heart of this libertarian philosophy is the assumption that a free media environment – one where free speech is not suppressed through coercive means – plays an indispensable role in ensuring continuous input into the marketplace of ideas (Mill, 1859 [1968]). In this free market of ideas, both government leaders and the people are able to discuss and debate political issues and the merits or shortfalls of proposed laws or rules making it more likely to arrive at socially-beneficial policies.

Media scholars as well as political scientists have examined the purported influences of democracy and a free market of ideas in bringing forth policies and political behavior that produce clean government, good governance, economic development and social development. This dissertation attempts to contribute to this area of scholarship by focusing on the relationship between the level of media openness in countries all over the world, and the propensity of these countries to engage in or to avoid militarized conflict when faced with an international dispute.

The objectives of the study are:

- To evaluate the libertarian proposition that the media play a central role in democratic governance.
- To explain the underlying process through which media openness could exert an influence in political policymaking.
- To test whether the level of openness of media– in general, and in print and broadcast industries – in different countries all over the world can mitigate or aggravate the chances of being involved in international militarized disputes.
- To look beyond traditional media and explore how the Internet, which is emerging as the public forum of the future, can be a force in shaping domestic and foreign policy.

In an attempt to contribute to a deeper understanding between media and politics, this dissertation begins with the philosophical foundations used by media scholars in arguing for a free press and presents a game-theoretic model that captures the logic behind libertarian arguments for a free press. Then, it taps the stream of theoretical and empirical work from mass communication studies and political science exploring how media can influence the political decision-making process. Next, it uses general linear models to statistically test the influences ascribed to media. Finally, this dissertation looks forward at the impact of the Internet as it emerges as the political discussion forum of the future.

CHAPTER TWO

FOUNDATIONS OF THE FIRST AMENDMENT

Any lengthy discussion about the relationship between media restrictions and foreign policy must necessarily begin with an examination of the history of press freedom. The philosophical foundations of libertarian philosophy, and the jurisprudence and legal tenets that have emerged through the years from the rulings of judges and justices serve as beacons that mark the origins of free speech and light the way ahead for scholarly efforts to illuminate the role of media structures in government, governance and politics.

2.1 The Libertarian Philosophers

If press freedom were a structure, libertarian philosophy would be its cornerstone, John Stuart Mill would be its mason, and the First Amendment its ground floor tenant. Under the libertarian view, individuals are rational beings who, given ample opportunity, are able to distinguish right from wrong; and that ample opportunity is embedded in being able to freely engage in discussion and debate.

This philosophy has its roots in the monumental advances in science that were fueled by great thinkers such as Newton, Kepler, Copernicus and Descartes in the 1500s to the 1700s. Given the progress that the human mind has produced, preeminent libertarian philosopher John Milton argued that people should be free to think and to express what they think (Siebert, Peterson, & Schramm, 1956).

However, since not all ideas are equally correct, there should be a mechanism that would allow superior ideas to prevail over inferior ones. Drawing from Adam Smith's concept of free market economics, Mill (1859 [1968]) justifies why the minority in a society should not be silenced because of these three propositions:

- 1) if what the majority believes is wrong, the minority – or even a solitary individual for that matter – can rectify the error by introducing the truth;
- 2) if the majority already holds the truth, any introduction of an inferior idea would further affirm and strengthen the truth of the existing or prevalent belief; and
- 3) both existing and new ideas may hold partial truths, which can then be combined to arrive at a “fuller” truth.

These three key propositions can be summed up in the Popperian view on the role of discussion in the process of discovery. “One of the most important ingredients of our western civilization is what I may call the ‘rationalist tradition’ which we have inherited from the Greeks. It is the tradition of critical discussion-not for its own sake, but in the interests of the search for truth” (Popper, 1965, p. 4).

Thus, a government that seeks to advance the progress and interests of society should not curtail opportunities to express individual thoughts. As Thomas Jefferson puts it, government should leave open all avenues for information, and only from the multiplicity of voices shall truth arise (Siebert, et al., 1956).

2.2. Critics of the Libertarians

Libertarian philosophy is not without its critics. The Milton described in Siebert et al. (1956) is not quite the same one in Levy (1987). Levy argues that libertarian philosophers did not have the same concept of press freedom as we have today. Furthermore, when they did fight for press freedom, it was often because of personal motives. As such, Levy is quick to point out that Milton was actually one of Cromwell's licensers who sought to eradicate the publications distributed by "papist heretics."

There are myriad examples of underlying self interests possibly driving the philosophy of notable libertarian philosophers in history. Spinoza (1989 [1670]) recognized that the freedom "to think" and "to say" are "natural birthrights;" but that birthright holds only if one's ideas do not endanger civil order. John Locke sees discussion as an avenue for truth, provided that truth is in sync with the ultimate standard, the Holy Bible.

Leonard Busher, in 1614, ostensibly argued for First Amendment rights for Catholics and Jews even if their beliefs were "absurd," but only if these religious groups did not quote the church fathers to justify their practices. And then, there is Henry St. John, Viscount of Bolingbroke, who while he was secretary of state in 1712, argued that laws were "weak" in curbing the publication of falsehoods and encouraged press stamp taxes. Bolingbroke's resolve to impose stamp taxes on publications was only as firm as his grip on power. Only after being deposed by the Whigs did Bolingbroke begin to oppose the suppression of speech through licensing (Levy, 1987).

On one hand, we have Levy questioning the noble motives of oft-quoted libertarian philosophers; on the other, there is Lippman (1961a, 1961b) who casts doubt on whether the libertarian faith in the individual is well-placed. Lippman paints a picture

of early-American society as one composed of self-centered citizens in self-contained communities. He notes that the citizens expected to seek out the truth, process competing ideas, and serve as judges of character for aspiring political leaders were largely farmers, whose knowledge of the world was confined within the boundaries of their daily workaday in their villages and towns. This picture stands in stark contrast against the libertarian ideal of a citizen intellectually equipped for self-governance.

2.3. Distinguishing Benefits from Motives

Before moving further, it is necessary to reconcile the arguments for and against libertarian philosophy. The criticisms against libertarian philosophy raise the key question: If those advocating for free speech are motivated by self-interest, rather than a pursuit of some selfless, noble ideal, does such self-interest negate the proposed political benefits of free discussion?

As Director (1964) puts it:

A superficial explanation for the preference for free speech among intellectuals runs in terms of vertical interests. Everyone tends to magnify the importance of his own occupation and to minimize that of his neighbor. Intellectuals are engaged in the pursuit of truth, while others are merely engaged in earning a livelihood. One follows a profession, usually a learned one, while the other follows a trade or a business. (p. 6)

Director hints at an intellectual-practical divide in the free speech debate, and Coase (1974) proposes a way of reconciling this paradox: if one is to equate the market of ideas with the marketplace of goods, then the role of self-interest in advocating free

speech can neither be viewed as sacrosanct nor profane. “If we examine the actions and views of the press, they are consistent in only one respect: they are always consistent with the self-interest of the press” (Coase, 1974, p. 386).

The key philosophical point that this dissertation makes is that the proposed benefits of free speech are produced through a process of discussion, which is related but nonetheless distinct from the motivations of those advocating free speech. While both – the benefits and the motivation – are equally important subjects of scholarly inquiry, this study on the influence of media openness and media restrictions on the incidence of international conflict focuses more on the process that produces the purported benefits of free speech and less on the motives of the advocates of free speech.

This philosophical point informs the conceptualization of media freedom. Media freedom is the ability of the media and the general public to report and to introduce opinions in the marketplace of ideas without fear of political and legal reprisal from the government. The motives for putting forth ideas is less important than the benefits of having a discussion that accommodates a multitude of views because the libertarian philosophy presupposes that, ultimately, the individual is capable of discerning superior ideas from inferior ones.

A second point that must be reconciled is whether the libertarian image of the individual as an agent capable of discerning right from wrong, thereby espousing the former and shunning the latter, is accurate. This question is essentially an ontological one, and every study must be founded on certain ontological assumptions. This dissertation, which studies the relationship between media openness and foreign policy,

makes the necessary ontological assumption that citizens are capable of such discernment.

In other words, any study on political decision-making must assume that those influencing and making such decisions are rational. Note, however, that the word “rationality” is used here to refer to an approach rather than a desirable human quality or characteristic. The rational choice approach is widely-used in political science scholarship, especially in international relations (Brown, Jr., Lynn-Jones, & Miller, 2000). Chapter Three contains a more detailed discussion on the nuances of rationality and the rational choice perspective as it is used in scholarly research.

2.4. First Amendment Jurisprudence

Libertarian thought has had a profound influence in shaping the laws and regulations on business, education, communication and education in America today. The history of free speech jurisprudence in the U.S. courts has been marked with decisions going both ways – some backing the notion that open discussion produces better political policies, and others that subjugate the right to free speech beneath the protection of greater good such as national security and maintaining a harmonious society.

For Bollinger (1991), the central image of the First Amendment is that of a free press scrutinizing the performance of government officials. Under this conceptualization, the press should be given berth, as wide as necessary, to perform its duty without fear of reproach or retaliation from those in authority.

This image makes its way into jurisprudence in the opinion of Justice William Brennan ("New York Times Co. v. Sullivan," 1964) that created the “actual malice” test

acknowledging that it is inevitable that the press would publish errors but that such errors were part and parcel of the discussion in the free market of ideas. For as long as the errors were committed in an attempt to contribute productively to political debate and not in the spirit of malice, such errors should not merit huge fines. Justice Hugo Black goes even a step further by opining that even intentional falsehoods should not be punished because while a government can survive without libel laws, freedom would die if expressions could lead to physical or financial punishment (Powe, 1991). This is a view echoed by Van Alstyne (1982) in his prescription on a fictional dichotomy on which way the courts should decide when adjudicating whether to allow too much or too little free speech: “Still, it is far better to think we have been unfair to the first amendment in giving too much away than to belittle that amendment, make light of it, or think we have gained an easy repose against its demands” (Van Alstyne, 1982, p. 150).

In contrast, the judicial landscape is also marked with rulings suppressing speech. Several cases (see for example, "Debs v. United States," 1919; Schenk v. United States," 1919) show that in times of war, the judiciary has punished expression that could possibly impede the war effort.

Aside from criminalizing some forms of expression, the government may also use injunctions to prevent the publication of some materials and while allowing the publication of others. Among the seminal cases wherein the government filed injunctions against publications are Progressive ("United States v. The Progressive," 1979) and the Pentagon Papers ("New York Times Co. v. United States," 1971). Both publications eventually won out in the sense that they were able to publish “secrets” of the hydrogen bomb, in the case of Progressive, and the U.S. government’s clandestine operations in

Vietnam, in the case of the Pentagon Papers. However, it must be noted that the power of an injunction lies not only in whether it can forever prevent the publication of information, but that it can delay such publication.

2.5. The Paradox of Freedom and Regulation

These court decisions bare the fundamental paradox embodied in libertarian philosophy and the First Amendment. If it were indeed the case that sovereignty lies in the people, and the people are capable of evaluating what is “good” for themselves, then there would be no need for the judiciary to arbitrate what is and isn’t in the national interest.

On the other hand, if the primary function of the government is the advancement of society, then government, in ensuring a certain level of political and military stability, should be able to punish acts that threaten the common good. In other words, libertarian philosophy requires a strong and stable government to foster a free marketplace of ideas which has self-righting features that allow good policies to surface; but, at the same time, since threats to national security can emerge from unbridled free speech, the free market of ideas must also be regulated by the government.

From the infancy of American government to democracy as we know it today, “the concept of the marketplace of ideas as a means of protecting democracy and the public interest [has become] accepted as a major tenet of Western society (Schmuhl & Picard, 2005, p. 143).”

Be that as it may, not all tenets are created equal – some propositions enjoy more empirical support than others. Justice Oliver Wendell Holmes makes a profound point in

noting that self-righting process ascribed to the free marketplace of ideas is, at best, experimental:

[T]he ultimate good desired is better reached by free trade in ideas – that the best test of truth is the power of the thought to get itself accepted in the competition of the market, and that truth is the only ground upon which their wishes safely can be carried out. That, at any rate, is the theory of our Constitution. It is an experiment, as all life is an experiment.

("Abrams et al. v United States," 1919)

What makes it difficult to verify whether societies that espouse free discussion do indeed arrive at better political policies is that government is not and cannot be an “experiment” in the social scientific sense as described by Campbell and Stanley (1963) – a controlled exercise wherein an investigator evaluates the outcomes of one condition vis-à-vis alternative conditions. In Holmes’ experiment, a government that adopts a philosophy of espousing the right to free speech – thereby enshrining a special role for the press – in a sense, takes a leap of faith, believing the free discussion better benefits political policymaking than an untried alternative.

As such, to validate this tenet, it is important to disentangle the mechanism through which open discussion in a free media environment can affect better political policy making. If one argues that the free market of ideas produces better political policies, it is important to specify and lay bare the logic by which libertarian philosophy is supposed to work.

CHAPTER THREE

A GAME-THEORETIC MODEL OF THE LIBERTARIAN PHILOSOPHY

Game theory is a set of analytical tools, widely-used used by economists and political scientists, to capture the essence of the decision-making process for companies and politicians competing in the economic and political marketplace. This chapter extends the use of game theory to yet another marketplace – the free marketplace of ideas.

Two disciplines are particularly known for the study of competition – economics and political science. For many years now, economists and political scientists have turned to game theory to systematically dissect and examine the conflicting interests of firms in the marketplace of goods and services, and of politicians and parties in the political arena.

The long scholarly history of using game theory to flesh out cooperative and competitive behavior serves as the theoretical and methodological bases for using game-theoretic models to specify the logic by which a free marketplace of ideas espoused by libertarian philosophy can influence political decision-making.

3.1 What is Game Theory?

Game theory is a toolbox of visual and mathematical models used to describe, analyze and predict the behavior of several parties embroiled in competition in an attempt to achieve conflicting goals (Lucas, 1972). “Game theory is best thought of as a

methodology for examining strategic behavior among interacting and interdependent units” (Quackenbush & Zagare, 2005, p. 98).

It was about 65 years ago when game theory first leaped out from the pages of arcane mathematical journals and captured the imagination of empirical scientists all over the world. Since the publication of *Theory of Games and Economic Behavior* by mathematician John von Neumann and economist Oskar Morgenstern in 1944, game theory has become one of the most widely-used tools to capture the essence of economic and political competition.

Leonard (1992) details the evolution of game theory in the 1920s and 30s, which was largely influenced by mathematicians such as Emile Borel and Hugo Steinhaus, who sought optimal solutions to games that incorporate both strategy and chance. O’Rand (1992) notes that initially, researchers in the social sciences were skeptical about using game theory, largely because of the perceived theoretical, conceptual and methodological divide between mathematics and formal models and human perceptions, behaviors and attitudes.

While some of the skepticism remains today, advancements in the methods of game-theoretic analysis coupled with increasing knowledge about patterns of human behavior and decision-making have spurred the growing use of game theory to analyze real-world conflicts.

3.2 Why Game Theory?

The strength of game theory lies in its standards of specification. If scholars are to be able to model a situation as a game, they must be able to:

- 1) specify clearly who are the relevant actors;
- 2) identify the actors' set of feasible options from an ostensibly infinite range of possible choices;
- 3) identify the actors' preferred outcomes or results; and
- 4) when applicable, consider the time element of the game – that is, whether the game is played once, played multiple times with a finite horizon; or multiple times with an infinite horizon.

Making these specifications makes the assumptions of the researcher transparent in that critics, as well as supporters of the theoretical elaboration and the findings are able to judge the validity, reliability of the results (Milner, 2004).

3.3. Actors and Games

If Mill (1859 [1968]) is correct that the free market of ideas can be likened to free markets in economics, then it should follow that libertarian philosophy presupposes that there are agents in society – be they individuals, organizations, interest groups, companies or government institutions – who are competing to “sell” ideas in the hopes of gaining the support of the wider populace.

In game theory, actors or players are the relevant units or entities that are interacting in a given situation, which is called the game. Although game theory can be used to analyze the strategic behavior of one, two, three, or an extremely large number of individuals or organizations, at the barest minimum, there must be at least two players for there to be a game.

The first step in creating any game-theoretic model is identifying the relevant players. Most if not all social interactions involve a large number of entities that directly and indirectly influence the outcome. The key in developing a parsimonious game-theoretic model is being able to pinpoint the players with the most influence on the outcome of the game. There are no hard-and-fast rules to determine with absolute certainty that a game model includes all the “right” players; rather, whether or not the “right” players are included in a model are determined on a case-by-case basis.

For example, a researcher studying the Senate race in southwest Michigan in 2006 may choose to develop a model that includes only the Republican and Democrat candidates; and this may be a defensible research decision because of the miniscule amount of votes received by third-party hopefuls. However, the same method of selecting players would be inappropriate when analyzing the senate race in Alaska in 2010, considering the polling pull of write-in candidate and incumbent Senator Lisa Murkowski.

The selection of the relevant players in a game is, in a sense, subjective; just as the selection process of what variables to include or exclude in any study is subjective. The recognition of the subjectivity involved in identifying key players underlines the importance of relying on theory and logic to inform and drive analytical decisions.

3.4. Unitary Actors and Group Decision-Making

In many cases, game theory treats a collective as a single actor. For example, there are models that treat companies and countries as unitary actors. This practice has fueled one of the criticisms against using game theory to model such situations wherein

decisions are made by individuals with different preferences within a group, rather than by a single individual.

Just as the selection of players is done on a case-by-case basis, the merit, or the lack thereof, of the criticism must also be weighed depending on the nature of the study.

There are indeed cases wherein internal division among members of a group contribute to difficulties in arrive at a single, unanimous decision. One of the most famous analyses of the difficulties in group decision making is Arrow's Paradox (Arrow, 1959). What follows is an example illustrating Arrow's paradox adopted from Bueno de Mesquita (1981).

In 1962, upon discovering that the USSR was equipping a missile base in Cuba, the U.S. government considered various options, which include: issuing verbal threats to the USSR without displaying or using military might; conducting an airstrike on the missile sites; and deploying warships to blockade sea access to Cuba, which historically is what the U.S. opted to do.

For the purposes of this example, VT corresponds to the verbal threat; NB refers to a naval blockade and; AS refers to an airstrike. Suppose that the crisis team evaluated these options simultaneously and were split into three factions, each with different preferences with the symbol, ">," used to denote the preference of one option over another:

- Faction 1: VT > NB > AS
- Faction 2: NB > AS > VT
- Faction 3: AS > VT > NB

Considering the options for each faction simultaneously, each course of action is ranked first, once; ranked second, once; and ranked last, once. Therefore, in reality, no course of action can qualify as the “more preferred” or “most preferred” consensus.

However, if we consider the preferences sequentially, a consensus ostensibly emerges. Looking at the preferences of Faction 1 first, we see that Faction 1 prefers VT over NB and so does Faction 3. It is only Faction 2 that prefers NB over VT. It would then seem that Faction 2 is “outvoted” and issuing a verbal threat is preferred to implementing a naval blockade across all three factions.

This is Arrow’s Paradox at work: when it seems that a group has arrived at a consensus on a more preferred option, but in fact, the consensus is only artificially induced based on which individual preference ordering is considered first in the analytical process.

Notwithstanding Arrow’s Paradox, Bueno de Mesquita (1981) argues that using unitary actors in game-theoretic modeling is justified in cases where there is a “strong leader,” who is ultimately charged with making the final decision. As can be seen in the Cuban Missile Crisis example, though members of the President’s inner circle had varying preferences, the nature of the crisis compelled the President to select a course of action in response to Russia.

In other words, the unitary leader assumption does not neglect the fact that, in reality, there are situations where a group of individuals put their heads together in an attempt to arrive at a consensus. Rather, it is an assumption that, when used in appropriate cases, is useful because it simplifies the analytical process, especially when a

study only concerns itself with what decision was arrived at, without making inferences on how that decision was reached.

3.5. Instrumental Rationality and Transitivity of Preferences

Another assumption in game-theoretic models is that the actors are instrumentally rational. At this point, it is important to distinguish “instrumental” from “procedural” rationality.

Instrumental rationality is the assumption that the actors have preferences and that these preferences are transitively ordered (Quackenbush, 2004). For example, given three possible outcomes – A, B and C; if the actor prefers A over B, and prefers B over C, then it should follow that the actor prefers A over C.

In contrast, procedural rationality assumes that the actors are calm, cool-headed, decision-makers, who know and consider all possible options, and select from these options having perfect knowledge as to which one yields the maximum utilities or benefits (Verba, 1961). Since the level of omniscience required by procedural rationality cannot be achieved in real life, this dissertation adheres to the instrumental rationality assumption. Instrumental rationality need not assume that the actors have perfect knowledge of the world; to the contrary, it assumes that actors decide based on how they perceive – whether rightly or wrongly – the external environment (Rosenau, 1967).

3.6. Payoffs and Nash Equilibrium

Another key task in creating game-theoretic models is to be able to identify the “payoffs” of the players. Payoffs are the benefits that players expect to receive after

making a particular choice (Brams, 1975). Payoffs are inextricably intertwined with the rational actor assumption of game theory because any analysis presumes that actors will choose options that yield higher benefits and avoid options with lower benefits. For example, if a Missouri U.S. Representative anticipates that voting “yes” to a particular bill will erode political support among voters in the state, it can be said that the politician associates a lower payoff with voting “yes” and a higher payoff for voting “no.”

To systematically determine the logical outcome of a game, we solve for the Nash Equilibrium (NE). The NE identifies the payoffs or rewards of all the actors in the game assuming that:

- 1) Each player will make their choices based on what they perceive is their best self-interest;
- 2) Each player determines their best choice while considering, to the best of their knowledge, that all other players in the game will also be making choices that are in their best interest;
- 3) As such, the Nash Equilibrium of a game is the strategy profile wherein no player in the game is able to unilaterally improve his or her own payoffs (Dixit & Skeath, 1999).

The underlying logic in game theory is that provided that the available strategies and expected payoffs of the players in the game are specified with reasonable accuracy, scholars will be able to predict the most likely outcome of the interaction.

3.7. Simultaneous and Sequential Games

Games are divided into a multitude of classes. This chapter focuses on two classes – simultaneous move games and sequential move games. Simultaneous games are ones where actors make choices at the same time without the benefit of knowing what the other player will decide. Sequential move games are interactions where one player makes a decision only after knowing what the other player will choose (Dixit & Skeath, 1999).

Voters who are voting by secret ballot are playing a simultaneous game because everyone votes roughly at the same time without knowing how others have voted. On the other hand, certain aspects in the process of passing a bill in Congress can be modeled as a sequential game from the point of view of the President. For example, a President deciding whether or not to veto a bill is the “second mover” in a sequential game, with Congress being the “first mover.” In this game of legislation, the Congress acts first by passing a bill, and the President then has the benefit of evaluating the Congress’ action – not merely the act of passing of the bill but also the provisions that were included and excluded in the legislation –before deciding whether to exercise veto powers.

3.8. Simultaneous Prisoners’ Dilemma

The game-theoretic model developed by Coyne and Leeson (2004) serves as the starting point in baring the logic behind the libertarian argument that an open media system can engender better political policies.

In modeling self-serving political behavior, Coyne and Leeson set up a hypothetical situation wherein there are two competing and influential political parties, each with its own special interest. These two parties are trying to pass legislature on a socially beneficial economic policy, with each of the parties having the option vote for a

version of the legislation that caters to each party's special interest groups, or a version that will benefit society as a whole.

Figure 3.1 is a simplified rendition of the Coyne and Leeson model (2004, p. 24):

Figure 3.1: Simplified Coyne and Leeson model:

	Party B – Vote for socially beneficial legislation	Party B – Vote for legislation that caters to party's interest groups
Party A – Vote for socially beneficial legislation	3,3	1,4
Party A – Vote for legislation that caters to party's interest groups	4,1	2,2*

- The choices for Party A are presented vertically on the left side of the matrix. The choices for Party B are presented horizontally on top of the matrix. The two numbers in the other cells are the payoffs of the players, with the left number denoting the payoff of Party A and the left number the payoff of Party B. The payoffs range from 1 to 4, with 1 representing the least preferred outcome, and 4 representing the most preferred outcome.
- The Nash Equilibrium is denoted by the symbol “*” in the lower right hand corner of the game matrix.

This is type of simultaneous move game is called a Prisoners' Dilemma. Adding up the payoffs of both players in each of the cells, we find that the cell (3, 3), which equals 6, contains the highest combined payoffs, otherwise known as the Pareto-optimal outcome. The payoffs of the other three cells only add up to 5, 5, and 4, respectively.

However, the Nash Equilibrium is at the cell where the payoffs are (2, 2), which means that the optimal strategy of each party is to cater to its special interests. In Coyne

and Leeson’s example, while both parties could realize a larger collective benefit by both voting for the socially beneficial legislation, both parties are afraid of sacrificing their own self-interest to push for the socially beneficial policy because they might find that the opponent was not willing to do the same.

Note that in the upper right and the bottom left cells, the party that chooses to vote for the socially beneficial legislation receives 1, while the party that caters to self interests receives 4. The payoff of 1 is called a “sucker’s payoff” in the sense that one party was “suckered” into sacrificing its self interests.

Coyne and Leeson propose that an open media system is able to change the game into Harmony, depicted in Figure 2.

Figure 3.2: Harmony

	Party B – Vote for socially beneficial legislation	Party B – Vote for legislation that caters to party’s interest groups
Party A – Vote for socially beneficial legislation	4,4*	2,3
Party A – Vote for legislation that caters to party’s interest groups	3,2	1,1

In the Harmony game, the Nash Equilibrium is at the Pareto-optimal cell (4, 4). In this variant, there is no incentive for either party to cheat – which means voting according to one’s special interests while the other party votes for socially beneficial legislation. Based on this game, voting for the socially beneficial legislation yields the best possible payoffs for both parties and society as a whole. If the parties decide to cheat, they actually end up worse off than had they cooperated.

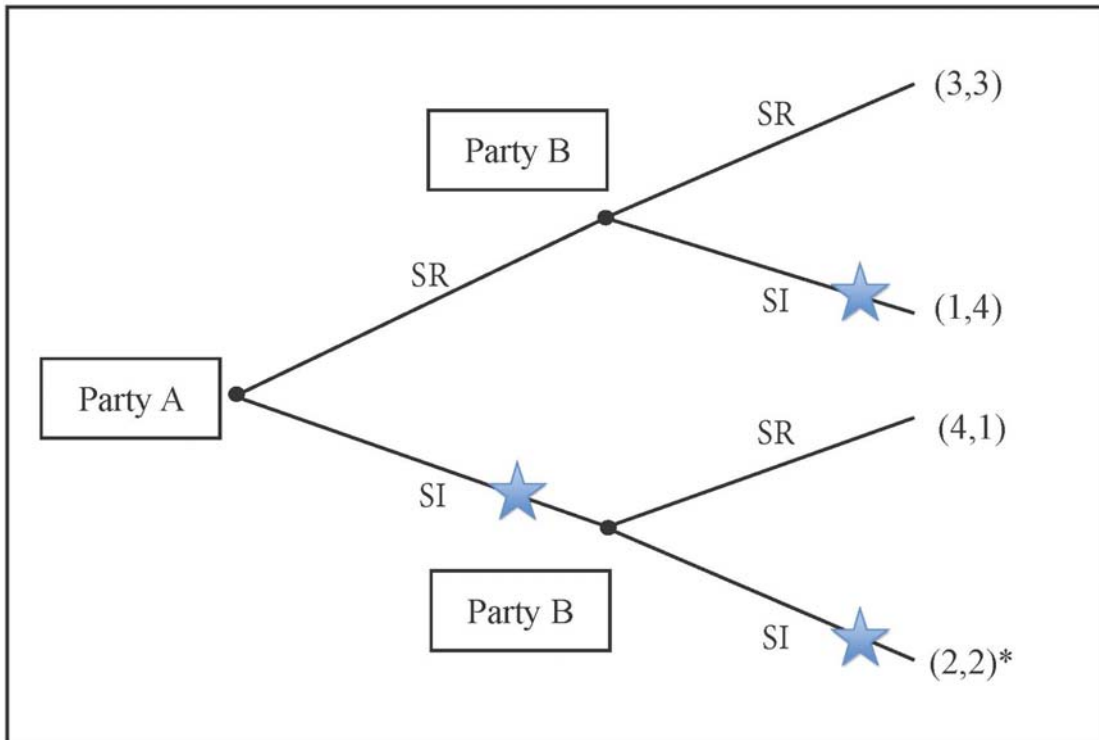
3.9. Sequential Prisoners' Dilemma

However, outside of anecdotal evidence prescribing that media autonomy and quality journalism can lead to socially-beneficial political policies, Coyne and Leeson do not specify the logic and mechanism through which a Prisoner's Dilemma is transformed into a game of Harmony.

Furthermore, another difficulty with a Prisoners' Dilemma is that the players do not arrive at the Pareto-optimal outcome even when the decision making process is sequential instead of simultaneous.

Figure 3.3, demonstrates why this is the case:

Figure 3.3: Sequential Prisoners' Dilemma Game



This figure illustrates how the Nash Equilibrium of the game remains sub-Pareto optimal even when the game is sequential in that Party B votes only after Party A has voted.

In this figure:

- SR = Voting for the socially responsible legislation
- SI = Voting for legislation that caters to the party's self-interest groups
- The points marked "Party A" and "Party B" are called decision nodes, which reflect the opportunities for each party to make a decision. Party B has two decision nodes because it makes its decision after Party A, who can either choose SR or SI. The game tree accounts for both possibilities.
- The numbers to the extreme right of the game tree reflect the payoffs of both players. The first number refers to the payoff of Party A, the second refers to the payoff of Party B.
- A method called "backward induction" (Dixit & Skeath, 2004) is used to determine the Nash Equilibrium of this game.
- The prongs marked with the star symbol represent the choices, among all options available, that will give the player a higher payoff. To solve for the Nash Equilibrium using backward induction, one traces which combination of choices for both players (which are marked with stars) form a continuous line from the beginning to the end of the game. In this case, the Nash Equilibrium is still at (2, 2) and the players do not arrive at the optimal outcome of (3, 3).

3.10. Model of the Libertarian Argument

The lack of model specification in the Coyne and Leeson (2004) model as well as the well-documented difficulties of solving Prisoners' Dilemmas opens several questions.

Granting that open media environments can compel competing political factions to cooperate and produce socially-beneficial legislation, how is such cooperation achieved? Cast in game-theoretic terms, what are the mathematical parameters under which a simultaneous or sequential Prisoners' Dilemma turns into a game of Harmony?

This dissertation proposes that differences in the payoffs in the free and restricted media conditions arise from the variation in the amount of information available to citizens. The libertarian ideals suggest that media openness leads to an informed citizenry that can actively participate in self-governance by rewarding good political decisions and punishing bad ones. Conversely, when the citizenry is uninformed, then citizens will be able to adequately evaluate the policies on the table and mete out the corresponding rewards and punishments.

Therefore, it is the prospects of rewards and punishments that can effectively change the payoffs and, subsequently, the preferred options of political actors. This is congruent with the conceptualization of Fearon (1994) which describes the selection of policies as a performance before political audiences, who are constantly evaluating the skill or lack thereof, of the leadership. Other political science scholars also argue that political survival – the fear of being ousted from office – is one of the key motivations that politicians consider when evaluating which policies to support or oppose (Bueno de Mesquita & Siverson, 1995; Bueno de Mesquita et. al, 2003).

To lay the groundwork for the mathematical solution to the Prisoners' Dilemma, Figure 3.4 substitutes the ordinal variables of the Prisoners' Dilemma with variables, which will allow us to perform algebraic computations on the payoffs while accounting

for the citizen's abilities to reward and punish politicians based on the decisions that these politicians make.

Figure 3.4: Converting Payoffs into Variables (Prisoners' Dilemma)

	Party B – Vote for socially beneficial legislation	Party B – Vote for legislation that caters to party's interest groups
Party A – Vote for socially beneficial legislation	A1, B1 3,3	A2, B2 1,4
Party A – Vote for legislation that caters to party's interest groups	A3, B3 4,1	A4, B4 2,2*

From the matrix in Figure 3.4, we see that the payoffs Party A can possibly receive for choosing a cooperating strategy (voting for the socially beneficial legislation) are A1 and A2, which are respectively less than the benefit for choosing a defecting strategy (voting according to self interest), which yields A3 or A4. The same is true for Party B in that B1 and B3 (cooperative strategy payoffs) are respectively less than B1 and B2 (defecting strategy payoffs).

The ordering of preferences for both players are:

- Party A: $A3 > A1 > A4 > A2$
- Party B: $B2 > B1 > B4 > B3$

However, if rewards and punishments were to be incorporated into the calculation, the ordering of the payoffs can change. Congruent with the libertarian philosophy, citizens in the free media environment reward politicians for opting for socially beneficial policies, and punish the same politicians for catering to self-interests. In contrast, under the restricted media environment citizens are unable to access critical

information needed for the same evaluations, and are thus unable to mete out the appropriate rewards and punishments.

Figure 3.5 introduces two variables (Public Reward) and (Public Punishment) which are then added and subtracted, respectively, from the initial payoffs in a Prisoners' Dilemma. The new value of the payoffs, after (Public Reward) and (Public Punishment) are represented by variables marked with the symbol, prime, “’”. For example, the payoff A1, after punishments or rewards are added or subtracted, is represented as A1’.

Figure 3.5: Revised Payoffs

Action	Revised payoffs
When Party A cooperates	A1’ = A1 + (Public Reward) A2’ = A2 + (Public Reward)
When Party A defects	A3’ = A3 – (Punishment) A4’ = A4 – (Punishment)
When Party B cooperates	B1’ = B1 + (Public Reward) B3’ = B3 + (Public Reward)
When Party B defects	B2’ = B2 – (Punishment) B4’ = B4 – (Punishment)

Provided that the values of the variables (Public Reward) and (Public Punishment) are sufficiently large, the payoffs can be re-computed based on the following calculations:

- If, $A1 - A3 < \{[A1 + (\text{Public Reward})] - [A3 - (\text{Public Punishment})]\}$
- Then; $A1' > A3'$
- If, $A2 - A4 < \{[A2 + (\text{Public Reward})] - [A4 - (\text{Public Punishment})]\}$
- Then; $A2' > A4'$
- If, $B1 - B3 < \{[B1 + (\text{Public Reward})] - [B3 + (\text{Public Reward})]\}$
- Then; $B1' > B3'$

- If $B2 - B4 < \{[B2 - (\text{Punishment})] - [B4 - (\text{Punishment})]\}$
- Then; $B2' > B4'$

Also, because:

- $A1 > A2$, it follows that $[A1 + (\text{Public Reward})] > [A2 + (\text{Public Reward})]$
and;
- $A3 > A4$, it follows that $[A3 - (\text{Public Punishment})] > [A4 - (\text{Public Punishment})]$

Similarly, because:

- $B1 > B3$, it follows that $[B1 + (\text{Public Reward})] > [B3 + (\text{Public Reward})]$
and;
- $B2 > B4$, it follows that $[B2 + (\text{Public Reward})] > [B4 + (\text{Public Reward})]$

The proposition that can be derived from the above calculations is that if the punishment for defecting is so severe that it outweighs the advantage a party could otherwise gain, then the party will be compelled to cooperate. Therefore, in this particular case, unless there is an effective system of rewards and punishments, there is no way out of a Prisoners' Dilemma.

With the addition of rewards and subtraction of punishments from the original payoffs, we arrive at a new preference ordering for the two parties in the game:

- Party A: $A1' > A3' > A2' > A4'$
- Party B: $B1' > B2' > B3' > B4'$

Next, let us plug in the revised payoffs into the original Prisoners' Dilemma game and reassign the payoffs based on the new preference orderings depicted above:

Figure 3.6: Revised Payoffs Incorporating Rewards and Punishments

	Party B – Vote for socially beneficial legislation	Party B – Vote for legislation that caters to party’s interest groups
Party A – Vote for socially beneficial legislation	A1 [∧] , B1 [∧] 4,4*	A2 [∧] , B2 [∧] 2,3
Party A – Vote for legislation that caters to party’s interest groups	A3 [∧] , B3 [∧] 3,2	A4 [∧] , B4 [∧] 1,1

When the new payoffs are presented as ordinal utilities, notice that the game in Figure 3.6 becomes exactly the same as the Harmony game in Figure 3.2. From a game-theoretic standpoint, this shows that the gains for cooperating and the punishment for defecting must be large enough to overcome the gains of political parties if they were to cater to self-interests; otherwise, both parties will remain embroiled in a Prisoners’ Dilemma.

Seeing the process through which a system of rewards and punishments induces Harmony out of a Prisoners’ Dilemma underlines the need for an informed citizenry – with media doing the informing and the citizens doing the rewarding and punishing.

3.11. Implications and Limitations

Figure 3.7 and Figure 3.8 consolidate the mathematical formulas in this chapter into a two formal models, one a simultaneous game and the other a sequential game, depicting the libertarian argument.

Figure 3.7: Libertarian Philosophy Modeled as a Simultaneous Game

Where there are high media restrictions the preference ordering of the parties are:

- Party A: $A3 > A1 > A4 > A2$
- Party B: $B2 > B1 > B4 > B3$

This produces the following Prisoners' Dilemma, wherein the Nash Equilibrium is sub-Pareto-optimal.

	Party B – Vote for socially beneficial legislation	Party B – Vote for legislation that caters to party's interest groups
Party A – Vote for socially beneficial legislation	A1, B1 3,3	A2, B2 1,4
Party A – Vote for legislation that caters to party's interest groups	A3, B3 4,1	A4, B4 2,2*

Where there is free and open media that is able to inform and empower the citizenry, rewards for cooperative behavior and punishments for defecting can change the payoffs of the players as follows:

- $A1' = A1 + (\text{Public Reward})$
- $A2' = A2 + (\text{Public Reward})$
- $A3' = A3 - (\text{Punishment})$
- $A4' = A4 - (\text{Punishment})$
- $B1' = B1 + (\text{Public Reward})$
- $B3' = B3 + (\text{Public Reward})$
- $B2' = B2 - (\text{Punishment})$
- $B4' = B4 - (\text{Punishment})$

One condition – and there are several others – wherein the change in payoffs can produce a change in preference orderings among the players is when:

- If $(\text{Public Reward}) = (\text{Public Punishment})$; and
- If, $A1 - A3 < \{[A1 + (\text{Public Reward})] - [A3 - (\text{Public Punishment})]\}$

- If, $A2 - A4 < \{[A2 + (\text{Public Reward})] - [A4 - (\text{Public Punishment})]\}$
- If, $B1 - B3 < \{[B1 + (\text{Public Reward})] - [B3 + (\text{Public Reward})]\}$
- If $B2 - B4 < \{[B2 - (\text{Punishment})] - [B4 - (\text{Punishment})]\}$

It also follows that because:

- $A1 > A2$, therefore $[A1 + (\text{Public Reward})] > [A2 + (\text{Public Reward})]$
- $A3 > A4$, therefore $[A3 - (\text{Public Punishment})] > [A4 - (\text{Public Punishment})]$
- $B1 > B3$, therefore $[B1 + (\text{Public Reward})] > [B3 + (\text{Public Reward})]$ and;
- $B2 > B4$, therefore $[B2 + (\text{Public Reward})] > [B4 + (\text{Public Reward})]$

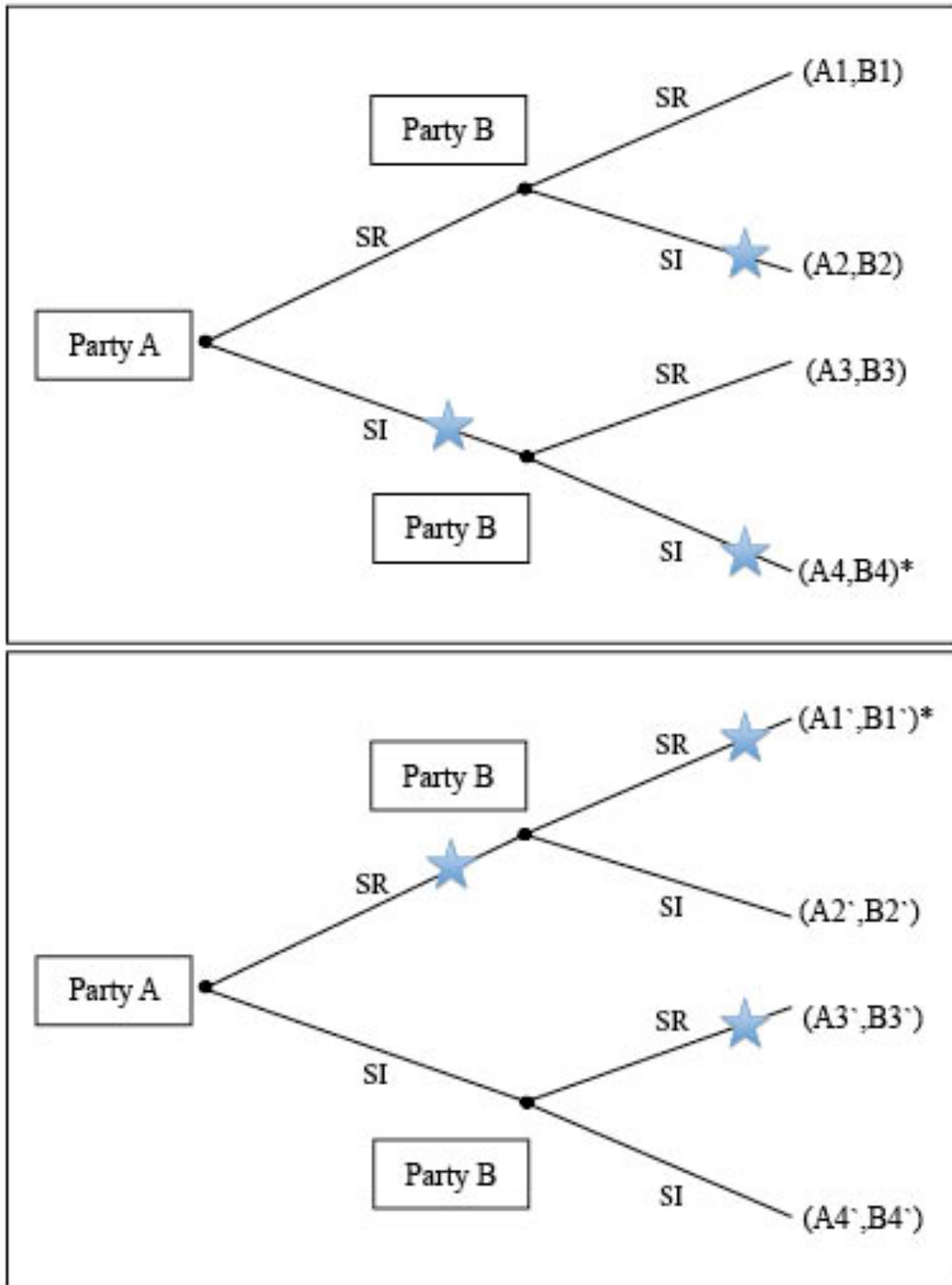
If all of the above conditions are met, the revised preference orders of the players are as follows:

- Party A: $A1' > A3' > A2' > A4'$
- Party B: $B1' > B2' > B3' > B4'$

This produces the following Harmony game, wherein the Nash Equilibrium is Pareto Optimal.

	Party B – Vote for socially beneficial legislation	Party B – Vote for legislation that caters to party’s interest groups
Party A – Vote for socially beneficial legislation	$A1', B1'$ 4,4*	$A2', B2'$ 2,3
Party A – Vote for legislation that caters to party’s interest groups	$A3', B3'$ 3,2	$A4', B4'$ 1,1

Figure 3.8: Libertarian Philosophy Modeled as a Sequential Game
 As was the case in the sequential game, incorporating rewards and punishments into the players' payoffs transforms a sequential Prisoners' Dilemma into a sequential game of Harmony.



These formalizations of the libertarian philosophy lay bare two key propositions that will guide the line of inquiry of this dissertation.

First, in this modern age, much of the political discussion is conducted through the media. If open discussion is what motivates the public to dole out rewards and mete out punishments, then it is important to revisit the literature on media effects at the audience level. The influence of media openness on political policymaking is indirect, and such influence is exerted through shaping public opinion. In the hypothesized relationship between media openness and political policymaking, media openness is a moderator and the capacity of the citizenry to act based on information is a mediator. A moderator defines the conditions under which one can see a relationship, a mediator explains why such a relationship exists (Baron & Kenny, 1986).

Second, media openness in and of itself cannot guarantee the emergence of better political, economic and social policies; rather, media openness is but one of a multitude of variables operating under a broader political system. Policies are crafted and forged in complex political and social environments wherein the tug and pull of human and environmental forces can shape whether things end up to be one way or another. Thus, any empirical test of the relationship between media openness and foreign policy must control for other influential factors in international relations literature.

Part and parcel of this model's contributions are its limitations. Assessing this model's limitations, begins with revisiting the scholarly definitions of models.

Shoemaker, Tankard, & Lasorsa (2004) provides a smorgasbord of definitions of what a model is, and consequently, what a model is supposed to do (see for example, Baran & Davis, 1995; Bill & Hardgrave, 1973; Deutsch, 1952; Denis McQuail &

Windahl, 1993). The definitions, while seemingly disparate, share three common expectations of models and model-makers. First, models are a representation of a process that occurs in the real world. Second, models flesh out relationships between theories, concepts, factors and variables. And third, models are a heuristic tool that provides direction for present and future scholarly inquiry into real world phenomena.

Judged under these standards, the game-theoretic model presented in this chapter has two limitations. First, the calculations are based on the assumption that the variables (Public Reward) and (Public Punishment) are equal over a game that is played only once. In reality, the propensity of the public to reward or punish, as well as the magnitude of the rewards relative to the punishments, may vary along a certain range. Furthermore, political games of strategy are played repeatedly over extended periods of time. Varying the values of (Public Reward) and (Public Punishment) can produce several other game forms such as Stag Hunt and Chicken, which have different equilibrium strategies as depicted in Figure 3.9 and Figure 3.10.

Figure 3.9: Stag Hunt

	Cooperate	Defect
Cooperate	4,4*	0,1
Defect	1,0	3,3*

Figure 3.10: Chicken

	Cooperate	Defect
Cooperate	0,0	1,-1*
Defect	-1,1*	-2,-2

Second, the model dichotomizes the media environment into one that is free as opposed to one that is restricted. In reality, there are shades of gray in the extent to which a media industry is free or fettered. The varying levels of freedom can affect the quantity and quality of information that is available to the public, which could in turn influence that public's perception of who and what are worthy of rewards or punishments.

This limitation is a necessary sacrifice in that no single model can encompass a process as complex as political policymaking. As Snidal (2004, p. 233) puts it, "The process of abstraction necessary for representing a complicated real-world phenomenon in a simple model requires us to identify the most important elements of a problem." In this selection process, the researcher must acknowledge that "Of course, the tradeoff is that one analyst's extraneous detail is another's primary interest, so the simplicity of any one formal model prevents it from meeting all needs" (Kydd, 2004, p. 344).

Further development of this model will allow it to present more comprehensive theoretical and conceptual arguments, backed with mathematical calculations to account for a wider range of conditions and outcomes. Nonetheless, this chapter contributes to knowledge in the field of media studies by using game-theoretic models to demonstrate how media openness could possibly influence the political decision making process by

focusing on how citizens, through rewards and punishments, could alter the utilities that politicians derive from opting for one political strategy over another.

CHAPTER FOUR

AUDIENCE-LEVEL MEDIA EFFECTS

The road to a better understanding of how media openness affects foreign policy goes right through the oasis of audience-level media effects. This stopover, though brief, is necessary because media have long been acknowledged as the most pervasive and most prevalent source of political information (Norris, 2000). To determine the veracity of the libertarian proposition that informed citizens participate in shaping public policy, one must look into the body of literature examining whether or not media exposure is able to influence audiences' political knowledge and views.

Agenda-setting and agenda-building are two related theoretical frameworks that attempt to explain how media consumption affects audiences. This chapter examines the evolution of media effects research through the years.

The “hypodermic needle” and “magic bullet” are among the earliest theories – if they can be called that – of media effects that emerged in the 1920s and 1930s. Under these belief systems, audiences' minds are like empty vessels, just waiting to be filled with messages delivered through mass media. This paradigm is encapsulated as, “Media messages affect all of the people, all of the time.”

However, with the increasing ubiquity of print and broadcast media outlets coupled with advances in social science research methods in the 1940s to the 1970s, these models were written off as simplistic. This era spawned a renewed interest in developing

more sophisticated and nuanced models of media effects (Lazarsfeld, Berelson, & Gaudet, 1948; D. McQuail, 2005).

4.1 Agenda-Setting

One of the most studied theories of media effects is agenda-setting (McCombs, 1981; McCombs & Shaw, 1972). Agenda-setting proposes that mass media are able to direct the attention of audiences to certain topics or objects. It is this first-level agenda-setting function of the media that drives the high correlation between topics that appear in the mass media and the topics that the public find salient (McCombs, 2005).

Many years and hundreds of agenda-setting studies later, scholars have found that not only can the media influence what people think about, media are also able to influence how people evaluate public figures and issues. This influence is known as second-level agenda-setting (Ghanem, 1997; McCombs, Llamas, Lopez-Escobar, & Rey, 1997). Second-level agenda setting recognizes the central role of journalists in selecting what to include and exclude in their reportage.

And because of limited space and airtime, reporters have to make decisions on how to frame their stories and the scarcity of so called 'news-holes' make framing an unavoidable exercise (Gitlin, 1980; Reese, 2001). Because this framing exercise determines what facets of a story the public does and does see (Entman, 2004), media are able to prime audiences (Brewer, Graf, & Willnat, 2003; Iyengar & Kinder, 1987).

“Priming occurs when news content suggests to news audiences that they ought to use specific issues as benchmarks for evaluating the performance of leaders and governments” (D.A Scheufele & Tewksbury, 2007, p. 11).

Wanta (1997) and Larosa (1997) note that strong evidence of agenda-setting effects make the media a powerful political tool. It is not without significance that the first test of agenda-setting was a comparison between the items on the news menu in media outlets and the issues that people found to be important in Chapel Hill, North Carolina during the 1968 U.S. Presidential Elections.

While a large chunk of the studies on agenda-setting are focused on the U.S. media during elections in elections in New Hampshire, Colorado, Florida and Arizona (see for example, Golan & Wanta, 2001; Kiouisis, McDevitt, & Wu, 2005), scholars have also ventured to test whether the theory holds for audiences in other countries in Europe, Latin America and Asia (King, 1997; Lee & Benoit, 2004; McCombs & Shaw, 1993).

4.2. Reliance on Official Sources

The process through which journalists select what is or is not fit to print or broadcast is called gatekeeping (Breed, 1997; White, 1997). Gatekeeping studies have found that news reporters and editors must constantly contend with influences outside their media organizations (Shoemaker & Reese, 1996). These gatekeepers must rely on routines to be able to ensure that are able to meet the demands of their job, which is to generate news content that will fill news holes (Tuchman, 1978). One of these routines is reliance on official government sources (Lemert, 1992).

In other words, when considering that the media are a potent force in shaping public opinion, one must also account for the reality that the media agenda can be influenced by politicians, interest groups and companies (Dietram A. Scheufele, 2000).

The effort to persuade, alter or control the agenda of the media is called agenda-building (Cobb & Elder, 1971).

For example, in examining the media coverage of protests, Smith et. al (2001) found that journalists “prefer government or ‘official’ sources because these are convenient and readily available, reducing the costs of newsgathering. Most media portray government sources as credible and unbiased, and they often present them without critique, thereby reinforcing the agendas of official source (p. 1402).” This reliance on official sources gives politicians – especially the most powerful elected leaders such as the President (Behr & Iyengar, 1985) and Congress (Larson, 1988) – the opportunity to influence the media agenda.

Of particular interest are the findings of Strömbäck and Dimitrova (2006) that during the 2004 elections in the U.S. and the 2002 election coverage in Sweden, political races were framed not only as political contests over issues but also as games of strategy. Furthermore, notwithstanding the differences in the style of journalistic writing in the two countries, a considerable bulk of the political news – about half in the U.S. and a quarter in Sweden – “originate from events, incidents, or statements triggered by political actors” (p. 139).

4.3 Implications of Audience-Level Media Effects

The literature providing evidence for audience-level media effects shows that citizens are tuned in to the discussions that happen in the free market of ideas. On one hand, the media are able to influence the people’s attention and evaluation of political

issues; but on the other hand, media's presentation and representation of reality are also influenced by the politically powerful.

In the study of how media openness can influence foreign policy formation, the latter consideration is crucial because of two key points. First, if a free market of ideas is something that is desirable, then media should present as many diverse views as possible. Is this the case? Graber (1986, p. 259) would disagree saying that, "By contrast, the marketplace in the twentieth century is far from being uninhibited, and the trend toward monopolization of ownership of news enterprises has been strong and is growing stronger and swifter." Several scholars have challenged the notion that the media are a melting pot of diverse thoughts and ideas arguing that the control and the content of media are in and shaped by the hands of the elite (see for example, Bourdieu, [1979] 1984; Chomsky, 1988; Schudson, 1989).

There is little doubt that these observations, to some extent, are true. The most important question, however, is whether the proposed benefits of free and open discussion are completely negated because of elite control of the media and media content. The question is essentially a comparative one, just as the libertarian argument is a comparative one. This dissertation conceptualizes media openness as the freedom of journalists in countries all over the world to determine the political content in media without fear of political and legal reprisal from those in power. Indeed, media controls, whether exercised by the elite or the government can stifle the diversity in the marketplace of ideas. However, this dissertation focuses on the libertarian function of media as a watchdog of government; as such, the most important consideration is the extent to which government can influence the information that is put out in media,

regardless of the socio-economic profile of those who own the media outlets. It logically follows that the larger the government's influence on the media, the less effective media will be in its duty of putting out a diverse range of ideas, especially ideas that oppose those who are in power.

CHAPTER FIVE

MEDIA OPENNESS AND INTERNATIONAL RELATIONS

If it is indeed the case that an open media system fosters public discussion, which influences political leaders to implement better political policies, then this influence should be observable both at the domestic as well as the international arena. This dissertation focuses on the latter, specifically in the area of international conflict, or the use of military force in resolving international disputes.

In a speech entitled “The Chance for Peace” delivered before the American Society of Newspaper Editors on April 16, 1953, President Dwight D. Eisenhower said:

Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed. This world in arms is not spending money alone. It is spending the sweat of its laborers, the genius of its scientists, the hopes of its children. Under the cloud of threatening war, it is humanity hanging from a cross of iron.

According to this line of reasoning, engaging in militarized interstate disputes can never be a good policy because negotiated diplomatic solutions cost less in terms of both monetary resources and human lives. This is the central puzzle, which drives studies of international conflict – wars are costly, yet despite that, wars are waged. Eisenhower gives the calculus that ostensibly makes war senseless: at that time, one heavy bomber

cost as much as 30 school buildings, or houses for 8,000 people; a single fighter plane was worth half a million bushels of wheat.

At the core of this argument is the question: When two states are at the brink of conflict, what leads leaders to abandon the hope of a cheaper, non-military solution (Fearon, 1994, 1995)? Furthermore, since open media and open discussion should facilitate arriving at better policies, it should then follow that democratic nations should not engage in militarized disputes given that diplomacy is a less costly alternative.

5.1. The Democratic Peace

The search for answers begins with the concept of dyadic “democratic peace,” used to describe empirical observations that democratic states do not go to war with each other.

Synthesizing some of the widely-accepted explanations for democratic peace, Gartzke writes, “Some argue that democracies do not fight each other because they are democratic. Cultural or institutional structures that coincide with democratic governance serve to preclude or greatly hinder recourse to conflict behavior (1998, p. 2).”

Examining these institutional and cultural forces that stem belligerent behavior, scholars (Dixon, 1993, 1994; Maoz & Russett, 1993) suggest that democracies have structural as well as the normative features that have pacifying influences.

The internal structure of democracies is such that “international action in a democratic political system requires the mobilization of both general public opinion and of a variety of institutions, such as the legislature, the political bureaucracies, and key interest groups (Maoz & Russett, 1993, p. 626).” Based on this structural view, “the

process of national mobilization for war in democracies is both difficult and cumbersome (p. 626),” making it is less attractive for democratic leaders to resort to military action.

On the other hand, the normative argument suggests that, “democratic regimes are based on political norms that emphasize regulated political competition through peaceful means. Political conflicts in democracies are resolved through compromise rather than through elimination of opponents. In contrast, political competition in non-democratic regimes is likely to be more zero-sum. The winner may take all, denying the loser the power or opportunity to rise again(Maoz & Russett, 1993, p. 625).” This implies that when two democratic nations are at the brink of conflict, both societies turn to norms of compromise and negotiation. But, when either or both of the potential protagonists are non-democratic, there are no shared norms of peaceful resolution to speak of (Dixon, 1993; Maoz & Russett, 1993).

At this point, it is crucial to determine from existing literature whether the democratic peace is a dyadic or a monadic phenomenon. Are democratic states more peaceful in general, or are they more peaceful only in their foreign relations with other democratic states? The standard formulation of the democratic peace argument is dyadic, meaning it is not that democracies are less likely to be involved in conflict; rather, it is that democracies are less likely to be involved in conflict against other democracies (Bueno de Mesquita, Morrow, Siverson, & Smith, 1999; Bueno de Mesquita, Smith, Siverson, & Morrow, 2003; Chan, 1997).

Through the years, the dyadic democratic peace has been the core of a progressive research program and has garnered wide, robust empirical support from political science scholars (see for example, Bueno de Mesquita & Lalman, 1992; Buhaug, 2005; Doyle,

1983). Not only do these studies support the dyadic formulation of the democratic peace proposition, these studies also point out the lack of evidence for the monadic democratic peace proposition. Recently, Quackenbush and Rudy (2009), in studying the likelihood of states being involved and initiating conflict, found that democracies were as conflict prone as non-democracies, and that “joint democratic and joint non-democratic dyads are quite peaceful, while mixed dyads are much more conflict prone (p. 282).” Mixed dyads are pairs of countries wherein one country is a democracy, while the other country is an autocracy.

5.2. Implications of democratic peace on media and conflict research

The empirical distinction between monadic and dyadic peace (Quackenbush & Rudy, 2009) compels scholars to rethink how libertarian philosophy influences foreign policy. It steers clear of the over-simplistic notion that democracies, on their own and through open discussion, are able to arrive at less costly resolutions to international disputes as suggested by a plain reading of libertarian philosophy. Rather, a more in-depth approach to studying the relationship between media openness and international conflict should account for the interactions between dyads composed of two democratic countries, and dyads wherein one country is democratic, and the other country is autocratic.

The normative and structural arguments for democratic peace also inform the study of the influence of media structures on foreign policy. Media are undoubtedly one of the influential domestic institutions in democracies. Furthermore, media are key in crafting, disseminating and perpetuating messages that form the political attitudes and

shared norms and values of a society. “By many accounts, the mass media have become the nearly uncontested provider of political information. Research on the media’s influence on public opinion has moved from the doctrine of minimal effects to the belief that the media have significant influence over the opinions of mass publics (Hetherington, 1996, p. 374).”

This has led media researchers such as Meyrowitz (1994) to underline the importance of medium theory, which is the study of “the potential influences of communication technologies in addition to and apart from the content they convey. Media are not simply channels for conveying information between two or more environments, but rather shapers of new social environments themselves(p. 51).” Meyrowitz contends that events such as the People Power Revolution in the Philippines, Tiananmen Protests in China, and the waves of democracy that swept through Eastern Europe leading to the dissolution of the Soviet Union, are best studied under the lens of medium theory because merely focusing on the audience of effects media messages would be inadequate in explaining dramatic shifts these societies, where content was heavily controlled by the overthrown authorities.

In libertarian terms, it is not enough that the citizens are informed; the government structure should have a mechanism through which citizens can manifest their approval or disapproval with pending and implemented policies. With this as a fundamental assumption, it is important to establish a logical argument on how and why media industries could exert such an influence. The search for reasons begins with audience costs.

5.3. Audience Costs: Talk isn't always cheap

Fearon (1995) proposes three possible reasons why nations, despite the economic and social costs of war, are unable to come to a negotiated agreement. First, nations hold private information about their capabilities to prevail in conflict and there are incentives to misrepresent these capabilities in order to extract larger concessions during the bargaining stage that precedes potential hostilities. Second, leaders of nations must consider the diverse and at times conflicting interests of domestic groups in their respective countries; this makes it difficult for leaders to make specific commitments when negotiating a peace deal. Third, and related to commitment problems, are issue indivisibilities. This refers to instances when the animosity about the issue at stake, which could potentially lead to conflict, is so deep-seated such the protagonists are embroiled in an all-or-nothing contest where compromise is not possible.

These three causes serve as the bases to argue that domestic factors could influence the onset and escalation of militarized interstate disputes. Also, specifying these causes makes explicit two assumptions: first, that leaders undertake a rational decision-making process selecting one out of several options on how to resolve an international dispute; and that the sentiments of domestic audiences factor into the decision-making process.

Fearon (1994) suggests that what links the costly divide between the threat to use force, and its actual use is the concept of audience costs – defined as the expectations generated among domestic audience when leaders publicly bare their proposed foreign policy response. Fearon describes international crises as “political wars of nerves,”

because international crises have a domestic, public aspect since leaders must perform “in front of political audiences evaluating the skill and performance of the leadership.”

Bueno de Mesquita, Smith, Siverson and Morrow (2003) make it clear that leaders managing an international dispute actually face multi-pronged perils. “Every political leader faces the challenge of how to hold on to his or her job. The politics behind survival in office is the essence of politics. The desire to survive motivates the selection of policies and the allocation of benefits; it shapes... the objective of foreign policy” (p. 8). Losing in international conflict could mean massive economic and territorial losses, in addition to the possibility of being replaced by leader of the victor’s choosing. In addition, domestic audiences who perceive that an international crisis was poorly managed would most eagerly give their leader the boot regardless whether or not the nation actually won or lost in the conflict.

The presumption that a leader’s vulnerability to an electorate can influence the decision-making process on conflict involvement highlights the importance of media openness. For the public to hold a leader accountable, it is necessary for that public to be adequately informed. Thus, the risk of being deposed is of crucial importance in democracies where the electorate is presumably better informed.

But Schultz (2001) suggests that, “The public nature of decision-making in the democratic polities generates both benefits and liabilities. While domestic dissent can at times undermine their threats, democratic governments also enjoy unique advantages due to the public debate that surrounds a decision to threaten or use force. When there is a strong domestic consensus behind the government’s threats, the support of domestic

groups – freely given – can send a signal of resolve that is more effective than can be sent by a government that routinely coerces support (p. 2).”

In a public forum, Fearon (1994) suggests that leaders, who generate high audience costs by making bold statements about initiating war or defending against aggressive actions of another state, would be more unable to back down from conflicts because of the public expects these leaders to back their fighting words with real actions. On the other hand, states that generate high audience costs could also serve as unattractive targets for aggression precisely because aggressors know that that leaders of these states are more likely, as the saying goes – to put their money, or in this case – their military, where their mouth is.

Also, Eyerman and Hart (1996), after conducting empirical test on the pacifying effects of democracy on democratic dyads, concluded that “audience costs can be generated at the domestic and international level and that the impacts are similar;” and that “domestic structures are important in that they provide the constraint [to use force], presumably through the electoral mechanism(p. 613).”

This is not to say, however, that audience costs only matter in democracies. The argument for political survival can be extended to autocracies because leaders of such states still need to court the approval of a narrow sliver of oligarchs.

5.4. Implications of audience costs on media and conflict research

The acknowledgment that audience costs exists, and that it exerts an influence in the decision-making process of leaders in various phases of conflict, proceeds from the fundamental assumption that there is an underlying communication process generating

these costs. In this modern day and age, most, if not all of political communication to the masses is mediated, meaning that the print and broadcast media are the primary sources of political information for the public. This serves as the theoretical foundation for studying the role of media openness in the onset and involvement of nations in international conflicts. If the road to militarized conflict is indeed paved with audience costs, that pavement could very well have been laid down by the media.

Choi and James (2007) propose that, “In the context of checks and balances, mass media often are portrayed as the fourth branch of government. Media not only transfer information; they also facilitate communication. These two functions may ameliorate conflict, crisis and war in world politics.” In two studies, Choi and James (2007, 2008) found that countries with higher restrictions on media freedom are more likely to be involved in militarized interstate disputes.

Schultz (1999) compares two perspectives on how audience costs influence crisis bargaining. The “institutional constraints” approach suggests that institutions promoting accountability and political competition tend to increase the political risks associated with waging war. On the other hand, the “informational” approach argues that democracy facilitates peaceful conflict resolution by overcoming informational asymmetries. The transparency of democratic institutions help reveal information about a democratic target to a potential aggressor, which would otherwise lack of information or miscalculate the target’s resolve to use force.

Considering both approaches clarifies the role of media structures on the onset of conflict. When a free media industry is viewed as an institutional constraint, then the pacifying effects of an open media system rests in the power of the citizenry to hold the

branches of government accountable to their decisions. From the informational perspective, open media systems have pacifying effects because countries embroiled in a dispute are better able to gauge each other's military capabilities and amount of resolve to use militarized force.

5.5. Differences in print and broadcast media

The caveat, however, in determining media influences on foreign policy is that not all words are created equal.

Mass communication studies indicate that the consumption of print and broadcast media have varying effects on audiences. Thus, it would be useful to use separate measures of constraints on print, television and radio industries if at all possible.

Newton (1999), for example, finds that, "reading a broadsheet newspaper regularly is strongly associated with mobilization, while watching a lot of television has a weaker association of the same kind (p. 577)." Newton defined mobilization as the amount of political knowledge and the political attitudes, such as trust or cynicism, of people who regularly read newspapers and who are heavy television viewers. Similarly, Garramone and Atkin (1986) find that among the youth approaching voting age, television viewing is associated with greater knowledge in current events, but newspaper reading cultivates "fundamental knowledge of political philosophies, structures, and historically significant developments (p. 78)." These results are corroborated by Eveland and Scheufele (2000) who found that "television news use is only weakly related to political knowledge at best (p. 223)." In this study, newspaper users demonstrated more

political knowledge. These studies point to the possibility that there could be differences in the audience costs generated by print versus broadcast media.

CHAPTER SIX

EMPIRICAL TESTING

The literature on media openness, the influence of media on political decision-making, and the varying effects of print and broadcast media consumption serve as the framework for the hypotheses examined by this study. This study tests the following hypotheses:

6.1. Hypotheses

H.1: Dyads, or pairs of states, with more open media environments are less likely to be involved in interstate conflict.

Based on the propositions that media openness can curb involvement in militarized interstate disputes, and that print media consumption, compared to broadcast media use, is associated with higher levels of political knowledge, two other hypotheses are tested:

H.2.A: Greater print media restrictions are more highly correlated with the involvement in interstate conflict.

And conversely:

H.2.B: Greater broadcast media restrictions have a lower correlation (when compared with print media restrictions) with involvement in interstate conflict.

6.2. Sample

The study examines conflicts between politically-active dyads (Quackenbush, 2006) from 1980 to 2001 taken from the MID dataset, version 3.0 (Ghosn, Palmer, & Bremer, 2004). Note that (Quackenbush, 2006) only identifies politically-active dyads until 2000. As such, in selecting the sample, all politically-active dyads in 2000 were considered as politically active dyads in 2001.

Quackenbush (2006) provides the basis for using politically-active dyads – defined as pairs of states that have the opportunity to wage war against each other. The underlying logic is that when scholars study factors that could mitigate or aggravate the possibilities of conflict, the units of analysis should include all pairs of states that have the opportunity to go to war with each other. As such, in addition to looking at contiguous states, which are at a figurative arm's reach of striking each other, it is also important to include major powers that are able to project their interests and military presence in other parts of the world. Major powers, because of their global interests and presence, run the risk of being involved in conflicts with opponent states that do not share a common border, or could even be halfway across the world.

The total sample size is 50,278 dyad-years, spanning 1980 to 2001. A dyad is a pair of states. The units of analysis, dyad-years, records political and geographic features of the nations as well as whether or not there was a militarized interstate dispute between pairs of states in the international system during these years.

6.3. Dependent Variable: MIDs

The dependent variable for this study is the presence of conflict in each dyad year, as reported in the Militarized Interstate Dispute dataset, version 3.1. A MID or militarized interstate dispute is “a militarized incident defined as a single military action involving an explicit threat, display, or use of force by one state towards another state (Ghosn, et al., 2004, p. 144).” This value, which has been named “International Conflict” for clarity, is dichotomous – a value of “1” indicating that there was a militarized incident within a given year and “0” indicating that there was none.

6.4. Independent Variable: Media Restrictions

The Freedom House Detailed Data and Sub Scores from 1980 to 2001 (Freedom House, 2008) are used to determine the independent variables for media restrictions. In some years, the data set assigns either a numeric score of 0 to 100 based on the amount of constraints faced by the print and broadcast media of a state. Countries wherein the media face more regulatory laws and political and economic pressures that influence the contents of media reporting have higher media restrictions scores. In other years, the level of media restrictions is represented by a nominal rating of “Free,” “Partly Free,” and “Not Free”

Freedom House uses different scales to measure the level of media freedom of each country spanning 1980 to 2001. The dataset is split into three groups as detailed in Table 6.1:

Table 6.1: Freedom House Measures	
Years	Units of Measurement
1980 – 1988	The print and media industries of each country is rated separately as “Free,” “Partly Free,” and “Not Free,” and there is no single overall measure for the media industry as a whole
1989 – 1993	The print and media industries of each country are no longer disaggregated. Instead, the media industry in each country is given a single rating of “Free,” “Partly Free,” and “Not Free”
1994 – 2001	<p>This span of time has the most detailed media restrictions data. Freedom House assigns a numeric score for the restrictions on print and broadcast media industries. Furthermore, the print and broadcast media restrictions scores are broken down into four sub-scores – political restrictions, legal restrictions, economic restrictions, and other restrictions. In other words, each has eight disaggregated media restrictions scores based on:</p> <ul style="list-style-type: none"> • Legal restrictions on print media • Political restrictions on print media • Economic restrictions on print media • Other restrictions on print media • Legal restrictions on broadcast media • Political restrictions on broadcast media • Economic restrictions on broadcast media • Other restrictions on broadcast media

For the general model testing the hypothesis that countries with free media environments are less likely to be involved in militarized interstate disputes, it was necessary to come up with a dyadic measure of media openness. Because of this disparity in measures, it was necessary to collapse the media restrictions of each country into a

trichotomous variable – Free, Partly Free and Not Free – in order to perform a general test of the hypothesis across all years

For the years 1980 to 1988, Freedom House provides the print restriction and the broadcast restriction rating of each state without providing an overall rating of the country. This rating system compels this researcher to make a methodological decision. For each country, the higher media restrictions score was selected as the overall media restrictions score. The logic behind this decision is the assumption that the higher restriction score reflects the capability of the government to muzzle the media.

To the best of my knowledge, there are no studies examining whether a government's capability to suppress freedom in one medium is independent or indicative of its capability to suppress another medium. That said, this study makes transparent the assumption that the higher restriction score on either industry – regardless of whether it is print or broadcast – reflects the government's propensity and capacity to impose restrictions. This capacity and propensity has been made manifest in the form of the higher media restriction score, making it a reasonable measure of media controls.

With this transformation of the 1980 to 1988 Freedom House data, each country now has a uniform trichotomous measure of overall media freedom – “Free,” “Partly Free,” and “Not Free” – for all years.

Because this dissertation performs a dyadic level of analysis, the next step is to assign a single measure of media openness to each dyad-year. There are six possible combinations of the media openness status for each pair of countries:

- Both are Free: Free – Free
- Both are Partly Free: Partly Free – Partly Free

- Both are Not Free: Not Free – Not Free
- One of the countries is Free and the other country is Partly Free: Free – Partly Free or Partly Free – Free
- One of the countries is Free and the other country is Not Free: Free – Not Free or Not Free – Free
- One of the countries is Partly Free and the other country is Not Free: Partly Free – Not Free or Not Free – Partly Free

These six combinations were coded as six dichotomous variables. When a particular combination occurs in a dyad-year, the variable is coded as “1,” otherwise it is coded as “0.”

6.5. Control Variables

In examining the effects of media openness on war, it is important to control for a string of variables that, according to international relations research, have shown to have a profound influence on the onset of militarized conflict.

Pairs of states that share do not share contiguous borders and are geographically distant are less prone to war against each other. Also, a huge disparity between the military capabilities of two states, meaning one nation is much stronger than the other, is conventionally believed to be a deterrent to armed conflict. In addition, it is an important consideration that major powers have the resources to project military presence outside their borders, which makes them more prone to go to war. Conversely, dyads where both states are only minor powers should be less likely to be involved in conflict (Choi & James, 2007, 2008; Oneal & Russett, 1999).

6.6. Polity

The Polity IV data set (Marshall & Jaggers, 2002) rates countries in the international system along an autocracy-democracy scale, ranging from -10 to +10. The lower the score on the polity scale the more autocratic government of a particular state. The Polity score reflects the transparency of the executive recruitment process, the amount of constraints on executive authority and the opportunities to participate in political competition. There are at least two ways to incorporate the influence of polity on dyadic conflict.

Oneal and Russett (1999) suggest that the less democratic member of a dyad is the “weak link” that increases the risk of conflict. This variable, which is referred to as “Low Polity” for brevity, is the score of the country with the lower rating on polity scale. As such, the more autocratic one of the states is in the dyad, the higher the likelihood that the dyad will be embroiled in international conflict.

However, Bennett (2006) and Werner (Werner, 2000) argue that it is political dissimilarity that fuels conflict. In other words, dyads have similar polities – regardless of whether both are democracies or autocracies – are less prone to conflict. The “Political Distance” variable captures how far apart two countries in a dyad are along the Polity scale. For example, a country that has a Polity score of -10 is 20 political-distance points away from a country with a Polity score of +10.

Because there is merit in both arguments, this dissertation uses separate models to test the “Political Distance” and the “Low Polity” variables.

6.7. Capability Ratio

The National Material Capabilities data set (Singer, 1987), updated version 3.02, from the Correlates of War Project is used to determine the capability ratio of both states in a dyad. The data set provides a Composite Index of National Capability (CINC) score, which captures both the actual and latent military power of a state. The capabilities ratio used for this study is the logarithm of the higher CINC score divided by the lower CINC score, between a pair of states (Choi & James, 2007, 2008). When the CINC scores are equal, the capabilities ratio variable is manually set to “1.” This is necessary because the natural log of 1 is 0. Larger numbers for the capabilities ratio variable indicate a larger disparity in military capabilities between the two countries in the dyad. The underlying logic here is that countries that are close together or at par in terms of military capabilities, are more likely to engage in conflict; conversely, when one of the countries in the dyad is severely outmatched militarily, there are less chances that the dyad will be involved in conflict.

6.8. Contiguity and Distance

Data for both variables are available through the Correlates of War Updated Direct Contiguity Data set. (Stinnett, Tir, Diehl, Schafer, & Gochman, 2002). Contiguity is coded as “1” for dyads where the countries share a common land border or are separated by less than 150 miles of water and “0” otherwise. The distance variable used in this study is the logarithm of the distance between capitals or major ports between the two states in a dyad. Where two countries share a common border, the logarithm of the distance is set to “1.”

6.9. Major Powers

The COW Interstate System data set ("Correlates of War Project. (2008),") is used to determine whether either, both or neither of the states in the dyad are considered major powers. Where there are no major powers in the dyad, the Major Powers variable is coded as "0," where one or both of states is a major power, the variable is coded as "1." Major powers are able to project their military might overseas; thus, when one or both states in the dyad are major powers, there is a greater risk that the dyad will be involved in international conflict. The U.S, U.K. France, Germany Russia, China and Japan are considered major powers in the COW database.

6.10. Logistic Regression Model

This study uses as a base template the logistic regression models of Oneal and Russett (1999) and Choi and James (2007, 2008), which examine international conflict.

The general hypothesis that countries with free media environments are less prone to conflict is tested using the following model.

$$\begin{aligned} \text{International conflict} = & \beta_1 (\text{Free-Free}) + \beta_2 (\text{Free-Partly Free}) + \beta_3 (\text{Free-} \\ & \text{Not Free}) + \beta_4 (\text{Partly Free-Not Free}) + \beta_5 (\text{Partly} \\ & \text{Free-Not Free}) + \beta_6 (\text{Political Distance / Low} \\ & \text{Polity}) + \beta_7 (\text{Capability Ratio}) + \beta_8 (\text{Contiguity}) \\ & + \beta_9 (\text{Distance}) + \beta_{10} (\text{Major Powers}) + \text{Constant} \\ & + \varepsilon \end{aligned}$$

Note that in this model, the combination Partly Free-Partly Free is used as a reference category, meaning it is not included in the model. This is because the six possible combinations of the six dichotomous media freedom variables accounts for all cases. This will result in a model that is ostensibly able to explain 100 percent of the variance in the dependent variable. To resolve this over-specification problem, it was necessary to eliminate one of the dichotomous media openness variables. This practice of “sacrificing” so to speak, one category was also an unavoidable compromise for Choi and James (2007, 2008) where countries that were free and partially free – although based on a different measurement scale – were collapsed into a single category. By choosing to eliminate the Partly Free-Partly Free, this study is able to examine the risks of conflict for Free and Not Free countries in combination with all other types of countries.

The quality of the Freedom House data for the years 1994 to 2001 provide a unique opportunity for hypotheses testing. Choi and James (2007, 2008) used Van Belle’s (2000) global press freedom data collection to examine the link in media openness and conflict involvement. Van Belle provides a five-category coding scheme for media openness that Choi and James collapse into a dichotomous variable in their dyadic analysis. Media openness is coded as “1” if “both states in each dyad-year have free or imperfectly free news media capable of functioning as an area of political competition or debate;” otherwise, it is coded as “0.” This dissertation seizes the opportunity to sharpen the dichotomous measurement by using a continuous variable to measure media openness.

For the years 1994 to 2001, a single “Combined Media Restrictions” for the dyad is the sum of the individual media restrictions scores of the two countries. The formula for the combined media restrictions is:

$$\text{Combined Media Restrictions} = \text{State}_1 (\text{Total Media Restriction}) + \\ \text{State}_2 (\text{Total Media Restrictions})$$

The first hypothesis that dyads with free media environments are less aggressive is then tested using the following model:

$$\text{International conflict} = \beta_1 (\text{Combined Media Restrictions}) + \beta_2 (\text{Political} \\ \text{Distance / Low Polity}) + \beta_3 (\text{Capability Ratio}) + \\ \beta_4 (\text{Contiguity}) + \beta_5 (\text{Distance}) + \beta_6 (\text{Major} \\ \text{Powers}) + \text{Constant} + \varepsilon$$

Since this dissertation also compares the relative effects of government-imposed print restrictions and broadcast restrictions on international conflict, it is necessary to parse out the total print media restrictions and the total broadcast media restrictions for each dyad. First, a Combined Print Restrictions and a Combined Broadcast Restrictions score is calculated for each dyad using the following formulae:

$$\text{Total Print Restrictions} = \text{State}_1 (\text{Restrictions on Print Media Industry}) + \\ \text{State}_2 (\text{Restrictions on Print Media Industry})$$

$$\text{Total Broadcast Restrictions} = \text{State}_1 (\text{Restrictions on Broadcast Industry}) + \\ \text{State}_2 (\text{Political Restrictions for Broadcast} \\ \text{Industry})$$

The second set of hypotheses, that print media restrictions are more highly correlated with involvement in interstate conflict than broadcast restrictions, are then tested using the following model:

$$\begin{aligned} \text{International conflict} = & \beta_1 (\text{Print Restrictions}) + \beta_2 (\text{Broadcast} \\ & \text{Restrictions}) + \beta_3 (\text{Political Distance / Low} \\ & \text{Polity}) + \beta_4 (\text{Capability Ratio}) + \beta_5 (\text{Contiguity}) \\ & + \beta_6 (\text{Distance}) + \beta_7 (\text{Major Powers}) + \text{Constant} + \\ & \varepsilon \end{aligned}$$

CHAPTER SEVEN

RESULTS AND DISCUSSION

The statistical analysis for this dissertation was conducted using Stata 10.

Modules developed for Stata by J. Scott Long and Jeremy Freese were also used for the substantive analysis of coefficients and predicted probabilities.

7.1. Descriptive Statistics, 1980-2001

The dataset was initially examined for the distribution of the dyads across the six possible media openness conditions. Table 7.1. shows that the Partly Free-Partly Free condition occurs least frequently among all the conditions. This provides post hoc support for the methodological decision to use the Party Free-Partly Free variable as the reference category.

Table 7.1: Count of Dyads Media Status

Dyads Media Status	Count
Free – Free	7,671
Partly Free – Partly Free	2,662
Not Free – Not Free	11,119
Free – Partly Free	9,043
Free – Not Free	11,729
Partly Free – Not Free	8,054
TOTAL	50,278

An examination of conflict involvement across the six conditions shows that out of 593 incidences of militarized interstate disputes in the data set, only 22 involved pairs of countries that both have free media environments, as shown in Table 7.2.

Table 7.2: Count of Mid Involvement by Media Status

Status	MID Involvement
Free – Free	22
Partly Free – Partly Free	48
Not Free – Not Free	196
Free – Partly Free	71
Free – Not Free	137
Partly Free – Not Free	119
TOTAL	593

7.2. Media Openness and Conflict, 1980-2001

Results in Table 7.3 show that having two countries with free media environments in a dyad has a negative, statistically significant relationship with the incidence of conflict. The variable Free-Free is significant beyond the $p=.001$ level. To infer causality, the same model was run lagging all independent variables by one year. The results in Table 7.4 show that dyads with a pair of free countries are less prone to engaging in conflict.

It is equally important to note that none of the other combinations of media environments are statistically significant predictors of conflict involvement. This finding leads to two possibilities that could possibly guide future studies. First, the lack of predictive of the other media openness conditions seems to suggest that media openness stymies aggressive behavior in the international system only when the dyadic relationship benefits from free – and only free, not even partially free – media environments in both

countries. However, this dissertation is not prepared to make such a bold statement because of the second possibility. The second possibility is that the lack of statistical significance in other media environment combinations could be driven simply by the conflation of media restrictions into a trichotomous variable. No single study has all the answers and this dissertation leaves the resolution of this debate to future scholarly efforts.

Table 7.3. Media Openness and Conflict, 1980-2001

DV-MIDs	Coefficient	S.E.	z-scores	P>z	[95% Conf. Interval]	
Free – Free	-1.656	0.370	-4.470	0.000	-2.382	-0.930
Not Free – Not						
Free	-0.021	0.276	-0.080	0.939	-0.562	0.520
Free – Partly Free	-0.468	0.282	-1.660	0.097	-1.020	0.084
Free – Not Free	0.020	0.310	0.060	0.950	-0.588	0.627
Partly Free – Not						
Free	-0.197	0.283	-0.700	0.486	-0.751	0.357
Political Distance	0.042	0.016	2.680	0.007	0.011	0.073
Capabilities Ratio	-0.188	0.059	-3.160	0.002	-0.304	-0.071
Contiguity	2.860	0.278	10.270	0.000	2.314	3.406
Distance	-0.073	0.043	-1.690	0.092	-0.157	0.012
Major Power	1.252	0.228	5.490	0.000	0.805	1.699
Constant	-5.241	0.425	-12.330	0.000	-6.074	-4.408

Wald $\chi^2(10) = 484.79$

Prob > $\chi^2 = 0.000$

Log pseudolikelihood = -2,523.935

N = 50,278

Robust standard errors clustered on dyads are reported

Table 7.4. Media Openness and Conflict, 1980-2001, Lagged by One Year

DV-MIDs	Coefficient	S.E.	z-scores	P>z	[95% Conf.	
					Interval]	
Free – Free	-1.424	0.396	-3.590	0.000	-2.201	-0.647
Not Free – Not						
Free	0.087	0.297	0.290	0.769	-0.495	0.670
Free – Partly Free	-0.313	0.307	-1.020	0.308	-0.916	0.289
Free – Not Free	0.248	0.321	0.770	0.439	-0.380	0.877
Partly Free – Not						
Free	0.092	0.299	0.310	0.760	-0.495	0.678
Political Distance	0.037	0.016	2.260	0.024	0.005	0.069
Capabilities Ratio	-0.182	0.061	-2.970	0.003	-0.302	-0.062
Contiguity	2.831	0.281	10.090	0.000	2.281	3.381
Distance	-0.071	0.044	-1.610	0.107	-0.157	0.015
Major Power	1.233	0.237	5.200	0.000	0.768	1.698
Constant	-5.373	0.434	-12.390	0.000	-6.223	-4.523

Wald $\chi^2(10) = 455.02$

Prob > $\chi^2 = 0.000$

Log pseudolikelihood = -2,369.880

N = 46,397

Robust standard errors clustered on dyads are reported

7.3. Media Openness and Conflict, 1994-2001

The results of the model using a single continuous measure of media restrictions, as opposed to a series of dichotomous variables, detailed in Table 7.5 and Table 7.6 shows that high combined media restrictions scores are highly and positively correlated (at the $p < .001$ level) with involvement in militarized interstate disputes. As with the model for all years, this analysis was run lagging the independent variables by one year.

Results in Table 7.6 show that media restrictions remain a strong predictor of MID involvement.

Table 7.5: Media Openness and Conflict, 1994-2001

DV-MIDs	Coefficient	S.E.	z-scores	P>z	[95% Conf. Interval]	
Total Restrictions	0.012	0.002	5.010	0.000	0.008	0.017
Political Distance	0.033	0.019	1.750	0.081	-0.004	0.070
Capabilities Ratio	-0.272	0.080	-3.410	0.001	-0.429	-0.116
Contiguity	2.996	0.391	7.660	0.000	2.229	3.763
Distance	-0.049	0.055	-0.880	0.380	-0.157	0.060
Major Power	1.654	0.277	5.970	0.000	1.111	2.196
Constant	-7.084	0.537	-13.190	0.000	-8.137	-6.031

Wald $\chi^2(6) = 361.84$

Prob > $\chi^2 = 0.000$

Log pseudolikelihood = -928.990

N = 20,606

Robust standard errors clustered on dyads are reported

Table 7.6: Media Openness and Conflict, 1994-2001, Lagged by One Year

DV-MIDs	Coefficient	S.E.	z-scores	P>z	[95% Conf. Interval]	
Total Restrictions	0.012	0.003	4.550	0.000	0.007	0.017
Political Distance	0.040	0.020	2.070	0.038	0.002	0.079
Capabilities Ratio	-0.283	0.083	-3.390	0.001	-0.446	-0.119
Contiguity	2.800	0.426	6.580	0.000	1.965	3.634
Distance	-0.054	0.061	-0.900	0.369	-0.173	0.064
Major Power	1.749	0.292	5.990	0.000	1.177	2.321
Constant	-6.949	0.559	-12.420	0.000	-8.045	-5.852

Wald $\chi^2(6) = 300.80$

Prob > $\chi^2 = 0.0000$

Log pseudolikelihood = -795.283

N = 17,464

Robust standard errors clustered on dyads are reported

7.4. Print and Broadcast Media Restrictions and Conflict, 1994-2001

The initial run of the model testing the second set of hypotheses yielded inconclusive results in that neither the print nor the broadcast restrictions variable were statistically significant predictors of conflict as shown in Table 7.7. The print restriction variable, however, appears to have a greater influence in the model.

A post hoc examination of this unforeseen result showed that the two variables were highly correlated with a correlation coefficient of .910. This being the case, the two additional models were run – one with only the print restrictions variable, and another with only broadcast restrictions variable. Nonetheless, this unforeseen statistical car-crash still makes a theoretical and methodological contribution. Recall that earlier in this dissertation, it was pointed out that when Freedom House provided only separate restrictions rating for print and broadcast industries, the higher restriction rating was used as the overall restrictions rating. This operationalization decision was driven by the argument that the higher restriction score was the government's ability to restrict media manifest.

Clearly, the correlation analysis shows that, at least for this sample, government flexes its regulatory muscles on both print and broadcast industries in similar fashion only 91 percent of the time. There is at least that 9 percent of the time that it does not. Nonetheless, these statistics are an indication that media restrictions are a monolithic beast, which means that a government that has demonstrated that it can and will impose restrictions on one form of media, can and will impose the same restriction on another form of media.

The results of the two models detailed in Table 7.8 and Table 7.9 show that both Print and Broadcast Media Restrictions variables, when introduced separately into the model, are highly correlated with the incidence of militarized disputes. The same results hold when lagging the independent variables by one year as detailed in Table 7.10 and Table 7.11. It is also notable that in all these models, while the Print Restrictions variables have slightly higher coefficients and z-scores than the Broadcast Restrictions variables, the differences are not marked and fall within the 95 percent confidence interval.

Table 7.7: Print and Broadcast Media Restrictions and Conflict, 1994-2001

DV-MIDs	Coefficient	S.E.	z-scores	P>z	[95% Conf. Interval]	
Print Restrictions	0.014	0.010	1.330	0.182	-0.006	0.034
Broadcast Restrictions	0.011	0.011	0.990	0.323	-0.011	0.034
Political Distance	0.033	0.019	1.730	0.084	-0.004	0.070
Capabilities Ratio	-0.272	0.080	-3.400	0.001	-0.429	-0.115
Contiguity	2.997	0.391	7.660	0.000	2.230	3.763
Distance	-0.049	0.055	-0.880	0.381	-0.157	0.060
Major Power	1.656	0.272	6.080	0.000	1.122	2.189
Constant	-7.090	0.530	-13.370	0.000	-8.130	-6.051

Wald $\chi^2(7) = 371.01$

Prob > $\chi^2 = 0.000$

Log pseudolikelihood = -928.979

N = 20,606

Robust standard errors clustered on dyads are reported

Table 7.8: Print Media Restrictions and Conflict, 1994-2001

DV-MIDs	z-					
	Coefficient	S.E.	scores	P>z	[95% Conf. Interval]	
Print Restrictions	0.023	0.005	5.040	0.000	0.014	0.032
Political Distance	0.033	0.019	1.740	0.083	-0.004	0.070
Capabilities Ratio	-0.269	0.079	-3.420	0.001	-0.423	-0.115
Contiguity	3.003	0.393	7.640	0.000	2.233	3.772
Distance	-0.050	0.055	-0.890	0.372	-0.158	0.059
Major Power	1.659	0.271	6.120	0.000	1.128	2.190
Constant	-7.078	0.531	-13.330	0.000	-8.119	-6.037

Wald $\chi^2(6) = 371.84$
 Prob > $\chi^2 = 0.000$
 Log pseudolikelihood = -929.858
 N = 20,606
 Robust standard errors clustered on dyads are reported

Table 7.9: Broadcast Media Restrictions and Conflict, 1994-2001

DV-MIDs	z-					
	Coefficient	S.E.	scores	P>z	[95% Conf. Interval]	
Broadcast						
Restrictions	0.024	0.005	4.830	0.000	0.014	0.034
Political Distance	0.035	0.019	1.850	0.064	-0.002	0.071
Capabilities Ratio	-0.271	0.080	-3.390	0.001	-0.428	-0.114
Contiguity	2.986	0.389	7.670	0.000	2.223	3.749
Distance	-0.052	0.055	-0.940	0.348	-0.160	0.057
Major Power	1.617	0.277	5.830	0.000	1.073	2.160
Constant	-6.937	0.535	-12.980	0.000	-7.985	-5.890

Wald $\chi^2(6) = 357.27$
 Prob > $\chi^2 = 0.000$
 Log pseudolikelihood = -930.396
 N = 20,606
 Robust standard errors clustered on dyads are reported

Table 7.10: Print Media Restrictions and Conflict, 1994-2001, Lagged by One Year

DV-MIDs	Coefficient	S.E.	z- scores	P>z	[95% Conf. Interval]	
Print Restrictions	0.023	0.005	4.680	0.000	0.013	0.032
Political Distance	0.040	0.020	2.030	0.042	0.001	0.079
Capabilities Ratio	-0.281	0.083	-3.400	0.001	-0.443	-0.119
Contiguity	2.808	0.427	6.570	0.000	1.971	3.646
Distance	-0.054	0.061	-0.890	0.376	-0.173	0.065
Major Power	1.766	0.287	6.150	0.000	1.203	2.329
Constant	-7.002	0.564	-12.420	0.000	-8.107	-5.897

Wald $\chi^2(6) = 304.00$
 Prob > $\chi^2 = 0.000$
 Log pseudolikelihood = -794.689
 N = 17,464
 Robust standard errors clustered on dyads are reported

Table 7.11: Broadcast Media Restrictions and Conflict, 1994-2001, Lagged by One Year

DV-MIDs	Coefficient	S.E.	z-scores	P>z	[95% Conf. Interval]	
Broadcast						
Restrictions	0.022	0.005	4.230	0.000	0.012	0.032
Political Distance	0.042	0.019	2.210	0.027	0.005	0.080
Capabilities Ratio	-0.279	0.083	-3.370	0.001	-0.442	-0.117
Contiguity	2.787	0.424	6.570	0.000	1.956	3.619
Distance	-0.059	0.060	-0.980	0.328	-0.177	0.059
Major Power	1.702	0.291	5.840	0.000	1.131	2.273
Constant	-6.746	0.550	-12.260	0.000	-7.825	-5.668

Wald $\chi^2(6) = 300.37$
 Prob > $\chi^2 = 0.000$
 Log pseudolikelihood = -797.668
 N = 17,464
 Robust standard errors clustered on dyads are reported

7.5. Control Variables

The control variables Capabilities Ratio, Contiguity and Major Power are all consistently significant at the $p = .001$ level and beyond while the variable Distance is not. These results are consistent with the findings of Choi and James (2007, 2008); although it must be mentioned that Choi and James used politically-relevant rather than politically-active dyads.

The reported results above all use the Political Distance variable instead of the Low Polity variable. Recall that the former is a measure of the difference of the polities of two countries while the latter is a measure of the more autocratic state in a dyad. Based on the tests Political Distance proved to be a better fit for the model. The statistically-significant findings for the media restrictions variables do not change regardless of whether Political Distance or Low Polity is used. Results using the latter variable are presented in the Appendix.

7.6. Scenario Tests, 1980-2001

Thus far, it is clear from the results that dyads wherein both countries have free media environments are less prone to be involved in militarized conflict than other dyads. To determine the substantive implications of the statistics, predicted probabilities of conflict were computed under a “worst-case” and a “median” scenario. In the worst-case scenario, all control variables are set to the values that make a dyad conflict-prone. And then, the five variables for media openness are set to “1” one at a time to see how each condition makes conflict more or less likely.

Figure 7.12 shows the risk of conflict for dyads in each type of dyad under the most ripe conditions for conflict – specifically, the countries composing the dyad have

vastly different political systems, have equal military capabilities, are close together geographically and one or both are major powers. Even in this worst-case scenario test, the conflict for dyads with free media (9.9 percent) is still less than half as likely as when the dyad is composed of one Free and another Partly Free country (26.5 percent).

Also, it should be noted that based on predicted probabilities, the likelihood for conflict between two Not Free countries (36.1 percent) is roughly the same as if one country as Free and the other country was Not Free (37 percent). One reason why this could be the case is Fearon's (1995) explanation that incentives to misrepresent private information is one of the causes of international conflict. In the case of mutually Free countries, the free reportage of journalists would prevent either or both sides from withholding and misrepresenting private information. However, when one country has a controlled media environment, the information asymmetry makes demands, offers and counteroffers non-credible thereby limiting what can be achieved through bargaining and negotiations.

The "median" scenario attempts to simulate the most frequently occurring condition in the international system by setting values of the variables Political Distance, Capabilities Ratio, Contiguity, Distance and Major Power at median levels. The results in Figure 7.13 mirror that of the worst-case scenario test. Notice, however, that the percentage risk of being involved in conflict for all types of dyads is markedly lower.

Figure 7.12: Worst Case Scenario, 1980-2001

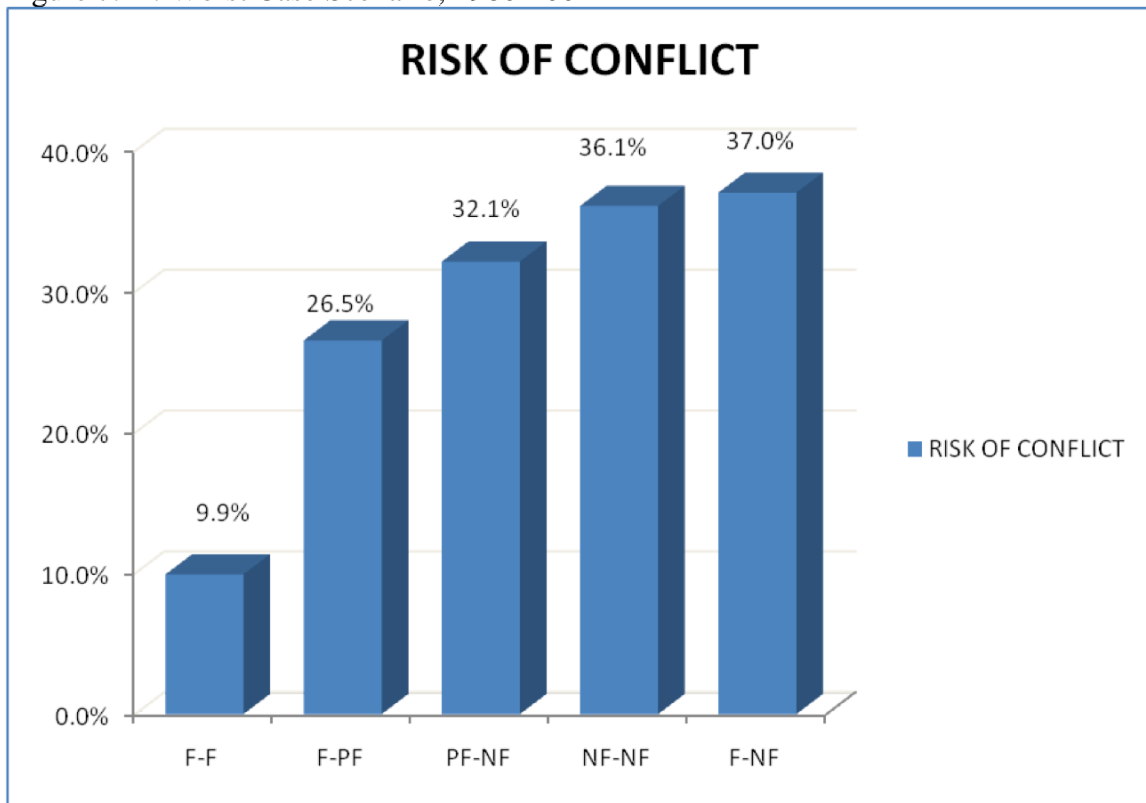
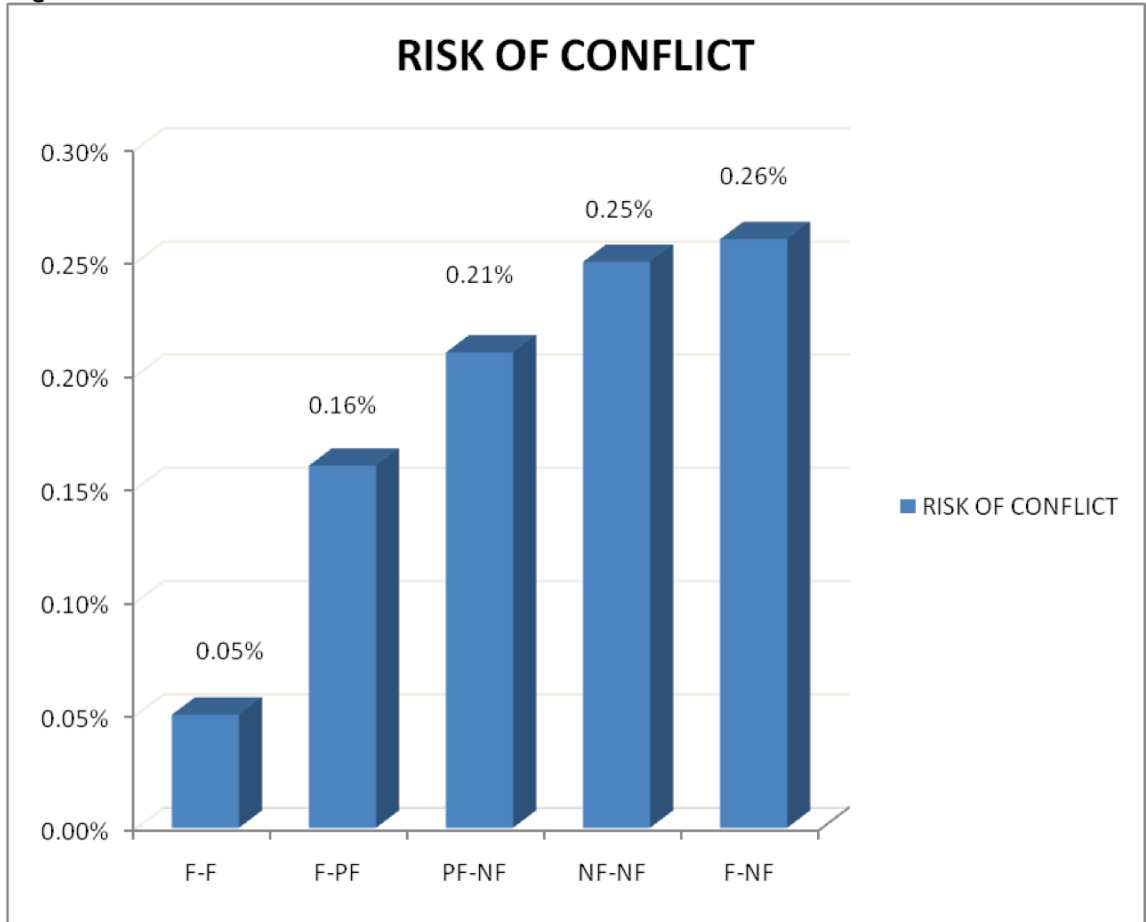


Figure 7.13: Median-Case Scenario, 1980-2001



7.7. Scenario Tests, 1994-2001

The Total Restrictions variable for the years 1994 to 2001 can range anywhere between 0 and 200. For Table 7.14, the control variables were set at the most conflict prone levels and the Total Restrictions variable was increased by 15-point increments to produce a graph of predicted probabilities. As media restriction level rise, so does the risk of conflict.

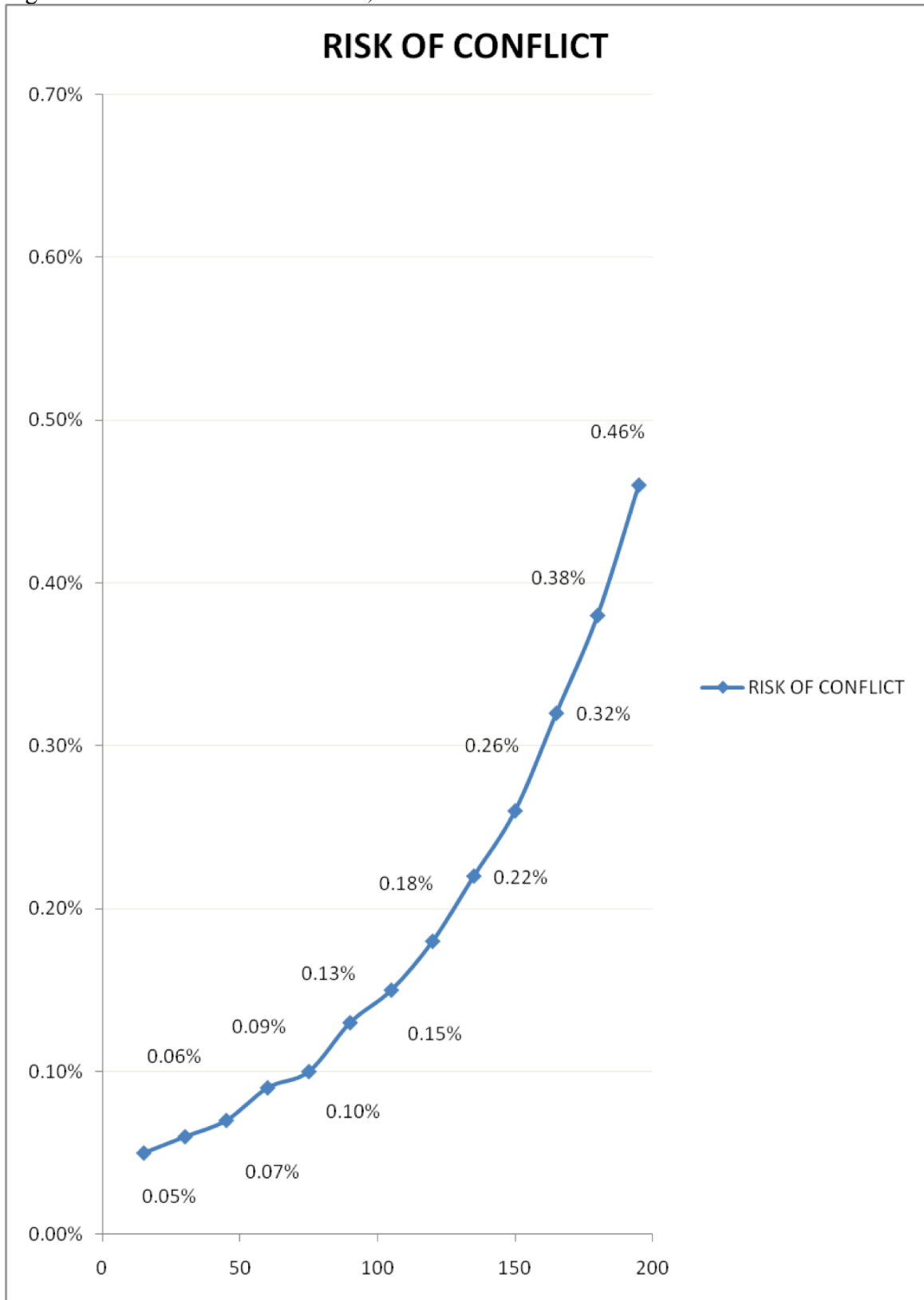
It is important to note that in Table 7.15, which depicts the median case scenario, the rise in projected conflict is much steeper than in the worst-case scenario. Both graphs were plotted in the same scale so the slopes will be comparable. While it may be the case

that the risk of conflict is only in fractions of a percent in the median-case test – after all, militarized conflicts are thankfully rare in the real world, the steeper rise calls attention to the importance of media openness in keeping the peace.

Figure 7.14: Worst-Case Scenario, 1994-2001



Figure 7.15: Median-Case Scenario, 1994-2001



CHAPTER EIGHT

THE INTERNET: THE PUBLIC FORUM OF THE FUTURE

Thus far, this study has focused on the relationship between openness of traditional media and international conflict. This chapter looks into the future of media freedom in the public forum of the future, the Internet.

One of the controversies that could have an immense influence on freedom of speech on the internet is the current net neutrality debate that includes elements of free speech, commercial interests and government regulations.

8.1. Free Speech, Free Enterprise and Government Regulation

Free speech and free enterprise are the backbones of the American politics and economics. However, these two fundamental tenets that define the American way of life are not always perfectly compatible. Such is the case in the on-going controversy over net neutrality.

A testament to the complexity of the debate is that more than 10 years since the inception of the term, there remains “no single accepted definition of ‘net neutrality’ other than the “general principles that owners of the networks that compose and provide access to the Internet should not control how consumers lawfully use that network; and should not be able to discriminate against content provider access to that network” (Gilroy, 2008).

In both practical and legal terms, several components of these general principles elude definition. What specific actions would lead one to conclude that an ISP is actually

controlling how consumers lawfully use its network? What specific network management practices constitute discriminating against content provider access? These questions are at the heart of this debate because business practices and government regulation of these practices could spell the difference between espousing and impinging on free speech rights.

The net neutrality debate, however, is not merely an argument over ambiguous definitions. The broader philosophical issue at stake is whether government, to begin with, should or should not interfere with how ISPs conduct business. The collision between free enterprise and free speech is encapsulated in the conflicting position statements of Free Press, a non-profit organization advocating for Internet-specific government regulation and David L. Cohen, Executive Vice President, of Comcast Corp., the largest cable Internet provider in the country, as seen in Table 8.1.

Table 8.1: Free Press and Comcast Position Statements on Internet Regulation	
Free Press Position	Comcast Position
<p>“[W]hether the Internet remains open, diverse and democratic depends largely on policy decisions.</p> <p>The big phone and cable companies... want to become the Internet's gatekeepers, deciding which sites go fast or slow and which won't load at all — based on who pays them the most.</p> <p>We can't allow the information</p>	<p>“[I]t could take \$350 billion to build next-generation broadband across America, and most of that money will have to come from the private sector and companies like Comcast. We continue to hope that any rules adopted by the Commission will not harm the investment and innovation that has made the Internet what it is today.</p> <p>The Internet in America has been a</p>

<p>superhighway to become the phone and cable companies' private toll road. If they get their way, the Internet as we know it — as a democratic platform for free speech and innovation — will disappear” (Free Press, 2009).</p>	<p>phenomenal success that has spawned technological and business innovation unmatched anywhere in the world. So it's still fair to ask whether increased regulation of the Internet is a solution in search of a problem” (Cohen, 2009).</p>
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8.2. Origins of the Internet

The Internet as we know it today traces its origins to the mid-1960s as a project of the Defense Advanced Research Projects Agency (DARPA), the research and development arm of the U.S. Department of Defense, where a group of scientists experimented with the first wide-area network. In 1968, DARPA contracted BBN, a company run by MIT researchers Leo Beranek, Richard Bolt and Robert Newman, to create ARPANET, the precursor of the Internet. Within the next two years, computers at UCLA, Stanford, UC Santa Barbara, University of Utah, and BBN were interconnected to form the first five nodes of ARPANET (Leiner, et al., 2009).

In 1973, two engineers, Vinton Cerf, who was then at Stanford and is now a vice-president at Google, and Robert Kahn at DARPA began developing what would become the Transmission Control Protocol/Internet Protocol (TCP/IP), the standard that allows computers from different networks to communicate with each other. Over the next ten years, the growing availability of the computers and networks and the adoption of TCP/IP as a standard for ARPANET gave birth to an Internet serving a broad community of researchers and developers (Thibodeau, 2009).

In the early 1980's, the National Science Foundation (NSF), recognizing the potential of the Internet in fostering research and development, took over the leadership role in networking and began developing NSFNET, a more advanced version of APANET. When ARPANET was decommissioned in 1989, NSFNET became the backbone of the Internet.

Although the Internet was initially developed for military and academic purposes using government funding, the NFS eventually realized that interconnectivity would benefit commerce. So, in 1992, the NSF decided to allow business transactions over the Internet, a change in policy that drove the development of the World Wide Web, the technology that allows content developers to display graphics, sounds, audio and multimedia over the Internet (Kini & Choobineh, 1998). More importantly, the infusion of a commercial component for the Internet spurred private investment such that today, the Internet backbone is owned, controlled and operated by private, semi-private, and multi-national companies (Schleimer, 2008).

8.3. Deep Packet Inspection

As the early developers of the Internet realized, advances in technology can solve existing problems as well as create new ones. As the Internet grew to accommodate a larger set of networks and computers, developers scrambled to solve one incompatibility after another. This quest for a robust and efficient network planted the seeds for deep packet inspection.

Data travels through the Internet in packets that have two distinct components – a “header” that specifies the origin and destination of the transmission, and a “payload” that contains the body of information. An oft-used analogy likens a packet to a letter,

with the header being the envelope, and the payload the contents. During the infancy of the Internet in the mid-90s, network operators used hardware and software to determine what data traffic to prioritize and what transmissions to block based only on the information contained in the packet header. This is a process called “shallow packet inspection.”

Come the early 2000s, improved security and routing technology called “deep packet inspection” (DPI) allowed networks to inspect both the header as well as the payload to determine how a packet will be transmitted over the Internet (Dubrawsky, 2003; Porter, 2005; Ranum, 2009).

Different types of Internet activities have varying demands on network resources. A professor sending out a one-paragraph e-mail, for example, uses less bandwidth than a gamer playing World of Warcraft on-line. Because DPI can distinguish one user from the other, ISPs can prioritize packet trafficking such that emails are sent promptly and games run smoothly. DPI has allowed a wider range Internet activities that many consumer now take as standard such as downloading video and music files, watching streaming videos, making Internet phone calls, and playing massively multiplayer on-line games. Without an “intelligent” Internet traffic routing system, large file downloads would be torturously slow, videos would jitter, and games would lag. However, because DPI allows ISPs to distinguish the contents of a packet, it also enables ISPs to arbitrarily favor some senders and receivers over others by speeding up the transmission of data to some users, while slowing down or even blocking the transmission to others (Dubrawsky, 2003; Porter, 2005; Ranum, 2009).

8.4. Comcast and Madison River Communications

The power and perils of DPI are demonstrated in the Free Press complaint against Comcast filed with FCC. In a memorandum order released on Aug. 20, 2008, the FCC found that Comcast had deliberately slowed down connections to BitTorrent, a peer-to-peer file-sharing system (FCC, 2008). Comcast argued that it was only enforcing a network management practice called “throttling” to prevent BitTorrent users from overwhelming its infrastructure and to maintain acceptable connection speeds for its other customers. Relying on consumer complaints furnished by Free Press and testimony from information technology experts, the FCC ruled that “Comcast determines how it will route some connections based not on their destinations but on their contents; in laymen’s terms, Comcast opens its customers’ mail because it wants to deliver mail not based on the address or type of stamp on the envelope but on the type of letter contained therein.”

The regulatory agency also imputed a pecuniary motive to Comcast’s throttling by suggesting that BitTorrent movie downloads compete with and are able to eat into the cable company’s video-on-demand revenues.

The FCC directed Comcast to disclose within 30 days upon the release of the memorandum order the technical details on how it singled out and degraded BitTorrent traffic; a compliance plan on how it would end this network practice; and a report on what usage thresholds would trigger limits on customers’ access to bandwidth. If Comcast failed to comply with the order, the FCC threatened that it would issue an injunction and a permanent cease-and-desist order forbidding this type of network management practice. Comcast officials said they would abide by the ruling. However, the cable company asked a U.S. Court of Appeals for the District of Columbia Circuit to

review the FCC decision contending that since there were no specific federal rules and laws on net neutrality, the commission did not have the power to regulate its network management practices.

Comcast was not the first time that an ISP was censured by the FCC for selective packet transmission. Neither was it the first time that a network operator used DPI as a tool to protect its revenue stream.

On March 3, 2005, Madison River Communications, a telephone and Internet service provider in rural North Carolina, was investigated by the FCC for blocking its customers' access to voice-over-IP (VoIP) offered by Vonage. To avoid lengthy litigation, Madison River signed a consent decree, agreeing to make a "voluntary payment" of \$15,000 to the U.S. Treasury and to discontinue blocking VoIP access. The ISP also agreed that any instances of blocking VoIP access in the future would constitute a violation of the consent decree (FCC, 2005).

8.5. Analysis of FCC Cases

Retracing the origins of the Internet clarifies why the net neutrality debate is where it is today. On one hand, the concept of a globally interconnected network was begun and made possible by trailblazing efforts from the U.S. Department of Defense. On the other hand, it is equally true that the exponential growth of the Internet was fueled by investments from the private sector.

The FCC is tasked with mediating between two competing factions – one asking for Internet-specific regulation and another asking for a laissez faire approach – both of which are claiming that their opposing positions will preserve the Internet as the public forum of the future.

In both the Comcast and Madison River cases, the FCC demonstrated that it has jurisdiction of network management practices and the orders of the commission were legally binding notwithstanding Comcast's currently pending petition for review. With these two cases, the FCC alleged that both companies stood to financially gain from undesirable network management practices at the expense of the free flow of information to Internet subscribers.

Also, the differences between these cases demonstrate the tenuous nature of codifying network management rules. In Comcast, the cable company and BitTorrent had already settled the matter out of court more than four months before the FCC memorandum order. Before Comcast was censured by the FCC, Comcast officials had already agreed to not to single out peer-to-peer sharing data and undertake a "cooperative effort" with BitTorrent to effectively manage network traffic (Comcast, 2008; Key, 2008).

The out-of-court settlement contributed at least partially to why this case was decided with the narrowest of margins, with 3 commissioners voting to censure Comcast and two others dissenting. Commissioner Robert M. McDowell in explaining his dissent wrote:

"Even though Comcast and BitTorrent settled and pled for no further 'government intervention,' the majority has gone forward with this adjudication. The net effect punishes those that settle and discourages future settlements. So today, for the first time in Internet history, we say 'goodbye' to the era of collaboration that served the Internet community

and consumers so well for so long; and we say ‘hello’ to unneeded regulation and all of its unintended consequences” (FCC, 2008).

Another difference is that Madison River entered into a consent decree, which cannot be legally construed as an admission of fault or guilt. In Comcast, however, the majority ruling of the FCC was that Comcast was at fault. The differences in the outcome of these two cases could have very well been driven by a change in FCC policies within the years when these cases were decided. While both parties were censured for engaging in illegal anti-competitive behavior, the FCC relied on consumer laws in Comcast, and common carrier laws in Madison River.

Prior to Madison River, the FCC classified DSL under “telecommunications services” which it regulates under Title II, more popularly known as the common-carrier laws within the Communications Act of 1934. Common carriers like telephone and telegraph companies are required to provide their services to everyone, even potential and current competitors.

But on June 27, 2005, less than four months after the Madison River consent agreement, the U.S. Supreme Court ruled in *NCTA v. Brand X* that cable companies, the primary providers of DSL Internet services at that time, were “information services” and not “telecommunication services” (“*Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs.*,” 2005; Reardon, 2005) Nonetheless, the Court maintained that information services were still subject to FCC regulation, albeit more limited, under Title I of the same act, which allow the commission to regulate interstate and foreign communication.

Under the Communications Act of 1934, which was amended by the Telecommunications Act of 1996, a telecommunications service is “the offering of

telecommunications for a fee directly to the public; [where] the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."

On the other hand, information services was defined as "[the] capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications." Thus, Brand X draws a definitive line on the sand: where a facility is used to send and receive information without that information being altered, that facility is a telecommunications service; where there is an alteration of the information somewhere along the route through which it is sent or received, that facility is an information service.

8.6. The Internet Freedom Preservation Act of 2009

Running parallel with the FCC's rulemaking process are competing legislative efforts in Congress targeted at net neutrality.

On July 31, 2009, Rep. Edward Markey of Massachusetts introduced the "Internet Freedom Preservation Act of 2009," an amendment which broadens the Communications Act of 1934 to include Internet regulation. The bills seeks to give teeth to the FCC's power to regulate interstate and international communication through the codification of the U.S. government's policies on Internet availability and the clear delineation of the FCC's jurisdiction over Internet matters

The most contentious portions of this act are two provisions in Section 12 stating that:

The FCC should "guard against discriminatory favoritism for, or degradation of, lawful content, applications, or services by network operators based upon their source,

ownership, or destination on the Internet.” And consequently, Internet access service providers would not be allowed to “provide or sell to any content, application, or service provider, including any affiliate provider or joint venture, any offering that prioritizes traffic over that of other such providers on an Internet access service” (“Internet Freedom Preservation Act of 2009,” 2009).

Similar legislation has been introduced in two previous Congresses, the 109th and 110th, but has failed to pass. This bill has been referred to the Committee on Energy and Commerce.

8.7. Internet Freedom Act of 2009

While opposition to bills regulating the Internet in previous sessions of Congress was confined to debates at the committee level, Sen. John McCain of Arizona has upped the ante. On Oct. 22, 2008, as FCC commissioners voted unanimously to begin a rulemaking process that would formalize net neutrality regulations (Bradley, 2009), McCain introduced a bill to prohibit the Federal Communications Commission from further regulating the Internet. McCain likened the introduction of net neutrality rules to federal intervention in the auto and banking industries in early 2009, suggesting that, “Skeptical consumers should rightly view these new rules as yet another government power grab over a private service provided by a private company in a competitive marketplace. This government takeover of the Internet will stifle innovation, in turn slowing our economic turnaround and further depressing an already anemic job market.”

The McCain bill states that, “The Federal Communications Commission shall not propose, promulgate, or issue any regulations regarding the Internet or IP-enabled services,” unless such regulation is for national security, public safety

or enforcement of state and federal laws. It has been forwarded to the Committee on Commerce, Science, and Transportation.

8.8. Analysis of Pending Bills

The strength of the Markey bill is that it provides definitions for two key concepts – network management and consumer disclosure.

As explained in the technical history of the Internet, efficient network management not only allows for smooth, trouble-free browsing, it has also opened innovative uses for the Internet. This bill defines a legitimate network practice as one that is “narrowly tailored to further... a critically important interest,” using means that are “the least restrictive, least discriminatory, and least constricting of consumer choice.”

This definition leaves little doubt that the bill recognizes how network management technology that allows ISPs to selectively route and block traffic gives these actors the power of prior restraint. As *Near v. Minnesota*, *New York Times Co. v. United States* and *United States v. Progressive* demonstrate, by default, prior restraint is viewed as undesirable and the onus is on the censoring party to demonstrate the larger public interest that is at stake and ensure that any restraints are narrowly tailored.

The Markey bill also requires ISPs to make publicly available the technical details of its services such as the speed and the limitations of the network, and the network management procedures that could affect communications between a user and a content provider. This provision is especially important because in Comcast, consumers had no idea what caused the slow connection to BitTorrent. It was only after lengthy scrutiny by the media and a costly FCC investigation that Comcast was compelled to reveal that it was throttling BitTorrent traffic.

In stark contrast, the McCain bill does not bring the net neutrality debate closer to any type of resolution. McCain uses as bases for his bill two principles – that “the Internet and all IP-enabled services are services affecting interstate commerce; and such services are not be subject to the jurisdiction of any State or municipal locality.” This line of reasoning contains two inconsistencies.

First, taking the regulation of IP-related services out of the hands of the FCC is ostensibly the ultimate form of government non-intervention, which misguided free market proponents claim is key in allowing economic forces to determine what types of uses survive or attract investment and flourish, while driving unviable ones to extinction. However, equating free market competition with the absence of government regulation is a logical fallacy. As former FTC chairman Timothy J. Muris observed, “If the economic foundations of antitrust analysis are infirm, competition law topples.”

In other words, effective trade laws enable rather than hamper economic competition in modern free markets. The difficulty, according to Muris, lies in that “economics is neither monolithic nor static. [R]esearchers have devised theories to condemn or praise virtually any business practice. The challenge for courts and enforcement agencies is to identify methodologies for the most accurate diagnosis of the competitive consequences of business behavior” (Muris, 2003).

Second, by proposing that IP-enabled services are not subject to FCC, state and municipal legislation, McCain moves the net neutrality debate further from resolution. If this bill were to become law, the question of how to regulate the Internet would be compounded and confounded with the new problem of determining who should regulate the Internet.

8.9. Prescriptions for Internet rulemaking and lawmaking

Common carrier laws were first implemented in England where the courts held that while operators of docks were entitled to operate their businesses for profit, there was a greater public interest – the national economic interest – in ensuring that ports are open for subjects and foreigners unloading or loading goods onto their ships. As such, ports were forbidden from arbitrarily charging new tolls “without sufficient warrant” (Nichols, 1987).

Common carriers are subject to more stringent regulations than information services. The Brand X decision cited a 2001 study from the U.S. Department of Commerce which then reported that “approximately 80 percent of those connections are ‘dial-up’ connections” (U.S. Department of Commerce, 2002). While the justices acknowledged that Internet access figures in 2005 were already much different from the findings of the 2001 report, it can further be argued that the technological landscape is changing much faster now.

Experts have projected a meteoric rise of VoIP subscribers since 2005 and by the end of next year, 2010, there will be an estimated 250 million users of internet telephony worldwide as shown in Figure 9.1 (International Telecommunication Union, 2007). Granted, these worldwide figures are dated; however, it remains that with the constant influx of migrants into the U.S., the use of cheaper telephony via the Internet will continue to grow for as long as other countries are able to receive such calls.

Figure 8.2: Increase in VoIP Use (International Telecommunication Union, 2007)



Technology will evolve to a point – if it not already has – that the distinction between telecommunications services and information services would be irrelevant. When the Internet backbone is widely used for VoIP, that particular usage is not distinguishable from offering a telecommunications service.

Let us use as an example a comparison of individuals using a cellular phone and Skype, respectively, to make phone calls. The cellphone user transmits a signal to the

cellular tower and the cellular tower confirms whether or not the particular user is a subscriber. After confirming that the user is a subscriber, it retains a “tag” of sorts of the user such that if the user were in a car, one cell site would be able to determine that the user is going out of range and that it would be time to “pass off” the connection to the next adjacent cell site. Even if the caller was stationary, the system would still “tag” the user simply because no automated system can determine if the user is going to be standing still or in motion through the duration of the call. While this is happening, the cellphone is picking up the voice of the speaker, translating it to a digital feed, which is bounced off to the cell site to the other party’s cellphone, which then decodes the binary stream of data back into the spoken message.

Juxtapose this with using Skype. The user logs on to Skype and makes a call, the Internet Service Provider establishes an IP connection with the recipient’s computer and connects the call. In the meantime, the computer of the caller and the receiver translate their spoken words into a digital stream that flows back and forth throughout the conversation. Based on the differentiation between telecommunications and information services arising out of Brand X, the straightforward nature of Internet calls make it no more or less similar to ordinary phone calls. The legal distinction between telecommunications services and information services in Brand X does not survive a practical test. In both cases, we find that the communications system acquires, stores, transforms, and processes the communication between two parties.

Effacing the distinction between telecommunications and information services, and applying common-carrier laws uniformly across both would drastically simplify rulemaking or lawmaking process because there would be no need to come up with one

set of policies for one and a different set of policies for the other. Furthermore, with this prescription, this dissertation introduces a regulation philosophy called “bit blindness” – when two or several types of communication are transmitted in comparatively similar bits and bytes over the same Internet infrastructure, then the same regulations should apply to both types of communication. In other words, the law is blind as far as distinguishing between the transmissions of similar types of digital communication.

8.10. Applying Antitrust Principles

Antitrust laws have historically been applied to railroad companies, oil companies, car manufacturers, and most recently, to computer software in the case of Microsoft (“United States v. Microsoft Corp.,” 2001).

Proponents of Internet regulation, be it in the form of agency rulemaking or congressional lawmaking, argue that antitrust laws are insufficient in preventing ISPs from engaging in anti-competitive behavior (Sashkin, 2006). While this researcher concurs with the prescription that codification of rules and laws are necessary, the reasoning diverges with that of the Internet regulation proponents.

Comcast has demonstrated that antitrust laws are sufficient to curb discriminatory network management practices. The FCC specifically stated that, “peer-to-peer applications, including those relying on BitTorrent, have become a competitive threat to cable operators such as Comcast because Internet users have the opportunity to view high-quality video with BitTorrent that they might otherwise watch, and pay for, on cable television. Such video distribution poses a particular competitive threat to Comcast's video-on-demand service. “[W]e believe that such disparate treatment [throttling BitTorrent traffic] poses significant risks of anticompetitive abuse,” the FCC ruled.

The pragmatic reason for arguing for Internet-specific laws is that it will clearly establish the jurisdiction of the FCC and shorten the timeframe for litigation and adjudication. In Comcast, the cable company was initially sued in California and it asked the U.S. District Court for the Northern District of California to hold litigation in abeyance because the matter falls under the FCC jurisdiction. The court agreed.

However, when the case was filed before the FCC, Comcast lawyers alleged that there were no laws clearly specifying that the FCC has the authority to regulate internet broadband access companies. This led to a scathing commentary in the FCC decision that:

The courts of equity have long frowned on a party making representations to one tribunal, benefiting from those representations, and then turning around to assert precisely the opposite claims to a second tribunal. We are similarly disturbed at Comcast's conduct here and find it all the more reason to dismiss Comcast's jurisdictional challenge as meritless. The Markey bill addresses this by plainly laying out that within 90 days after the bill passes into law, the FCC must promulgate rules ensuring that ISPs "not operate Internet access services in an anticompetitive, unreasonable, unfair, discriminatory, or deceptive manner.

8.11. The Internet: The Public Forum of the Future

The protection of free speech is based on the premise that only an informed citizenry can productively contribute to a democratic form of government. After decades of free speech litigation, the courts have decided that any restraints on mediated communications should be media-specific. Since print, radio and television are different

types of technology, with varying levels of audience availability and obtrusiveness, each must be regulated with a different set of guidelines. The Internet, however, is a converged platform that is the intersection of all the features of traditional media.

Also, the more important distinction lies not in the variety of content that users can access, but in the public's new-found ability to massively disseminate user-created content. As the U.S. District Court for the Eastern District of Pennsylvania noted, "the Internet may fairly be regarded as a never-ending worldwide conversation. As the most participatory form of mass speech yet developed, the Internet deserves the highest protection from governmental intrusion."

The brilliance of the philosophy put forth by the judges who penned this decision to strike down the Communications Decency Act is mitigated by their lack of foresight. The judges argued that, "The absence of governmental regulation of Internet content has unquestionably produced a kind of chaos, but ...[w]hat achieved success was the very chaos that the Internet is. The strength of the Internet is that chaos. Just as the strength of the Internet is chaos, so the strength of our liberty depends upon the chaos and cacophony of the unfettered speech" ("ACLU v. Reno," 1997).

Berth must be distinguished from chaos. The oft-repeated examples of yelling "fire" in a crowded theater or "bomb" in a plane, which are criminal offenses, encapsulate how the exercise of free speech is anything but chaotically unfettered. Regulations that allow ISPs the full berth to make profits while giving users the full berth of Internet access is a conscientious balancing of the competing interest of free enterprise and free speech. Remaining on the sidelines while the Internet descends into a chaotic world where Madison Rivers are free to pillage the mall of voice-over-IP and Comcasts

brazenly loot the showroom peer-to-peer file sharing is, at the very least, irresponsible governance.

CHAPTER NINE

CONCLUSION

In a nutshell, the empirical tests in this dissertation suggest that when it comes to international conflict, media openness matters. This closing chapter attempts to elaborate on how and why media matters.

9.1. Normative and Structural Convergence

According to the normative argument for the democratic peace, democracies share peaceful norms that emphasize bargaining and negotiations over the use of might to resolve conflicts (Dixon, 1993; Maoz & Russett, 1993). Owen (1994) provides additional insight on how these peaceful norms may operate by pointing out that even in states that are liberal democracies, there are political leaders who are not. When these illiberal leaders want to use military force, they must contend with liberal forces within their country. In democratic forms of government, those opposing war have a variety of “tools” such as “the media, public speeches, rallies, and so on,” to inform the public that their leaders have parted ways with diplomatic norms.

While this ostensibly starts out as an argument based on the normative perspective, it ultimately overlaps with the structural perspective. Stoking public opinion would only be effective in curbing conflicts if the peace advocates are able to muster enough opposition that would raise the political costs of using force. Maoz and Russett (1993) explain that the structural perspective focuses on the legal and constitutional constraints on the executive. Most democracies have built in systems of checks-and-

balances that are enforced by politicians who are elected into office. If peace advocates succeed in making the use of force unpopular, it makes it more likely for elected politicians to use the full extent of these checks-and-balances to ensure that the military is not mobilized.

Media are arguably the most powerful force in shaping public opinion Graber (1986). The audience-level effects of media consumption are well-documented. The conceptualization of media as a powerful political tool, as proposed by Wanta (1997) and Lasorsa (1997), is rich in meaning. At the audience-level, it acknowledges that media remains the most cost-efficient, cost-effective vehicle for public persuasion; but at the same time, it also acknowledges that audiences are not merely lambs that can obediently be led to the slaughter by those in power. The media are a political tool both for both those who govern and those who are governed. In this sense, the argument for free media goes full-circle and returns to its libertarian roots.

The more the media are able to freely report and present diverse opinions on public policy, the greater the opportunity for those opposed to the use of military force to increase the normative and structural impediments to military mobilization. In fact, Maoz and Russett (1993) are the first to admit that “these two explanations,” meaning the normative and structural perspectives, “are not mutually exclusive (p. 626).

9.2. Information, Cheap, Free and Fast

The informational perspective points to information asymmetries as one of the causes of war. In a world of perfect information, wars would be unlikely because the bargaining range of the nations in dispute can be known *ex ante* (Fearon, 1995). However, realities are such that we live in a world where governments are, to varying

degrees, able to suppress the exposition of private information, which in turn allows leaders to misrepresent their resolve and military capabilities.

An open media environment makes it difficult for governments to withhold private information. As such, prospective challengers would be more able to gauge the true might of a potential democratic defender. In fact, the media may be the cheapest, most accessible source of information about a potential opponent's capabilities. To point out that Osama bin Laden need not send spies to get a fairly good sense of the magnitude of U.S. military might because all he needs is to pick up *The New York Times*, or log on to the Internet and check Wiki-leaks, is not an attempt at tasteless levity. It merely serves to refresh our memories that it was not as easy for Colin Powell and the rest of the United Nations to determine whether Iraq did or did not have weapons of mass destruction.

The Internet, by the very nature of the medium, can serve as a potent source of information not only before conflicts begin but also for conflicts in-progress. Examining the 2003 Iraq War, (Dimitrova & Neznanski, 2006) track how the three-step evolution of Web journalism has affected the breadth and depth of conflict coverage. The first step in the evolution is the use of "shoveled" content, meaning the content that appears in newspapers are merely slotted into Web pages with no substantive transformation. The second stage sees the introduction of "augmented content," a term used to refer to hyperlinks and photos not included in the print version of the story. Lastly, the third stage of evolution, "convergence," pulls in audio, visual, and interactive elements that would have been possible to execute on traditional paper and ink newspapers.

The informational function of the mass media can also be a democratizing force for autocratic nations. Enterline and Greig (2005) propose that democratic countries serve

can serve as beacons showing states the benefits of democratic government. In this process, the mass media also plays an informational role by transmitting democratic norms and values across international borders.

The potential role of the Internet in destabilizing autocratic regimes – which is not to say that the Internet cannot destabilize democratic regimes, too – is highlighted by a study on blogging in the former Soviet bloc. Dimitrova and Beilock (2005, p. 46) find that the fundamental difference between print and on-line media in the ‘Stans’ – former Soviet Union countries with new names ending in ‘stan’ – is that the Internet ensures “the physical security of the bloggers, who cannot be reached (and are almost impossible to trace) to be arrested by the government, and dialogue with the users through the comments section, which allows the bloggers to know exactly what their readers say and feel about the blog content and the situation it covers.”

The veil of anonymity, which in certain cases can spur participation in the free market of ideas, is a distinguishing feature of the Internet. In this era of converged media reporting, the breadth and depth of coverage available over the Internet can only decrease information asymmetries. This has led governments in China, the Middle East and Eastern Europe to take an active role in controlling what contents can and cannot be accessed over the Internet in their respective countries (Dyczok, 2006; MacKinnon, 2008; Teitelbaum, 2002). Furthermore, of particular interest in the discussion of the Internet as the public forum of the future is a study on the diffusion of Internet technology and access in the former Soviet bloc. Beilock & Dimitrova (Beilock & Dimitrova, 2003) find that media openness was a significant predictor of higher rates of Internet adoption in the region. The study operationalized the rate of Internet adoption as the number of internet

users per 10,000 individuals for countries within the region. Note that at least for that particular study, media openness was a determinant of Internet adoption. This adds a cyclic dimension in the relationship between media openness and the Internet. On one hand, the Internet could fuel media openness in a country; on the other, media openness could fuel the pervasiveness of Internet in a country. This suggests a recursive relationship that must be accounted for by future studies in these areas.

The importance of the Internet as the public forum of the future is underlined by the pilot effort of Freedom House in 2009 to assemble a database on “Freedom on the Net.” The project initially includes 15 countries, including China, Iran and Cuba. Though it may take some time before the database can be used for a large-n cross-sectional time-series analysis, the project is laudable in that it is the first of its kind making a cross-national comparison of Internet journalism environments. In the meantime, scholars can only surmise how the journalistic landscape will turn out to be, and make inferences about the future based on lessons from past experiences of government regulation of traditional media.

Ultimately, even in an age where doomsayers predict the eventual demise of print, radio and free-to-air television because of the Internet, the study of the effects of government restrictions on traditional media remains relevant. By studying how media openness can influence the political decision-making process, free speech advocates, scholars and journalists can be better informed on how and why they must protect emerging public forums of the future.

APPENDIX 1

MODELS FOR LOW POLITY

Table A.1: Media Openness and Conflict, 1980-2001, Using Low Polity

DV-MIDs	Coefficient	S.E.	z- scores	P>z	[95% Conf. Interval]	
Free – Free	-1.913	0.376	-5.090	0.000	-2.649	-1.177
Not Free – Not						
Free	0.045	0.292	0.150	0.877	-0.527	0.617
Free – Partly Free	-0.481	0.283	-1.700	0.089	-1.035	0.073
Free – Not Free	0.395	0.283	1.400	0.163	-0.160	0.950
Partly Free – Not						
Free	0.009	0.281	0.030	0.975	-0.541	0.559
Low Polity	0.013	0.016	0.820	0.414	-0.019	0.045
Capabilities Ratio	-0.187	0.058	-3.200	0.001	-0.302	-0.073
Contiguity	2.889	0.274	10.550	0.000	2.353	3.426
Distance	-0.064	0.042	-1.520	0.129	-0.146	0.019
Major Power	1.255	0.224	5.610	0.000	0.817	1.694
Constant	-5.137	0.423	-12.140	0.000	-5.967	-4.308

Table A.2: Media Openness and Conflict, 1980-2001, Using Low Polity

DV-MIDs	Coefficient	S.E.	z- scores	P>z	[95% Conf. Interval]	
Total Restrictions	0.015	0.004	4.160	0.000	0.008	0.023
Low Polity	0.018	0.028	0.650	0.514	-0.037	0.073
Capabilities Ratio	-0.273	0.079	-3.460	0.001	-0.428	-0.119
Contiguity	3.016	0.401	7.520	0.000	2.230	3.801
Distance	-0.034	0.054	-0.630	0.529	-0.140	0.072
Major Power	1.677	0.277	6.050	0.000	1.134	2.220
			-			
Constant	-7.309	0.680	10.750	0.000	-8.641	-5.976

APPENDIX 2

ELIMINATED DATA

The following records were eliminated from the analysis of the years 1994 to 2001 because the total restrictions score did not tally with the disaggregated print and broadcast restrictions score. In certain cases, the totals provided by Freedom House were off by only one point, in other cases, the discrepancy was much larger. So as not to introduce any bias, all records with non-matching totals were eliminated.

Table A.3: Eliminated Data

Country	Year	Freedom House Score	Computed Total of Sub- Scores
Tonga	1994	35	36
Ireland	1996	18	19
Honduras	1996	34	17
Honduras	1995	45	22
Honduras	1994	55	32
Honduras	1997	47	24
Honduras	2001	45	20
Honduras	1998	47	21
Honduras	1999	48	21
Honduras	2000	48	21
Armenia	1994	52	48
Guatemala	1994	59	54
Nicaragua	1997	44	42
Armenia	2001	59	58

Qatar	1994	64	66
Bosnia and Herzegovina	1997	71	70
Mongolia	1994	40	45
Rwanda	1994	63	62
Kazakhstan	2000	68	58
Mauritania	1994	68	67
Viet Nam	1996	68	58
Eritrea	1994	80	90
Burundi	1994	88	90
Moldova, Republic of	1997	57	58

APPENDIX 3

DATA TRANSFORMATIONS

The transformations to generate variable used in empirical testing were performed in Excel using the codes detailed in this section.

For the 1980-2001 media restrictions score, which were provided by Freedom House as “F,” “PF,” and “NF” to reflect Free, Partly Free and Not Free, the following code was used to generate a score of 0, 1, and 2 corresponding to the three levels of restrictions.

- =IF(*cell containing the nominal rating* = "F", 0, IF(*cell containing the nominal rating* = "PF", 1, IF(*cell containing the nominal rating* = "NF", 2, 99)))

The following codes were used to generate the six dichotomous dyadic media restriction variables.

For Free – Free:

- =IF(AND(*state1 restrictions*=0, *state2 restrictions* =0),1,0)

For: Partly Free-Partly Free

- =IF(AND(*state1 restrictions*=1, *state2 restrictions* =1),1,0)

For: Not Free – Not Free

- =IF(AND(*state1 restrictions*=2, *state2 restrictions* =2),1,0)

For: Free – Partly Free

- =IF(OR(AND(*state1 restrictions*=0, *state2 restrictions*=1), AND(*state1 restrictions* =1, *state2 restrictions*=0)),1,0)

For: Free – Not Free

- =IF(OR(AND(*state1 restrictions*=0, *state2 restrictions*=2), AND(*state1 restrictions* =2, *state2 restrictions*=0)),1,0)

For: Partly Free – Not Free

- =IF(OR(AND(*state1 restrictions*=1, *state2 restrictions*=2), AND(*state1 restrictions* =2, *state2 restrictions*=1)),1,0)

The polity of the two states in a dyad are provided as separate measures from Polity IV. The following code was used to calculate a single Political Distance variable for each dyad:

- =IF(*state1 polity score*> *state2 polity score*, ((*state1 polity score* + 10)- (*state2 polity score* + 10)), ((*state2 polity score* + 10)- (*state1 polity score* + 10)))

Military capabilities of countries within a dyad are provided by the Correlates of War Project as two separate measures, one for each country. The variable Capabilities Ratio was calculated using the following formula:

- =IF(*state1 capabilities* > *state2 capabilities*, *state1 capabilities* / *state2 capabilities*, *state 2capabilities* / *state1 capabilities*)
- The results of the above formula were then transformed into a natural logarithm using the =LN(*raw capabilities ratio value*) except for dyads with a Capabilities Ratio of exactly 1.

Contiguity is provided as an ordinal measurement from the Correlates of War Project, where “1” means the countries are separated by a land or river border; “2,” separated by 12 miles of water or less; “3,” separated by more than 12 miles but less than 24 miles of water; “4,” separated by more than 24 miles but less than 150 miles of water; and “5,” separated by 400 miles of water or less. For this dissertation, the countries were considered contiguous when they are within 150 miles of each other. The Contiguity variable was calculated using the following formula:

- =IF(*contiguity score* > 5, 0, 1)

The distance variable provided by the Correlates of War Project is the distance in miles between the capitals or major ports of the two countries within a dyad. The Distance variable, which is a logarithmic transformation, was generated using the following code;

- =LN(*raw distance value*) except for cases wherein the distance is “0.” Zero does not have a natural log, and the value was set to “1” for these cases.

The Correlates of War Project provides separate variables indicating whether each country in a dyad is a major power. A single Major Power variable for each dyad – coded as “1” if one or both countries in the dyad are major powers and “0” otherwise – was generated using the following formula:

- =IF(*state1 major power* + *state2 major power* > 0, 1, 0)

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VITA

I began my media career in 1993 as an intern covering the Philippine Basketball Association, the Senate and the Western Police District for the Manila Bulletin, one of the leading nationwide newspapers in the Philippines. As a freelance journalist in the Philippines, I wrote a weekly opinion column on the joys and pains of urban living in Metro Manila, contributed book reviews and feature articles, and covered local and regional sports stories for broadsheets and magazines.

I was also the managing director of PRESS, Inc., a public relations company in the Philippines, for 10 years. My firm provided corporate communications and crisis management services to a wide variety of clients including hospitals, fashion brands, media companies, food chains and multinational corporations. Among our clients were Caltex (a Chevron subsidiary), Nestle, Bayer and Kenny Rogers Roasters.

After coming to the U.S. in 2006, I covered the state capital in Lansing, Michigan for Capital News Service, a wire service run by Michigan State University, where I received the top correspondent award. I then worked as a general assignment reporter for a daily newspaper in southwest Michigan.

While pursuing my doctorate degree, I was a graduate instructor for Introduction to News Writing (J2100), a required class for journalism, strategic communications and advertising majors. I focused on the fundamentals of multi-platform storytelling – creating compelling narratives by combining print, photos, videos and interactive multimedia elements. As a teaching assistant for applied computer-assisted reporting at the *Columbia Missourian*, a daily newspaper published by the School of Journalism, I developed data ‘crunching’ strategies for interactive content on the *Missourian* Web site

such as a searchable faculty salaries database and a precinct-by-precinct breakdown of votes in Boone County, Missouri during the 2008 Presidential Elections.

Outside of work and school, I was a training partner to mixed-martial arts champions in the Philippines, an aspiring professional pool player, and a magician to my nieces.