2009

Cultural forms underlying health-related discourses in the United States and Canada:a historical-comparative study of the two countries' editorials from 1965-1999

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by

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A thesis submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Sociology

Program of Study Committee:
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Iowa State University

Ames, Iowa

2009

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Abstract

This paper investigates cultural reasons for differences between the U.S. health care system and its Canadian counterpart. The U.S. health care system is an entrepreneurial system based upon free market principles, while the Canadian health care system is a welfare-oriented system based upon governmental responsibilities. Differences in health care systems may reflect differences between two cultures. This paper is based upon Roberts' theoretical framework on modalities. The basic assumption is that social systems can be understood through the discursive use of modal statements (sentences in which actors declare what is possible, impossible, inevitable, or contingent for each other) and their associated rationales. In an analysis of U.S and Canadian editorials during the period from 1965 to 1999, evidence is found that editorialists in both countries tended to use economic rationales when accounting for people's possibilities and welfare-related rationales when accounting for people's inevitabilities. Data in this study also suggest that whereas Canadian editorialists tended to use welfare-related rationales, U.S. editorialists tended to use economic ones. In addition, despite the fact that during the study period three important laws were passed that established Canada's universal health care system, there is no evidence of simultaneous changes in Canada's health-related modal discourse. The findings suggest that Canadians' rhetoric of social responsibility (via mentions of inevitability for welfare reasons) was likely a fertile context for rather than a passive consequence of their developing system of universal health care.

Chapter 1 Background

1. The U.S. health care system

According to Torrens (1993), the U.S. health care system has experienced four stages of development. The first stage started during the mid-1800s. Health care was first institutionalized in the United States at that time, through the introduction of hospital services and professional health departments.

The second stage commenced around 1900. It was initiated by the adoption of scientific method into medical education and practice. In this stage, physicians were trained as both scientists and practitioners and started to specialize in a particular area of medicine (Torrens 1993). During the same period, more local and state publicly funded health departments were established. Federal funding was allocated to improve publicly funded health activities (Pohl 2002).

The third stage initiated during the 1940s. This stage was characterized by the expansion of the health care system and "a greater concentration of power in the federal government" (Pohl 2002:100). The focus of the federal government was the continuing growth in health care from the late 1940s. During the same period, scientific research developed rapidly, and that resulted in the increasing specialization of physicians (Pohl 2002). Moreover, two important federal programs were provided in 1965: Medicare and Medicaid. They mainly provide health care to the old, disabled and poor population in the United States (Raffel 1984). On the one hand these programs increased access to health care for those who had needs; on the other hand they also dramatically increased the federal government's share of the cost of health care (Pohl 2002).

The fourth stage started around 1980. This stage was "a time of cost containment,

restricted resources, and restructuring of delivery systems through incremental efforts by both the public and private sectors" (Pohl 2002:102). As Germany and Holland did in the early 1970s, government intervention was imposed to reduce the health care spending in the United States. But it was not as successful in the United States as in European countries (Pohl 2002). For example, the National Health Planning and Resources Development Act of 1974 was introduced to control community health care costs in the U.S. This Act was instituted at the federal level but conducted at community level by health providers, consumers and public officials. It failed because of inadequate funding and political controversy (Pohl 2002).

The primary characteristic of the U.S. health care system is that the majority of the U.S. population receives health insurance through a combination of public and private programs with multiple levels of benefits. As mentioned earlier, the two major publicly funded health care programs are Medicare and Medicaid which account for approximately one third of U.S. health care expenditures. Medicare provides health care services to individuals aged 65 and older as well as the permanently disabled. It includes two parts. Part A provides inpatient hospital care, nursing home care, home health care visits, and hospice care. It is financed through the hospital insurance payroll tax and individual cost-sharing in the form of deductibles and coinsurance (Graig 1999). Part B covers partial payments for physician services, outpatient hospital services, rural health clinic office visits, and related physician supplies, and it is financed through general tax revenues and individual premiums (Graig 1999). Medicaid covers health care for certain categories of low-income population, including children, elderly people, disabled people, and those who receive federal income assistance, and it is financed by both federal and state governments (Graig 1999). Other publicly funded health care programs include federal, state and local government programs.

The Federal Employees Health Benefit Plan provides health insurance to employees of the federal government and their dependents, and state-level programs covers state and local government employees.

The majority of the U.S. population is covered by private heath insurance. Approximately 60 percent of the U.S population receive their health insurance through work-related insurance plans (Graig 1999). Until the early 1990s work-related insurance plans were primarily in the form of indemnity fee-for-service health plans, but such plans were gradually replaced by managed care arrangements. Currently most of work-related insurance plans are provided through managed care organizations. Managed care organizations mainly include health maintenance organizations (HMOs), preferred provider organizations (PPOs) and point-of-service (POS). HMOs only cover health care delivered by in-network providers (i.e., physicians and hospitals) with whom the health plan has contracts. PPOs are less restrictive compared with HMOs. They selectively contract with providers for health benefits at discounted fees. POS is a combination of HMO and PPO. It allows its members to use out-of network providers with higher costs.

2. The Canadian health care system

The conceptual origins of the Canadian health care system can be traced to the British North American Act of 1867(Matcha 2003). Within this act the federal government was given the power to tax, but not the right to provide health care. Instead, the responsibility for health care was given to provincial governments. Yet because provincial governments did not have the taxing power to finance large-scale health insurance programs, health care was initially an individual responsibility (Matcha 2003). The first legislation for publicly funded health

care was introduced in the early 20th century but was delayed by the Great Depression and World War II (Graig 1999). Health care reform was led by the province of Saskatchewan. In 1946, the first publicly funded health program was established in the city of Swift Current in Saskatchewan. Provincial insurance in Saskatchewan was introduced in 1947, and in 1962 universal medical care was first offered there (Matcha 2003). Yet it was only in 1971 that all Canadian provinces were covered by universal medical insurance programs (Hatcher, Hatcher and Hatcher 1984; Patel and Rushefsky 2002).

In 1966 the Medicare Act was passed. It enacted with a 50%-50% federal-provincial financing arrangement (Hatcher, Hatcher and Hatcher 1984; Matcha 2003; Patel and Rushefsky 2002). That was changed markedly by two additional pieces of federal legislation since the 1970s. The first was the enactment of the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act (EPF) in 1977. By the mid-1970s the Canadian federal government started to be concerned about increasing health care expenditures. A change was made on the federal-provincial financing arrangement in the EPF. The previous open-ended matching formula was abandoned and a fixed per capita rate was established. As a result, "the federal contribution decreased from 44.5 percent of total provincial government health expenditures in 1979 to 38.6 percent in 1987" (Research Bulletin 1990:11).

A third piece of federal legislation was the Canada Health Act of 1984. There were mainly two motivations for the 1984 Act. The first was to increase federal oversight on health care financing. The 1977 EPF had eliminated any need for provincial hospital and medical insurance plans to meet federal requirements to receive federal funding. That resulted in an inappropriate lack of federal oversight which was remediated by the 1984 Act (Research Bulletin 1990). The second major motivation of the 1984 Act was to control the increase in

extra billing by physicians (Graig 1999; Research Bulletin 1990; Taylor 1987).

The current Canadian health care system is primarily publicly administrated and financed, but privately delivered (Goldsmith 2002; Patel and Rushefsky 2002). The key characteristic of this system is "universal and publicly financed health insurance for medically necessary hospital and physician services" (Goldsmith 2002:232). According to the 1984 Canada health Act, "the primary objective of Canadian health care policy is to protect, promote and restore the physical and mental well-being of residents of Canada and to facilitate reasonable access to health services without financial or other barriers" (Canada House of Commons in 1984 as cited by Goldsmith 2002:232). The 1984 Act established five principles for achieving this goal: public administration, universality, portability, comprehensiveness and accessibility (Matcha 2003; Patel and Rushefsky 2002; Research Bulletin 1990). These principles have had a lasting significant impact on the Canadian health care system.

According to the 1984 Canada Health Act, the provincial or territorial governments are responsible for administering and operating health insurance plans. Moreover, they provide various publicly funded health services including immunization, dental care, health promotion activities, nursing home cares, etc. (Fulton 1993). The major role of the federal government is to provide oversight and regulation of the provincial or territorial governments (Hohman 2006). The federal government has the power to withhold federal funding for health care to provinces or territories that do not meet the five principles (Hohman 2006). In addition, Canadian governments are responsible for health related services, including setting occupational health standards, handling toxic substances, certifying drugs, etc. (Goldsmith 2002).

Health care delivery is in the hands of private providers (Goldsmith 2002; Patel and Rushefsky 2002). Hospitals are not-for-profit entities, and they are run in the public sector. Nursing homes are either for-profit or non-profit, and they are usually run privately. Physicians work as sole practitioners, although they are moving towards group or managed care practices (Patel and Rushefsky 2002). In other words, the insurance or payment system is nationalized in Canada, but health care delivery is not (Evans 1992).

A variety of funding mechanisms are employed in the Canadian health care system. Funds are from individuals to health care services through taxes, health care premiums, and those embedded in costs of goods. Intermediary funders include the federal, provincial, territorial, and municipal governments, workers' compensation, employers, private insurers and etc. Taxes paid to federal, provincial, territorial, and municipal governments are the primary source of funds for publicly funded health care (Goldsmith 2002). The federal government transfers health care funds to the provincial or territorial governments through Canada Health and Social Transfer, and the provincial or territorial governments transfer funds to municipal governments which finance pubic health and other community health services (Goldsmith 2002).

To sum up, the U.S. health care system and its Canadian counterpart differ significantly. While the former is an entrepreneurial system which is based on a free market economy, the later is a welfare-oriented model which based upon governmental responsibility. Some researchers have investigated the reasons for this disparity. The next chapter will review their research.

Chapter 2 Literature review

According to Graig (1999: 128), "Social institutions such as health care systems are not created in a vacuum; they are reflections of societal values and expectations." To understand a country's health care system, it is essential to investigate its political, cultural and social environments. In this chapter I contrast Canada's and the U.S.'s political systems, these system origins, and place their health care systems within these contrasts. At this point I contrast the "record" each system has had in meeting the countries' health needs, and develop hypotheses regarding the cultural origins of differences in these records.

Political systems. The U.S. was established under the banner of equality – equality meaning that people have equal opportunities to achieve their goals (Lipset 1989:152). The state is an institution that ensures individual freedom. It grants individuals security and protection, but respects their autonomy by not interfering in their lives (Stewart 1972:68). Citizens' rights and freedom are particularly emphasized in the U.S. legal tradition. In the United States Constitution, sovereignty is identified as "being vested in a democratic polity of all citizens, especially within the preamble and within those sections that describe the process of choosing government officials" (McHugh 2002:39). The government has a republican form that entails an electoral system open to all citizens. In other words, all citizens have the right to participate in governmental affairs. U.S. citizens are highly aware of this right. They pay much attention to the constitutional standards which are related to their lives, particularly within the field of civil rights and liberties (McHugh 2002:39). In The United States Constitution, much attention is paid to civil liberties. Its prominence can be found in the ideal of limited government which is characterized by the separation of powers.

Canada's political system is quite different from its U.S. counterpart. Whereas the

U.S. has a presidential or congressional system of government, Canada is a constitutional monarchy with a parliamentary system. In contrast to the U.S. political system, which is characterized by separation among executive, legislative and judicial power, there is a combination of executive and legislative functions in the Canadian political system (Metcalfe 1982:151). One important reason for the difference is their distinct political histories. Unlike the U.S., which was born through revolution, Canada is a country born of political negotiation. Whereas early U.S. political and religious leaders tended to build a country characterized by freedom and equality, early Canadian political elites believed in a hierarchical society in which inferiors showed deference to their superiors (Lipset 1989:152). Authority in Canada is said to derive from the Crown, and the Canadian political system developed via adapting a modern, representative democracy to the institutions of a monarchy (Metcalfe 1982:151). In the Canadian political system, executive power is exercised by the Prime Minister and his Cabinet under the authority of the Crown and through the agencies of the federal bureaucracy. At the same time the Prime Minister and Cabinet are also legislative actors, responsible for the activities of the House of Parliament. The Canadian judiciary is independent of both executive and legislative actors (Metcalfe 1982:152).

Political origins. While U.S. law highlights individual rights and freedom, Canadian law focuses more attention on protecting social order. This difference can also be traced back to the early histories of the two nations. The ways in which the frontiers were settled differed greatly between the U.S. and Canada. According to Wallace Stegner (cited in Lipset 1989:91), "In the American West men came before law, but in western Canada the law was there before settlers, before even cattlemen, and not merely law but law enforcement." In contrast to early U.S. law which only reflected the interests and values of settlers, and included their prejudice

against local Indians, early Canadian law was characterized by its near-equal treatment between the two (Lipset 1989:91). In addition, the Canadian experience on the frontiers did not undermine conservative authorities. Canadians maintained a deep sense of obligation, and the need to conform to the rules (Lipset 1989:92). A liberal democratic society was stressed in both U.S. and Canadian law. Yet while the United States' founders stressed the importance of "life, liberty and the pursuit of happiness," Canada's founders laid much emphasis on "peace, order and good government" (Lipset 1989:93). U.S. people have a tendency to achieve a free society through attaining and protecting individuals' liberty, but Canadians prefer a collective approach to social arrangements and policies choices. For Canadians, human autonomy is best achieved through associations of people who share a collective goal of fulfillment and development, thus seeing their group identity as quite important (McHugh 2002:95).

Health care systems, social contexts. Using ethical theory, Jecker and Meslin (1994) compared and contrasted the basic ethical values underpinning national health care policies in the United States and Canada. They argued health care systems in both countries reflect the western social contract tradition, but each nation interprets the tradition differently. According to them (Jecker and Meslin 1994:181), "in the U.S., standards of justice for health care are conceived as voluntary agreement reached by self-interested parties. Canadians, by contrast, interpret the same justice tradition as placing greater emphasis on concern for others and for the community."

Angus (1998) identifies three categories of health care systems in industrialized countries. The first category is "National Health Service" or Beveridge-type care systems. In such systems, health care is universally covered for the country's residents, and it is mainly

financed by national taxes. Australia, Canada, United Kingdom and Scandinavia countries are in this category. The second category is the "Social Insurance" or Bismarck-type systems. Health care is universally covered in a social security framework, and it is mainly funded by a combination of employee and employer contributions and contributions of the members of society. Countries in this category include Austria, Belgium, France, Germany and Japan. The third category is the "private insurance" or consumer-sovereignty model. In such health care systems, health care is purchased individually or is employer-subsidized. It is mainly financed by private sector ownership productions. The United States is a typical example in this category.

For the record. U.S. health care system has many issues. Compared with Canada, the U.S. spends more on health care, but its health care is less accessible. In 1980 the U.S. spent 9.1% of its GDP on health care, but the number increased to 12.6% in 1990 and 13.6% in 1997 (Patel and Rushefsky 2002). Canada spent 7.1%, 9.0% and 9.0% on health care in the same three periods. However, in 1993 there were 39.7 million persons (15.3% of the U.S. population) who were without health insurance--number that increased to 40.3 million (17.4%) in 1995 (Pohl 2002:124). A 1990 poll showed that 90% of U.S. citizens surveyed believed that the U.S. health care system required fundamental change or a complete rebuilding, while the corresponding percentage of Canadian citizens was 43% believing that the Canadian health care system required fundamental change or a complete rebuilding (Blendon, Leitman, Morrison, and Donelan 1990).

Not surprisingly, there has been increasing public pressure in the United States to reform its health care system to one with a more universal form. Although numerous health reform efforts have gained considerable public support, they have not been politically

successful. The reasons for these failures are mostly rooted in the power of interest groups (Flood 2000). U.S. health care is represented by a multiplicity of actors with vested interests in their economic self-survival. Among these actors, physicians (represented primarily by the American Medical Associations) voice concerns that government intervention would reduce their earnings and restrict their clinical autonomy. Insurance and pharmaceutical companies lobby the U.S. Congress out of fear that government intervention would restrict their profits. Employers pressure Congress with concerns about the extra costs that would be imposed upon them to provide health insurance for employees. All these actors couch their arguments in terms of U.S. cultural values in U.S. society that emphasize individual interests.

In this study my objective is to investigate cultural reasons why implementation of guaranteed health care has succeeded in Canada but has yet to succeed in the U.S. My position is that for health care reforms to be viable, they must be debated in terms of common needs instead of individual interests. As an exploratory research question, I leave open whether or not reform yields a change from individualist to more collectivist discourse.

Defining culture. The concept, "culture," needs definition at this point. In a pioneering study Alan Fiske (1991:203) distinguishes among cultural forms, among that "people use shared mental representations to generate social relationships," "applying shared semiotic codes to mark social relationships and thus to coordinate, negotiate and interpret them." He defines four basic relational models (cultural forms) in terms of "modes of mental representation" that people use to guide their decisions: communal sharing (represented by sensorimotor rituals), authority ranking (represented by hierarchical orderings), equality matching (represented by quid pro quo reciprocity) and market pricing (represented by abstract ratios of exchange). Fiske (1991:224) argues that there is a linear developmental

relation among these cultural forms that corresponds to the emergence of cognitive capacity in humans.

> In an alternative schema, Harry Triandis defines a cultural syndrome as follows:
>
> (A) pattern of shared attitudes, beliefs, categorizations, self-definitions, norms, role definitions, and values that is organized around a theme that can be identified among those who speak a particular language, during a specific period, and in a definable geographic region (Triandis 1996:408).

In contrast to Fiske's linear developmentalism, Triandis takes a two-dimensional approach to distinguishing among cultures. On the one hand, cultural syndromes vary in terms of their collectivism and their individualism (i.e., their emphasis on collective vs. personal goals). On the other hand, they vary as vertical vs. horizontal (i.e., as placing emphasis on hierarchy vs. egalitarianism). Triandis (1996:414) categorizes four cultural patterns in terms of the values people hold in a variety of societies: vertical collectivism (India), horizontal collectivism (ancient Israel), vertical individualism (the U.S.) and horizontal individualism (Sweden).

Carl Roberts (2008) has also developed a 2-by-2 typology of cultures. Yet here the theoretical basis lies neither in assumptions about the development of human cognition nor about binary dimensions among human values. For Roberts cultures consist of discursively sustained forms of interactions. In particular, he defines an interaction as "a segment of a modal narrative during which one … (person's) actions are in response to or in solicitation of another… (person's) speech" (Roberts 2008: 47). Roberts (2008:65-6) distinguishes among cultures within which people "are" versus "are not" differentiable from their solicited actions/speech (i.e., are actions/speech that one "does" or that one "is"?). He identifies four different cultural forms: individualism (one does one's actions: most common in the United

States), mutualism (one does one's speech: most common in Western Europe, Scandinavia and Canada), essentialism (one is one's actions: most common in traditional China) and doctrinism (one is one's speech: most common in Islamic countries).

In this study I adopt Roberts' definition of culture. The two of his cultural forms relevant to this study are individualism and mutualism. In the U.S. individualist discourse is grounded on the myth of fairness (Roberts 2008:81). To maintain an individualist society there must be broad acceptance that everyone in the society has equal opportunity to achieve success. In addition, individuals' achievements must be verified publicly in order that others can know that goals are achievable. This combination of equal opportunity and consistent verification constitute a market place for individualist actions. Everyone may be told that he or she can be successful, but he or she must win in the competition to receive verification of success. The fairness myth combines presumptions of both universal ability and objective verification criteria. Those who do better under these criteria are winners, and those who fail to satisfy the criteria are losers. In Canada the prevailing mutualist myth is one of responsibility (Roberts 2008:101). In order to maintain such a society, there must be general acceptance that everyone in the society is responsible and has been trained for a specific set of social needs. In mutualist societies, people understand themselves as engaged in a system for answering everyone's needs.

For these myths to be discursively sustained, one might hypothesize that discussion in individualist societies refer to market (usually economic) conditions making it possible for people to achieve their goals. Yet in mutualist societies, discourse might more likely refer to need- or welfare-related reasons making it necessary for people to act responsibly.

In testing such hypotheses, modality analysis will be used as the methodology in this

study (Roberts et al.2008: 3). Modality analysis was developed specifically for investigating the types of culture-sustaining discourses of interest here. In next chapter, operational definitions of two key concepts in modality analysis--modal form and rationale will be described in detail, and concrete research hypotheses will be developed.

Chapter 3 Methodology and research hypotheses

1. Modal form

This paper uses theoretical language developed by Roberts et al. (forthcoming) to interpret various Simmel's sociational forms. "(E)ach of Simmel's sociational forms was characterized by a self-sustaining dynamic…these dynamics have a modal character never made explicit in Simmel' writings" (Roberts et al. 2009:503). Their argument is that Simmel's sociational forms can be understood in terms of how an actor and an observer use modal statements. When modal statements are consistently used, they provide guidelines for human behaviors. For instance, modal statements that persuasively convey the "impossibility" or "inevitability" of specific actions may serve to inhibit their audiences' pursuit of these actions, whereas those that convey "contingency" (i.e., nonnecessary) or "possibility" may help promote associated activities from their audiences. As illustrated in the next paragraph, this fourfold division among social action results because every modal statement can be negated in three ways, namely by negation of the modal, the main verb, or both (Roberts et al. 2009: 503).

According to Roberts et al. (2009:504), *ability discourse* is "contingent on an agent's ongoing intention toward attaining a goal." It starts when an agent undertakes the achievement of a goal in hopes that an observer will verify the goal's achievement at some future time (often an explicit deadline after which the observer is obligated to disclose whether it is impossible or inevitable for him or her to verify goal attainment). The criteria of goal achievement may or may not be made explicit prior to the deadline (e.g., in the form of a contract). Ability discourse may continue as the observer manipulates agents' motivations by providing them resources that increase goal-attainment's possibility in their minds or by

decreasing this possibility through reminding them that goal-attainment is impossible unless certain criteria are met. Once the observer verifies that the goal has been attained, his or her verification is depicted as inevitable and interaction ends. Statements of ability from the observer's standpoint are (paraphrasing from Roberts et al. [2009: 504]) as follows:

- *Contingency* (main verb negated): You are *able not* to proclaim goal-attainment. (The observer generally avoids such suggestions to the agent that verification may not be forthcoming.)
- *Possibility* (no negation): You are [potentially] *able* to proclaim having attained the goal. (The observer may show the agent resources which may lead to his or her success.)
- *Impossibility* (modal negated): I am *not able* to proclaim goal-attainment. (The observer may remind the agent of the criteria of goal-attainment.)

Ability discourse ends when the observer acknowledges,

- *Inevitability* (negation of both modal and main verb): I am *not able not* to proclaim goal attainment. (For example, an employer may no longer withhold payment for his or her employee's contracted work.)

Sociability discourse is usually the prelude of mutualist interactions. It is contingent on it being unnecessary for any collaborator to remind others of their responsibilities (Roberts et al. 2009: 505). It begins for an observer with the awareness that it is unnecessary (or contingent) for him or her to remind collaborators of their responsibilities. Subsequent to this, the observer may manipulate collaborators' motivations by explaining to irresponsible collaborators that it is possible for them to be more responsible, or by stating to unqualified collaborators that it is impossible (despite their best intentions) for them to act responsibly. Sociability discourse ends (mutualist interactions start) when the observer explicitly notifies

one or more collaborators that it is necessary for them to act responsibly. In this type of discourse, collaborators' actions are strategies for preventing the observer from recognizing responsibilities he or she may have neglected. Accordingly, statements of sociability from the observer's perspective are (paraphrasing from Roberts et al. [2009: 505-6]) as follows:

- *Contingency*: I am *not compelled* to recognize your responsibilities. (Observers will refrain from mentioning others' responsibilities when they do not appear to be neglected.)
- *Possibility*: You are *not compelled not* to recognize your responsibilities. (Observers may express disapproval to collaborators who do not act responsibly.)
- *Impossibility*: You are *compelled not* to recognize your responsibilities. (An unqualified collaborator's work may be so poor [e.g., due to illness] that it is better to leave the responsibilities to others.)

Sociability discourse ends (and mutualist interactions begin) when the collaborator exclaims,

- *Inevitability*: I am *compelled* to recognize your responsibilities. (For example, after noticing a neighbor's obese children an observer might exclaim, "You must feed your kids healthier foods.")

2. Rationale

Every modal statement is, in principal, subject to question. (e.g., "Why must I go?" and "Why are you not able to pay?"). A rationale is the primary explanation provided for why a modal statement is made regarding the possibility, impossibility, inevitability, or contingency of the statement's predicate. Popping and Roberts (forthcoming: 16-20, and paraphrased below) conceptualized five rationale categories:

- Economic rationales account for the possibility, impossibility, inevitability, or contingency of actions or situations as resulting from *applications* of the *internal workings* of the global economic order.
- Political rationales account for the possibility, impossibility, inevitability, or contingency of actions or situations as resulting from *manipulations* of the national order's *internal workings* by those of its citizens empowered to do so in ways consistent or inconsistent with of the nation's electorate.
- Welfare-related rationales account for the possibility, impossibility, inevitability, or contingency of actions or situations as resulting from *application* of the nation's social order for the management of known *external threats*.
- Security-related rationales account for the possibility, impossibility, inevitability, or contingency of actions or situations as resulting from *manipulation* of the national social order in response to impending or manifest *external threats* to this order.
- Cultural rationales are grounded in a country's domestic past, referring to a commonly accepted morality or to their own judgments.

Whereas cultural rationales refer to the historical basis of a society's collective identity, the other four rationales have a 2-by-2 set of relations (displayed in this paper's appendix) to *applications* versus *manipulations* of the society's social order via its *internal workings* or against its *external threats*. When these rationales are taken in combination with corresponding modal forms, twenty modal form-plus-rationale instances can be represented according to the following semantic grammar:

There is a (n) $\left\{\begin{array}{l} Welfare-related \\ Economic \\ Political \\ Cultural \\ Security-related \end{array}\right\}$ reason why something is $\left\{\begin{array}{l} Inevitable \\ Possible \\ Impossible \\ Contingent \end{array}\right\}$ for a $\left\{\begin{array}{l} Canadian \\ U.S. \end{array}\right\}$ citizen.

Hypotheses can now be formulated in terms of the relative prevalence of specific grammar instances in the U.S. and Canada.

3. Research hypotheses

A central premise in this paper is that people tend to make modal statements that correspond to the type of discourse that is predominant in their culture. In a culture in which ability discourse predominates, modal statements will likely convey possibility (Roberts et al. 2009:507). This is because possibility is usually referred to in three key moments of ability discourse. First, such discourse typically starts as agents proclaim that their goal-attainment is possible. ("I can do that.") Second, during discourse observers typically strengthen agents' motivations by pointing out resources. ("You can achieve success by using these.") Third, at the end of discourse observers usually proclaim the goal-attainment by recognizing agents' ability. ("He can be an asset to our company.") Since ability discourse is most common in goal-oriented individualist cultures like that of the U.S. and since economic conditions make it possible for individualists to attain goals, I formulate first three hypotheses as follows:

H1: In comparison to other rationales, economic rationales are more frequently mentioned as reasons for citizens' possibilities than for other modal forms (i.e., for impossibilities,

inevitabilities, or contingencies).

H2: Economic rationales are mentioned more often in the U.S. than in Canada.

H3: Possibilities for economic reasons are mentioned more often in the U.S. than in Canada.

Accordingly, one might expect U.S. public discourse like the following:

> The few nonprofit agencies operating such "supported S.R.O.'s" find they are cheaper to run per resident than the mass shelters that constitute New York City's basic program for the homeless. *Mental health officials are particularly eager to act now because real estate prices have leveled off.* That means mental health agencies *can* afford to purchase some S.R.O. buildings that once might have gone to developers. (*The New York Times*, December 25, 1989:30)

Note that in the above text some New York health care agencies were able to purchase single-room-occupancy buildings because of an economic reason (real estate prices were low at that time).

In a culture in which sociability discourse predominates, modal statements will likely convey inevitability (Roberts et al. 2009:508). Inevitability is often mentioned in three important moments of sociability discourse. First, when an observer tends to remind highly responsible collaborators of their responsibilities, he or she will typically begin with an apology for the reminder's inevitability. ("I'm sorry to have to remind you that…") Second, when reacting to charges of irresponsibility collaborators may defend their actions as having been inevitable. ("We need to reduce benefits.") Third, sociability discourse breaks down (mutualist interaction starts) when the observer explicitly notifies it is necessary for collaborators to act responsibly. ("I must recognize your responsibilities.") Since sociability

discourse is most common in responsibility-oriented mutualist cultures like that of Canada, and since welfare-related requirements that make it necessary for mutualists to act responsibly, I formulate my next three hypotheses as follows:

H4: In comparison to other rationales, welfare-related rationales are more frequently mentioned as reasons for citizens' inevitabilities than for their other modal forms (i.e., for impossibilities, inevitabilities, or contingencies).

H5: Welfare-related rationales are mentioned more often in Canada than in the U.S.

H6: Inevitabilities for welfare reasons were mentioned more often in Canada than in the U.S.

Accordingly, one might expect Canadian public discourse like the following:

> *Statistics Canada reported that the increase in the infant mortality "caught our attention."* We *should* all pay attention to this phenomenon, and understand how closely it is related to the socio-economic well-being of women and children. (*The Globe and Mail*, June 21, 1995: A10)

This text states all Canadians should (inevitably) pay attention to the well-being of women and children because of a welfare-related reason (an increase in infant mortality).

Social psychological research suggests that legislating behavior changes produce corresponding attitudinal changes. For instance, Supreme Court decision to desegregate schools in the U.S. was based upon the belief that a legislative effort would decrease racial prejudice. There is evidence that substantial attitude change did directly follow this legislative act of desegregation (Amir and Pettigrew as cited in Cogan 2003:471). Accordingly, one might hypothesize that three policies that made Canadian health care system universal resulted in an increase in mutualist interactions (i.e., in references to

inevitability for welfare-related reasons) in Canada. Accordingly my final hypothesis is as follows:

H7: There was a larger increase in Canada than in the United States from 1965-1999 in references to inevitability for welfare-related reasons.

Chapter 4 Data

Until the 1960s the U.S. and Canadian health care systems were quite similar. However, beginning with its passage of the Medical Care Act in 1966, Canada started to institute universal health care. Given my interest in cultural changes during the period when this change happened, I chose 1965 as the starting point. Moreover, in order to exclude the potential contaminating influence of the economic and political turmoil at the beginning of the 21st century, 1999 was selected as the end of my study period.

Because this study is on a national level, only newspapers having a national circulation are considered. *The Globe and Mail* (G & M) was the only Canadian newspaper having national circulation during the 1960s. G & M is a Canadian English-language nationally distributed newspaper which retained the largest circulation of every national newspaper in Canada and was considered the most influential of the nation's dailies during the study period. As Merrill (1968) has said, "if Canada may be said to have a national newspaper, it is Toronto's Globe and Mail." *The Globe*, the predecessor to G & M, was started in 1844 by George Brown as a weekly newspaper for the Liberal Reform Party. It became an independent daily newspaper by the 1850s and merged with *The Mail* (founded in 1872) and *The Empire* (founded in 1887) in 1936. Currently it is still the largest paid-circulation national newspaper in Canada, with a weekly leadership of 1,996,582 in 2008 (Daily Newspaper Paid Circulation Data).

The New York Times (NYT) is chosen as the U.S. counterpart to the G & M because it is one of the largest national newspapers in the United States. Its predecessor, *The New York Daily Times* was started by journalist and politician Henry Jarvis Raymond on September 18, 1851. It changed its name to *The New York Times* in 1857, and is now owned by The New

York Times Company. It has the third largest circulation (next to *USA Today* and *The Wall Street Journal*) in the United States. In 2009, it had a reported circulation of 1,039,031 copies on weekdays and 1,451,233 copies on Sundays (2009 Advertising, Circulation and Other Revenue).

A stratified sampling of "Health-related" editorials was selected from G & M and NYT between January 1965 and December 1999. First, each of the total 35 years between 1965 and 1999 was divided into four equal periods (the four periods are 91, 91, 91, 92 days for normal years and 92, 91, 91, 92 days for leap years). Second, one day was randomly sampled from each newspaper within the resulting 140 periods. One difference between G & M and NYT is that the former does not have Sunday issues but the later does. To have consistency between the two, Sunday newspapers were excluded when NYT was sampled.

Each newspaper issue that appeared on the sampled date was examined for an article (or articles) that could be classified as a "health-related" editorial (or editorials) within the newspaper's national (usually its first) section. If not, another day was randomly sampled until a "health-related" editorial (or editorials) was obtained and included in the sample. If a newspaper included more than one "health-related" editorial, one of them was randomly sampled.

An article was classified as "health-related" if at least one of the following criteria was satisfied:

- It is related to Canadian/U.S. hospitals or Canadian/U.S. medical professionals;
- It is related to medicines or medical research in Canada/the U.S.
- It is related to diseases or epidemics in Canada/the U.S.

- It is related to Canadian/U.S. citizens' health needs (e.g., their suffering, symptoms, etc.).

Moreover, an article in G & M/NYT could be classified as an editorial only if all the following criteria were satisfied:

- It was written (if G & M) by a Canadian author about Canadians or (if NTY) by a U.S. author about U.S. citizens, where "about" here means that the person was the semantic subject of a modal auxiliary verb (see below).
- It has a byline or is an official editorial written by the newspaper's staff.
- At least one modal statement was included within its first 3 paragraphs or last 3 paragraphs, where a paragraph is defined as including at least 3 sentences, and a modal statement is defined as a sentence that includes at least one inflected modal auxiliary verb (can, must, ought, etc.) whose subject is a domestic citizen.
- The modal auxiliary verb must convey something about this Canadian/U.S. citizen's intentions.

Applying the above criteria, two hundred and eighty editorials (140 from G & M and 140 from NYT) were sampled.

From among these editorials, each modal statement was classified according to its modal form (possibility, impossibility, inevitability or contingency). Possibility was the classification for statements that included modal auxiliary verbs such as 'can', 'could', 'be able to', etc. Impossibility was the classification for statements that included 'cannot', 'must not', 'should not, etc. Inevitability was the classification for statements including 'have to', 'need to', 'must', 'should', etc. Contingency was the classification for statements including 'not have to', 'not need to', 'not necessary', etc. Table 1 shows the unabridged classifications

of all token modal auxiliary verbs encoded for this study.

Table 1: Token instances of modal auxiliary verb forms

Possibility	Impossibility	Inevitability	Contingency
can	cannot	have to	not have to
could	could not	has to	not need to
be able to	must not	had to	be unnecessary
be allowed to	should not	need to	not necessary
be permitted to	not able to	ought to	
capable of	not capable of	be obligated to	
		must	
		should	
		be necessary	
		be needed	

Rationales were assigned to each modal statement in accordance with Table 4 in this paper's appendix using TCA—a computer code with features for the semantic encoding of texts.*

A total of 487 modal-statement-plus-rationales were encoded (236 in G & M and 251 in NYT). Table 2 provides a cross-classification of the encoded modal forms and rationales for both G & M and NYT. More than half modal statements conveyed inevitability (56% in G & M and 63% in NYT). Only 2% of the modal statements conveyed contingency with the same percentage in both G & M and NYT. The percentages of modal statements conveying possibility and impossibility fell between these extremes (respectively 19% and 22% in G & M and 17% and 18% in NYT). The percentages of welfare-related (54%), cultural (18%) and security-related (7%) rationales in G & M were higher than those in NYT (respectively 37%, 14% and 4%), but the percentages of economic (11%) and political (11%) rationales in G &

* TCS is written in Visual C++® for Windows XP®. Beta versions are available from Carl Roberts, Department of Statistics, Iowa State University.

M were lower than those in NYT (respectively 24% and 23%).

Table 2: Percentages of modality statements according to rationale and modal form

Rationale	*Modal Form*				**Total**
	Inevitability	Impossibility	Possibility	Contingency	
Welfare-related	32.4	5.7	6.4	0.4	45.0
	(158)	(28)	(31)	(2)	(219)
Economic	9.2	3.9	4.1	0.0	17.2
	(45)	(19)	(20)	(0)	(84)
Political	7.4	4.1	5.1	0.4	17.0
	(36)	(20)	(25)	(2)	(83)
Cultural	7.6	5.3	2.1	0.6	15.6
	(37)	(26)	(10)	(3)	(76)
Security-related	2.9	1.2	0.4	0.6	5.1
	(14)	(6)	(2)	(3)	(25)
Total	59.5	20.3	18.1	2.1	100.0
	(290)	(99)	(88)	(10)	(487)

Note: Frequencies are in parentheses below percents.

Chapter 5 Method and Results

In this study, the following multilevel loglinear model was estimated:

$$\log (Y_{ij} + \Delta) = \lambda + \lambda_i^M + \lambda_j^R + c\lambda^C + t\lambda^T + \lambda_{ij}^{MR} + c\lambda_i^{MC} + t\lambda_i^{MT} + c\lambda_j^{RC} + t\lambda_j^{RT} + ct\lambda^{CT}$$
$$+ c\lambda_{ij}^{MRC} + t\lambda_{ij}^{MRT} + ct\lambda_i^{MCT} + ct\lambda_j^{RCT} + ct\lambda_{ij}^{MRCT},$$

where Y_{ij} is the expected count of the i^{th} (i= 1[possibility], 2[impossibility], 3[inevitability], 4[contingency]) modal form and the j^{th} rationale (j= 1[economic], 2[political], 3[welfare-related], 4[security-related], 5[culture]), and whereas c is country (c= 1[Canada], -1[the U.S.]), t is linear time in seven 5-year increments from -3 for 1965-1969 until 3 for 1995-1999, and having the following constraints:

$$\sum_i \lambda_i^M = \sum_j \lambda_j^R = \sum_i \sum_j \lambda_{ij}^{MR} = \ldots = \sum_i \sum_j \lambda_{ij}^{MRCT} = 0.$$

Sample zeros were retained in the analysis by adding $\Delta = 10^{-8}$ to each cell in the contingency table (Agresti 1990:250).

The unit of analysis in this study is the modal-statement-plus-rationale (MR). MRs are nested in editorials. Given the tendency for authors of editorials to concentrate on a consistent message within their editorials, MRs within the same editorial are more likely to include identical modal forms and rationales than MRs in different editorials. In a modal form-by-rationale contingency table these clusters of identical MRs may yield larger variations in cell frequencies than variations within each country's population of all such MRs. To solve this problem, both within and between editorial variations were modeled. The model can be rewritten as

$$\text{Log } (E(Y + \Delta)) = X\alpha + Z_E\beta_E + e,$$

where α is the vector the model's 16 unknown λs and X is the design matrix of known

constants for the model's fixed effects. Editorials are identified within the matrix $Z_{E,}$ allowing the marginal effects of each editorial to be estimated as one of the 280 elements, or β_k, within the vector, $\beta_{E.}$ Assumptions in the analysis are that observed errors (e) are normally distributed and that observed cell frequencies (Y_{ij}) have a Poisson distribution. Moreover, it is assumed that the expected value of each editorial's error is zero, that editorial effects are independent of each other and with the same variance and that there are no joint effects between editorials and any combination of modal form, rationale, country or time.

There are 5,600 (4[modal] *5[rationale]*280[editorial]) cells in the table, yielding too sparse a table for sufficient power to draw many statistical inferences. Therefore, this table was collapsed in 20 ways so that each combination of modal form and rationale could be analyzed separately. Twenty 1120 (2*2*280) cell contingency tables were thus fitted to the above multilevel loglinear model such that in each model when m=1 a specific modal form is indexed and when m=-1 all other modal forms are indexed. Similarly, and when r=1 a specific rationale is indexed and when r=-1 all other rationale types are indexed. My objective is to test the seven hypotheses stated in Chapter 3. Only 2 of the 20 above-mentioned models are needed in testing these hypotheses namely those with the following combinations of modal form and rationale: (1) possibility for economic reasons; and (2) inevitability for welfare-related reasons.

NLMIXED in SAS was used to obtain maximum likelihood estimates of the models' coefficients (λs). Table 3 shows estimates for all 2-way and higher interactions from the two models of interest in this study. Results from all 20 models are in this paper's appendix. There are four findings consistent with my hypotheses. Consistent with H1, the data suggest that economic rationales were mentioned more often than other rationales as reasons for

people's possibilities. Second, there is strong evidence for H2 that economic reasons were mentioned more often in the U.S. than in Canada as rationales for modal statements. Third, consistent with H4, welfare-related rationales were mentioned more often than other rationales as reasons for people's inevitabilities. Fourth, as hypothesized in H5, welfare-related reasons were mentioned more often in Canada than in the U.S. as rationales for the modal statements. However, the data provide no evidences for H3 or H6 that there were no more instances of "possibility for economic reasons" in the U.S. than in Canada, nor were there more instances of "inevitability for welfare-related reasons" in Canada than in the U.S. In fact, each corresponding-but-nonsignificant slope has a sign opposite to the one hypothesized. Finally, there is no significant evidence of a linear increase in Canadian editorialists' reference to "things inevitable for welfare-related reasons" during the year when universal health care was being instituted in their country.

Table 3: Estimates from two hierarchical loglinear models of interactions among modal form (m), rationale (r), country (c) and linear time (t).

Interactions	Model	
	Possibility for economic reasons	Inevitability for welfare-related reasons
Modal form by rationale (m×r)	0.144*	0.264*
	(.079)	(.059)
Modal form by country (m×c)	0.094	-0.112
	(.079)	(.059)
Modal form with time (m×t)	0.000	-0.012
	(.040)	(.030)
Rationale by country (r×c)	-0.216*	0.235*
	(.079)	(.059)
Rationale with time (r×t)	-0.001	-0.046
	(.040)	(0.030)
Modal form by rationale by country (m×r×c)	0.065	-0.020
	(.079)	(.059)
Modal form by rationale with time (m×r×t)	-0.009	-0.019
	(.040)	(.030)
Modal form by country with time (m×c×t)	-0.048	-0.013
	(.040)	(.030)
Rationale by country with time (r×c×t)	-0.001	0.020
	(.040)	(.029)
Four way interaction (m×r×c×t)	0.008	0.006
	(.040)	(.030)
L^2	1617.6	1908.0

Note: Units of all interactions are log odds. Coefficients associated with interactions with time represent 5-years linear shifts from the average log frequency among all 1120 cells in each contingency table. Standard errors are listed in parentheses below estimates. df =1119 for all models.

*$p < .05$ (in one tailed test)

Chapter 6 Conclusion

Data in this study suggest that in both Canada and the U.S. welfare-related reasons are frequently mentioned as reasons for people's inevitabilities, whereas economic reasons tend to be given as reasons for their possibilities. However, expressions of individualist culture (i.e., ability discourse) are evident in the tendency within U.S. health-related discourse for citizens to refer to each others' actions as being motivated by economic reasons. In Canada expressions of mutualist culture are evident in citizens' tendencies within such discourse to refer to each other's actions as being motivated by welfare-related reasons.

No evidence was found for an increase in Canadians' mutualist interaction during and subsequent to their implementation of a universal health care system between 1965 and 1999. In brief, this study's findings suggest that Canadians' rhetoric of social responsibility was likely a fertile context for (rather than a passive consequence of) their developing system of universal health care. Given that the U.S. lacks such a cultural background, I speculate that a universal health care system may not work as well in the U.S. as in Canada.

Appendix

Table 4: Guidelines for assigning rationale instances to the categories of economic, political, welfare-related and security-related.

their social order	Citizens' application of	Citizens' manipulation of
by using its internal workings	**Economic** • regarding global markets • producers vs. consumers • budget constraints • supply vs. demand • technological developments	**Political** • regarding national accountability • leaders as public servants • leaders: political, corporate, special interest, union, lobby • ineptitude vs. corruption • vested interests vs. public trust • reappointment & reelection
in response to external threats	**Welfare-related** • threat management • recipients vs. providers of services • recipients' abuse vs. restraint • providers' neglect • services: subsistence, health, education, employment, environmental conservation, elderly care, etc.	**Security-related** • threat response • weak citizens vs. strong military • threat containment vs. prevention • domestic vs. foreign violence • affinity vs. animosity re non citizens • citizens' (expatriates') safety abroad • military viability (expenditures)

(Popping and Roberts forthcoming: 30)

Table 5a: Estimates from twenty hierarchical loglinear models of two-way interactions among modal form (m), rationale (r), country (c) and linear time (t).

Model (L^2)	*Modal form by rational* (*m*×*r*)	*modal form by country* (*m*×*c*)	*modal form with time* (*m*×*t*)	*rationale by country* (*r*×*c*)	*rationale with time* (*r*×*t*)
Welfare-related					
Inevitability	0.264*	-0.112	-0.012	0.235*	-0.046
(1908.0)	(.059)	(.059)	(.030)	(.059)	(0.030)
Impossibility	-0.235*	0.100	0.011	0.219*	-0.040
(1787.8)	(.070)	(.070)	(.035)	(.070)	(.035)
Possibility	-0.127*	0.070	-0.004	0.236*	-0.041
(1783.3)	(.070)	(.070)	(.035)	(.070)	(.035)
Contingency	-1.681	1.422	0.114	1.760	-0.035
(1490.6)	(48.952)	(48.952)	(24.476)	(48.952)	(24.476)
Economic					
Inevitability	-0.102	-0.074	-0.003	-0.253*	-0.001
(1764.1)	(.070)	(.070)	(.036)	(.070)	(.036)
Impossibility	0.050	0.020	0.003	-0.285*	-0.005
(1636.8)	(.084)	(.084)	(.042)	(.084)	(.042)
Possibility	0.144*	0.094	0.000	-0.216*	-0.001
(1630.8)	(.079)	(.079)	(.040)	(.079)	(.040)
Contingency	-3.394	0.063	0.157	-0.188	0.047
(1341.3)	(231.770)	(231.74)	(97.235)	(231.740)	(97.235)
Political					
Inevitability	-0.218*	-0.102	-0.046	-0.228*	0.018
(1746.6)	(.072)	(.072)	(.036)	(.072)	(.036)
Impossibility	0.065	0.008	0.035	-0.268*	0.049
(1623.1)	(.086)	(.086)	(.042)	(.086)	(.042)
Possibility	0.205*	0.120	0.018	-0.172*	0.050
(1617.6)	(.079)	(.079)	(.039)	(.079)	(.039)
Contingency	-3.183	0.208	0.729	-0.183	0.798
(1324.2)	(137.650)	(137.65)	(57.547)	(137.650)	(57.547)
Cultural					
Inevitability	-0.095	-0.147	0.056	0.117	-0.028
(1743.9)	(.075)	(.075)	(.037)	(.075)	(.037)
Impossibility	0.170*	0.164	-0.027	0.172	-0.048
(1619.9)	(.084)	(.084)	(.040)	(.084)	(.040)
Possibility	-0.134	0.077	-0.058	0.107	-0.068
(1614.1)	(.106)	(.106)	(.051)	(.106)	(.051)
Contingency	0.350	0.107	0.721	-3.545	-0.745
(1318.1)	(132.210)	(132.21)	(56.544)	(132.210)	(56.545)
Security-related					
Inevitability	0.023	0.030	-0.059	0.071	0.125*
(1556.4)	(.130)	(.130)	(.061)	(.130)	(.061)
Impossibility	-0.031	-0.004	0.074	0.059	0.156*
(1425.5)	(.168)	(.168)	(.076)	(.168)	(.076)
Possibility	-1.791	-1.826	-0.113	-1.717	-0.006
(1416.2)	(131.800)	(131.80)	(58.713)	(131.800)	(58.713)
Contingency	-0.920	1.471	0.059	1.817	0.063
(1139.5)	(62.044)	(62.044)	(31.022)	(62.044)	(31.022)

Table 5b: Estimates from twenty hierarchical loglinear models of three-way and four-way interactions among modal form (m), rationale (r), country (c) and linear time (t).

Model (L^2)	*Modal by Rational by Country* (*m*×*r*×*c*)	*Modal Form by Rationale with Time* (*m*×*r*×*t*)	*Modal Form by Country with Time* (*m*×*c*×*t*)	*Rationale by Country with Time* (*r*×*c*×*t*)	*Four way interactions* (*m*×*r*×*c*×*t*)
Welfare-related					
Inevitability	-0.020	-0.019	-0.013	0.020	0.006
(1908.0)	(.059)	(.030)	(.030)	(.029)	(.030)
Impossibility	0.003	0.015	0.046	0.010	-0.029
(1787.8)	(.070)	(.035)	(0.035)	(0.035)	(.035)
Possibility	0.023	0.022	-0.045	0.039	0.032
(1783.3)	(.071)	(.035)	(.035)	(.035)	(.035)
Contingency	1.554	0.018	0.101	0.003	-0.020
(1490.6)	(48.952)	(24.476)	(24.476)	(24.476)	(24.476)
Economic					
Inevitability	-0.008	0.024	-0.009	-0.011	-0.001
(1764.1)	(.070)	(.035)	(.036)	(.036)	(.035)
Impossibility	-0.064	-0.012	0.054	-0.011	0.005
(1636.8)	(.084)	(.042)	(.042)	(.042)	(.042)
Possibility	0.065	-0.009	-0.048	-0.001	0.008
(1630.8)	(.079)	(.040)	(.040)	(.040)	(.040)
Contingency	0.068	0.045	0.157	0.042	0.050
(1341.3)	(231.740)	(97.235)	(97.232)	(97.232)	(97.232)
Political					
Inevitability	-0.010	-0.053	-0.027	0.078*	0.003
(1746.6)	(.072)	(.036)	(.036)	(.036)	(.036)
Impossibility	-0.086	0.033	0.097*	-0.043	0.056
(1623.1)	(.086)	(.042)	(.042)	(.042)	(.042)
Possibility	0.078	0.035	-0.059	-0.083*	-0.032
(1617.6)	(.079)	(.039)	(.039)	(.039)	(.039)
Contingency	0.011	0.777	-0.451	-0.771	-0.711
(1324.2)	(137.650)	(57.547)	(57.547)	(57.547)	(57.547)
Cultural					
Inevitability	-0.121	0.106*	-0.055	0.045	-0.058
(1743.9)	(.075)	(.037)	(.037)	(.037)	(.037)
Impossibility	0.186*	-0.059	0.073	0.036	0.020
(1619.9)	(.084)	(.040)	(.040)	(.040)	(.040)
Possibility	0.034	-0.079	-0.019	0.053	0.039
(1614.1)	(.106)	(.051)	(.051)	(.051)	(.051)
Contingency	-3.653	-0.751	-0.482	0.784	0.769
(1318.1)	(132.210)	(6.545)	(56.544)	(56.544)	(56.544)
Security-related					
Inevitability	0.094	-0.043	-0.036	0.076	-0.027
(1556.4)	(.130)	(.061)	(.061)	(.061)	(.061)
Impossibility	-0.066	0.070	0.041	0.060	-0.012
(1425.5)	(.168)	(.076)	(.076)	(.076)	(.076)
Possibility	-1.889	-0.127	-0.118	-0.017	-0.068
(1416.2)	(131.800)	(58.713)	(58.713)	(58.713)	(58.713)
Contingency	1.764	-0.046	0.077	0.039	-0.022
(1139.5)	(62.044)	(31.022)	(31.022)	(31.022)	(31.022)

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Acknowledgement

I would like to thank those who helped me conduct research and write this thesis. First and foremost I want to thank my major professor Dr. Carl Roberts for his patience and support throughout the entire process of this research and writing the thesis. The knowledge and skills I gained while working with him will be far beyond this paper and will assist me in my future career as a sociologist. I would also like to thank my committee members, Dr. Terry Besser and Dr. Frederick Lorenz for their insightful comments and suggestions. Last but not least, I want to express thanks to my beloved fiancee, Qing. Her encouragement, support and confidence in me have accompanied me throughout the whole process of completing this thesis.