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**Abstract**

Using Bayesian Belief Networks to Evaluate the Diagnosticity of Observables and  
Indicators of Democratic Governance in Countries

by

Thomas Horton

Proposal Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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## Abstract

Scholars and international nongovernment organizations (INGO) have developed concepts of democratic governance (DG) widely used by domestic and international agencies to evaluate a country's implementation of DG. These broad, global concepts are not always observable, collectable, measurable, or diagnostic in application. The purpose of this study was to investigate whether Bayesian belief networks (BBN) are a viable tool to evaluate a country's implementation of DG. Dahl's and Mainwaring's conceptualization that democracy is not a dichotomous state but a spectrum served as the theoretical framework for the study. The research question focused on whether BBNs could represent this spectrum in a mathematical model via conditional probability tables. The research design consisted of selecting a purposeful sample of 5 countries and then developing, populating, and operating BBNs around the 2 DG variables of "free and fair elections" and "multiple political parties." Study results indicated that BBNs are a viable tool for evaluating specific observables of DG implementation. Hypothesis testing also identified attributes of DG that are neither diagnostic nor observable, and suggested the need for independent observers to review not just elections but also a country's actual implementation of its legal framework for DG. Implications for positive social change stemming from this study include the opportunity for INGOs to use the BBN methodology in program decision-making and to access reliable diagnostic measures of cultural differences and how they may affect the implementation of DG.



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## Chapter 1: Introduction to the Study

The United Nations, the Inter-Parliamentary Union, and nongovernment organizations such as Freedom House, have tried to devise ways to define the concept of democracy, with the intent of using this definition to evaluate whether a specific country is or is not democratic in their governance (Freedom House, 2011; Inter-Parliamentary Union, 1994, 1997; United Nations, 1966). Unless care is used in these types of evaluations, there is the possibility that a country may be evaluated as being less democratic because the country does not adhere to the evaluator's conception of democracy. Using a methodology that is more inclusive of the different ways countries can implement, democracy may result in a more accurate and complete evaluation concerning democratic governance.

The various definitions of democracy have allowed the creation of measurable elements of democracy by nongovernment organizations and scholarly writers. Examples of these elements include free and open elections (Murphy, 2009, p. 1305); judicial oversight of elections (Elaasar, 2009, p. 3); involvement of political parties, political competition, and a pattern of leadership changes (Diamond, Linz, & Lipset, 1995; Inter-Parliamentary Union, 1994, 1997; United Nations, 1966; Wong, 2003). These measurable elements help move democratic governance out of the conceptual intellectual realm and into the practical applied realm. This is the point where the difficulties of defining democracy and its elements are most evident.

The concept of democracy may be easy to understand; but, the development of measurable and testable elements of democratic governance is not as easy. This study

was focused on one of the elements of democracy, political competition, and specifically on how democratic governments can implement the concept of political competition. Political competition is one of the differentiators between an authoritarian form of governance and a democratic form of governance (Wong, 2003, p. 245). One method of ensuring political competition is through the use of political parties. Political parties represent a choice to citizens, regardless of the relationship between the parties, be it adversarial or pragmatically cooperative. The basic question for this dissertation is: Can there be political competition that ensures a democratic form of government without political parties?

The importance of understanding different implementations of political competition is one of the core fundamentals of this research. The concept of political competition was explored, including the practical implementation of political competition in a governmental schema. Emphasis was placed on whether political parties are the only way to implement political competition, or whether there were other means to ensure political competition.

Democracy can be used as a criterion for evaluating governments around the world. Countries may be commonly labeled using the dichotomous label democratic or nondemocratic. Out of the 216 countries recognized by the United States, 203 of them self-identify as being democratic in nature (Central Intelligence Agency [CIA], 2011). This number can appear to be unrealistic. Even casual examination of the different countries shows significantly different governmental systems. Democracy is often seen as a badge of legitimacy in a government. Governments who may not embrace the full

concepts of democracy still want to be seen as being democratic (Roth, 2009, p. 140).

Countries may interpret the concept of democracy differently, and implement the elements of democracy according to their own culture. Not all democratic countries operate the same way.

*The CIA World Fact Book* (2011) is a reference work written by the CIA and published through a commercial publisher for use by nongovernment entities. This reference book consists of descriptions of the nations of the world that can be used to assist in the comparisons between diverse governmental structures. An advantage of using the *World Fact Book* for this purpose is that it uses a standard set of descriptive terms and provides the definition of those terms (CIA, 2011, p. XV). For example, consider the entries in the *World Fact Book* for the following countries: The United States of America, The Islamic Republic of Iran, the Swiss Confederation, the Republic of Singapore, and the People's Republic of China. Each country self-identifies as a democracy; but, each of these countries' governments operates differently, and implements democracy differently.

The United States operates under a constitution-based federal republic (CIA, 2011, p. 699). The Islamic Republic of Iran operates under a theocratic republic (p. 311). The Swiss Confederation operates under a unique combination of confederation and federal republic (p. 635). The Republic of Singapore operates under a parliamentary republic (p. 592). The People's Republic of China operates as a communist state (p. 139). However, China self-identifies as a democratic dictatorship (Constitution of the People's Republic of China, 2004, Article 1). Each of these countries has different records of

hegemony, political freedom, and levels of personal freedom, which raises the question if it is possible for all these countries to be democratic in nature. The purpose of this research is to use the criterion of political competition to investigate whether governments can be accurately considered democratic in nature, despite interpreting the concept of democratic governance differently.

How a culture or society implements the concept of democratic governance can be linked with the societal or cultural identity of the people themselves. A specific society's or culture's concept of democratic governance can become so ingrained that the people start to hold these truths be self-evident, meaning that they are no longer rationally debated and explained but accepted as fact. This is an example of what Lewis (2003) identified as a "cultural black hole" (p. 117), and these cultural black holes can lead to a biased way of perceiving democracy. To reduce the effects of potential cultural black hole biases, I supported this qualitative research study with a Bayesian belief inference network.

### **Nature of Study**

One of the challenges of this study was managing uncertainty concerning the inferences made from the data. When constructing and evaluating the study hypotheses, it is unlikely that the population will consist of hard evidence. Hard evidence is evidence, that, when observed, affects the belief in a hypothesis state with no uncertainty (Jensen & Nielson, 2007, p. 131). In the context of this study, an example would be if the hypothesis were "Country X has elections (T/F)". The observation of an election in Country X would be an example of hard evidence. The presence of an occurrence of an

election supports the true state of the hypothesis with no uncertainty. However, if the hypothesis were expanded more in line with the research questions of this study to be in the form, “Country X has free elections (T/F)”, then the observation of an election would be an example of circumstantial evidence. Circumstantial evidence is evidence that, when observed, affects the belief in a hypothesis state with some level of uncertainty (Jensen & Nielson, 2007, p. 40). The presence of an occurrence of an election may or may not infer the occurrence of a free election. Due to the political and societal nature of how different cultures interpret concepts such as *free*, *fair*, and *open*, uncertainty in inferences is, in the context of this study, to be expected and needs to be managed.

Bayesian belief networks have become a widely used analytical methodology to manage inference uncertainty (Daly, Shen, & Aitken, 2001, p. 99). Bayesian belief networks are based on a statistical law called Bayes’ Law. Bayes’ Law is a mathematical formula used in calculating conditional probability (Quentier, p. 180). A Bayesian belief network is a construction of hypotheses, indicators, and observables all interconnected with Bayesian formula (Quentier, p. 180). The purpose is to statistically manage how circumstantial evidence affects the belief or confidence in one or more of the hypothesis states (Koski & Nobel, 2009, p. 1).

The Bayesian belief network manages the uncertainty by allowing the evaluation of hypotheses by probabilistically conditionalizing data that have uncertainty into a form that has certainty (Mastropasqua, Crupi, & Tentori, 2010, p. 941). The following analytical process can represent the concept of this probabilistic conditionalizing: Assume that there is a hypothesis with two states (A and B) and that there is an indicator

(labeled 1) that has been assigned to this hypothesis. In constructing a Bayesian belief network, the following question is answered for every node of the network: Given that hypothesis state “A” is true, is it more likely that indicator “1” will be present than if hypothesis state “A” is not true? Further detail on the construction of Bayesian belief networks will be given in Chapter 3 of this study.

There are advantages in using Bayesian belief networks in this study. Bayesian belief networks are useful in visualizing the interrelationships between disparate variables (Uusitalo, 2007, p. 315). This visualization enables transparency inside the Bayesian belief network. All the inferences and interrelationships are patent, testable, and defensible. This transparency can help people from diverse backgrounds understand the analytical methodology and the inference based results (Martin, Dominguez, Artigao, Faberio, & Orgeta, 2006 p. 21). The primary advantage of Bayesian belief nets to scholars is that the network can be easily updated as new information is discovered (Tricehurst, Letcher, & Rissik, 2008 p. 435).

In this study, I selected a sample from all the countries of the world. The methodology for the selection will be described in Chapter 3. This sample represents a spectrum of the countries of the world ranked according to a methodology used by Freedom House, which will be described in detail in Chapter 2. Freedom House is a nongovernment organization that publishes a yearly report evaluating the countries of the world on various criteria focused on freedom.

Each of the sample countries was treated as a separate case in that I designed, constructed, and populated separate Bayesian belief networks diagramming how each

country does or does not implement political competition, and how each country addresses political parties. Chapter 3 is a full description of how this will be constructed and tested. After populating and testing all the Bayesian belief networks, an inference concerning the relationship between the implementation of political competition and the presence of political parties will be made. The results of the analysis will be reported in Chapter 5.

### **Problem Statement**

The problem addressed in this study is whether the concept of political competition can only be demonstrated by a governmental system that involves multiple political parties. Political competition is one of the defining concepts of democracy (Wong, 2003, p. 245). Political competition is a concept, and political parties are one way to implement that concept. I used a combination of grounded theory and case studies to explore whether political parties are the only way to implement the concept of political competition. As a schema for assembling and evaluating the data, Bayesian belief networks were used.

The schema of using Bayesian belief networks helped illustrate the interrelationships within each case study country of how political competition and political parties are implemented. The Bayesian belief network was structured in a hierarchy from hypothesis, in this context: Country X implements political competition (T/F); through a number of indicators that support or refute the hypothesis stated down to the lowest level, which is the actual collectable data. An example will help illustrate this hierarchy.

The hypothesis is Vietnam implements political competition in its elections (T/F). An indicator of this might be taken from Hobson (2003), who asked, do the citizens have the freedom to form and join organizations? This indicator may have one or more indicators itself. For example, are there laws prohibiting citizens from forming and joining organizations? An example of observable evidence would be a citation for this actual law. In this simplified example, there were only one hypothesis, one indicator, and one observable. In the Bayesian belief networks that I constructed for this study, there could have been dozens of indicators for each hypothesis thread. The Bayesian belief network represented not only the structure of the interrelationships but also their strength and influence among the observables and indicators (Houwer, 2009, p. 1). By representing not only the structure of the interrelationships, but also the relative strengths by way of implementing Bayes law, a defensible and testable inference was made.

Determining how a country implements political competition involves not only choices, but also choices that are significantly different from each other. If the citizens are given a choice between two candidates that share the same political platform, the citizens do not really have a choice that provides them with a viable difference. Another example of a choice with no viable differences might occur in a totalitarian regime, where the citizens have the choice between voting for the dictator and not voting for anyone. These are two examples of how an election may have the appearance of political competition, but in reality, there is no competition. Political competition is better represented when the citizens are given choices that are truly different. This difference is necessary so that the political choices can be in competition with each other. In this

context, these political choices, if implemented, will result in some observable change of policy or in how the government operates. Free and open elections serve little purpose if the voters are not given a viable set of alternatives to choose between, alternatives that have considerable differences. Without this difference, voters cannot really make decisions based on choice.

Political competition is a common criterion in defining democracy. The background documents from the United Nations (1966), the Inter-Parliamentary Union (1994, 1997), and the definitions of democracy as postulated by Diamond, Linz, and Lipset (1995), established political competition as an element of democratic governance. Political competition in democracies will necessarily result in compromises that will help unite the citizens. “Political competition transforms the political game from one of suppressing dissent (authoritarianism) into one of winning support (democracy)” (Wong, 2003, p. 245). Dahl (1971) characterized governmental structure in terms of liberalization and inclusiveness (p. 7). In his context, the concept of liberalization was represented by the implementation of public contestation. For the purpose of this study, the concept of liberalization, as used by Dahl, will be referred to as political competition.

## **Background**

The United States currently has, and in the past has had, programs designed to influence democratic governments in foreign countries. The United States Department of State (USDoS), the National Endowment for Democracy (NED), or the Department of Defense (DoD) manages these programs. The programs managed by the Department of State include the United States Agency for International Development, Office of

Democracy and Governance (USAID/DG). The programs managed by the National Endowment for Democracy include the National Democratic Institute, the International Republican Institute, and the Center for International Private Enterprises. The Department of Defense, through the National Guard, manages the National Guard State Partnership Program.

These programs, working either independently or in conjunction with each other, have respective programs within specific foreign countries. The overall goal is to help promote the development spread of democratic governances around the world. “Promoting freedom and democracy and protecting human rights around the world are central to U.S. foreign policy” (USDoS Bureau of Democracy, (2011), Human Rights, and Labor mission statement).

The National Endowment for Democracy is a nonprofit, nongovernment organization with the mission to encourage the growth and strengthening of democratic institutions around the world (NED mission statement, 2011). The National Guard State Partnership Program provides mentorship and guidance to partnership countries to advance democratic governance and the principle of military subordination to democratic governments (Peart, 2006).

In 2003, The USAID/DG published a guide focused on the funding of political parties as one measure to evaluate the effectiveness of political parties in democracy (p. 1) and established the requirement for political parties in democracies (p. 49). Each one of these programs uses some form of a democracy model to identify measurable elements of democracy. The models used by these programs are not as formal as academic models;

however, a review of the guidelines from these programs can identify specific elements of democracy. I focused on the element of political parties in the context of political competition. All of these programs use the element of political parties as part of their respective definition of democracy.

### **Purpose of the Study**

The purpose of this study was to use circumstantial evidence, such as constitutional interpretations, judicial reviews, and laws and regulations, to investigate if it is possible for a government to implement political competition without the use of political parties as part of the election process. In Chapter 3, I defined the terms *absolute evidence* and *circumstantial evidence* in detail; but generally, absolute evidence is evidence that affects a state of a hypothesis with no uncertainty. Absolute evidence can also be referred to as hard evidence (Jensen & Nielson, 2007, p. 131). For example, if a specific indicator is observed, then Hypothesis State 1 changes with no uncertainty (probability of 1.0). This change can either confirm or refute Hypothesis State 1. When evaluating evidences of democracy there is often uncertainty. Therefore, a methodology needs to be used that can easily incorporate circumstantial evidences. For this study, the Bayesian belief network was used to incorporate circumstantial evidence and manage the uncertainty of the interrelationships between the evidences.

Circumstantial evidence affects a state of a hypothesis with some degree of uncertainty. Circumstantial evidence can also be referred to as *likelihood evidence* (Jensen & Nielson, 2007, p. 40). For example, if a specific indicator is observed, the belief of hypothesis state 1 changes with some degree of uncertainty (probability <1.0).

As with absolute evidences, this change can either increase or decrease belief in one or more of the hypothesis states. In this study, all of the hypotheses used had a set of states.

The simplest set of states is True and False. However, some hypotheses may have more than two states. The requirement for Bayesian belief networks is that the states of the hypothesis must be both mutually exclusive and collectively exhaustive (Elfessi & Reineke, 2001). Mutually exclusive means that given complete knowledge, at any one instance only one hypothesis state can be true. Collectively exhaustive means that, given complete knowledge, at any one instance at least one hypothesis state can be true. In this study, great care will be taken to properly construct the various hypotheses, to ensure that all the possible states of the hypothesis are mutually exclusive and collectively exhaustive.

Throughout this study, the terms absolute and circumstantial evidence will be used for consistency and for greater understanding as absolute and circumstantial are more intuitively understood than the terms *hard* and *likelihood*. In the context of this study, an example might be the observation of two or more political parties operating within a country. If the hypothesis is, this country has government structure that enforces political competition (T/F), can the observation of multiple political parties support, with no uncertainty, the hypothesis state of true? It cannot, because just the observation of multiple political parties operating in a country does not automatically mean that the concept of political competition is being demonstrated (probability of 1.0). In this context, the observation of multiple political parties cannot be considered absolute evidence; but, it can be considered circumstantial evidence. As a circumstantial evidence,

the observation of multiple political parties may affect the belief that the concept of political competition is being demonstrated (probability < 1.0).

It is anticipated that using circumstantial evidences will provide a more inclusive venue for understanding how different countries may implement political competition in different, but still valid, ways. The positive social change achieved through this study will be greater understanding of the different ways countries choose to implement political competition and the reduction of the risk of incorrectly evaluating a specific country as being nondemocratic in nature.

### **Conceptual Rationale**

When examining how other cultures implement the concept of democratic governance, it is important to evaluate a specific country based not only on objective evaluation criteria, but also considering the culture of the specific country. For example, consider the United States, Islamic Republic of Iran, Republic of Singapore, and the People's Republic of China. An examination of the governmental processes of these countries may reveal differences, some significant, between how these countries implement the concept of democracy.

The United States implements the concept of political competition by means of political parties. While there is no legal limit to the number of political parties, in the 20th and 21<sup>st</sup> century, the Democratic and Republican parties have dominated American politics (Dahl, 2003, p. 110). From a practical point of view, the United States is a two party democracy. These two dominant political parties are in competition with each

other. Elections are contested and sometimes challenged as one party tries to establish a majority with respect to the citizens voting.

The Islamic Republic of Iran implements democratic governance by means of political parties that operate under the concept of Shi'a Islam (Constitution of the Islamic Republic of Iran, 1989). The Republic of Singapore implements democratic governance by means of a single party polyarchy under the auspices of the People's Action Party (Houseman, 2000). The People's Republic of China implements democratic governance by means of a set of cascading autonomous congresses, all operating under the auspices of the Chinese Communist Party (Constitution of the People's Republic of China, 2004, Article 1).

Implementation of democracy in the United States is different from how democracy is implemented in many of the nations of the world also claiming to be democratic. Developing an all-encompassing definition of democracy that is widely accepted is more difficult. "There is no model of governance with any broad normative appeal or legitimacy in the world" (Diamond, 2003, p. 3). This quotation illustrates that while different countries may agree on the general concept of democracy, there is no one model of the implementation of democracy that is universally accepted among all the nations of the world. Various governmental and nongovernmental organizations have attempted to come up with a definition of democracy, which can be applied, to a large number of countries (UN (1966), IPU (1994), Diamond et al. (1995). The Inter-Parliamentary Union and the United Nations are two international organizations that have attempted to document a definition of democracy.

## **Inter-Parliamentary Union**

One of the first international organizations working to define and promote democracy as a form of government is the Inter-Parliamentary Union (IPU). The IPU was established in 1898 with the purpose to serve as a “focal point for world-wide parliamentary dialog and works for peace and co-operation among peoples and for the firm establishment of representative democracy” (IPU, 2011, Overview, para 2). While the IPU has some similarities with the United Nations, which was formed in 1945, there are four key differences between the IPU and the United Nations.

- The IPU operates strictly as an advisory body to foster cooperation between parliamentary nations.
- The IPU does not promulgate legislative resolutions to its members.
- The IPU lacks the economic and military powers that are defined in Chapter seven of the Charter of the United Nations.
- The IPU does not impose, manage, nor regulate international economic or military punitive actions (IPU, 2011).

Specifically the IPU’s goals are:

- To foster contacts, co-ordination, and the exchange of experience among parliaments and parliamentarians of all countries.
- To consider questions of international interest and concern and express its views on such issues in order to bring about action by parliaments and parliamentarians.

- To contribute to the defense and promotion of human rights--an essential factor of parliamentary democracy and development.
- To contribute to better knowledge of the working of representative institutions and to the strengthening and development of their means of action (IPU, 2011, Overview, para 3).

Currently, 146 nations are members of the IPU. The IPU has published several declarations that attempt to define democratic governance. In the 1990s, the IPU consolidated the results of various subcommittees into more formal declarations. In 1994, the Inter-Parliamentary Council of the IPU unanimously adopted the Declaration on Criteria for Free and Fair Elections (IPU, 1994). This declaration outlines critical factors in determining whether a specific country's elections were indeed free and fair. Similarly to other international declarations or covenants, a fine political and culture line has to be transited. National sovereignty gives each country the right to develop its own political systems without interference by other states (United Nations Charter, 1943, Article 2). Few sovereign states are willing to give up their sovereignty and the implicit right to form their political systems in accordance to their specific cultural environment.

The Declaration on Criteria for Free and Fair Elections stated, "Everyone has the right to join, or together with others to establish, a political party or organization for the purpose of competing in an election" (1994, Article 3, Section 2). Stating that citizens have the right to establish political parties denotes that this is a choice, not a requirement, for democratic governance. The establishment of the difference between the right of citizens to form political parties as opposed to the necessity of forming political parties

will be discussed when examining and critiquing Freedom House's definitions of democracy later in this chapter.

In 1997, the Inter-Parliamentary Council of the Inter-Parliamentary Union, meeting in Cairo, adopted the Universal Declaration on Democracy (IPU, 2011). In this declaration, the IPU reiterated its position that each state is sovereign and has the right to implement its own political systems without interference by other states. At the same time, the IPU reiterated its position that in "any state, the authority of the government can derive only from the will of the people as expressed in genuine, free, and fair elections" (IPU, Declaration on Criteria for Free and Fair Elections, 2011). In the context of the issue of political competition and political parties, the Universal Declaration on Democracy expands on the Declaration on Free and Fair Elections previously adopted in 1994. Section 5 of the Universal Declaration on Democracy stated:

A state of democracy ensures that the processes by which power is acceded to, wielded and alternates allow for free political competition and are the product of open, free and non-discriminatory participation by the people, exercised in accordance with the rule of law, in both letter and spirit. (IPU, 2011, Section 5)

This section of the Universal Declaration on Democracy established a relationship between democratic governance and political competition. This relationship of political competition being a necessary foundation of democratic governance will be a common theme in the other theories of democracy described in this chapter. Section 12 of the Universal Declaration on Democracy stated:

The key element in the exercise of democracy is the holding of free and fair elections at regular intervals enabling the people's will to be expressed. These elections must be held on the basis of universal, equal, and secret suffrage so that all voters can choose their representatives in conditions of equality, openness and transparency that stimulate political competition. To that end, civil and political rights are essential, and more particularly among them, the rights to vote and to be elected, the rights to freedom of expression and assembly, access to information and the right to organize political parties and carry out political activities. Party organization, activities, finances, funding, and ethics must be properly regulated in an impartial manner in order to ensure the integrity of the democratic processes. (IPU, 2011, Section 12)

This section reiterated the IPU's position that citizens in a democracy should have the right to form political parties; but, as in the previous Declaration on Free and Fair Elections, does not state that political parties are an essential element of democracy. This article did introduce the idea that political parties, if formed, need to be regulated "in order to ensure the integrity of the democratic process" (IPU, 2011 Section 12).

The IPU has been active in the development of democratic governance in the Pacific regions of the world. In cooperation with the Commonwealth Parliamentary Association and the Asia Pacific Parliamentary Forum, the IPU has provided assistance to the countries of Fiji and the Solomon Islands (Rich, 2003) by sending representatives and providing electoral oversight to these two budding democracies.

## The United Nations

The United Nations has also worked to define and develop democracy throughout the world. The United Nations has published two declarations that serve as a widely accepted basis for defining democratic governance, the Universal Declaration of Human Rights and the International Covenant of Civil and Political Rights.

**Universal Declaration of Human Rights.** In 1948, the General Assembly of the United Nations passed the Universal Declaration of Human Rights (United Nations, 1948). This document, modified in 1966 and 1976, was an attempt to outline basic human rights that would be universal in all countries. Of particular interest in the examination of democratic governance is article 21 of the Universal Declaration of Human Rights. This article describes three specific human rights that the United Nations and other organizations use as a basis for defining democratic governance. These human rights are listed here verbatim from article 21 of the Universal Declaration of Human Rights:

- Everyone has the right to take part in the government of his country, directly or through freely chosen representatives.
- Everyone has the right of equal access to public service in his country.
- The will of the people shall be the basis of the authority of government; this shall be expressed in periodic and genuine elections, which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures. (United Nations, 1948, Article 21)

The third right in this article appears to support the concept of democratic governance, but avoids any specific procedural requirements other than a vague need for

elections. There remains disagreement among the nations of the world concerning this basic right. A significant disagreement to the Universal Declaration of Human Rights was manifested by the adoption of the Cairo Declaration on Human Rights in Islam (Organization of Islamic Cooperation, 2012).

**Cairo Declaration on Human Rights in Islam.** The term *universal* in the Universal Declaration of Human Rights is a misnomer, as the members of the United Nations General Assembly do not universally accept the Universal Declaration of Human Rights. In 1990, 54 nations, representing over one quarter of all the countries in the world, adopted the Cairo Declaration (Organization of Islamic Cooperation, 2012, Cairo Declaration text. The Cairo Declaration does not specify any governmental form or procedures with the exception of implying that all governmental systems shall adhere to Islamic Shari'ah or Islamic law Article 23 of the Cairo Declaration on Human Rights in Islam stated:

Everyone shall have the right to participate, directly or indirectly in the administration of his country's public affairs. He shall also have the right to assume public office in accordance with the provisions of Shari'ah. (United Nations, 1990, Article 23)

The Cairo Declaration on Human Rights in Islam does not address political parties at all. As it neither authorizes nor prohibits the right of citizens to form political parties, further analysis is difficult. One interpretation would be that the Cairo Declaration, by neither mentioning the right to form political parties nor prohibiting

them, is laying the justification for a single party system. As will be examined later in this chapter, a single party system may not preclude democratic governance.

The Cairo Declaration on Human Rights in Islam is not as incompatible with western interpretations of democracy as it might first seem. Ghadbian (2003) identified three core features of Islamic political theory:

- Leaders must be selected by the people.
- Leaders must be subject to Shari'a law (Islamic law).
- Leaders must be committed to practicing Shura (mutual consultation) with their community.

These core features of Islamic political theory are not in conflict with some of the theories of democracy. The first of the Islamic policies is that leaders must be selected by the people. This policy matches up very closely to elections as a core feature of democracy. In both the Universal Declaration of Human Rights and in the Cairo Declaration on Human Rights in Islam, political leaders need to be elected or otherwise selected by the citizens of the country (United Nations, 1948 and the Organization of Islamic Cooperation, 2012).

The second of the Islamic policies is that leaders must be subject to Shari'a Law. This policy is compatible with the democratic value that leaders must be subject to the law (United Nations, 1948, Article 7). In the Islamic example, it is Islamic Law (Organization of Islamic Cooperation, 2012, Article 23). In other forms of democracy, it is more secular law; but in both cases there is subservience and accountability with respect to law

The third of the Islamic policies is that leaders must be committed to practicing Shura. The Arabic word Shura means consultation (Ghadbian, 2003) . In Islam, Shura is the concept of mutual consultation and is a form of political participation (Ghadbian, 2003). In the case of Shura, the political participation not only includes the participation of the voters, but also includes political participation between government officials (Ghadbian, 2003) While Islamic democracies may appear to be drastically different from more western forms of democracy, the two interpretations of democracy share many of the same elements. Khan (2002) challenged this interpretation. Khan posited that Shura should not be considered equivalent to political competition, as there is disagreement in Islam whether Shura is or is not obligatory or binding. The Khan interpretation will be addressed further in Chapter 2.

The third Islamic policy that Ghadbian (2003) introduced is also challenged by Anderson (2006) in that consensus is fundamentally undemocratic. The concept of democracy is based on the voting process where the majority wins and the minority loses. The principles of democracy do not mandate that the minority accept the viewpoints of the majority, but that the minority must accept the position of the majority until the next election, when the minority would then have its opportunity to further their position in accordance with democratic principles (Anderson, 2006).

One of the weaknesses of the Cairo Declaration is the reference to and the reliance on the concept of Shari'ah. The Shari'ah (translated from Arabic to mean "The Way") is sometimes referred to as Islamic Law (Kamali, 1991). This is only partially true as the Shari'ah serves as the basis for many Islamic laws(Kamali, 1991) . The Shari'ah is

not a single set of static laws (Kamali, 1991). The Shari'ah is a composite of the writings from the Holy Qura'n, which is the primary text of Islam; the Hadith, which are the narrations of the writings and decisions of the Prophet Muhammad; the Ijma, which is a consensus of philosophy by past Islamic clerics and jurists; the Qiyas, which are academic writings by Islamic scholars; and the Sunna, which is a collection of the policies of the Prophet Muhammad (Kamali, 1991). By stating that it is based on Shari'ah law without defining what interpretation of Shari'ah is intended, the Cairo Declaration on Human Rights in Islam opens the articles in the Cairo Declaration to interpretation by different factions of Islam. Despite this ambiguity, the Cairo Declaration on Human Rights in Islam follows the general definition of democratic governance, albeit from a religious viewpoint.

**International covenant of civil and political rights.** In 1966, members of the General Assembly of the United Nations signed the International Covenant on Civil and Political Rights. From the perspective of defining democratic governance, only Article 25 of the International Covenant on Civil and Political Rights is applicable (United Nations, 1966, Article 25). Article 25 is quoted here in its entirety. Every citizen shall have the right and the opportunity, without any of the distinctions mentioned in Article 2 and without unreasonable restrictions:

- To take part in the conduct of public affairs, directly or through freely chosen representatives.

- To vote and to be elected at genuine periodic elections, which shall be by universal and equal suffrage and shall be held by secret ballot, guaranteeing the free expression of the will of the electors.
- To have access, on general terms of equality, to public service in his country (United Nations, 1966, Article 25).

This covenant was not universally accepted. The United States, while ratifying the covenant in 1992, issued signing statements functionally absolving the United States from the first 27 Articles of the covenant under the rationale that these articles infringe on the sovereignty of the United States (United States Senate, 1992). In total, 32 countries of the world have refused to adopt the International Covenant on Civil and Political Rights (United Nations, 1994).

Based on these attempts to formulate a universally accepted definition of the concept of democracy, a universal agreement on what democratic governance shall or shall not consist of still has not been met. Despite differences between countries and cultures, there still is a desire to identify some basis for a form of government, which includes some of the basic concepts of democratic governance (Roth, 2009, p. 140)..

Blajan (as cited in Chandrapanya, 2000), Second Secretary of the Permanent Mission of Romania stated,

We might not be able to agree on a definition of democracy acceptable to all, but we can identify things, principles, and actions that we consider to be essential for democracy. . . . There are many paths and steps countries are taking towards

democracy that are acceptable within their own social and cultural background.

(p. 29)

In order to understand how different countries implement democratic governance, it is necessary to, as Blajan stated, “identify things, principles, and actions that we consider to be essential for democracy” (Chandrapanya, 2000, p. 29).

### **Assumptions**

In addition to other academic sources, I reviewed government documents, open source news reporting, and reports from international nongovernment organizations. The most significant assumption in this study is that these government documents accurately represent how these countries’ governments are structured. It is possible for a country to mimic the elements of a democracy but remain undemocratic. It is possible for a country to go to great lengths to conceal the true nature of their government structure. There may be advantages for a nondemocratic government to be perceived as being democratic (Roth, 2009, p. 140).

The second assumption is that similar amounts of data are available for each of the five case studies used in this research. The schema for selecting the cases is described in the Scope and Delimitations section of this chapter. If, in the process of collecting data, it becomes evident that one or more of the cases lacks sufficient information, another case will be selected.

The third assumption is that the chosen distribution of cases will accurately represent a subset of countries from around the world that adequately represent the spectrum of national cultures and governmental. In this context, the sampling

methodology used is a purposive sampling method (Babbie, 2004, p.183). Using a random number generator will specifically not be used, as a random number generator could not guarantee that the subset of countries would adequately span the different types of governments.

The fourth assumption is adequate validity of the data sources, both those originally written in English and those that have been translated into English by a third. Whenever texts, especially those dealing with culture, are translated, there is a risk of critical concepts being lost in the translation. There was the risk of biases on the part of the translator. Whenever possible, translations of documents will be obtained from either government or academic sources. Due consideration will be applied when interpreting cultural nuances and multiple translations were reviewed whenever possible.

### **Scope and Delimitations**

The scope of this study was the established and recognized countries of the world. Rebel groups and unrecognized governments were not included in this study. Whether a country was recognized or not recognized was based on whether the United Nations recognizes the country as a legitimate and sovereign country.

The case countries were selected, during the research phase of this study, based on their order in the Freedom House's 2013 Freedom in the World report. In that report, countries of the world were ranked in order of Freedom House's evaluation of how free each country is with regard to Freedom House's internal analytical process. When multiple countries have the same Freedom House evaluation ranking, these countries were then sorted alphabetically with respect to the name of the country. Using Freedom

House's ranking has the advantage that it represents a sorting of countries external to and independent of this study. Using an externally generated helped mitigate any research and personal cultural biases. Five countries were selected based on where the country was positioned on this list.

- Country at the top of the list
- Country at 25% down the list
- Country at 50% down the list
- Country at 75% down on the list
- Country at the bottom of the list.

### **Definition of Terms**

Most of the terms used in this dissertation come from scholarly journals and academic textbooks. However, the terms listed below have specific meanings with respect to this dissertation. These terms are defined and examples of contextual use are included

*Absolute Evidence or Hard Evidence:* Evidence, upon being observed, affects a change in the belief of a hypothesis or evidence state belief with no uncertainty ( $p=1$ ) (Jensen & Nielson, 2007, p. 131).

*Bayesian belief network:* An inference decision network linking hypothesis states with evidences and observables using Bayes' Law of conditional probability (Koshi & Noble, 2009, p. 1).

*Bayes' Law:* A mathematical formula for calculating the probability  $P$  that hypothesis state A is true, given a certain set of circumstantial evidence B is true. Bayes'

Law is represented by the formula  $P(A|B) = P(B|A)*P(A)/P(B)$  (Dufty, 2009).

*Circumstantial Evidence or Likelihood Evidence:* Evidence, which upon being observed affects a change in the belief of a hypothesis state with some degree of uncertainty ( $p < 1$ ). May also be referred to as Conditional Evidence (Jensen & Nielson, 2007, p. 40).

*Diagnostic Evidence or Observable:* Evidence that when realized, either significantly affects a hypothesis state or can reasonably be expected to affect a hypothesis state (Heuer, 1999, p. 45).

*Negative Evidence:* Evidence whose lack of presence or lack of observation affects a change in a hypothesis or another evidence (Heuer, 1999, p. 99).

*Political Competition:* A concept where citizens are given viable and different choices in determining how their government is run (Wong, 2003, p. 245).

*Positive Evidence:* Evidence whose presence or observation affects a change in a hypothesis or in another evidence (Heuer, 1999, p. 99).

*Shari'ah:* Arabic for “The Way”. It is the basis for Islamic Law. Shari’ah consists of the following facets:

- *Hadith:* The narrations of the writings and decisions of the Prophet Muhammad (Kamali, 1991).
- *Ijma:* A consensus of the understanding of Islamic philosophy by past Islamic clerics and jurists (Kamali, 1991).
- *Qiyas:* Academic writings by Islamic scholars (Kamali, 1991).

- *Qura'n–The Holy Qura'n*: The primary religious text of Islam (Kamali, 1991).
- *Sunna*: A collection of the teachings of the Prophet Muhammad (Kamali, 1991).

### **Research Question**

The goal of this study was to investigate whether the concept of political competition can only be satisfied by the implementation of political parties. To properly examine this issue, several research questions were used to define and bound the study. These research questions were examined and answered in the context of the study's subset of countries. It was not anticipated that the answers to the research questions would be the same for every country in the subset.

The research questions are all worded using the phrase *diagnostic observables*. An entity is observable when its existence can be detected, characterized, and recorded (Heuer, 1999, p. 45). An example of an observable entity in the context of this study would be two candidates running for the same political office, each with a political platform that is exclusive or in conflict with the other. In this example, the observable elements would be the candidates, the political office, their respective political platforms, and the evaluation of the differences between them. All of these can be observed and verified by different sources. In these cases, the observation can also be repeatable.

An entity can be diagnostic when its observation can be used to affect a change in the understanding or belief of a state of a hypothesis. It is possible to have evidence that is observable but not diagnostic (Heuer, 1999, p. 100). In the context of a hypothesis,

there are free and open elections, an example of observable but nondiagnostic evidence would be the publication of one candidate's advertisements. The publication is an observable entity; but the observation of one candidate's advertisements does not, in itself, affect the belief of any of states of the hypothesis. However, the publication of multiple candidates' advertisements may be considered diagnostic as the observation may affect the belief of one of the states of the hypothesis. This is an example of how the term measureable observable is being used in the formulation of the following research questions.

### **Question 1: What are the Diagnostic Observables for Political Competition?**

Political competition has been identified as one of the elements of democracy in the IPU and UN documents previously discussed, as well as in the Diamond et al. (1995) and Dahl (1971) definitions of democracy. Political competition is important to democracy, as it represents the capability of giving the citizens a choice between two or more political choices, which are different from each other in some way that is significant to the citizen. A country that has a system of political parties may not be giving its citizens political competition if the differences between the political parties are not significant from the viewpoint of the citizens.

I identified diagnostic observables that demonstrate that a system of political competition is in place in the identified country of the study subset. This research served as a preliminary way to exclude a specific country from this study. If the study determines that a specific country does not incorporate political competition in its governance, this was recorded in the study. However, this country was not further

examined with respect to the other research questions. A governmental system that may have political parties, but does not allow for political competition, does not meet this study's definition of a democratic government. It would be classified as a closed hegemony (Dahl, 1971).

### **Question 2: What are the Diagnostic Observables for Political Parties?**

Political parties are referenced in the IPU (2011) and UN (2011) definitions of democracy. The definitions of democracy as published in Diamond et al. (1995) established political parties as being an element of democracy to the extent that if a country does not have political parties, the belief that it is a democracy is lower. I identified observable entities that demonstrate that a country in the study subset uses political parties as part of their government system.

Political parties were identified as being recognized or not being recognized by the country as viable political parties. Political parties that were not recognized were further identified as being legal or illegal political parties. An example of a political party that is not recognized by the government, but is not illegal, would be the Tea Party Movement and the Coffee Party USA. Neither of these groups has placed their own candidate on the ballots, but can influence the existing political parties by their nature of representing select groups of citizens and their individual political interests. A political party can be illegal and still valid. Rebel groups can be characterized as being illegal and still valid. Determining validity can be difficult and subjective to a particular viewpoint. Illegal but valid political parties will be represented in this study as the data permits.

## **Significance of the Study**

The United States operates several programs designed to spread democracy to other nations. The State Department operates the United States Agency for International Development, Office of Democracy, and Governance (USAID/DG). The National Endowment for Democracy operates the National Democratic Institute, International Republican Institute, and the Center for International Private Enterprises. The Department of Defense, through the National Guard, manages the National Guard State Partnership Program. All these programs have a central component of organizing and advising the formulation or modification of political parties (Robinson, 1998, p. 101).

The IPU (2011) and UN (2011) definitions of democracy, in addition to the Diamond et al. (1995) definition of democracy, specified as an element of democracy the concept of political competition. Political competition is not the same as political parties. The former is a concept and the latter is an implementation of that concept. If the United States desires to spread democracy, implementing the concept of political competition should be a central element of its programs. It is easier to evaluate progress when measurable elements are involved.

The use of Bayesian belief networks help in using these identified measureable elements by assisting the analyst in forming disciplined, defensible, and testable inferences. It can be more difficult to evaluate whether a country's government structure involves political competition than it is to evaluate whether a country's government structure incorporates political parties. Based on the analysis of this study, government agencies may recognize the importance of emplacing INGO observers inside the

countries of interest. INGO observers observing the implementation of the democratic governance concepts identified and evaluated in this study over a period of years will be in an advantageous position to report clear and accurate data in the context of democratic governance. Before any of these U.S. government programs can effectively affect a positive change in a foreign country, it may be advantageous to first emplace observers who can monitor the country's elections and political parties over a period of years. Then, once there is a history of accurate and country specific precise data, the programs will have a much better understanding of how a specific country is implementing democratic governance and how its implementation may be different from another country's implementation. The methodology demonstrated in this study will offer these organizations an alternative method of evaluating and measuring the effects of the democratic concepts as well as offer these organizations a methodology to track and monitor a country's progress as its government moves along the spectrum of democratic governance. Academic studies such as this one can affect changes in government policy (Kingdon, 2010, p. 55).

### **Summary**

Government, nongovernment organizations, and academia have attempted to define democracy. In their respective definitions, several measurable elements have been identified. One of those elements is the concept of political competition or the ability of the citizens to participate in determining how their governments are run. One of the methods governments use to ensure political competition is through the implementation

of political parties. However, it is important to note that political parties may be only one way to ensure political competition.

The United States is involved in several programs designed to help implement democracy in countries that are determined to be either nondemocratic or less democratic with respect to how the United States implements democracy. Freedom House publishes an annual evaluation of the countries of the world. One of the criteria used is whether a specific country's election system uses political parties. The various United States programs designed to promote democracy in other countries use the annual Freedom House's report as one of their data sources.

Chapter 1 of this dissertation was an overview of the governmental and nongovernmental definitions of democracy as well as introduced some of the scholarly research on democracy. The difficulties with identifying a set of elements that define democracy, that are universally accepted, were described. Despite these difficulties, these definitions will serve as a foundation for the literature review in Chapter 2, where the academic research will be further described and evaluated. Lastly, this chapter included an introduction on how a Bayesian belief network will be used to identify, characterize, and use evidences in evaluating how different countries use or may not use political parties as a way of implementing political competition.

Chapter 2 will consist of the literature review for this study. The scholarly theories of democracy will be introduced and described. When a theory conflicts with another theory, an explanation of the differences will be included. Chapter 3 is a description of the methodology of collecting, analyzing, evaluating, and reporting that

will be used in this study. Details on the construction of the Bayesian belief network will be given as well as the process for selecting the five countries for this study. Chapter 4 is a description of the data used to construct the Bayesian belief networks and will provide the conditional probability tables and their rationale in the populating of the networks, the results of operating the networks will be documented. Chapter 5 is the findings of the study and their interpretation, the limitations of the study and the recommendations for future study. Finally, Chapter 5 is a description of the practical application of this research and how this implementation will result in positive social change.

## Chapter 2: Literature Review

### **Introduction**

In order to address the research question of whether political parties are required to satisfy the concept of political competition in a national democracy, it is necessary to understand not only what these terms mean but also how they have been applied to past political analysis. In selecting the various political theories regarding the elements of democracy, focus was kept on the practical application of this research, which is determining whether political parties should be used as a criterion for determining if a country is or is not democratic in nature.

Several organizations have attempted to develop an overarching and universally accepted definition of democracy. Because of the difficulties in this development, scholarly research has been conducted concerning the different interpretations of democracy. In the literature review, I will introduce some of the academic theories of democracy and will evaluate them with regard to the non-government definitions of democracy. The various theories of democracy will be evaluated with regard to each other, and differences and similarities will be identified. I will demonstrate that there are different viewpoints concerning what democracy is and how it is implemented in various governments around the world.

The literature review followed two separate paths. The first was focused on scholarly writings on the definitions of democracy. The second path was focused on documents published by governmental and non-governmental organizations. This schema was chosen to ensure that diverse viewpoints of democracy and its elements were used.

This literature review started with identifying the scholarly writings that are most commonly cited in academic journals concerned with defining democracy or the examination of democratic elements. In order to ensure a wide diversity of sources, the following academic and commercial databases were selected. LexisNexus Academic, Questia, Proquest, Nexis, GALE, EIU Data Services, and Sage: Political Science databases were queried for scholarly articles focused on either the definition of democracy or the identification and evaluation of democratic elements. Then a citation analysis was conducted to identify the significant references used in these articles. Finally, upstream analysis was conducted to determine which of these references were cited in the majority of scholarly articles. This identified the sources from which this literature search would start. The following sources were selected to serve as the basis for this literature review: Crick (2002), Dahl (1971), Diamond et al. (1995), Shapiro (2003), Tilly (2007), and Robinson (1998).

From these sources, a series of search terms was created. These included variations on *definition of democracy* and *elements of democracy*. Focusing closer to the topic problem, search terms on the variations of *political parties*, *political competition*, *political choice*, *participatory democracy*, *participatory oligarchy*, and *polyarchy* were used. These search terms were then individually applied to the same academic databases to review approximately 300 scholarly articles. These were read and prioritized with respect to the focus of this dissertation. The results of this prioritization are reflected in this literature review.

For government and nongovernment documents, The United Nations and The Inter-Parliamentary Union, being two organizations that have been associated with defining democracy for many years, were selected as an initial research base. A search of the archives of these two organizations revealed several documents focused on defining democracy and identifying democratic elements. These documents are described and critiqued in their own section of this literature review. In studying these documents, more terms were extracted. These were, in turn, fed back into LexisNexus Academic, Questia, Proquest, Nexis, GALE, EIU Data Services, and Sage: Political Science databases to determine if they could be used to retrieve scholarly articles that were not retrieved from academic sources. These articles were read and prioritized and are represented in this literature review.

One of the advantages of structuring this literature review with respect to the nongovernment organizations' definitions of democracy is that these definitions identified and characterized elements of democracy. These elements can be individually examined, evaluated, critiqued, and applied to various case studies. Some of the scholarly definitions also follow the identification of elements schema.

### **Foundational Criterion: Political Competition means Freedom of Meaningful Choice**

I investigated whether the identification of diagnostic observables can, through the Bayesian process, can reduce the uncertainty in evaluating how specific countries use or do not use political parties as a venue to implement the concept of political competition. In this context, political competition is a form of offering the citizens a

meaningful choice in selecting representatives to run the country (Diamond et al., 1995 and Dahl, 1971). The results of this investigation will aid future scholars in evaluating more accurately how countries not included in this study, implement or do not implement political competition. The methodology developed in this study will assist future scholars in developing methodologies for evaluating other aspects of democratic governance. The goal of this methodology is to offer to the analyst, defensible tools to provide a greater understanding of the different ways different countries may approach the issue of political parties and political competition.

A commonly cited definition of democracy is the one developed by Diamond et al. (1995), which holds that democracy is a system of government that has:

- Meaningful and extensive competition among individuals and organized groups (especially political parties) for all effective positions of government power through regular, free, and fair elections.
- A highly inclusive level of political participation in the selection of leaders and policies, such that no major (adult) social group is prevented from exercising the rights of citizenship.
- A level of civil and political liberties as indicated by freedom of thought and expression, freedom of the press, freedom of assembly and demonstration, freedom to form and join organizations, freedom from terror and unjustified imprisonment--secured through political equality under a rule of law, sufficient to ensure that citizens can develop and

advocate their views and interests and contest policies and offices vigorously and autonomously (Diamond et al., 1995, pp. 6-7).

The significance of freedom in the context of political competition is also recognized by Freedom House. Freedom House is a United States funded nonprofit organization that was founded in 1941 (Freedom House, 2011, Our History). The following is taken from its mission statement:

Freedom House is an independent nongovernmental organization that supports the expansion of freedom in the world. Freedom is possible only in democratic political systems in which the governments are accountable to their own people; the rule of law prevails; and freedoms of expression, association, and belief, as well as respect for the rights of minorities and women, are guaranteed.

Freedom ultimately depends on the actions of committed and courageous men and women. We support nonviolent civic initiatives in societies where freedom is denied or under threat and we stand in opposition to ideas and forces that challenge the right of all people to be free. Freedom House functions as a catalyst for freedom, democracy, and the rule of law through its analysis, advocacy, and action. (Freedom House, 2011, Our History)

Among its other efforts, Freedom House is the publisher of its yearly Freedom in the World report. In reporting political freedom, analysts of Freedom House evaluate the governments of countries around the world using a set of criteria and methods proprietary to Freedom House. While Freedom House does not directly use the term *democracy* in their evaluations, democratic governance, as practiced in the United States, is the implied

exemplar. The criteria used by Freedom House for evaluating freedom in governance are phrased in the form of questions:

- Is the head of state elected through free and fair elections?
- Are the legislative representatives elected through free and fair elections?
- Are there fair electoral laws, equal campaigning opportunities, fair polling and honest tabulations of ballots?
- Are the voters able to endow their freely elected representatives with real power?
- Do the people have the right to organize in different political parties or other competitive political groups of their choice?
- Is there a significant opposition vote?
- Are the people free from domination by the military, foreign powers, totalitarian parties, religious hierarchies, economic oligarchies, or any other powerful group?
- Do cultural, ethnic, religious, and other minority groups have reasonable self-determination through informal consensus in the decision-making process (Tilly, 2007, p. 2)?

Freedom House and its reports are commonly cited sources in books and journals dealing with democratic governance. A Questia database search indicated that between 1987 and 2008, Freedom House was cited in over 650 books and almost 200 professional and academic journals. While widely cited, Freedom House is not without its critics. One of the flaws of Freedom House's criteria is that it evaluates the governance of other

countries through the cultural lens of the type of democratic governance used by the United States (Bollen, 1992). As long as this bias is identified and taken into consideration, Freedom House is still a useful source of information concerning the different forms of democratic governance around the world.

The foundational criterion of meaningful freedom of choice inherent with the implementations of democracy as postulated by Diamond et al. (1995) and Freedom House are representative of the various available definitions derived by nongovernment organizations (Elassar, 2009; Murphy, 2009). The National Democratic Institute creates and provides tools to foreign countries to “advocate, organize, and mobilize [the citizens] in ways that encourage governments to be more accountable and create opportunities for citizen-led social and political change” (NDI, 2012, Work of the Institute). The International Republican Institute helps “educate voters about the election process, issues on the ballot and candidate platforms. IRI’s work also encourages people to participate in their democracy by voting” (IRI, 2012, Civic Education). Both of these organizations use Freedom House’s and the Diamond’s definitions of democracy with respect to freedom of choice. Before these two definitions can be evaluated with respect to the issue of political competition and political parties, it is necessary to analyze these definitions and determine what the two have in common and how they differ.

### **Comparison of the Diamond, Linz and Lipset and Freedom House Observables of Democracy**

The first part of the Diamond et al. (1995) definition of democracy is “meaningful and extensive competition among individuals and organized groups (especially political

parties) for all effective positions of government power through regular, free, and fair elections" (p. 6). One of Freedom House's criteria for democratic governance is the right of citizens to organize in different political parties or other competitive political groups of their choice (Tilly, 2007, p. 2. This corresponds with the Diamond et al. criterion of meaningful democratic competition. For the purpose of this argument, the shared concept that political parties are essential to ensure democratic competition will be the focus.

Democratic competition implies a choice between two or more different options. How these options differ can vary. Democratic competition can exist between two diametrically opposed political viewpoints but it can also exist between two political viewpoints practically identical with the exception of the person running for office. Both the Diamond et al. (1995) definition of democracy and the Freedom House definition of democracy mention the term *political parties* as an example of defining political competition. There may be a risk that this term, in the context used, implies that political parties are necessary for political competition. While political parties may be a means to ensure political competition, it is not logical to presume that political parties are the only means to ensure political competition.

If it is accepted that political competition is an element of democracy, it may follow logically that political parties are an element of democracy. This question bears further investigation as defining democracy by referencing the importance of political parties is also used in the Freedom House definition of democracy (Tilly, 2007, p. 2.

## **Political Competition and Political Parties**

The terms *political competition* and *political parties* are sometimes used interchangeably. This is inaccurate as the terms have different meanings. Political competition is a concept, and political parties are one way to implement that concept. The focus of this dissertation will be determining if political parties are the only way to implement the concept of political competition.

Political competition involves not only choices but also choices that are significantly different from each other. This difference is necessary so that they can be truly in competition with each other. Free and open elections serve little purpose if the voters are not given a viable set of choices to choose between. These choices need to be significantly different from each other. Otherwise, the voters are not really making any choice decisions. For example, consider a situation where politician Smith, who follows political agenda C, is running against politician Jones, who follows the exact same political agenda C. It would be true that the voters are being offered a choice, through free and open elections (either Smith or Jones); but, since each follows the same political agenda (C), there is no real political competition between them. For there to be political competition, the political agendas of the politicians (Smith and Jones), would have to be so significantly different that they would be in competition with each other. Political competition is an important part in defining democracy. Political competition in democracies will necessarily result in compromises that will help unite the citizens. “Political competition transforms the political game from one of suppressing dissent (authoritarianism) into one of winning support (democracy)” (Wong, 2003, p. 245).

Political competition is one way to ensure that the interests of the government and the interests of the governed are aligned (Ginsburg & Posner, 2010)

When trying to define democracy, it is important to separate the concept of political competition from the implementation of political parties. It is also important to consider that there are other methods of implementing political competition than using political parties. Not every culture agrees with the concept of political parties, and many cultures adopt a very limited form of political parties.

### **Moving Away From a Dichotomous Definition of Democracy**

There have been attempts to move away from a dichotomous definition of democracy, where a country is either a democracy or not (Mainwaring, Brinks, & Perez-Linan, 2001). This reflects a more reasonable position, where governments can move from a more closed hegemony type government to a more open oligarchy or polyarchy (Dahl, 1971). It is unreasonable to consider a specific government as either democratic or not democratic. As governments evolve, they may move slowly from less democratic to governance that is more democratic (Dahl, 1971, p. 6). Several theories have been generated to help explain the various states of democracy as a nation transitions from one form of government to another.

The formalist perspective encompasses the more traditional definitions of democracy, which are focused on the mechanics of free and fair elections. Scholars of the formalist perspective focus on the importance of elections for determining democracy (Haynes, 2001). Another example of the formalist perspective is the focusing on political

competition through contested elections. In this context, contested elections can be considered an implementation of political competition. Przeworski, Alvarez, Cheibub, and Limongi (2000) and Schumpeter (1947) considered contested elections where there is truly a difference in political parties to be essential for democracy. Przeworski et al. stated that unless there are competing political parties, there cannot be a democracy. Przeworski et al. also introduced the concept of using history in evaluating whether the competing political parties are viable in a specific country. If there has not been at least one alteration of the majority political party, the concept of democracy is suspect (Przeworski et al., 2000). The formalist perspective has served as a litmus test for democracy in transitional governance, when governments have held free elections and have adhered to the rule of law (Hines, 2008). However, the formalist perspective has been challenged with the antiformalist perspective.

The antiformalist perspective acknowledges the importance of free and fair elections, but also recognizes that the presence of free and fair elections, in itself does not necessarily mean that a government is truly democratic (Gill, 2000; Haynes, 2001; Munroe, 1999; Phillip, 2003). For one example, in the Caribbean countries there are instances of governments with free and fair elections, but these improvements are offset by the quality of governance where civic and political freedoms are concerned (Faundez, 2007). The antiformalist perspective acknowledges that free and fair elections are important elements of democratic governance, but at the same time, recognizes that having free and fair elections does not necessarily guarantee that a government is substantively democratic in nature.

In an attempt to move away from the inaccuracies of a dichotomous definition of democracy, a trichotomous classification was proposed (Mainwaring et al., 2001). Under the trichotomous classifications, governments are categorized as being democratic, semidemocratic, or nondemocratic. Mainwaring et al. defined a democracy as a regime that:

- Sponsors free and fair elections for both the executive and legislative bodies of the government.
- Allows suffrage by including as many adult residents as voting citizens as possible.
- Provides protection for both civil and political rights and freedoms.
- Has a Legislative branch that is truly responsible and empowered for the passing of laws, as well as an Executive that has the authority to govern.
- Has its military under civilian control.

One element that is absent from these examples concerns access to information. Having free and open elections, while important, is less effective if the voting citizens do not have multiple sources of information (Morlino, 2008). With Morlino, it is possible to add another element of democracy, that being the availability of information from multiple independent sources. Access to multiple sources of information is an important aspect to political competition. The differences between political parties and their individual agendas can only be communicated to the voters if the voters have sources of information not controlled by either the government or the individual political parties. Morlino introduced an element of democracy that is often not included in other theories

of democracy. The ability for the citizens to freely elect their representatives is of limited use, if the citizens are denied access to competing sources of information.

### Polyarchy

Polyarchies can be an example of single party democracies. Dahl (1971) postulated that a democracy could incorporate what he called a polyarchy. Dahl defined polyarchy as a regime that has been significantly popularized and liberalized, and is highly inclusive and extensively open to public discourse. A polyarchy can exist in varying degrees of the democratic model. Dahl used the term polyarchy to define some of the African nations as being democratic, despite these nations having only one political party. A polyarchy can exist in varying degrees of the democratic model dependent on the individual culture (Bradley, 2005). A polyarchy can serve as an open form of government, where the viewpoints of the citizens are considered and evaluated. According to Dahl, a polyarchy needs to be both inclusive and contested.

In this case, *inclusive* means that the polyarchy represents all the major social or cultural groups that make up the country, and *contested* means that the citizens, through elections, referendums, or other debates, contest both the people who rule in the polyarchy and their policies. Hobson (2003) interpreted Dahl's (1971) polyarchy using the terms competition and participation. Hobson distills Dahl's requirements into eight categories:

- Freedom to form and join organizations
- Freedom of expression
- Right to vote

- Eligibility for public office
- Right of political leaders to compete for support
- Alternative sources of information
- Free and fair elections
- Institutions for making government policies depend on votes and other expressions of preference (Hobson, 2003).

The freedom to form and join organizations can be interpreted as either a general freedom of assembly, or it can be interpreted as being specific to political parties. In any case, it is in accordance with IPU's Declaration on Criteria for Free and Fair Elections and the Universal Declaration on Democracy, as well as the United Nations' Universal Declaration on Human Rights and the International Covenant on Civil and Political Rights, in that it recognizes that citizens have a right to form political parties, but does not state that political parties are a necessary foundation of democratic governance.

Polyarchy can be represented as a system of competing political parties, but can also be represented as a system of noncompeting political parties. It is possible for a country to have a polyarchy type of government as it is transitioning from a less democratic government to a more democratic government, while maintaining a single political party. Single party polyarchy is not without its risks. Keeping political competition in one party tends to merge potential candidates toward the moderate position in order to garner the most votes. This has the result of reducing the choices for the citizens, as the candidates will all have political positions that are similar. This negates the concept of political competition (Waskan, 1998). Waskan explained that one

way to mitigate this risk is for the country to adhere to fair and open election and debate practices. In this case, polyarchy can be fair and democratic only if the controlling party wishes to be fair and democratic. This is one of the major risks of polyarchy, unless there is some extra-party oversight and authority. A confrontational relationship on behalf of those in power is one way to ensure proper political competition (Hristov, 2005). Even within a single party polyarchy there can be competition, just as with separate political parties. It may be harder to maintain political competition in a polyarchy, but it is possible.

One option to envision this is by referencing how, in the United States, Federal primary elections are conducted. Before one of the dominant political parties can nominate a single candidate, there is a political competition within the party. For the purposes of the primary, the election is run as a single party polyarchy. Only Democratic candidates can participate in the Democratic primary, and only Republican candidates can participate in the Republican primary. Within each single party polyarchy environment (the primary), there will be competing candidates. Despite belonging to the same political party, each candidate represents a significant political choice. One candidate may be more liberal, another more conservative, and a third may represent a more moderate political position. Within the primary, the concept of political competition is preserved, even though all the candidates are of one political party. This is the concept behind the theory that a single political party polyarchy can provide the element of political competition without, at the primary level, political parties. The political

competition is not provided by a political party, but by candidates within one political party.

### **Examples of Polyarchies**

There are examples of functioning polyarchies in the world. Polyarchies can exist throughout the spectrum of democracy. Polyarchies can serve as a mechanism for emerging democracies to start their transition from nondemocratic governance toward a more democratic governance system (Melich, 2000).

Singapore is an example of a single party republic polyarchy. The People's Action Party (PAP) has held control of Singapore since 1963 when it declared its independence from Great Britain. The government of Singapore provides a high standard of living to its people and its economic growth is one of the more favorable in the world. Opposing political parties are not restricted so much by the government but by the people (Houseman, 2000). Political parties other than the PAP do not garner the interest of a significant number of the citizens. Whether Morlino's (2008) element of citizen access to diverse sources of information has been allowed will be investigated in this study. The government of Singapore would qualify as a polyarchy, as it is both inclusive of all citizens and, through elections, contested by the citizens. Singapore is an example of a society that contrasts with the United States in its programs, and, acknowledging the differences in its underlying values, can find success on its own terms, despite its great differences from The United States (Houseman, 2000).

One reason Singapore may thrive in a polyarchy is due to their cultural values. Singapore is a Confucianist society, which places the interests of the community above

those of the individual (Subramaniam, 2001). Singapore's cultural values, being representative of the values of the people, allow the cultural focus of a polyarchy to satisfy the needs and desires of the citizens. A more individualistic society, such as the citizens of the United States with its diverse cultures, would not find their needs and desires satisfied with such a polyarchy. Anderson (2006) challenged whether a collective culture can be truly democratic, in that the concept of democracy is founded on a majority vs. minority schema. Trying to force a specific implementation of democratic governance on to an incompatible culture may not work. A collective (Confucianist) form of democracy will not be popular in an individualistic (Capitalistic) culture like the United States. Finding the appropriate implementation of democratic governance is the key to success.

Perry (2004) expanded on Dahl's (1971) polyarchy by adding another requirement. In addition to Dahl's requirements that a polyarchy be both inclusive and contested, Perry added that a polyarchy only exists if the elected people in the single party truly have power. Perry's additional condition of polyarchy becomes important when evaluating the country of Egypt.

Prior to the events in 2011, even though there are seven political parties in Egypt, only the National Democratic Party (Al'Hizb Al Watani Al Demokrati) has held power since Egypt obtained independence in 1953. The National Democratic Party's elected members' powers are, however, overshadowed by the power of the office of the President of Egypt. While all five of the Presidents of Egypt have been members of the National Democratic Party, according to Egypt's constitution, the powers of the Presidency place

him above the party. Because the National Democratic Party's elected officials do not have the overall power in Egypt, Perry (2004) determined that Egypt fails the requirements for a polyarchy.

Based on the models of Dahl (1971) and Perry (2004) and based on the politics of Singapore and Egypt, it appears that it is possible for a country to have democratic governance without competing political parties. Singapore provides its citizens with the government the citizens want without competing political parties. The Singapore government is both inclusive and contested, so it meets Dahl's requirements for a polyarchy. The People's Action Party has the ultimate control over the Singapore government, so it meets Perry's additional requirement for a polyarchy.

While it can be accepted that a democratic governing country can exist without competing political parties, as in a polyarchy, competing political parties provide a level of security that a polyarchy does not. It would appear that in a polyarchy citizens have no recourse if the incumbent polyarchy party chooses no longer to meet the needs and desires of the people. In a multi-party system, the recourse is to elect the competing party as a method of implementing change, which is not an option in a polyarchy. As demonstrated in the governments of Singapore and Egypt, as well as illustrated in Dahl (1971) and Perry (2004), it is possible to have democratic competition without competing political parties.

### **Research Methodologies Considered for This Study**

Grounded theory methodology was the most applicable to this study (Babbie, 2004; Christensen et al., 2011; Creswell, 2007; Neuman, 2011; Willis, 2007). However

there are other methodologies that might have been used in this study. A quantitative study would not be appropriate for this study considering the nature of the data. Trochim (2001) stated, “All qualitative data can be coded quantitatively and all quantitative data is based on qualitative judgment” (p.154). The point that Trochim was making is that research on the same subject can be accomplished both quantitatively and qualitatively. While there was no reason why this study could not be conducted quantitatively, there are aspects of this study that were more aligned with qualitative methodologies.

Neuman (2011) identified differences between quantitative and qualitative research. In quantitative research, researchers test hypotheses while in qualitative research, researchers discover meanings. Neuman differentiated the types of data used in both forms of research. In quantitative research, data are primarily in the form of numbers while in qualitative research data are primarily in the form of words from documents. Based on Neuman (2011) and with consideration of Trochim (2001), I chose to conduct this study qualitatively because of my intention to compare concepts and non-metric observables in the analysis portion of this study.

### **Summary**

The concept of democracy can be easily understood as an abstract concept. Creating a definition that all countries can agree upon is much harder. Many countries self-identify as democracies. While these countries operate differently from each other, it is possible that they can all be democratic in nature, but differently democratic from other countries. The United States prides itself as being a democracy and many aspects of its government are democratic in nature. Using the United States as a baseline for

democracy shows that there are countries that operate differently than the United States. Nongovernment organizations such as the Inter-Parliamentary Union and the United Nations have tried to create an all-encompassing definition of democracy. None of these definitions have been universally accepted. Political scholars have attempted to identify elements of democracy with some success.

This is especially true when it comes to the democratic element of political competition. One implementation of political competition is through political parties. However, it has not been demonstrated that political parties are the only way to implement political competition. The theories of Dahl's (1971) polyarchy challenge the paradigm that political parties are necessary for democratic governance. Chapter 3 is a description of the methodology of collecting, analyzing, evaluating, and reporting that will be used in this study. Details on the construction of the Bayesian belief network will be given as well as the process for selecting the five countries for this study.

## Chapter 3: Research Method

### **Introduction**

One of the criteria of democracy is the concept of political competition. Publications from intergovernmental organizations including the United Nations (1966) and the Inter-Parliamentary Union (1994, 1997) and Diamond et al. (1995) have demonstrated the importance of political competition in democratic governance. Gill (2000), Haynes (2001), Munroe (1999), and Phillip (2003), as part of the antiformalist theories of democracy, postulated that there is uncertainty when evaluating whether a specific government is or is not democratic in nature. The observation of elections may or may not indicate whether a specific government is democratic. Mainwaring et al (2001) introduced a trichotomous system of classifying governments as democratic, semi-democratic, or nondemocratic. Dahl (1971) postulated that democratic governance can be classified as a spectrum and recognized that transitioning governments toward more democratic governance involves many small changes, not of larger dichotomous changes.

I used analytical techniques to address the inherent uncertainties of the formalist, antiformalist, and Dahl's (1971) spectrum viewpoints concerning the implementation of political competition. The research design of this study consisted of five steps.

1. Select five countries for the focus of the study. The methodology for selecting these countries will be described later in this chapter.
2. Conduct research on each of the countries. I focused on how each country handles elections. Sources of data included constitutions, laws, regulations, political and academic reports, and news reporting on how

elections are run in each country. Research was conducted concerning political parties in each country. The goal was to have an understanding how each country runs elections to the point where evidences and observables can be developed.

3. Construct and populate a Bayesian belief network for each country. Using grounded theory, the interrelationships between the evidences and observables were assembled according to Bayes' Law, a well-established methodology for handling conditional probabilities. These were linked to various hypothesis states linking political competition and political parties. Each one of these Bayesian belief networks will be country specific.
4. Conduct an analysis across all five Bayesian belief networks with the goal of identifying any commonalities between the networks.
5. Construct and populate a sixth Bayesian belief network using the common evidences and observables. This Bayesian belief network was not country specific, but enabled generality as applied to countries not within this study. This sixth Bayesian belief network was the version that can be applied outside this study for positive social change. This sixth more generic Bayesian belief network can be applied to other countries to evaluate whether political competition is being met independent of political parties. As government structure chance in countries, this Bayesian belief network can be used to evaluate the effects of the change in government structure on political competition. The social significance

of this is that by using this Bayesian belief network, changes that initially appear to support political competition but actually do not, can be identified in a defensible and testable manner.

### **Description of the Research Design**

This was a qualitative study. While a quantitative Bayesian belief network was used to establish interrelationships between data, the design and populating of the networks was based on qualitative methodology, incorporating postpositivism, hermeneutics, grounded theory, case study, and to a lesser extent hypothesis testing. Later in this chapter, alternative methodologies will be introduced and the rationale for not selecting them will be described.

### **Postpositivism**

The research schema followed a postpositivist perspective. In postpositivism, the goal is to achieve an understanding of the phenomenology being studied. Willis (2007) described a subset of postpositivism called *interpretivism*. In interpretivism, cases are studied with respect to their individual context. The premise of this study is that different cultures and governments may approach the concept of political competition differently. If cultural context is ignored, or worse, inapplicable cultural context is applied, understanding of phenomenology will be skewed. Willis stated that the goal of postpositivism is to discover the truth. The obstacle for this study is that truth may be different for different cultures and governments.

Creswell (2007) used the term *social constructivism*, which has the same meaning as interpretivism. In social constructivism, the truth needs to be in the context of the

viewpoint of the population being studied. In this study, this means that the political decisions of a specific country needed to be evaluated in the context of the culture of the people of that country (Willis, 2007). To ensure that, I followed both Creswell's and Willis' intent, cultural and historical context as included when introducing a specific country's laws, regulations, and traditions with respect to the implementation of political competition whenever possible.

### **Grounded Theory**

I implemented grounded theory. Babbie (2004) described grounded theory as a methodology to derive theories from the analysis of patterns of observed data. Creswell (2007) defined grounded theory as generating hypotheses through observations. Both definitions are applicable to this study. Through the hermeneutical collection and analysis of each country's documents, hypotheses and evidences were created and observables were identified. Because I incorporated Bayesian belief networks, it can appear that the methodology of this study was based on hypothesis testing. Babbie differentiated grounded theory from hypothesis testing by pointing out the differences in the order in which both are constructed.

In grounded theory, patterns of observables are used to generate evidences and ultimately hypotheses (Babbie, 2004). I used grounded theory to generate the list of observables, evidences, and hypotheses that explored how the five case study countries implement political competition. Willis (2007) recognized that the theories generated by the grounded theory methodology could be iterative in nature, whereas more data is obtained, the model or theory can, and should, be modified. Bayesian belief networks

were used to document and record the interrelationships between observables, evidences, and hypotheses. These Bayesian belief networks can be used outside this study to test the hypotheses with regard to extra-study countries. Grounded theory was used to create the hypotheses and the Bayesian belief networks are used to test the hypotheses in the practical application of this study as applied to positive social change.

Christensen, Johnson, and Turner (2011) stated four criteria for a well designed grounded theory methodology. I incorporated these criteria. The criteria are listed below along with a description of how this study will be structured to implement these criteria.

- Grounded theory should fit the data. The schema for designing and constructing Bayesian belief networks requires that both positive and negative evidences and observables be incorporated. This helps reduce the risk of confirmation biases where only data that supports a particular hypothesis is included. By incorporating both positive and negative evidences and observables, the ensuing hypothesis will fit the data. The nature of Bayesian belief networks requires that all data layers be linked together according to Bayes' Law. This is one of the strengths of using Bayesian belief networks in grounded theory.
- Grounded theory should provide understanding. A Bayesian belief network will provide a current state of understanding of the hypothesis states. This understanding is transferable, testable, and defensible. If there is any relationship within the Bayesian belief network that is not understood, that specific relationship can be extracted and analyzed. If

there is disagreement with a specific relationship, sensitivity testing can determine whether the disagreement is significant.

- Grounded theory should have generality. In this study, each study country had its own Bayesian belief network. These networks were focused on the structures of each of the countries. In order to satisfy the need for generality, an analysis across all five networks was conducted with the goal of extracting commonalities between the study counties. A sixth Bayesian belief network was constructed incorporating these commonalities and it is this Bayesian belief network that had generality to countries outside the study and can be used to evaluate other countries.
- Grounded Theory should contribute some control over the phenomenology. Christensen et al. (2011, p. 377) interpreted this with the question, can the theory be applied to real-world results? The social significance of this study is that the methodology can be applied to real-world situations. Not only will this study increase the understanding of the relationship between political competition and political parties, but it will also be able to be used to evaluate countries external to this study.

Creswell (2007) described the concept of constructivist grounded theory.

Constructivist grounded theory can incorporate the researcher's viewpoints in the generation of the theory. This would be an example of the concept of etic. Etic is an approach to studying a culture through a schema of criteria either universally accepted or accepted by larger numbers of cultural groups (Newman, 2011). This differs from emic,

which is an approach that studies a culture through a schema based on the viewpoints of members of the specific culture (Willis, 2007). Creswell's position is that grounded theory can incorporate etic. I endeavored to minimize etic and maximize emic to the extent possible. In those areas where etic is used, it was clearly identified as such. In designing and constructing the evidences and observables, there were cases where my judgment was used. In such cases where my judgment was used, it is identified in the study.

### **Case Study**

This study was structured as a case study. Creswell (2007) stated that the decision whether to use case studies should be based on the following two questions.

- Does the problem have bounded cases to be studied?
- Is the intention of the research to seek understanding both within the individual cases and across the set of cases?

This study was focused on the government structures of established and recognized countries of the world. As each country is a separate sovereign nation with its own set of laws, the data for this study are bounded. In this context, the bounding is the country itself. This use of real-world observables is an example of naturalistic case study (Willis, 2007). In order for this study to have utility in implementing positive social change, it is important that the naturalistic case study be used as much as possible.

The intention of this study was to not only understand how each of the study countries implements or does not implement political competition, but to also understand

any relationship between political competition and political parties. This study's purpose is to understand any commonalities between the study countries.

Christensen et al. (2011) further defined grounded theory into two subcategories. Intrinsic case study seeks to understand the individual case. Collective case study seeks to understand multiple cases. Cross-case analysis occurs when several individual cases are studied both individually and as a subset itself. Newman (2011) referred to this as comparative case study.

Babbie (2004) stated that the grounded theory methodology should be implemented with no preconceptions about the results. Babbie introduced a dissenting theory originated by Burawoy in 1991. Babbie described this dissent as extended case study and defined it as a methodology that uses observations to identify flaws or errors in existing theories. The extended case study methodology was not used in this study. The intent of this study was to explore and seek understanding, not seeking to prove or disprove any specific theory or hypothesis.

As considered in Chapter 2, other qualitative methodologies were considered when structuring this study. Creswell (2007) outlined five distinct types of qualitative study: narrative-biological study, phenomenological study, grounded theory, ethnography study, and case study. Two of these methodologies were selected for this study. The two methodologies selected were grounded theory and case study, and the justifications for their selection have already been given. Narrative-biological study was not selected, as this methodology is more appropriate if the data consisted of collections of interviews or the writings of a select group of individuals. The phenomenological methodology was

considered as the implementation of political competition could be translated into phenomenological terms. However, there did not seem to be any advantage of using the phenomenological methodology instead of the case study methodology. The phenomenological methodology is more appropriate for the study of humans with respect to the phenomenon, while the case study is more appropriate for the study of organizations with respect to the phenomenon. The ethnographic methodology focuses on a culture sharing group and their core values and beliefs (Creswell, 2007). While ethnographic data will be used in this study, it will be applied to the grounded theory methodology.

Aldiabat and Le Navenec (2011) described symbolic interactionism in the context of grounded theory. Symbolic interactionism is the assumption that humans are influenced by learned meanings. According to this theory, humans are influenced not only by the definition of words but also by the learned use of words. This influence can be either positive or negative. Symbolic interactionism could be used to examine how citizens perceive their political environment.

Symbolic interactionism has applicability to this study's topic; however, symbolic interactionism delves deeper and is beyond the scope of this study. One of the foci of this study was the concept of political competition. Political competition is the concept that the citizens have a viable choice between two or more candidates that have a significant difference between them (United Nations (1966), the Inter-Parliamentary Union (1994, 1997) and Diamond et al. (1995). Delving further into the concept of political competition, two subissues become known. The first is that whether or not the citizens

have a viable choice is less important than whether the citizens believe they have a viable choice. The second issue is how this perception of choice is communicated to the citizens. In examining the first issue, two variables are involved. These variables are

- Citizen has political competition
- Citizen believes he or she has political completion

These two variables can be combined into four discrete combinations concerning the relationship between perception and reality.

- Citizen has political competition, and citizen believes he or she has political competition.
- Citizen has political competition, and citizen believes he or she does not have political competition.
- Citizen does not have political competition, and citizen believes he or she has political competition.
- Citizen does not have political competition, and citizen believes he or she does not have political competition.

The scope of this study was focused on the first and last states. The first and last states represent instances where there is agreement between the citizen's perception and reality. Where symbolic interactionism can be applied is in analyzing states two and three. The other two states represent instances where there is disagreement between the citizen's perception and reality. Symbolic interactionism can be used to evaluate whether this disagreement may be influenced by how the citizen is affected by learned meanings (Aldiabat and Le Navenec, 2011). Symbolic interactionism could be used to help

understand how citizens garner their perceptions and more importantly how politicians can use this understanding to influence the citizens (Aldiabat and Le Navenec, 2011).

### **Target Population**

Five sample countries were chosen from the list of existing countries contained in the Freedom House report Freedom in the World 2013. Existing governments are defined in this study as the government present in the country that enjoys the position of sovereignty and has jurisdiction over how the country is being run. Insurgent groups, rebel groups, exiled groups, and opposition groups are not included in the scope of this study. The intent of this study is to evaluate the study countries as they are currently being run.

### **Sampling Procedure**

The five countries selected from report Freedom in the World 2013 published by Freedom House. The Freedom House dataset was selected for two reasons. The first is that Freedom House's report is a commonly used and cited report for issues concerning how democracy is implemented around the world. The second reason is that Freedom House ranks these countries in the order that Freedom House's methodologies consider how these countries represent various levels of freedom (Freedom House, 2012, Methodology) This ranking is important, as the intent of this study is to sample across the spectrum of countries rated as *free* and *not free*. Sampling from a random list or using a mathematical sampling methodology or an alphabetical list of countries would not guarantee that the sample would span the spectrum.

In this study, list of the countries of the world, as listed in Freedom Houses report, were sorted in order of Freedom House's ranking of political freedom with the countries with the highest rating of freedom at the top of the list and the rest of the list in decreasing order of freedom. Within groups with the same rating, the countries will be ranked in alphabetical order. The result will be a list of countries of the world, sorted primarily by Freedom House's methodology of political freedom, with a secondary sort alphabetically. This provides a defensible population set and removes any influence of researcher bias.

Five countries were extracted from Freedom Houses' list to serve as the five study cases. Each case was one country. In this study, I intended to evaluate countries across the span of the political spectrum, so countries were selected at regular intervals from the sorted list. The five case countries were selected based on their location on the population list:

- Country at the top of the list
- Country 25% down the list
- Country 50% down on the list
- Country 75% down on the list
- Country at the bottom of the list

This schema provided a good cross section of the political spectrum. The two countries at the top and bottom of the list will provide representation of the extreme spectrum, in this case the extreme rankings of free and not-free. The other three cases provided representation of more moderate or mixed political environments. Through this

sampling schema, I selected Andorra, South Korea, Malawi, Venezuela, and Vietnam as the five cases for this study. The countries are listed in the order of the sampling schema with the first country representing the top position of the list and the other four countries following in order.

### **Data Collection Procedures**

The data collection for this study were hermeneutical in nature. For each of the five study countries, documents and reports were accessed concerning elections in that country as well as any information on political parties. Great care was taken to mitigate any western cultural bias (Neuman, 2011). This was critical when evaluating the validity of data sources such as the various news media. Since one of the steps of this research was to conduct a comparison between the five study countries, it was imperative that equivalence in the data was maintained or, if equivalence in the data could not be maintained, ensure that any discrepancies were documented and mitigated in the analysis. Neuman (2001) defined equivalence into four separate concepts as listed below, along with the mitigation strategy that will be used in this study.

The first is lexical equivalence. Different words may have different meanings depending on the culture. This can be especially problematic when translations are involved. The mitigation strategy in this study was to always endeavor to use the same words when describing like concepts cross-culturally. When discrepancies were identified that may be influenced by translations, a secondary translation source was used wherever feasible. Great care was exercised to identify the contextual meanings of words and not solely use formal definitions.

The second is contextual equivalence. The context through which the data were evaluated may be different between cultures. The mitigating strategy for this was twofold. First, every effort will be made to collect not only the data but also the contextual environment of the data for each of the study countries. Second, research and analytical discipline were applied to reduce the influences of the researcher's cultural biases.

The third is conceptual equivalence. Democratic concepts may be different between cultures. When comparing how democratic concepts are implemented in different countries, the culture of that country must be taken in to account. For example, religious freedom may be interpreted and implemented quite differently depending on the culture. In some countries, religious freedom is interpreted as freedom from religion meaning that religion is a personal matter and that the government needs to be separate and impartial to religion. In other countries, religious freedom is interpreted as freedom of religion where the government is involved in religious activities or that religion is an important part of government. The mitigating strategy in this study was to ensure understanding of how a specific culture interprets concepts. Research and analytical discipline will be applied to reduce the influences of my cultural biases on the analysis of the data.

The fourth is measurement equivalence. Measuring data in the same way across cultures was not be a factor in the construction of the individual Bayesian belief networks, but was a concern for the sixth Bayesian belief network containing merged

data. When creating this merged network, great care was taken to ensure that any measurements are appropriate cross-culturally.

To the greatest extent possible, the same specific data sources were used for each of the five case studies.

- Constitutions of the study countries.
- Laws governing elections. These will include both federal and state/province law as applicable. This will be a collection of election-related data from the legislative branch or equivalent.
- Regulations and rules governing elections. These will include both federal and state/province regulations as applicable. This will be a collection of election related data from the executive branch or equivalent.
- Judicial rulings that affect elections. These will include both federal and state/province regulations as applicable. This will be a collection of election related data from the executive branch or equivalent.
- History of elections. This will include changes in power, protests and challenges, and the results of these actions.
- International Non-Government Organization reports on elections. This will include challenges and protests to the election and the results of the challenge or protest.
- Internal, to the country, nonnews media reporting on elections.
- External, to the country, nonnews media reporting on elections.
- Internal, to the country, political party information concerning elections.

- Internal, to the country, scholarly writings concerning elections.
- External, to the country, scholarly writings concerning elections.
- Internal, to the country news media reporting on elections.
- External, to the country, news media reporting on elections.

Not every one of these data sources were weighted the same within each study country. However, the same weighting was applied across study countries to the greatest extent possible. When it is not possible to use the same weighting between similar data sources across the study countries, this was documented in the study.

Access to these data sources is not anticipated to be problematic. I will have access to the Library of Congress as well as access to the Washington, DC located embassies of Andorra, South Korea, Venezuela, and Vietnam. The Malawi embassy is located in New York City. Because the Malawi embassy is not local, the data collection for this study will start with collecting data on the Malawi case first.

The data collection schema for this study was hermeneutical in nature. As such, it is not anticipated that there were going to be any issues concerning approval through the Institutional Review Board (IRB) for this study. The draft of the IRB request was submitted to the committee during the defense of this proposal.

### **Analysis Procedures**

The analysis procedure for this study consisted of four distinct steps, which will be conducted in five simultaneous instantiations. The first step was the creation of Bayesian belief networks for each of the five study countries. In the next step, these Bayesian belief networks were operated using the data gathered during the research

portion of this study. Third, selected entities of the five individual Bayesian belief networks were combined into a single Bayesian belief network with the intention of determining whether a more generic Bayesian belief network can be used to evaluate other countries. Each one of these analysis steps will be described in the next section.

### **Creation of Bayesian Belief Networks**

For each of the five study countries, two separate but related Bayesian belief networks were constructed. Each study country was addressed separately. The commercial software Netica from Norsys Software Company was used for the actual construction of the networks. The reports from Netica are included in Chapter 4 and the actual software data files will be made available to the university if requested.

Each of the two separate, but related, networks was based on a discrete hypothesis. The first hypothesis was “This country has free and fair elections (true/false).” The second hypothesis will be “This country utilizes more than one political party (true/false).” The definitions and elements of both *free and fair elections* and *political party* will be derived from the baseline government and international non-government organizations previously described in this study.

For each of the study countries, data were collected concerning how each country’s government addresses elections. Data sources included, but were not necessarily be limited to, federal and state, constitutions, federal and state laws and regulations, political information, scholarly writings, and media reporting. The terms *federal* and *state* are generic and the specific equivalents for each of the study countries will be used. All the collected data were decomposed to reveal the relationships between

hypothesis states, evidence states, and finally observable identification. This problem decomposition process is necessary to translate the data into a format and structure usable by Bayesian belief networks. This data structure was used to construct the Bayesian belief networks in the Neticia software. This step documents how each study country claims to address elections and political parties. It cannot be assumed that the actual running of the government follows what the country claims. It is possible that an oligarchical government may claim to be democratic and representative in nature when in reality it is neither.

### **Testing the Bayesian Belief Networks**

The next step was to test or operate the networks. The first purpose of testing the networks was to determine whether the evidences and the observables identified actually affect the network as intended. The second purpose of testing the networks was to apply real data concerning the observables, and determine how, or even if, the observables affect the hypothesis states.

In this step, there were two discrete but related Bayesian belief networks. The first network tests the hypothesis “This country has free and fair elections (true/false).” The second network tests the hypothesis “This country utilizes more than one political party (true/false).” In constructing a Bayesian belief network, an a priori probability needs to be selected. This represents the starting belief in the hypothesis states. Because of the requirement that the hypothesis states must be both exhaustive and exclusive, the total probability of all the states must equal 1.0. The output of the Bayesian belief network is

the change between the a priori probability before, and the resulting probability after the evidence is entered in to the network.

It is important to recognize that a single probability output from a Bayesian belief network is not useful data on its own. For example, if after entering evidence into a Bayesian belief network the probability of one hypothesis state is 40% it is impossible to form a logical conclusion on the results without knowing the a priori probability before the evidence was entered. If the a priori probability was 20%, then the evidence increased the belief of the hypothesis state. However, if the a priori probability was 60%, then the evidence decreased the belief of the hypothesis state. Additionally, if the a priori probability was 40%, then the evidence had no influence on the belief of the hypothesis state. Analysis of the results of a Bayesian belief network must be based on the change between the a priori probabilities and the final probability generated by the network.

The first step of this analysis was to identify potential observables that would affect appropriate evidences and ultimately affect the hypothesis state. This second step populated the Bayesian belief network with the actual observables collected. If there were instances where potential observables were either unavailable or not viable for the network, this was recorded as disconnected nodes on the consolidated Bayesian. Great care was taken to identify all potential observables in the first analytical step.

After the two Bayesian belief networks have been populated, each network was be operated via the Neticia software and, in accordance to Bayes' Law, the observables will affect the evidences, which in turn will affect each of the hypothesis states. The Neticia software handles the statistical calculations. At the conclusion of the software

operation, the a priori probabilities and the postevidence probabilities were compared. Six outcomes were anticipated. The terms *high* and *low* refer to increases and decreases in the belief of the hypothesis state. Since each of the study hypotheses are dual state hypotheses, a high value represents an increase in the belief of the *true* hypothesis state, and a corresponding decrease in the belief of the *false* hypothesis state. A low value represents an increase in the belief of the *false* hypothesis state, and a corresponding decrease in the belief of the *true* hypothesis state.

6. Belief that the country has free and fair elections will be low and belief that the country has multiple political parties will be high. This is highly unlikely outcome, but for the purpose of completeness it must be accounted for in the analysis.
7. Belief that the country has free and fair elections will be low and belief that the country has multiple political parties will be low. This result will be more anticipated in the less free countries of the world.
8. Belief that the country has free and fair elections will be high and belief that the country has multiple political parties will be low. This would be an example of a single party democracy.
9. Belief that the country has free and fair elections will be high and belief that the country has multiple political parties will be high. This would be an example of the situation in the United States.

10. Belief that the country has free and fair elections will be unchanged and the belief that the country has multiple political parties will either increase or decrease.
11. Belief that the country has free and fair elections will either increase or decrease and the belief that the country has multiple political parties will be unchanged.

Outcomes 5 and 6 represent instances where the Bayesian belief network was constructed either incorrectly or incompletely. The results of such networks would not be usable in this study. If this happens, the individual Bayesian belief network had to be reconstructed or, if this was not possible, the study country had to be removed from the study and another study country selected. Great care was taken to prevent this from occurring in this study. The analysis of the outcome of these Bayesian belief networks of all five of the study country networks showed whether there is a relationship between free and fair elections and multiple political parties. Within the context of the five study countries, these results showed whether the concept of political competition can be realized with or without political parties.

### **Combining the Bayesian Belief Networks**

In order to effect a positive social change, it is desirable for this methodology to be applicable to the study of other countries. In this study, for each study country, an individual Bayesian belief network was created. This network was constructed using specific evidences that may or may not be unique to the specific study country. A more generalized Bayesian belief network that could be applied to multiple countries would

make this methodology easier to use. The next step in this study is to determine if the five study country specific networks can be consolidated into one combined network.

The methodology for this step consisted of an examination of all the evidences and observables from all five-study networks to determine commonalities. In some cases, terminology had to be changed, in other cases actual evidences had to be decomposed further. The desired outcome of this step is to have one Bayesian belief network that can be applied to other countries to determine whether, in that country, the political concept of political competition is or is not being implemented through political parties. Using this combined network will allow future scholars to evaluate more easily whether specific countries incorporate political parties as a part of democratic governance.

### **Summary**

Determining whether a country implements political competition or whether a country has viable political parties involves uncertainty. Repressive government leaders may want to give the citizens the impression that the government elections involve political competition or that the country has viable political parties. In order to manage this uncertainty, Bayesian belief networks were used understand the relationships between what a government may claim and what is actually observable. The commercial software Netica was used as the mechanism for constructing, populating, testing, and operating the Bayesian belief networks. Separate Bayesian belief networks were designed, populated, and tested for each study country. The results of these Bayesian belief networks provided insight into the two hypotheses.

After the Bayesian belief networks were tested, an evaluation was conducted to determine whether there are common indicators and observables among the study networks. An additional Bayesian belief network was constructed that was country agnostic. Once this agnostic network was evaluated and tested, it was able to be applied to other countries or to a specific country that has experienced a significant change in governance. This will assist future social scientists in evaluating whether other countries incorporate political competition via political parties and whether a country that has undergone a significant overt change in governance has actually incorporated a change.

## Chapter 4: Results

### **Introduction**

The purpose of this study was to investigate whether a country's government can foster an environment where political competition can exist without the use of political parties. For this purpose, two research questions were generated:

- What are diagnostic observables for political competition?
- What are the diagnostic observables for political parties?

For the first research question, the schema of using probabilistic relationships instead of deterministic relationships was used to represent how a specific country implements political competition. This schema incorporated the writings of Mainwaring et al. (2001) in the context that political competition may be more accurately described as a spectrum as opposed to dichotomous states. Incorporating probabilistic relationships in the Bayesian belief networks accurately represents this continuous spectrum of political competition. A deterministic relationship would have been appropriate if political competition was considered a dichotomous state. For this study, the Mainwaring et al. context was used.

Based on the interpretation that political competition is more accurately described as a spectrum, the diagnostic observables for political competition will involve some uncertainty, as described in Chapter 3. Bayesian belief networks were selected as the methodology for using diagnostic observables that may involve uncertainty. To summarize the advantages of Bayesian belief networks in handling uncertainty, Bayesian belief networks have transparency in that all assumptions and interrelationships are

visible and defensible, and Bayesian belief networks are testable and repeatable because any analyst can take a Bayesian belief network, apply the same data, and get repeatable results. The repeatability is based on Bayesian belief networks using the formula representing Bayes' Law. Assuming that identical Bayesian belief networks are used, and assuming that the data are identical, the same mathematical results will be generated. The interpretation of those results by different analysts may be different.

This chapter was structured in alignment with the major analytical steps for this study. The major steps in this study were:

- Hypothesis generation and definition
- Problem decomposition
- Establishment of relationships
- Population of the Bayesian belief networks

This chapter includes a description of the running and testing of the individual Bayesian belief networks and the results of the Bayesian analysis in preparation to the final analysis to be addressed in Chapter 5.

### **Hypothesis Generation and Definition**

In order to use Bayesian methodologies to address the two research questions, it was necessary to generate a hypothesis for each research question. This hypothesis formed the basis for the Bayesian networks. In Bayesian analysis, the hypothesis had two or more states. There are two requirements for these states in order for Bayesian analysis to be effective. The first is that the states must be mutually exclusive. The second is that the states must be exhaustive.

Exclusivity is satisfied when viewed through omniscience and when only one of the hypothesis states can be true at any one time (Dufty, 2009). A two-state hypothesis where the states are either *yes* or *no* is an example of exclusivity (Dufty, 2009). Given absolute knowledge of the issue, that state that is true for any point in time can not be both *yes* and *no*, but must be one or the other (Dufty, 2009). Hypotheses with more than two states can still satisfy exclusivity, but great care must be made in the design of the hypothesis.

Exhaustiveness is satisfied when viewed through omniscience and when at least one of the states is true at any one time. A dichotomous hypothesis with mutually exclusive states of *yes* and *no* may not be exhaustive if it is possible that a third state of *neither yes nor no* may be true. In this study, care was taken in developing the hypothesis and its states in order not to inadvertently violate exclusivity or exhaustiveness.

The first research question was: What are diagnostic observables for political competition? Political competition is a common criterion in defining democracy. The background documents from the United Nations (1966), the Inter-Parliamentary Union (1994, 1997), and the definitions of democracy as postulated by Diamond et al. (1995), established political competition as an element of democratic governance. For developing a hypothesis, the concept of political competition was focused down to the more specific measurable activity of elections. The Universal Declaration on Democracy (IPU, 2011) made a direct connection between political competition and free and open elections. The IPU recognized that political competition could apply to concepts other than elections.

The scope of this study necessitated the focusing on one of the concepts. In this case, it is elections.

The hypothesis chosen to represent the first research question was, “this country has free and fair elections (true/false)”. To ensure that this hypothesis is a viable hypothesis for a Bayesian belief network, it was necessary to evaluate each of the components of the hypothesis. In order to implement Bayesian analysis, it is important that each of the components of the hypothesis is defined and understood.

In this instance, the phrase *this country* referred to one of the five study countries. The study countries are Andorra, Malawi, South Korea, Venezuela, and Vietnam. The phrase *has free and fair elections* encompassed two different but related concepts. In this case, the word *has* was concerned with the present and past activities of the specific country in its present governmental structure. If a country has undergone a significant change in governmental structure, this study is only focused on the current government. The phrase *free and fair elections* consisted of a coordinating conjunction. Including a conjunction in a Bayesian hypothesis can be problematic in the context of exclusivity. In this case, the coordinating conjunction *and* bound the two words *free* and *fair* into one non-contrasting phrase. This meant that there was no need to identify further hypothesis states to address:

- Not fair but free elections
- Fair but not free elections

The second research question was: What are the diagnostic observables for political parties? The IPU (2011) and the UN (2011) definitions of democracy referenced

the use of political parties. Diamond et al. (1995) and Freedom House (2011) established political parties as being an element of democratic governance.

The hypothesis chosen to represent the second research question was, “This country utilizes more than one political party (true/false).” Similarly to the first hypothesis, the phrase *this country* referred to one of the five study countries. The verb *utilizes* meant the political parties exhibited a measurable influence on elections. The uncertainty of this influence is one of the reasons Bayesian belief networks were selected for this study. The hypothesis was designed using the term *more than one* in the context of political parties. The purpose of this study was to determine whether political parties (plural) are necessary for a country to provide political competition to its citizens. A country ruled by a dictator still has one political party. That would be the political party of the dictatorship. By wording the hypothesis using the term *more than one*, it aligned the hypothesis more closely to concepts of democratic governance. This also allowed the results of this study to identify instances where a country has free and fair elections but does not use multiple political parties. The phrase *political party* required additional defining.

As a concept, political parties were difficult to define. Diamond et al. (1995), Freedom House (2011), the UN, and the IPU, loosely defined political parties as groups with membership by the citizens with the goal of collectively advocating for specific political platforms. This loose definition is insufficient for creating a Bayesian belief network hypothesis. For the purpose of hypothesis generation, a political party was defined as an organization that has placed a candidate up for election within the past two

national-level regular elections. Not every election has candidates from every political party. For the purpose of completeness, it was decided to include both active and recently inactive political parties as part of the hypothesis. Not every country in the world has annual elections for elected offices, and some countries the terms of office can be of duration of several years. This is why a specific time-period was not used, but instead a number of past elections were used as a boundary for considering whether a political party is active or inactive.

Political parties were also identified as being recognized and not recognized by the laws of the government of the specific country. In the United States of America, the influences of the Tea Party Movement are measurable despite the fact that the Tea Party Movement is not an officially recognized political party. Because of the influences of unrecognized political parties, both recognized and unrecognized political parties were included in this study's definition of political party.

### **Problem Decomposition**

The next step in the analysis was to decompose the hypothesis states into a series of indicators and ultimately to a set of observables. These indicators are developed for each of the hypothesis states and form a set of indicators, subindicators, and observables. These entities are structured in a hierarchy from the hypothesis continuing down to the individual observable. Indicators form a causality chain between the observable and the hypothesis state. Indicators were identified by using the following schema: Given that a specific hypothesis state is true, it is more likely that the indicator exists than if the hypothesis was not true. It was important to also identify indicators from the negative

side of causality. This was implemented by using a slightly different schema: Given that the specific hypothesis is not true, it is more likely that the indicator exists than if the hypothesis was true. While these two schemas may appear to be the same, each schema identified a different type of indicator. In the first example, a positive indicator was identified. In the second example, a negative indicator was identified. For analytical completeness, it was necessary to identify both positive and negative indicators.

### **Indicators for the First Hypothesis**

The hypothesis states were true and false. The first step was to identify indicators that would reduce the uncertainty between the hypothesis states. Goodwin-Gill (2006) consolidated many indicators already identified by the UN (1966), IPU (1994), Diamond et al. (1995), and other sources. The indicators chosen for this hypothesis were:

- Adult citizens have the right to vote in elections on a nondiscriminatory basis.
- Every adult citizen has the right to access to an effective, impartial, and non-discriminatory procedure for the registration of voters.
- No eligible citizen shall be denied the right to vote or disqualified from registration as a voter, otherwise than in accordance with objectively verifiable criteria prescribed by law and provided that such measures are consistent with the State's obligation under international law.
- Every individual who is denied the right to vote or be registered as a voter shall be entitled to an appeal to a jurisdiction competent to review such decisions and to correct errors promptly and effectively.

- Every voter has the right to equal and effective access to a polling station in order to exercise his or her right to vote.
- Every voter is entitled to exercise his or her right equally with others and to have his or her vote accorded equivalent weight to that of others.
- The right to vote in secret is absolute and shall not be restricted in any manner whatsoever (Goodwin-Gill, 2006, p. viii).

Tilly (2007) identified indicators that were more focused on the results of the election. It was important to consider that a country may have the mechanisms of free and fair elections, but does not allow the results of the elections to affect the government.

Tilly identified the following indicators for the hypothesis:

- Is the head of state elected through free and fair elections?
- Are the legislative representatives elected through free and fair elections?
- Are the voters able to endow their freely elected representatives with real power?
- Is there a significant opposition vote?
- Are the people free from domination by the military, foreign powers, totalitarian parties, religious hierarchies, economic oligarchies, or any other powerful group?
- Do cultural, ethnic, religious, and other minority groups have reasonable self-determination through informal consensus in the decision-making process?

Przeworski et al. (2000) considered the history of the results of elections as an indicator whether the elections were free and fair. It was Przeworski's position that there needed to be evidence that there was a change of leadership over a period of election history. If there was a country that proclaimed that they had free and fair elections, but the results of the most current elections over time showed no change in leadership, the state of free and fair elections was suspect. According to Przeworski, it would be unlikely that the citizens would continue to elect and reelect the same person or members of the same political party continuously. While as a concept, this may be historically true, there is no causality relationship between the character of an election and its result. Przeworski pointed out that a lack of political change is suspect and, as such, can be used as an indicator in the Bayesian belief net. For the purpose of structuring this indicator, the periodic history under the study was established at two election cycles. The analysis of two complete election cycles will result in data that would apply to Przeworski's criterion.

- Has there been an alteration of political party candidates with in the last two election cycles?

Mainwaring et al. (2001) and Perry (2004) introduced two additional indicators of free and fair elections. In this case, the indicators are focused on the results of elections. Elections cannot be considered valid if the winners of the elections do not have the authority to run their respective parts of the government. Government officials may be elected, but if they do not possess actual authority, the election can be considered invalid from a democratic viewpoint. The indicators identified by Mainwaring et al. (2001) were:

- Does the elected legislature have the power to propose, decide, and approve legislation?
- Does the elected Executive have the authority to govern?

Morlino (2008) introduced a unique indicator of free and fair elections. In this case, the indicator was focused on the ability of the citizenry to make their election decisions prior to voting. Morlino postulated that unless the citizens have access to diverse sources of information concerning the political choices, the ability of a country to provide free and fair elections is suspect. In this case, diverse was defined as not restricted to government-controlled media. Therefore, the following indicator was included in the Bayesian belief network:

- Does the citizen have access to diverse sources of information concerning the election and the candidates?

All of the previous indicators focused on determining whether an election was free and fair. For the sake of completeness, an additional indicator was added:

- This country has elections.

This was a special indicator that would only affect the Bayesian belief network as a negative indicator. If the country has elections, the belief that the country had free and fair elections is not affected. Having an election is no guarantee that it is free and fair. Therefore, observing the indicator being true neither increases nor decreases the belief in the hypothesis states. However, if the country does not have elections, then the question of whether there are free and fair elections is answered with no uncertainty. If a country

does not have elections, the country can not have free and fair elections. The belief that the country has free and fair elections is zero.

### **Indicators for the Second Hypothesis**

The hypothesis states were true and false. The first step was to identify indicators that would reduce the uncertainty between the hypothesis states. Goodwin-Gill (2006, p. vii-ix) consolidated many indicators already identified by the UN (1966), IPU (1994), Diamond et al. (1995), and other sources. The indicators chosen for this second hypothesis were:

- Are there equal campaigning opportunities?
- Do the people have the right to organize in different political parties or other competitive political groups of their choice?
- Are the criteria for participation in the government established by law?
- Do the citizens have the freedom to express political opinions without interference?
- Do the citizens have the freedom to seek, receive, and impart information and make informed political choices?
- Do the candidates have the freedom to move freely within the country in order to campaign for election?
- Do the candidates have the freedom to campaign on an equal basis with other political parties including the party forming the existing government?

- Do the candidates have equal opportunity of access to the media to put forward their political views?
- Do the candidates have the right to security with respect to their lives and property?
- Do members of a political party have the right to protection under the law?
- Do political parties have the right for remedy for violation of political and electoral rights?
- Do candidates, whose rights have been denied or restricted, have the right to appeal to a jurisdiction competent to review such decisions?
- Are political parties prohibited from committing acts of violence?
- Are candidates responsible for respecting the rights and freedoms of others?
- Do candidates and political parties accept the outcome of free and fair elections?

### **Constructing the Conditional Probability Tables**

Each one of these hypotheses and their respective indicators were used to form the belief network nodes using the Netica software. Each node was constructed in a dichotomous manner with two mutually exclusive and exhaustive states – True and False. The next step was to construct the individual conditional probability table that would define how an indicator would affect the belief states of the specific hypothesis. The software would reference these conditional probability tables in its application of Bayes' Law to update the belief values in the hypothesis state.

Creating the individual entries of the conditional probability table followed a specific schema:

- Given that the hypothesis state is true, it is more (less) likely that the indicator state would be true than if the hypothesis state were false.
- Given that the hypothesis state is false, it is more (less) likely that the indicator state would be true than if the hypothesis state were true.

Once the answer to these two questions was determined, the next step was to assign a value that quantified how much more or how much less was the likelihood. The software allowed the user to enter whatever probability at whatever precision desired. It was important avoid populating the network with conditional probabilities that reflected a false sense of precision. In this study, the type of indicators used precluded the use of historically quantified probabilities. Therefore, a system of qualitative subjective probabilities was used.

The use of subjective probabilities in constructing belief networks is sometimes a necessity especially when the types of indicators preclude the use of more quantified probabilities. Pollino, Woodberry, Nicholson, Korb, and Hart (2007), Kragt (2009), Heuer (1999), and Jensen and Nielsen (2007) all recognized that in the absence of quantified probabilities, subjective probabilities can be used. One of the advantages of Bayesian belief networks is that the entries in the conditional probability tables are transparent and testable. They are transparent because the conditional probability table for each entity is recorded in the software and can be readily displayed. The entries are testable because a copy of the network can be made; specific conditional probability

tables can be modified; and the network run with this new data. The results can be compared to determine if the changed data is significant. For this study, a schema of seven qualitative categories was identified and a subsequent probability assigned to each category. The categories used in this study were:

- *Certainly likely.* Indicators with this qualitative category indicated that the indicator state would be true if the hypothesis state were to be true with no or very little uncertainty. The conditional probability for this category would be represented in the software as 1.0.
- *Much more likely.* Indicators with this qualitative category indicated that the indicator state would be much more likely to be true if the hypothesis state were to be true than if the hypothesis state were false. The conditional probability for this category would be represented in the software as 0.9.
- *More likely.* Indicators with this qualitative category indicated that the indicator state would be more likely to be true if the hypothesis state were to be true than if the hypothesis state were false. The conditional probability for this category would be represented in the software as 0.75.
- *Neither more nor less likely.* Indicators with this qualitative category indicated that the indicator state would be neither more or less likely to be true if the hypothesis state were to be true than if the hypothesis state were false. The conditional probability for this category would be represented in the software as 0.5. Indicators with all of its states having a conditional

probably of 0.5 are considered non-diagnostic. Heuer (1999)

recommended that nondiagnostic indicators be removed from decision networks. In the case of this study, it was decided to retain non-diagnostic indicators in order to preserve traceability back to the cited documents.

- *Less likely.* Indicators with this qualitative category indicated that the indicator state would be less likely to be true if the hypothesis state were to be true than if the hypothesis state were false. The conditional probability for this category would be represented in the software as 0.25.
- *Much less likely.* Indicators with this qualitative category indicated that the indicator state would be much less likely to be true if the hypothesis state were to be true than if the hypothesis state were false. The conditional probability for this category would be represented in the software as 0.1.
- *Certainly not likely.* Indicators with this qualitative category indicated that the indicator state would be false if the hypothesis state were to be true with little or no uncertainty. The conditional probability for this category would be represented in the software as 0.0.

Because each of the indicators had a dichotomous structure of true and false, each conditional probability entry, when paired with its opposite state needed to add up to 1.0. This resulted in the following relationships:

- Certainly likely (1.0) was paired with certainly not likely (0.0)
- Much more likely (0.9) was paired with much less likely (0.1)
- More likely (0.75) was paired with less likely (0.25)

- Neither more nor less likely (0.5) was paired with neither less nor more likely (0.5)

### **List of Conditional Probability Tables and the Rationale for the Entries**

Each of the following tables represents the specific conditional probability table for both the hypotheses and indicators used in this study. A short description of the rationale used to generate the subjective probabilities is listed. The order in which the indicators are listed is irrelevant to the operation of the network as each indicator had a separate and direct link to the hypothesis. In these tables, the indicator's parent and the parent's states are listed in the left column. The right two columns represent the conditional probability for each indicator state with respect to the states of the parent hypothesis.

Table 1

*This Country has Free and Fair Elections*

(No Parent)	Hypothesis is True	Hypothesis is False
	0.5	0.5

Table 1 depicts the conditional probability table for one of the study hypotheses. Because it was a top-level hypothesis, it did not have a parent. Its conditional probability table consisted of only the a priori probability. In this case, the a priori probability was 0.5 indicating complete uncertainty whether the hypothesis is true or false.

Table 2

*This Country has Elections*

<b>This country has free and fair elections</b>	<b>Indicator is True</b>	<b>Indicator is False</b>
Hypothesis is True	1.0	0.0
Hypothesis is False	0.5	0.5

In Table 2, given that the parent hypothesis is true, then it is certainly likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, then that country must have elections. If a country does not have free and fair elections, it is neither more nor less likely that the country has elections. The rationale for the CPT of 0.5 was to recognize that an election can occur being neither free nor fair.

Table 3

*Citizens Have the Right to Vote*

<b>This country has free and fair elections</b>	<b>Indicator is True</b>	<b>Indicator is False</b>
Hypothesis is True	1.0	0.0
Hypothesis is False	0.25	0.75

In Table 3, given that the parent hypothesis is true, then it is certainly likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, then the citizens of that country are certainly likely to have the right to vote. If the country does not have free and fair elections, it is more likely that the citizens do not have the right to vote, than if the country does have free and fair elections.

The rationale for the CPT of 0.25 was to recognize that citizens can have the right to vote, but the election may still not be free and fair.

Table 4

*Citizens Have Access to Fair Voter Registration*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	0.9	0.1
Hypothesis is False	0.25	0.75

In Table 4, given that the parent hypothesis is true, then it is much more likely that the indicator state would be true than if the parent hypothesis were false. It was important to recognize that a country might have free and fair elections but not have a formal pre-election registration process. This was why the conditional probability was less than 1.0. If a country does not have free and fair elections, then it is more likely that the citizen does not have access to fair voter registration then if the country does have free and fair elections. The rationale for the CPT of 0.25 was to recognize that while citizens may have access to voter registration, the election may not be free and fair.

Table 5

*Eligible Citizen not Denied Vote*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	1.0	0.0
Hypothesis is False	0.25	0.75

In Table 5, given that the parent hypothesis was true, then it was certainly likely that the indicator state would be true than if the parent hypothesis were false. If a country

has free and fair elections, then eligible citizens could not have their right to vote denied. If the country does not have free and fair elections, it is more likely that the indicator state would be false, then if the country did have free and fair elections. The rationale for the CPT of 0.25 was to recognize that while eligible citizens may not be denied a vote, the election may not be free and fair.

Table 6

*Citizen has Right to Appeal Voter Registration*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	0.9	0.1
Hypothesis is False	0.25	0.75

In Table 6, given that the parent hypothesis is true, then it is much more likely that the indicator state would be true than if the parent hypothesis were false. A country might have free and fair elections but not have a formal registration appeal process. This was why the conditional probability was not 1.0. If a country does not have free and fair elections, then it is more likely that the citizen does not have the right to appeal voter registration then if the country did have free and fair elections. The rationale for the CPT of 0.25 was to recognize that while citizens may the right to appeal voter registration, the election might not be free and fair.

Table 7

*Citizen has Access to Polling Stations*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.5	0.5

In Table 7, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, then it is more likely that citizens had equal and effective access to polling stations than if the country did not have free and fair elections. It was important to recognize that not all countries use formal polling stations. This was why the conditional probability table was not 1.0. If a country does not have free and fair elections, then it is neither more nor less likely that the citizens have access to polling locations. The rationale for the CPT of 0.5 was to recognize that while citizens may have access to polling stations, the election may not be free and fair.

Table 8

*Citizen has Equal Vote*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	1.0	0.0
Hypothesis is False	0.0	1.0

In Table 8, given that the parent hypothesis is true, then it is certainly likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, then it is certainly likely that the citizens have an equal vote than if the country did not have free and fair elections. If the country does not have free and fair elections then it is certainly likely that the citizens do not have an equal vote than if the country did have free and fair elections.

Table 9

*Citizen Enjoys Secret Vote*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.5	0.5

In Table 9, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, it is more likely that the citizens enjoy a secret vote than if the country does not have free and fair elections. It was important to recognize that some forms of election such as caucus and representative voting, such as an Electoral College, do not always involve a secret ballot. This was why the conditional probability was not 1.0. If a country does not have free and fair elections, it is neither more nor less likely that the citizens enjoy a secret vote. The rationale for the CPT of 0.5 was to recognize that while citizens may enjoy a secret vote, the election may not be free and fair.

Table 10

*The Head of State is Elected*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	1.0	0.0
Hypothesis is False	.25	.75

In Table 10, given that the parent hypothesis was true, then it is certainly likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, the head of state is certainly likely to be elected, either directly

or indirectly. If the country does not have free and fair elections, it is more likely that the head of state is not elected than if the country had free and fair elections. In this context, the term *elected* was defined as being elected by the citizens. The rationale for the CPT of 0.25 was to recognize that officials elected by the citizens as a form of indirect or representative election can appoint a head of state.

Table 11

*The Legislation is Elected*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	1.0	0.0
Hypothesis is False	0.0	1.0

In Table 11, given that the parent hypothesis is true, then it is certainly likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, it is certainly likely that the legislation was elected than if the country did not have free and fair elections. If the country does not have free and fair elections, it is more likely that the legislation was not elected than if the country had free and fair elections.

Table 12

*Elected Representatives Endowed With Real Power*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	1.0	0.0
Hypothesis is False	0.5	0.5

In Table 12, given that the parent hypothesis is true, then it is certainly likely that the indicator state would be true than if the parent hypothesis were false. If a country has

free and fair elections, then it is certainly likely that the elected representatives are endowed with real power than if the country does not have free and fair elections. If a country does not have free and fair elections, it is neither more nor less likely that the representative is endowed with real power. The rationale for the CPT of 0.5 was to recognize that whether the elected legislation has real power is independent of how the legislation was elected.

Table 13

*There is a Significant Opposition Vote*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	.75	0.25
Hypothesis is False	0.5	0.5

In Table 13, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, it is more likely that there is a significant opposition vote, than if the country does not have free and fair elections. For the purpose of structuring this indicator, significance was defined as the opposition votes from all challengers representing at least 25% of the total number of votes. If a country does not have free and fair elections, then it is neither more nor less likely that there is a significant opposition vote. The rationale for the CPT of 0.75 was to recognize that while unlikely, it is possible for a free and fair election to result in no significant opposition vote.

Table 14

*People are Free From Domination*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.5	0.5

In Table 14, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, then it is more likely that the people are free from domination than if the country does not have free and fair elections. Tilly (2007) defined domination in this context as domination by the military, foreign powers, totalitarian parties, religious hierarchies, economic oligarchies, or any other powerful group. The vagueness of Tilly's definition from a measurable indicator viewpoint was why this conditional probability was not 1.0. If a country does not have free and fair elections, it is neither more nor less likely that the people are free from domination.

Table 12

*Minority Groups Have Reasonable Self-Determination*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.5	0.5

In Table 15, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, then it is more likely that minority groups have reasonable self-determination than if the country does not have free and fair elections. If a country does

not have free and fair elections, it is neither more nor less likely minority groups have reasonable self-determination.

Table 16

*There has Been a Change in Political Party Candidates*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.25	0.75

In Table 16, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, then it is more likely that there has been a change in political party candidates than if the country does not have free and fair elections. For the purpose of structuring this indicator, the periodic history under the study was established at 10 election cycles. If a country does not have free and fair elections, it is less likely that there would be a change in political party candidates than if the country did have free and fair elections. The rationale for the CPT of 0.25 was to recognize that while unlikely, it is possible for a free and fair election to result in no significant changes in political party candidates.

Table 17

*Elected Legislation is Able to Legislate*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	1.0	0.0
Hypothesis is False	0.5	0.5

In Table 17, given that the parent hypothesis is true, then it is certainly likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, then it is certainly likely that the elected legislation is able to legislate if the country does not have free and fair elections. If a country does not have free and fair elections, it is neither more nor less likely that the legislation is able to legislate.

Table 18

*Elected Executive has Power to Govern*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	1.0	0.0
Hypothesis is False	0.5	0.5

In Table 18, given that the parent hypothesis is true, then it is certainly likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, then it is certainly likely that the elected executive has the power to govern than if the country does not have free and fair elections. If a country does not have free and fair elections, it is neither more nor less likely that the elected executive has the power to govern.

Table 19

*Citizen has Access to Diverse Election Information*

This country has free and fair elections	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.5	0.5

In Table 19, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country has free and fair elections, then it is more likely that the citizens have access to diverse election information than if the country does not have free and fair elections. If a country does not have free and fair elections, it is neither more nor less likely that the citizens have access to diverse election information.

Table 20

*This Country Utilizes More Than one Political Party*

(No Parent)	Hypothesis is True	Hypothesis is False
	0.5	0.5

Table 20 depicts the conditional probability table for one of the study hypotheses. Because it was a top-level hypothesis, it did not have a parent. Its conditional probability table consisted of only the a priori probability. In this case, the a priori probably was 0.5 indicating complete uncertainty whether the hypothesis is true or false. In the following conditional probability tables, the parent hypothesis was rewritten to “This country uses political parties” for space considerations.

Table 21

*Citizens Have Equal Campaigning Opportunities*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.5	0.5

In Table 21, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses

political parties, then it is certainly likely that the citizens have equal campaigning opportunities than if a country does not use political parties. If a country does not use political parties, it is neither more nor less likely that the citizens have equal campaigning opportunities than if the country does use political parties.

Table 22

*Citizens Have the Right to Organize Political Parties*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.1	0.9

In Table 22, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is more likely that the citizens have the right to organize political parties than if a country does not use political parties. If a country does not use political parties, it is much more likely that the citizens do not have the right to organize political parties than if the country does use political parties.

The rationale for the CPT of 0.1 was to recognize situations where the citizens do not have the right to organize political parties, but at the same time, the government forms political parties to represent the citizens. In the condition where the hypothesis was false, it was important to recognize situations where citizens may have the right to organize political parties, but these political parties have no actual influence on elections. The existence of political parties does not necessarily indicate that these political parties actually are involved in the elections.

Table 23

*Criteria for Political Participation is Established by law*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.25	0.75

In Table 23, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is more likely that the criterion for political participation is established by law than if a country does not use political parties. If a country does not use political parties, it is more likely that the criterion for political participation is not established by law citizens than if the country does use political parties. The rationale for the CPT of 0.25 was to recognize the possibility of a country using political parties despite lack of law that establishes the criterion for political participation.

Table 24

*The Citizens Have the Freedom of Political Expression*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.50	0.50

In Table 24, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is more likely that the citizens have the freedom of political expression than if a country does not use political parties. If a country does not use political parties, it is neither more nor less likely that the citizens have the freedom of

political expression than if the country does use political parties. The rationale for the CPT of 0.5 was to recognize the possibility of the citizens having freedom of political expression, but the country not using political parties.

Table 25

*The Citizens Have the Freedom to Receive and Impart Political Information*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.5	0.5

In Table 25, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is more likely that the citizens have the freedom to receive and impart political information than if a country does not use political parties. If a country does not use political parties, it is neither more nor less likely that the citizens have the freedom to receive and impart political information than if the country does use political parties. The rationale for the CPT of 0.5 was to recognize the possibility of the citizens having the freedom to receive and impart political information, but for the country not use political parties.

Table 26

*The Citizen has the Freedom to Move Freely to Campaign*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.50	0.50
Hypothesis is False	0.25	0.75

In Table 26, given that the parent hypothesis is true, then it is neither more nor less likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is neither more nor less likely that the citizens have the freedom to move freely to campaign than if a country does not use political parties. If a country does not use political parties, it is more likely that the citizen does not have the freedom to move freely to campaign than if the country does use political parties. The rationale for the CPT of 0.50 was to recognize the possibility of a citizen having the freedom to move freely to campaign and the country not using political parties. The rationale for the CPT of 0.25 was to recognize the possibility of a citizen not having the freedom to move freely to campaign but the country using political parties.

Table 27

*Candidates Have Freedom to Campaign on an Equal Basis*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.25	0.75

In Table 27, given that the parent hypothesis is true, then it is neither more nor less likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is neither more nor less likely that the citizens have freedom to campaign on an equal basis than if a country does not use political parties. If a country does not use political parties, it is more likely that the citizen does not have the freedom to campaign on an equal basis than if a country does use political parties. The rationale for the CPT of 0.25 was to recognize the vagueness of term *equal basis* and the difficulty in measuring what is and is not equal. Goodwin-Gill (2006) identified the

importance of campaigning on an equal basis but was unable to document an objective way of measuring equal basis.

Table 28

*Candidates Have Equal Opportunity for Media Access*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.50	0.50
Hypothesis is False	0.25	0.75

In Table 28, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is neither more nor less likely that the candidates have equal opportunity for media access than if a country does not use political parties. If a country does not use political parties, it is more likely that the candidates do not have equal opportunity for media access than if the country does use political parties. The rationale for the CPT of 0.50 was to recognize that whether a candidate has or does not have an equal opportunity for media access does not indicate whether a country uses or does not use political parties. The rationale for the CPT of 0.25 was to recognize the possibility of the candidates having equal opportunity for media access and the country not using political parties.

Table 29

*Candidates Have the Right to Security With Respect to Their Lives and Property*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.50	0.50
Hypothesis is False	0.25	0.75

In Table 29, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is neither more nor less likely that the candidates have the right to security than if a country does not use political parties. If a country does not use political parties, it is more likely that the candidates do not have the right to security than if the country does use political parties. The rationale for the CPT of 0.50 was to recognize that whether a candidate has or does not have a right to security does not indicate whether a country uses or does not use political parties.

Table 30

*Candidates Have the Right of Protection Under the Law*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.50	0.50
Hypothesis is False	0.25	0.75

In Table 30, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is neither more nor less likely that the candidates have the right to protection under the law than if a country does not use political parties. If a country does not use political parties, it is less likely that the candidates do not have the right to security than if the country does use political parties. The rationale for the CPT of 0.50 was to recognize that whether a candidate has or does not have a right to security indicate whether a country uses or does not use political parties. The rationale for the CPT of 0.25

was that if a country does not use political parties, it is less likely that candidates will have the right to security than if the country did use political parties.

Table 31

*Political Parties Have the Right for Remedy*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.0	1.0

In Table 31, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is more likely that political parties have the right for remedy than if a country does not use political parties. If a country does not use political parties, it is certainly not likely that political parties have the right for remedy than if the country does use political parties. The rationale for the CPT of 0.50 was to recognize that whether a candidate has or does not have a right to remedy indicate whether a country uses or does not use political parties. The rationale for the CPT of 0.25 was that if a country does not use political parties, it is less likely that candidates will have the right to remedy than if the country did use political parties.

Table 32

*Candidates Have the Right to Appeal for Right Violations*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.25	0.75

In Table 32, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is more likely that the candidates have the right to appeal for right violations than if a country does not use political parties. If a country does not use political parties, it is less likely that a candidate would have the right to appeal right violations than if the country does use political parties. The rationale for the CPT of 0.75 was to recognize that while a country may use political parties, a candidate might not have the individual right to appeal for violations. The rationale for the CPT of 0.25 was to recognize that an individual candidate might have the right to appeal for right violations even though the country does not use political parties.

Table 33

*Political Parties are Prohibited From Committing Violence*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	1.0	0.00
Hypothesis is False	0.50	0.50

In Table 33, given that the parent hypothesis is true, then it is certainly likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is certainly likely that political parties are prohibited from committing violence than if a country does not use political parties. If a country does not use political parties, it is neither more nor less likely that political parties are prohibited from committing violence than if the country does use political parties. The rationale for the CPT of 0.50 was to recognize that if a country does not use political parties, it is

unlikely that there are any laws specifically prohibiting political parties from committing violence.

Table 34

*Candidates are Responsible for Respecting the Rights of Others*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.50	0.50
Hypothesis is False	0.50	0.50

In Table 34, given that the parent hypothesis is true, then it is neither more nor less likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is neither more likely nor less likely that candidates are responsible for respecting the rights of others if a country does not use political parties. If a country does not use political parties, it is neither more nor less likely that candidates are responsible for respecting the rights of others than if the country does use political parties. The rationale for the CPT of 0.50 was to recognize that whether candidates are responsible for respecting the rights of others is independent of whether a country uses political parties. This is an example of a non-diagnostic indicator.

Nondiagnostic indicators can safely be removed from Bayesian belief networks, as they do not affect the hypothesis. For the purpose of completeness and traceability, this nondiagnostic indicator was included in the Bayesian belief networks.

Table 35

*Political Parties Accept the Outcome of Elections*

This country uses political parties	Indicator is True	Indicator is False
Hypothesis is True	0.75	0.25
Hypothesis is False	0.50	0.50

In Table 35, given that the parent hypothesis is true, then it is more likely that the indicator state would be true than if the parent hypothesis were false. If a country uses political parties, then it is more likely that political parties accept the outcome of elections than if a country does not use political parties. If a country does not use political parties, it is neither more nor less likely that political parties accept the outcome of elections than if the country does use political parties. The rationale for the CPT of 0.75 was to recognize that a political party might have legitimate concerns about the outcome of an election if it does not feel that the election was free and fair.

### **Constructing the Bayesian Belief Network**

The next step was to code these indicators into the Netica software. Each indicator was coded as a separate node in the software. Each node was assigned discrete states of true and false. Due to the dichotomous schema in which the data were used, a discrete state was more appropriate than a continuous state node. The nodes were then connected to the higher-level hypothesis, which then allowed a conditional probability table to be created describing how the observation of an indicator state affected the belief states of the higher-level hypothesis. Figure 1 shows the high-level hypothesis of *this country has free and fair elections* and Figure 2 shows the high-level hypothesis of *this country uses more than one political party* and their respective indicators derived from Goodwin-Gill (2006) with the conditional probability tables created for this study.

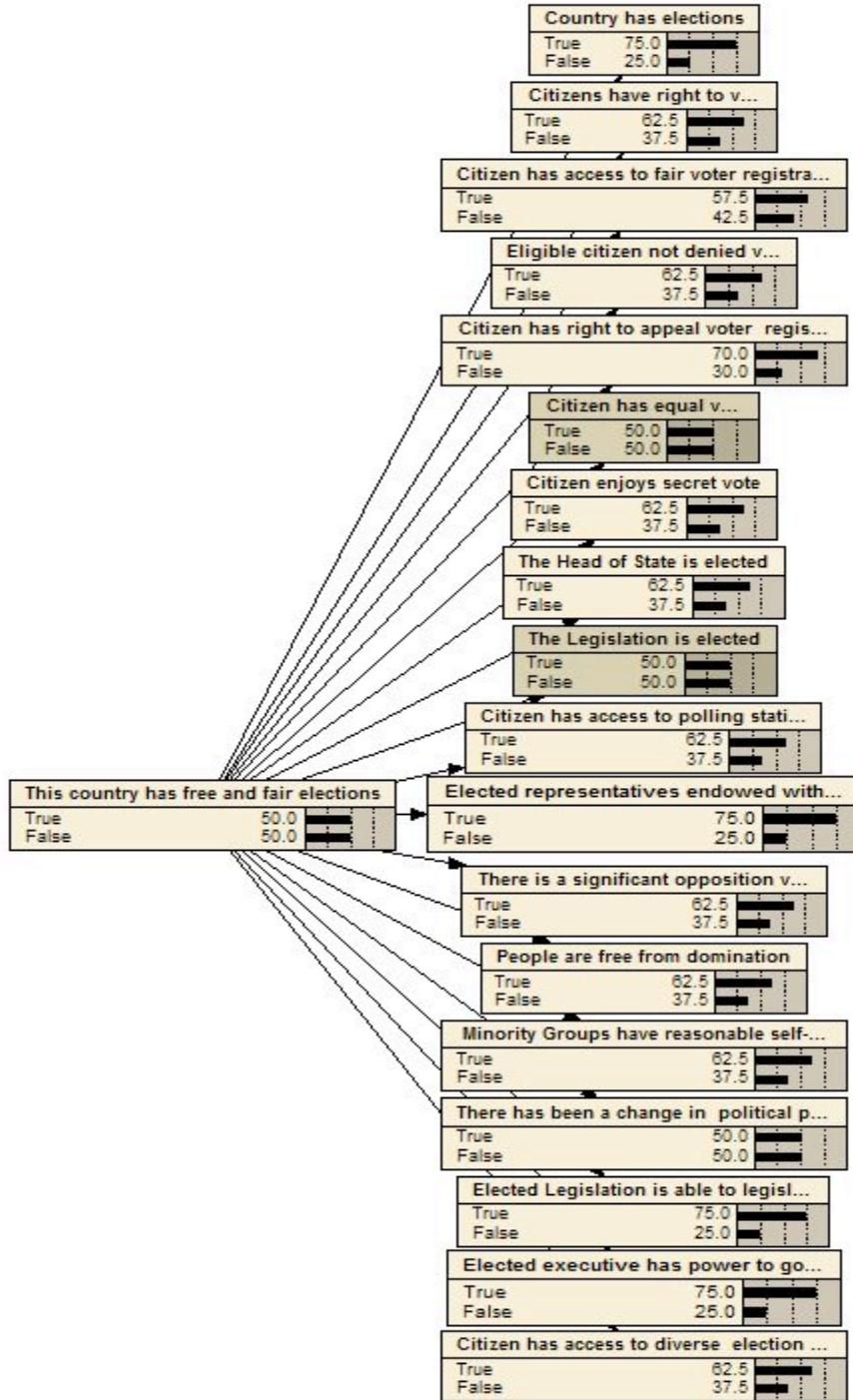


Figure 1. Top level Bayesian nodes for the hypothesis: *This country has free and fair elections.*

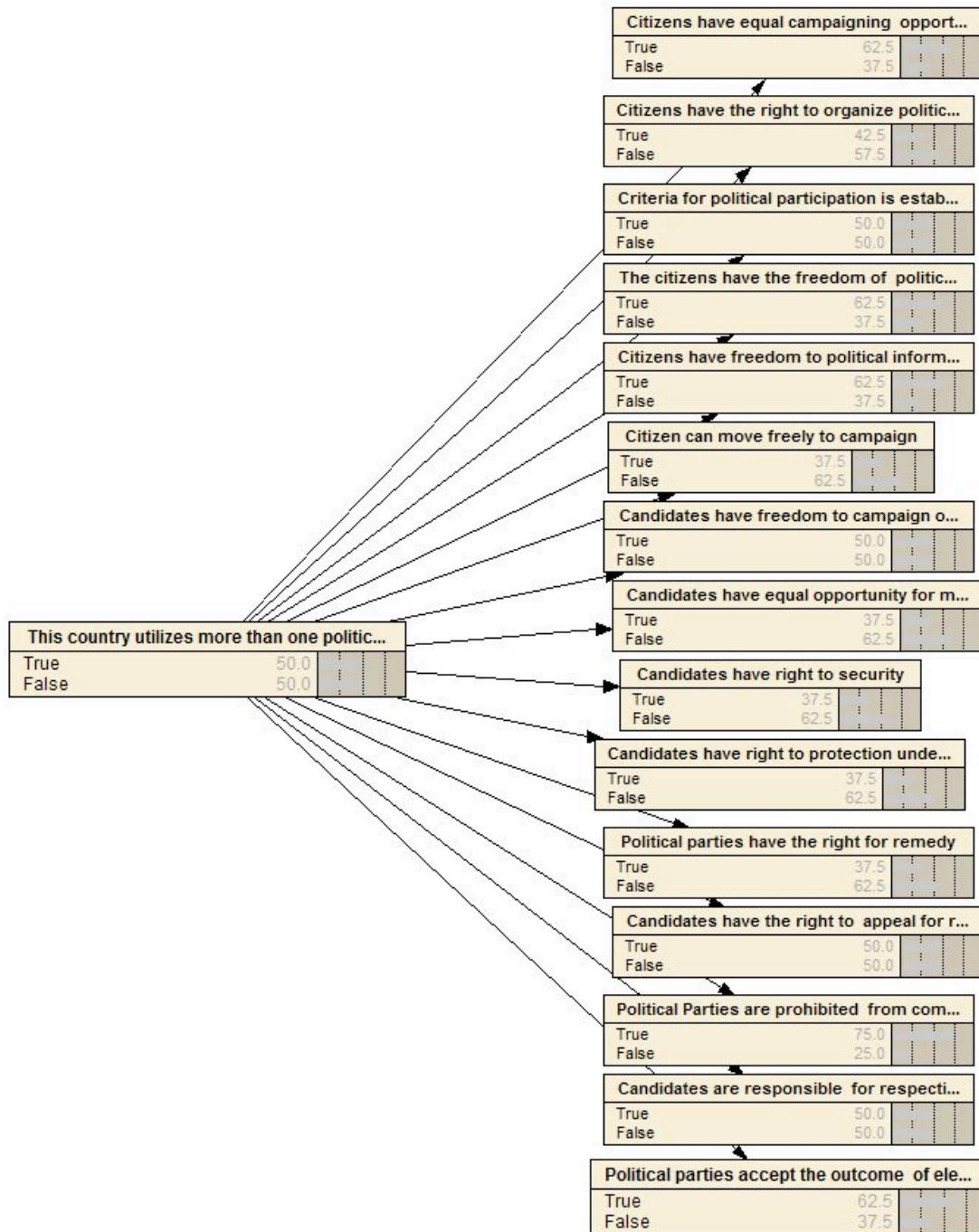


Figure 2. Top level Bayesian nodes for the hypothesis: *This country uses more than one political party*.

### **Populating the Bayesian Belief Networks With Country Specific Data**

The next step was to populate separate copies of these two networks with data applicable to each of the five study countries. Research was conducted to identify specific sources of data that support or refute these indicators. These sources of data, and the data itself are presented in the next section of this chapter. Care was taken to identify positive evidence – evidence that if observed would support the indicator and negative evidence – evidence that if observed would refute the indicator. There were two different ways to represent negative evidence in Bayesian belief networks. Either way works well in the networks.

The first way was to state the negative evidence as a negative statement. For example “The government restricts the citizen’s access to the Internet”. The concern with expressing negative evidence in this manner is in the construction of the conditional probability table. Care must be taken to properly represent the negative aspect of the evidence when constructing the conditional probability table. A negative evidence node state of *true* increases the belief that the *false* state of the indicator is the actual observed state. This non-initiative manner of expression can lead to improperly coded conditional probability tables.

The second way to depict negative evidence is to reword the evidence node so that it resembles a positive evidence node. For example “The government does not restrict the citizen’s access to the Internet”. This allows the conditional probably tables to be constructed in a more intuitive manner of expression so that an evidence state of *false* increases the belief that the *false* state of the indicator is the actual observed state. Both

ways of depicting negative evidence were used in the Bayesian belief networks to demonstrate that both schemas can work as long as the conditional probably tables are constructed appropriately.

The following sections contain the country specific data identified as observables for the Bayesian belief network. Due to the nature of the topic and this study, it would have been impractical to attempt to identify every single type of data that could be used in these types of Bayesian belief networks. A selection of data that spanned data types ranging from constitutions, laws, regulations, reporting from inside and outside the country as well as reports from International Nongovernment Organizations (INGO) was used. This sampling was sufficient to answer the research questions and to demonstrate the utility of using Bayesian belief networks to evaluate and analyze the data.

There are several INGOs that are involved in election monitoring. However, research revealed that most of these INGOs have monitoring presence in a few countries. There are no INGOs involved in election monitoring that have presence over large numbers of countries. Election monitoring INGOs researched in this study included

- Acuerdo de Lima (Lima Accord)
- African Union
- Asian Network for Free Elections (ANFREL)
- Carter Center
- Center for Democracy
- Commonwealth Secretariat

- Council of Europe
- Electoral Institute for Sustainable Democracy in Africa (EISA)
- Electoral Reform International Services (ERIS)
- European Commission
- European Network of Election Monitoring Organizations
- European Union,
- Inter-Parliamentary Union
- International Commission of Jurists
- International Foundation for Electoral Systems (IFES)
- International Human Rights Law Group
- International Institute for Democracy and Electoral Assistance
- International Republican Institute
- La Federation Internationale des Droits de l'Homme
- National Democratic Institute for International Affairs

- National Endowment for Democracy
- Network (SADC ESN)
- Organization for Security and Co-operation in Europe
- Organization of American States
- Réseau Ouest Afrique pour la Surveillance des Elections
- Southern African Development Community Election Support
- West Africa Election Observers Network (WAEON)

The five study countries used in this study were Andorra, Malawi, South Korea, Venezuela, and Vietnam. A correlation between these countries and the presence of these INGOs were:

- Andorra – Organization for Security and Cooperation in Europe
- Malawi – National Democratic Institute
- South Korea – None of these INGOs had presence in South Korea
- Venezuela – Carter Center, International Republican Institute, and the Organization of American States.
- Vietnam – None of these INGOs had presence in Vietnam

The only election monitoring organization with representative observers emplaced in the five study questions was the US Department of State. The USDoS shared observers

with the other INGOs emplaced in the study countries. Reporting in the following lists cite the US Department of State reports except when there was significant differences between what the US DOS reported and what the other INGOs reported. This lack of coverage in the study countries indicated a need to expand the emplacement of international observers into as many countries as possible to provide an impartial and independent data source.

### **Andorra**

- This country has elections.
- Andorra has a history of federal elections. The Consortium for Elections and Political Process Strengthening, an INGO, publishes reports on the results of Andorran elections (CEPPS, 2012).
- There have been no reports of denial of elections in Andorra (USDoS, 2013).
- Citizens have the right to vote.
- Andorra citizens have the right to vote (Andorran Qualified Law 28/2007, 2007, article 1 section 1. And Constitution of Andorra, 1993, Article 24).
- Citizens have access to fair voter registration.
- “The right to vote in the Andorran elections can be exercised by Andorrans who ... are nominally registered in the election list of their parish or residence” (Andorran Qualified Law 28/2007, 2007, Article 2).
- Eligible citizen not denied vote.

- “All Andorran nationals fully enjoying their political rights are entitled to vote” (Constitution of Andorra, 1993, Article 51, Section 3).
- “All Andorrans of age, in full use of their rights, enjoy the right of suffrage.” (Constitution of Andorra, 1993, Article 24)
- There have been no reports of denial of elections in Andorra. (USDoS, 2013)
- Citizen has right to appeal voter registration.
- Any Andorran citizen, who is entitled to vote, but does not appear on the Election List, can appeal to the Election Commission (Andorran Qualified Law 28/2007, 2007, Article 10).
- Andorran citizens can appeal, to the judicial system, any decisions by the Election Commission for review (Andorran Qualified Law 28/2007, 2007, Article 12).
- Citizen has access to polling stations.
- Andorran citizens are entitled to time off of work for the purpose of voting (Andorran Qualified Law 28/2007, 2007, Article 35).
- The parish council governs the number and location of polling stations (Andorran Qualified Law 28/2007, 2007, Article 34).
- Polls are open for 10 hours on the day of voting. Any eligible citizen in line at the end of the voting period is allowed to vote (Andorran Qualified Law 28/2007, 2007, Article 35).
- Citizen has equal vote.

- All Andorran nationals, fully enjoying their political rights, are entitled an equal vote (Andorran Qualified Law 28/2007, 2007, Article 51).
- “Suffrage is universal, free, equal, direct, and secret” (Andorran Qualified Law 28/2007, 2007, Article 1).
- There have been no reports of denial of voting in Andorra (USDoS, 2013).
- Citizen enjoys secret vote.
- “Suffrage is universal, free, equal, direct, and secret” (Andorran Qualified Law 28/2007, 2007, Article 1).
- The head of state is elected
- The head of state is indirectly elected. Elected members of the General Council vote amongst themselves to elect the head of government (Constitution of Andorra, 1993, Article 68).
- The Legislation is elected.
- The members of the General Council are elected by universal, free, equal, and direct suffrage (Constitution of Andorra, 1993, Article 51).
- Proportionate voting from each of the seven parishes elects half of the number of members of the General Council. A national single constituency elects the other half (Constitution of Andorra, 1993, Article 52).
- Elected representatives endowed with real power.
- Legislative power rests with the General Council and each member has equal power (Constitution of Andorra, 1993, Article 53).

- There is a significant opposition vote.
- In the 2001 and 2009 elections, there was a significant opposition vote between the Liberal Party of Andorra, the Social Democratic Party, and the Reformist Coalition (CEPPS, 2012).
- People are free from domination.
- All Andorran citizens have the right to liberty and security and shall be deprived of them only in accordance to law (Constitution of Andorra, 1993, Article 9).
- Minority groups have reasonable self-determination.
- In the 2011 elections, women were elected to 14 of the 28 seats in the parliament. Additionally two women were selected for the nine person judicial council (USDoS, 2013).
- There has been a change in political party candidates.
- In the 2001 and 2009 elections, there was a significant change in candidates representing most of the political parties (CEPPS, 2012).
- Elected legislation is able to legislate.
- Elected members of the General Council approve, by vote, all laws (Constitution of Andorra, 1993, Article 57).
- Elected executive has power to govern.
- The Andorran head of government conducts national and international Andorran policy and is vested with statutory powers (Constitution of Andorra, 1993, Article 72).

- Citizen has access to diverse election information.
- Freedom of expression, to include political, and communication is guaranteed (Constitution of Andorra, 1993, Article 12).
- There were no reported government restrictions on Andorran citizens' access to the Internet, nor were there reports of the government illegally monitoring communications (USDoS, 2013).
- An independent press, an effective judiciary, and a functioning democratic system ensured freedom of speech and of the press (USDoS, 2013).
- Citizens have equal campaigning opportunities.
- “Local councils shall grant to the candidatures, on an equal basis, public premises for electoral campaign gatherings” (Andorran Qualified Law 28/2007, 2007, Article 29).
- Citizens have the right to organize political parties.
- Andorran citizens enjoy the right of freedom to form associations for any legal purpose (Constitution of Andorra, 1993, Article 17).
- The government of Andorra respected the right of freedom of assembly and association (USDoS, 2013).
- Andorran citizens have the right to freely create political parties as long as their activities are legal and democratic in nature (Constitution of Andorra, 1993, Article 26).
- Criteria for political participation is established by law.

- National and parish laws govern all Andorran elections (Andorran Qualified Law 28/2007, 2007, Article 1).
- The citizens have the freedom of political expression:
- There are no government restrictions on access to the Internet or participating in political discussions (USDoS, 2013).
- The Andorran government respected the laws guaranteeing freedom of speech and expression (USDoS, 2013).
- Freedom of expression, of communication, and of information is guaranteed (Constitution of Andorra, 1993, Article 12).
- There are no reports of politically motivated kidnappings or imprisonment (USDoS, 2013).
- There are no reports of Andorran government sanctioned politically motivated unlawful killings or arrests (USDoS, 2013).
- The citizens have the freedom to receive and impart political information:
- There are no government restrictions on access to the Internet or participating in political discussions (USDoS, 2013).
- The Andorran government respected laws guaranteeing freedom of association and assembly (USDoS, 2013).
- Andorran laws guarantee equal access by candidates with respect to privately owned news and information media (Andorran Qualified Law 28/2007, 2007, Article 31).

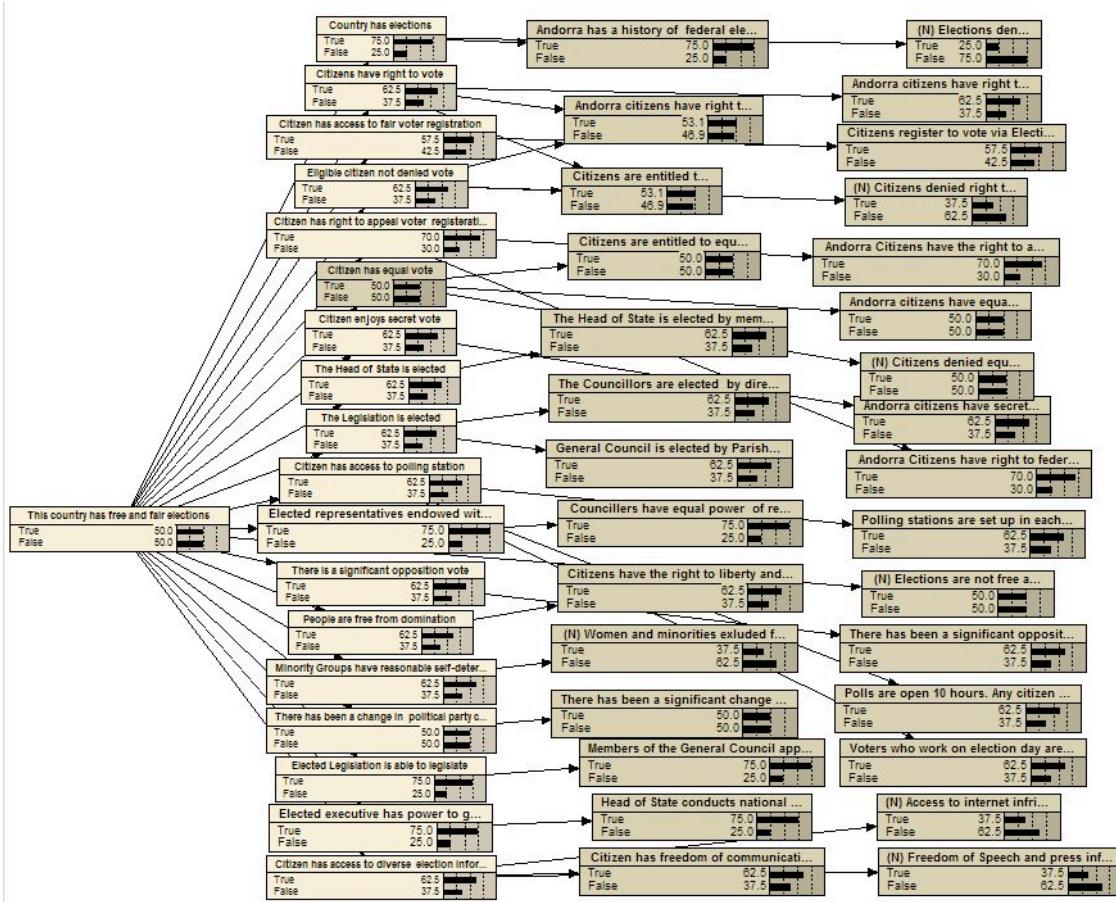
- The Andorran government sends to each citizen the political platforms and campaign materials for every candidature. Law mandates that each candidature be treated equally (Andorran Qualified Law 28/2007, 2007, Article 30).
- Each candidature is entitled to equal access to publically owned news and information media coverage (Andorran Qualified Law 28/2007, 2007, Article 31).
- The citizen has the freedom to move freely to campaign.
- Citizens have the right to move throughout the country for any legal purposes (Constitution of Andorra, 1993, Article 21).
- Candidates have freedom to campaign on an equal basis.
- Andorran laws guarantee equal access by candidates with respect to privately owned news and information media. (Andorran Qualified Law 28/2007, 2007, Article 31).
- The Andorran government sends to each citizen the political platforms and campaign materials for every candidature. Law mandates that each candidature be treated equally (Andorran Qualified Law 28/2007, 2007, Article 30).
- Each candidature is entitled to equal access to publically owned news and information media coverage (Andorran Qualified Law 28/2007, 2007, Article 31).
- Candidates have equal opportunity for media access.

- Andorran laws guarantee equal access by candidates with respect to privately owned news and information media (Andorran Qualified Law 28/2007, 2007, Article 31).
- The Andorran government sends to each citizen the political platforms and campaign materials for every candidature. Law mandates that each candidature be treated equally (Andorran Qualified Law 28/2007, 2007, Article 30).
- Each candidature is entitled to equal access to publically owned news and information media coverage (Andorran Qualified Law 28/2007, 2007, Article 31).
- Candidates have the right to security with respect to their lives and property.
- There are no reports of politically motivated kidnappings or imprisonment (USDoS, 2013).
- There are no reports of Andorran government sanctioned politically motivated unlawful killings or arrests (USDoS, 2013).
- There are no reports of the Andorran government holding political prisoners or detainees (USDoS, 2013).
- All Andorran citizens are guaranteed the right to liberty and security and neither can be deprived unless under law (Constitution of Andorra, (1993), Article 9).
- Candidates have the right of protection under the law.

- There are no reports of politically motivated kidnappings or imprisonment (USDoS, 2013).
- There are no reports of Andorran government sanctioned politically motivated unlawful killings or arrests (USDoS, 2013).
- There are no reports of the Andorran government holding political prisoners or detainees (USDoS, 2013).
- All Andorran citizens are guaranteed the right to liberty and security and neither can be deprived unless under law (Constitution of Andorra, 1993, Article 9).
- Political parties have the right for remedy.
- Candidates and legal representatives of the candidatures may appeal to the Election Commission (Andorran Qualified Law 28/2007, 2007, Article 24).
- Decisions made by the Election Commission can be appealed to the Administrative Chamber of the higher court of justice (Andorran Qualified Law 28/2007, 2007, Article 28).
- Candidates have the right to appeal for right violations.
- Candidates and legal representatives of the candidatures may appeal to the Election Commission (Andorran Qualified Law 28/2007, 2007, Article 24).

- Decisions made by the Election Commission can be appealed to the Administrative Chamber of the higher court of justice (Andorran Qualified Law 28/2007, 2007, Article 28).
- There are no reports of the Andorran government holding political prisoners or detainees (USDoS, 2013).
- Political parties are prohibited from committing violence.
- Andorran citizens enjoy the right of freedom to form associations for any legal purpose (Constitution of Andorra, 1993, Article 17).
- The government of Andorra respected the right of freedom of assembly and association for legal purposes (USDoS, 2013).
- Andorran citizens have the right to freely create political parties as long as their activities are legal and democratic in nature (Constitution of Andorra, 1993, Article 26).
- Candidates are responsible for respecting the rights of others.
- Andorran citizens enjoy the right of freedom to form associations for any legal purpose (Constitution of Andorra, 1993, Article 17).
- The government of Andorra respected the right of freedom of assembly and association for legal purposes (USDoS, 2013).
- Andorran citizens have the right to freely create political parties as long as their activities are legal and democratic in nature (Constitution of Andorra, 1993, Article 26).
- Political parties accept the outcome of elections.

- Andorran citizens have the right to freely create political parties as long as their activities are legal and democratic in nature (Constitution of Andorra, 1993, Article 26).
- There are no reports of any Andorran political party not accepting the outcome of a legal election (USDoS, 2013).



*Figure 3.* Compiled Bayesian network with indicators for *Andorra has free and fair elections*.

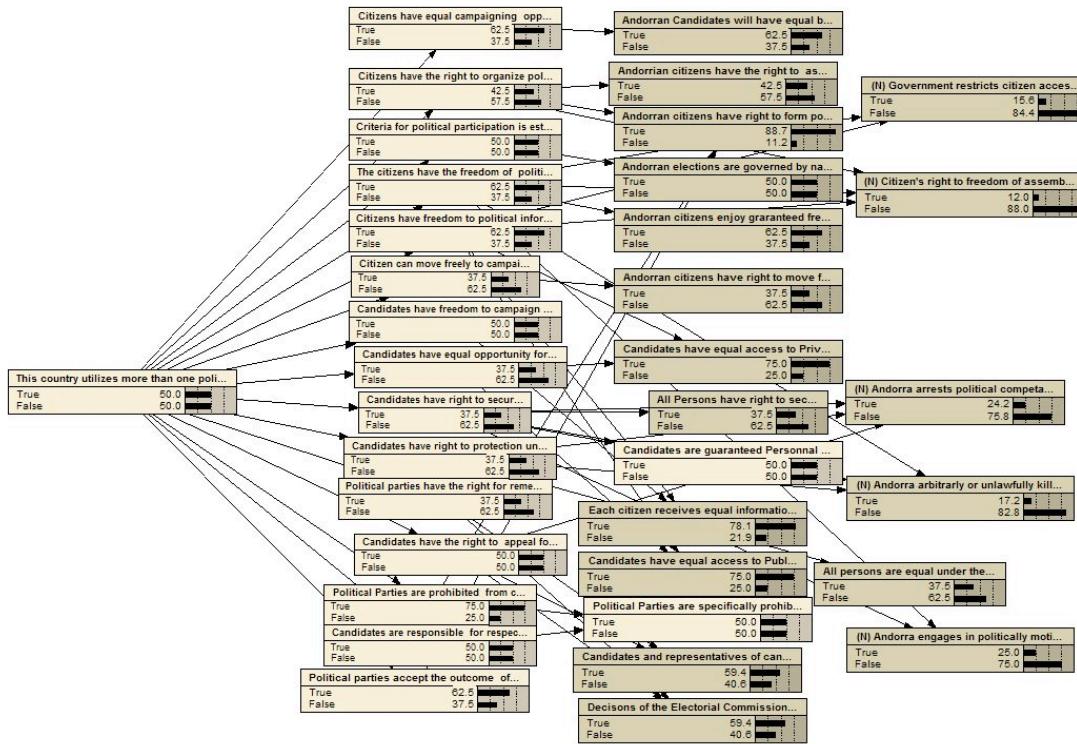


Figure 4. Compiled Bayesian network with indicators for Andorra utilizes more than one political party.

## Malawi

- This country has elections.
- Governmental power derives from elected officials (Constitution of the Republic of Malawi, 1998, Article 6).
- Citizens have the right to vote.
- Governmental power derives from elected officials (Constitution of the Republic of Malawi, 1998, Article 6).

- All citizens of Malawi shall be eligible to vote in local or national elections unless by act of law (Constitution of the Republic of Malawi, 1998, Article 77).
- Every eligible citizen is entitled to a secret vote (Constitution of the Republic of Malawi, 1998, Article 40).
- Citizens have access to fair voter registration.
- Citizen's eligibility to vote shall be governed by voter registration laws (Constitution of the Republic of Malawi, 1998, Article 77).
- In 2004, there were reports of double registration, underage registration, ineligible citizens registering, and political parties confiscation of voter certificates (Khembo et al., 2005 p. 12).
- Eligible citizen not denied vote.
- All citizens of Malawi shall be eligible to vote in local or national elections unless by act of law (Constitution of the Republic of Malawi, 1998, Article 77).
- In 2004, there were reports of double registration, underage registration, ineligible citizens registering, and political parties confiscation of voter certificates (Khembo et al., 2005 p. 12).
- Citizen has right to appeal voter registration.
- Any citizen has the right to appeal any government decision, to include voter registration issues, to the courts, the Ombudsman, and to the Human

Rights Commission (Constitution of the Republic of Malawi, 1998, Article 15).

- Citizen has access to polling stations.
- In 2009 elections, 3897 polling stations were set up. Observers from the Commonwealth Observer Group reported no issues with voter access to polling stations (Commonwealth Observer Group, 2009 p. 22).
- Citizen has equal vote.
- Elections are through universal and equal suffrage (Constitution of the Republic of Malawi, 1998, Article 6).
- “No person shall exercise more than one vote in any one election” (Constitution of the Republic of Malawi, 1998, Article 77).
- Citizen enjoys secret vote.
- Every eligible citizen shall have the right to vote via secret ballot (Constitution of the Republic of Malawi, 1998, Article 40).
- The head of state is elected.
- The President is the head of state and elected by direct secret ballot (Constitution of the Republic of Malawi, 1998, Article 80).
- The Legislation is elected.
- The National Assembly is elected by direct secret ballot (Constitution of the Republic of Malawi, 1998, Article 62).
- Elected representatives endowed with real power.

- The National Assembly has the authority to legislate (Constitution of the Republic of Malawi, 1998, Article 8).
- All legislative power is vested in the National Assembly (Constitution of the Republic of Malawi, 1998, Article 48).
- The executive branch is empowered to enact all legislation (Constitution of the Republic of Malawi, 1998, Article 7).
- There is a significant opposition vote.
- In the 2004 elections, there was a significant opposition vote between the United Democratic Front (UDF), Malawi Congress Party (MCP), National Democratic Alliance (NDA), and Independent political parties (Khembo et al., 2005, p. 38).
- People are free from domination.
- The office of the Ombudsman is empowered to investigate any case where it is alleged that a person has suffered an injustice (Constitution of the Republic of Malawi, 1998, Article 123).
- The Ombudsman is independent of any government office and free of any interference or direction by any other person or authority (Constitution of the Republic of Malawi, 1998, Article 121).
- Minority groups have reasonable self-determination.
- The state and its people will protect fundamental human rights and provide the fullest protection of the law to all individuals, groups, and minorities (Constitution of the Republic of Malawi, 1998, Article 12).

- In 2012, there were 29 women elected to the 193-seat National Assembly. There were 12 women on the 36-member executive cabinet, the President is a woman, and there are six women justices of the 28 Supreme and High Court Justices. There are six recognized minority justices serving in the National Assembly (USDoS 2013).
- All persons, regardless of national status have the right to form legal associations and enjoy the freedom of association (Constitution of the Republic of Malawi, 1998, Article 31).
- “Every person shall have the right to freedom of expression” (Constitution of the Republic of Malawi, 1998, Article 35).
- There has been a change in political party candidates.
- In the 1994, 1999, and 2004 elections there were 14 different candidates representing the five major and minor political parties (Rakner & Svåsand, 2005).
- Elected legislation is able to legislate.
- The National Assembly has the authority to legislate (Constitution of the Republic of Malawi, 1998, Article 8).
- All legislative power is vested in the National Assembly (Constitution of the Republic of Malawi, 1998, Article 48).
- The executive branch is empowered to enact all legislation (Constitution of the Republic of Malawi, 1998, Article 7).
- Elected executive has power to govern.

- The executive branch is empowered to enact all legislation (Constitution of the Republic of Malawi, 1998, Article 7).
- Citizen has access to diverse election information.
- “Every person shall have the right to freedom of opinion, including the right to hold opinions without interference to hold, receive, and impart opinions” (Constitution of the Republic of Malawi, 1998, Article 34).
- “The press shall have the right to report and publish freely, within Malawi and abroad, and to be accorded the fullest possible facilities for access to public information” (Constitution of the Republic of Malawi, 1998, Article 36).
- The independent media were active and expressed a wide variety of views. A broad spectrum of political opinion was available in the country’s newspapers and independent media (USDoS, 2013).
- Citizens have equal campaigning opportunities.
- Political parties were allowed to operate without government interference (USDoS, 2013).
- Citizens have the right to organize political parties.
- “Every person shall have the right to freedom of association to include the freedom to form associations” (Constitution of the Republic of Malawi, 1998, Article 31).

- “Every person shall have the right to form, to join, to participate in the activities of and to recruit members for a political party” (Constitution of the Republic of Malawi, 1998, Article 4).
- Criteria for political participation is established by law.
- Political participation must be in accordance to the laws of Malawi (Constitution of the Republic of Malawi, 1998, Article 4).
- The government of Malawi recognized and followed the laws pertaining to the legal activities of political parties (USDoS, 2013).
- The citizens have the freedom of political expression.
- No person can be imprisoned or detained solely by reason of his or her political or other opinions (Constitution of the Republic of Malawi, 1998, Article 19).
- “Every person shall have the right to freedom of expression” (Constitution of the Republic of Malawi, 1998, Article 35).
- “Every person shall have the right to freedom of opinion, including the right to hold opinions without interference to hold, receive, and impart opinions” (Constitution of the Republic of Malawi, 1998, Article 34).
- The citizens have the freedom to receive and impart political information.
- “Every person shall have the right to freedom of opinion, including the right to hold opinions without interference to hold, receive, and impart opinions” (Constitution of the Republic of Malawi, 1998, Article 34).

- “The press shall have the right to report and publish freely, within Malawi and abroad, and to be accorded the fullest possible facilities for access to public information” (Constitution of the Republic of Malawi, 1998, Article 36).
- The independent media were active and expressed a wide variety of views. A broad spectrum of political opinion was available in the country’s newspapers and independent media (USDoS, 2013).
- The citizen has the freedom to move freely to campaign.
- There were no restrictions on the movement of citizens or candidates for the purposes of campaigning (USDoS, 2013).
- “Every person shall have the right to campaign for a political party or cause and to participate in peaceful political activities” (Constitution of the Republic of Malawi, 1998, Article 4).
- Candidates have freedom to campaign on an equal basis.
- There were no restrictions on the movement of citizens or candidates for the purposes of campaigning (USDoS, 2013).
- The State provides funds for any political party, which has secured at least 10% of the total number of votes in the primaries (Constitution of the Republic of Malawi, 1998, Article 30).
- Candidates have equal opportunity for media access.
- “The press shall have the right to report and publish freely, within Malawi and abroad, and to be accorded the fullest possible facilities for access to

public information” (Constitution of the Republic of Malawi, 1998, Article 36).

- Opposition parties are at a disadvantage as the ruling party controls the state-owned media and can use state resources for their campaign (Pratel, 2005, p.5).
- Candidates have the right to security with respect to their lives and property.
- There have been no reports of political prisoners or detainees (USDoS, 2013).
- Candidates have the right of protection under the law.
- There are no specific laws that guarantee candidates special protection however all citizens enjoy equal protection under the law (Constitution of the Republic of Malawi, 1998, Article 12).
- Political parties have the right for remedy.
- Any citizen has the right to appeal any government decision, to include voter registration issues, to the courts, the Ombudsman, and the Human Rights Commission. (Constitution of the Republic of Malawi, 1998, Article 15).
- Any person or representative a political group who has petitioned to the Electoral Commission has the right to appeal to the High Court (Constitution of the Republic of Malawi, 1998, Article 76).
- Candidates have the right to appeal for right violations.

- Any citizen has the right to appeal any government decision, to include voter registration issues, to the courts, the Ombudsman, and the Human Rights Commission (Constitution of the Republic of Malawi, 1998, Article 15).
- Any person or representative a political group who has petitioned to the Electoral Commission has the right to appeal to the High Court (Constitution of the Republic of Malawi, 1998, Article 76).
- Political parties are prohibited from committing violence.
- “All institutions and persons shall observe and uphold the constitution and the rule of law and no institution or person shall stand above the law (Constitution of the Republic of Malawi, 1998, Article 12).
- Candidates are responsible for respecting the rights of others.
- “All institutions and persons shall observe and uphold the constitution and the rule of law and no institution or person shall stand above the law (Constitution of the Republic of Malawi, 1998, Article 12).
- Political parties accept the outcome of elections.
- “All institutions and persons shall observe and uphold the constitution and the rule of law and no institution or person shall stand above the law (Constitution of the Republic of Malawi, 1998, Article 12).
- In the 1999 and 2004 elections, there were reports of litigation and challenges to the results of the elections. The courts had to rule for suppression of the demonstrations (Khembo et al., 2005, p. 36).

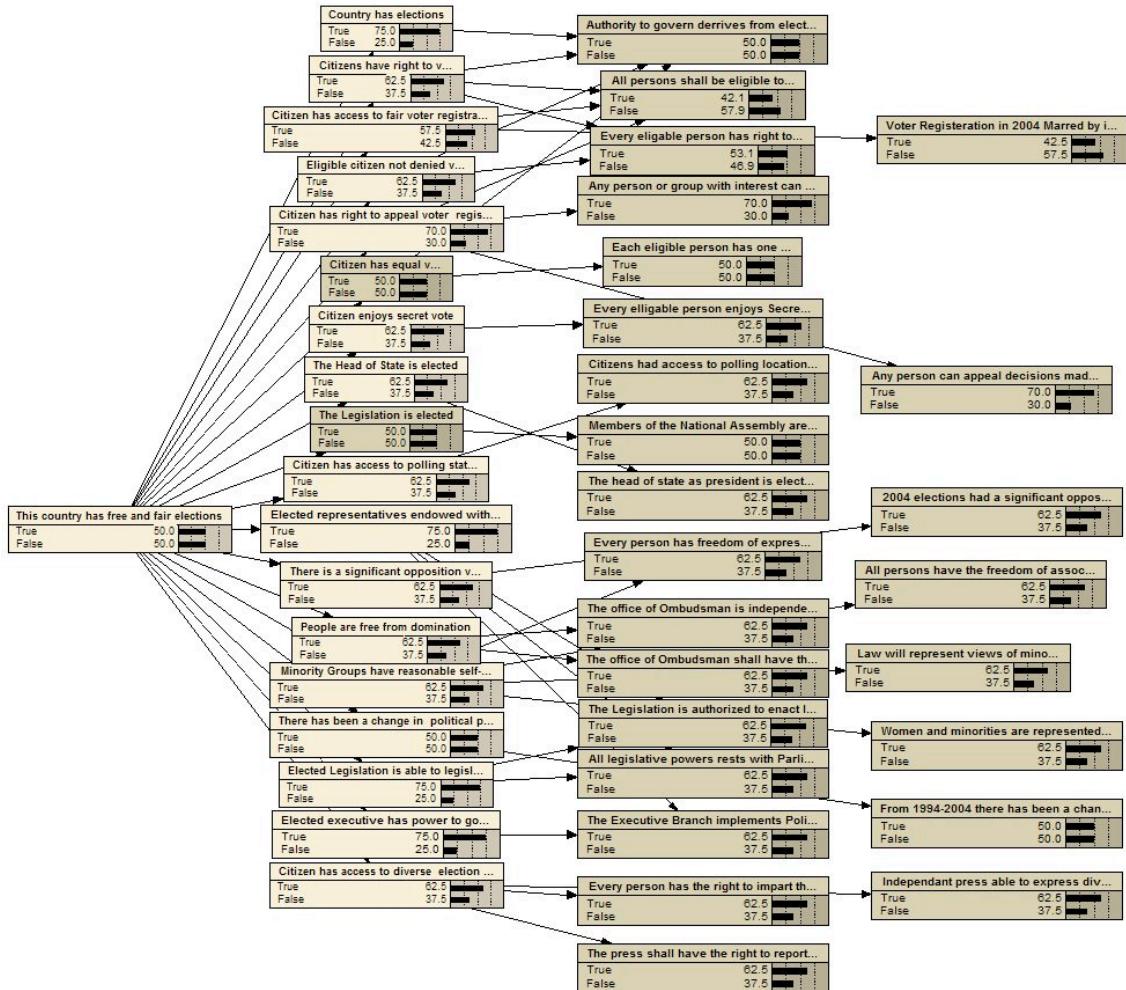


Figure 5. Compiled Bayesian network with indicators for *Malawi has free and fair elections*.

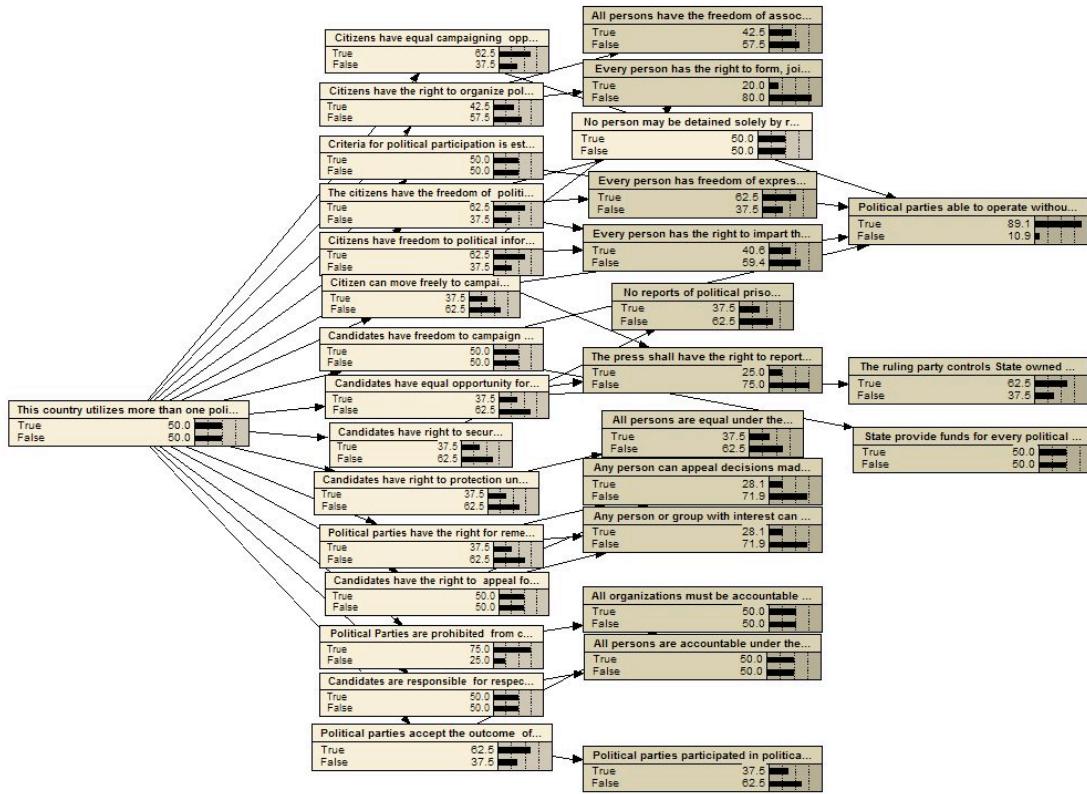


Figure 6. Compiled Bayesian network with indicators for *Malawi utilizes more than one political party*.

## South Korea

- This country has elections.
- In 2012, South Korea held two national level elections. (USDoS, 2013).
- Citizens have the right to vote.
- All citizens of South Korea have the right to vote in local and national elections (Constitution of the Republic of Korea, 1948, Article 24).
- Citizens have access to fair voter registration.

- Citizens have the right of access to voter registration (Republic of Korea, National Election Commission [NEC], 2013).
- Eligible citizen not denied vote.
- In 2012, The Asian Human Rights Commission observed that polling locations were changed and voters were not notified. There was further evidence of NEC websites being hacked to deny citizens access to the updated locations (Asian Human Rights Commission, 2012).
- Citizen has right to appeal voter registration.
- Citizens have the right to appeal voter registration decisions made by the National Election Commission (Republic of Korea, National Election Commission, 2013).
- Citizen has access to polling stations.
- In 2012, The Asian Human Rights Commission observed that polling locations were changed and voters were not notified. There was further evidence of NEC websites being hacked to deny citizens access to the updated locations (Asian Human Rights Commission, 2012).
- Citizen has equal vote.
- Citizens vote for members of the National Assembly through universal, equal, direct, and secret ballot (Constitution of the Republic of Korea, 1948, Article 41).
- Citizens vote for the President through universal, equal, direct, and secret ballot (Constitution of the Republic of Korea, 1948, Article 67).

- Citizen enjoys secret vote.
- Citizens vote for members of the National Assembly through universal, equal, direct, and secret ballot (Constitution of the Republic of Korea, 1948, Article 41).
- Citizens vote for the President through universal, equal, direct, and secret ballot (Constitution of the Republic of Korea, 1948, Article 67).
- The head of state is elected.
- The President is the head of state and is elected through universal, equal, direct, and secret ballot (Constitution of the Republic of Korea, 1948, Article 67).
- The Legislation is elected.
- Members of the National Assembly are elected through universal, equal, direct, and secret ballot (Constitution of the Republic of Korea, 1948, Article 41).
- Elected representatives endowed with real power.
- Legislative power is vested in the National Assembly. (Constitution of the Republic of Korea, 1948, Article 40)
- Executive power is vested in the executive branch, headed by the President (Constitution of the Republic of Korea, 1948, Article 66).
- There is a significant opposition vote.

- There has been a significant opposition vote in the last two presidential elections and the last 5 National Assembly elections (Republic of Korea, National Election Commission, 2013).
- People are free from domination.
- There have been no reports of arbitrary arrests, deaths, or intimidations from government, cultural, or religious groups (USDoD, 2013).
- Minority groups have reasonable self-determination.
- Women were represented in the government. The last presidential election resulted in a woman being elected President. 47 women were elected to the 300-seat National Assembly. Two of the 16 National Assembly Committees by women and one of the 14 Supreme Court Justices is a woman. Two of 16 cabinet ministers are women (USDoS, 2013).
- In 2012, the first naturalized Korean citizen, a female Filipino, was elected to the National Assembly. This was the first time a non-ethnically Korean was elected to the National Assembly (USDoS, 2013).
- There has been a change in political party candidates.
- There has been a significant change in political party candidates from previous years compared to the 2012 election (Woo, 2012).
- Elected legislation is able to legislate.
- Legislative power is vested in the National Assembly (Constitution of the Republic of Korea, 1948, Article 40).
- Elected executive has power to govern.

- Executive power is vested in the executive branch, headed by the President (Constitution of the Republic of Korea, 1948, Article 66).
- Citizen has access to diverse election information.
- The law provided for freedom of speech and press, and the observers reported that the government generally respected these rights. An independent press resulted in multiple political opinions and information to be disseminated to the citizens (USDoS, 2013).
- Asian Human Rights Commission observed instances of government infringement of citizens' rights to assemble and to openly discuss diverse political opinions that were critical of the government. Additionally, the commission observed unwarranted pressure from the Korean judicial system against journalists publishing articles critical of the government (Asian Human Rights Commission, 2009).
- Citizens have equal campaigning opportunities.
- All citizens have the right to hold and campaign for public office (Constitution of the Republic of Korea, 1948, Article 25).
- Citizens have the right to organize political parties.
- The establishment of political parties is a right guaranteed to the citizen (Constitution of the Republic of Korea, 1948, Article 8).
- Citizens have the right to form associations (Constitution of the Republic of Korea, 1948, Article 21).
- Criteria for political participation is established by law.

- All elections shall be run under the control of the Election Commission in accordance to law (Constitution of the Republic of Korea, 1948, Article 116).
- The citizens have the freedom of political expression.
- Citizens have the right to freedom of speech, expression, assembly, and association (Constitution of the Republic of Korea, 1948, Article 21).
- The citizens have the freedom to receive and impart political information.
- Freedom House has reported that the Korean government infringes on the freedom of the press and media when they are critical of the government (Freedom House, 2013).
- The citizen has the freedom to move freely to campaign.
- Candidates can only campaign during specific dates established by the Election Commission. During that period, the candidate is free to move around the country to campaign (Republic of Korea, National Election Commission, 2013).
- Candidates have freedom to campaign on an equal basis.
- The Election Commission governs all elections and equal opportunity is guaranteed (Constitution of the Republic of Korea, 1948, Article 116).
- Candidates have equal opportunity for media access.
- Freedom House has reported that the Korean government infringes on the freedom of the press and media when they are critical of the government (Freedom House, 2013).

- Candidates have the right to security with respect to their lives and property.
- “Political parties and their candidates shall enjoy the protection of the state” (Constitution of the Republic of Korea, 1948, Article 8).
- Candidates have the right of protection under the law.
- “Political parties and their candidates shall enjoy the protection of the state” (Constitution of the Republic of Korea, 1948, Article 8).
- Political parties have the right for remedy.
- “Political parties and their candidates shall enjoy the protection of the state” (Constitution of the Republic of Korea, 1948, Article 8).
- The Constitutional Court is the final authority on any decisions to dissolve or restrict any political party (Constitution of the Republic of Korea, 1948, Article 111).
- Candidates have the right to appeal for rights violations.
- The Constitutional Court is the final authority on any decisions to dissolve or restrict any political party (Constitution of the Republic of Korea, 1948, Article 111).
- Political parties are prohibited from committing violence.
- Political parties and their candidates are bound by law to uphold laws and the concept of democratic governance The Constitutional Court is the final authority on any decisions to dissolve or restrict any political party (Constitution of the Republic of Korea, 1948, Article 8).

- Candidates are responsible for respecting the rights of others.
- Political parties and their candidates are bound by law to uphold laws and the concept of democratic governance. The Constitutional Court is the final authority on any decisions to dissolve or restrict any political party (Constitution of the Republic of Korea, 1948, Article 8).
- Political parties accept the outcome of elections.
- Political parties and their candidates are bound by law to uphold laws and the concept of democratic governance. The Constitutional Court is the final authority on any decisions to dissolve or restrict any political party (Constitution of the Republic of Korea, 1948, Article 8).

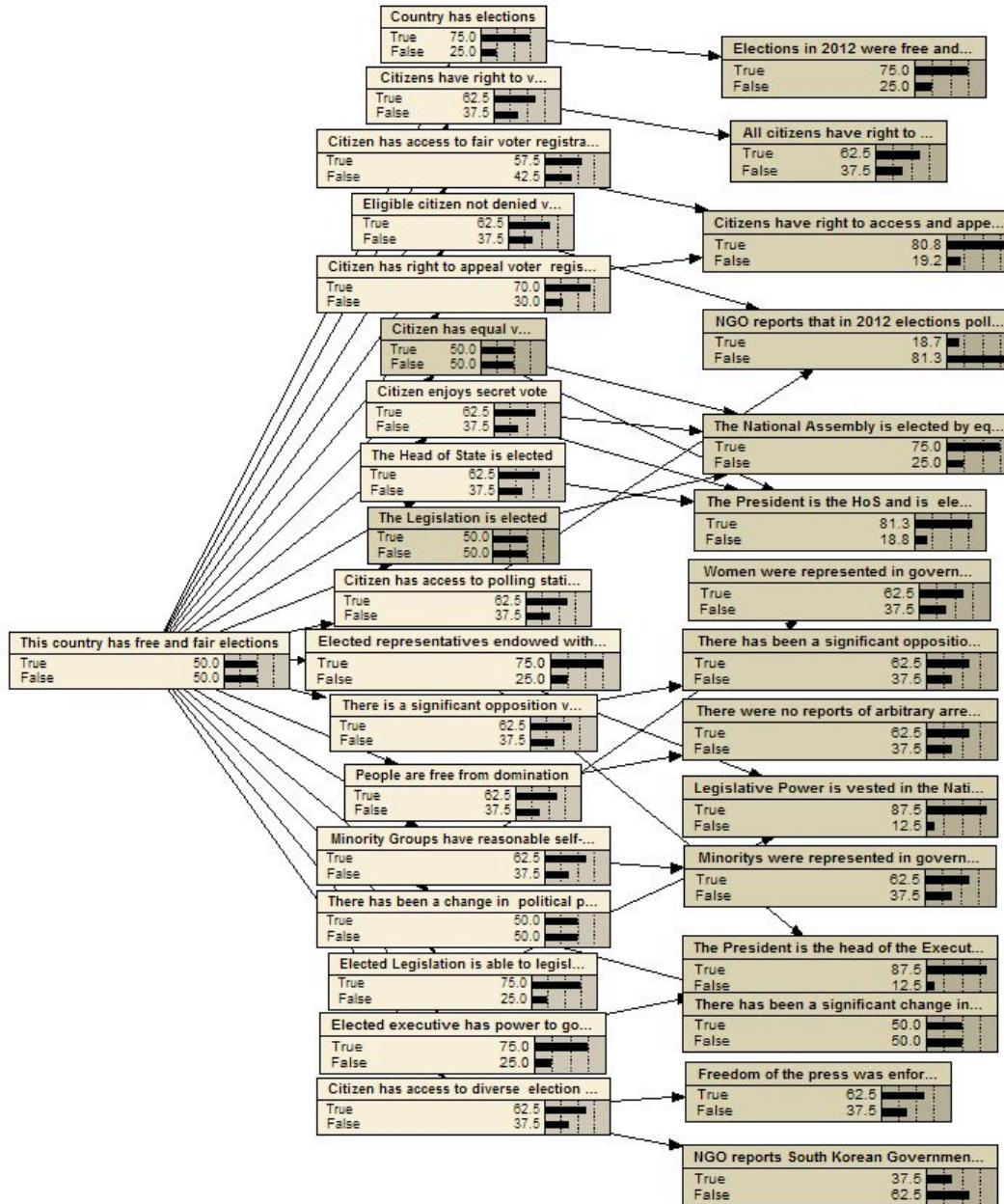


Figure 7. Compiled Bayesian network with indicators for *South Korea has free and fair elections*.

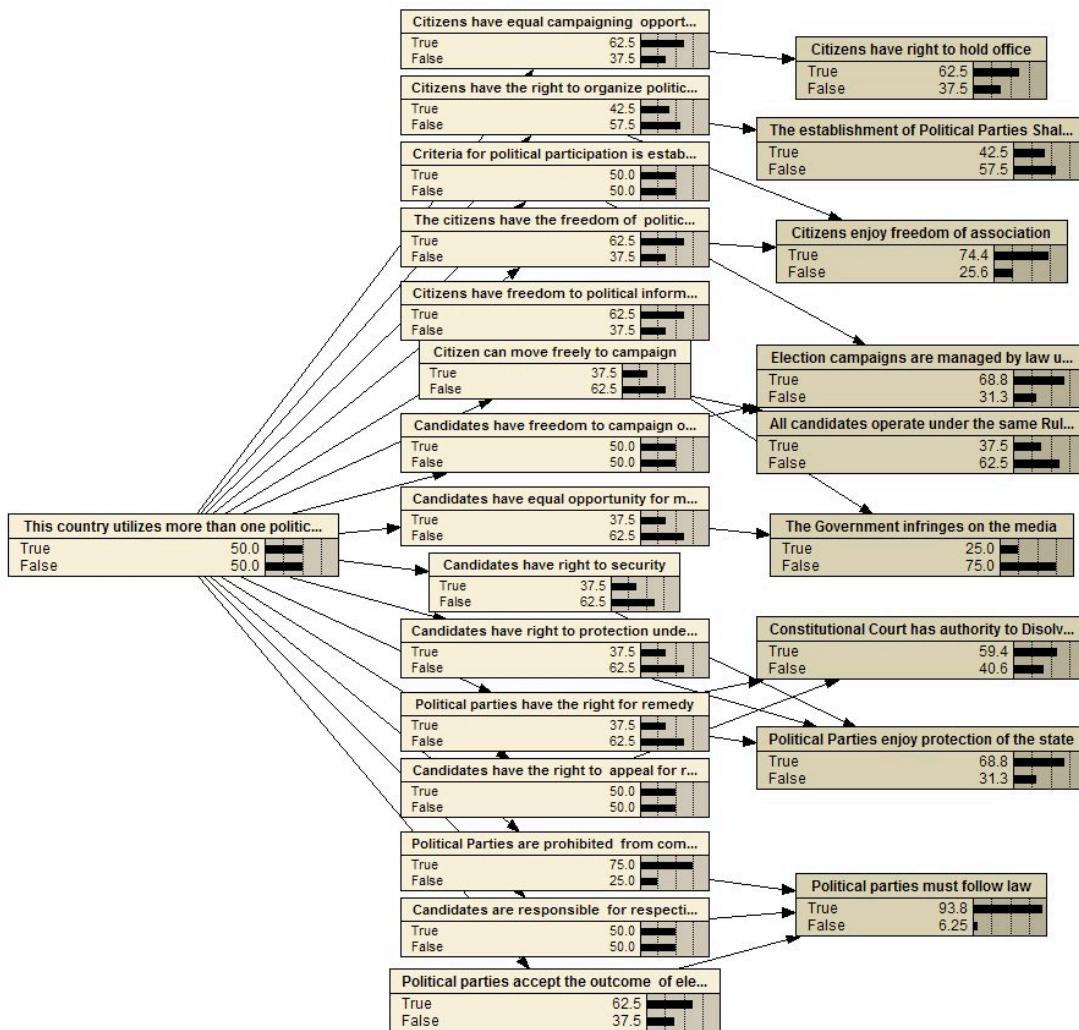


Figure 8. Compiled Bayesian network with indicators for *South Korea utilizes more than one political party*.

**Venezuela**

- This country has elections.
- Elections are governed by the National Election Council (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 293).
- The Union of South American Nations had observers present during the 2012 elections (USDoS, 2013).
- Citizens have the right to vote.
- All citizens have the right to free, universal, direct voting by way of secret ballots (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 63).
- The Union of South American Nations observed that the right of citizens to free, universal, and direct voting was not infringed during the 2012 elections (USDoS, 2013).
- Citizens have access to fair voter registration.
- The National Election Council manages and maintains all voter registration lists and processes (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 293).
- The Civil and Electoral Register Commission is the specific office under the National Election Council that has oversight over voter registration (Bolivarian Republic of Venezuela, 2013, Title III Articles 58 and 59).
- Eligible citizen not denied vote.

- The Union of South American Nations observed that the right of citizens to free, universal, and direct voting was not infringed during the 2012 elections (USDoS, 2013).
- Citizen has right to appeal voter registration.
- The National Election Council is responsible for investigating any voter registration infractions or appeals (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 293).
- The Civil and Electoral Register Commission is the specific office under the National Election Council that has oversight over voter registration (Bolivarian Republic of Venezuela, 2013, Title III Articles 58 and 59).
- Citizen has access to polling stations.
- The Union of South American Nations observed that the right of citizens to free, universal, and direct voting was not infringed during the 2012 elections (USDoS, 2013).
- Citizen has equal vote.
- The Union of South American Nations observed that the right of citizens to free, universal, and direct voting was not infringed during the 2012 elections (USDoS, 2013).
- All citizens have the right to free, universal, direct voting by way of secret ballots (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 63).
- Citizen enjoys secret vote.

- All citizens have the right to free, universal, direct voting by way of secret ballots (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 63).
- The President is elected by universal suffrage by direct and secret ballot (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 228).
- The head of state is elected.
- The President is the head of state and is elected by universal suffrage by direct and secret ballot (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 228).
- The Legislation is elected.
- Legislative power is vested in the National Assembly and its members are elected (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 186).
- Elected representatives endowed with real power.
- Legislative power is vested in the National Assembly and its members are elected (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 186).
- Executive power is vested in the President (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 226).
- There is a significant opposition vote.

- In the past two presidential elections, there were significant opposition votes between Hugo Chavez and Henrique Capriles Radonski (National Election Council, 2012).
- People are free from domination.
- There are no reports of election interference from cultural or religious groups (USDoS, 2013).
- Minority groups have reasonable self-determination.
- In 2012 women were represented in government. Women hold 26 of 165 deputy positions; head three of the five branches of government; hold 12 of 31 cabinet positions. 14 of 32 Supreme Court justices are women. By law, three seats in the National Assembly must be held by indigenous persons (USDoS, 2013).
- There has been a change in political party candidates.
- In the past two presidential elections, there was no change in the major political party candidates for President but there were significant changes in party candidates for the National Assembly election (National Election Council, 2012).
- Elected legislation is able to legislate.
- Legislative power is vested in the National Assembly and its members are elected (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 186).
- Elected executive has power to govern.

- Executive power is vested in the President (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 226).
- Citizen has access to diverse election information.
- The government harassed and detained privately owned media that was critical of the government and the current majority party (USDoS, 2013).
- The incumbent has unlimited exposure in the media where challenging candidates have limited exposure (USDoS, 2013).
- Citizens have equal campaigning opportunities.
- The government harassed and detained privately owned media that was critical of the government and the current majority party (USDoS, 2013).
- The incumbent has unlimited exposure in the media where challenging candidates have limited exposure (USDoS, 2013).
- Citizens have the right to organize political parties.
- Citizens have the right of political association (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 67).
- The citizen's right to participate in political activities is guaranteed (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 70).
- Criteria for political participation is established by law.
- The citizen's right to participate in political activities is guaranteed (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 70).
- The National Electoral Council manages and oversees elections (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 293).

- The citizens have the freedom of political expression.
- The government harassed and intimidated journalists and citizens expressing political dissent (USDoS, 2013).
- The government used the judiciary to prosecute political dissenters (USDoS, 2013).
- The citizens have the freedom to receive and impart political information.
- The government harassed and intimidated journalists and citizens expressing political dissent (USDoS, 2013).
- The incumbent has unlimited exposure in the media where challenging candidates have limited exposure (USDoS, 2013).
- The citizen has the freedom to move freely to campaign.
- Citizen has right to freely move about the country for any legal purpose (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 50).
- Candidates have freedom to campaign on an equal basis.
- National Electoral Council controls access to the media for candidates. Election law requires equal access to the media (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 239).
- The incumbent has unlimited exposure in the media where challenging candidates have limited exposure (USDoS, 2013).
- The government used the judiciary to prosecute political dissenters (USDoS, 2013).
- Candidates have equal opportunity for media access.

- The government harassed and intimidated journalists and citizens expressing political dissent (USDoS, 2013).
- The incumbent has unlimited exposure in the media where challenging candidates have limited exposure (USDoS, 2013).
- Candidates have the right to security with respect to their lives and property.
- The government used the judiciary to prosecute political dissenters (USDoS, 2013).
- Candidates have the right of protection under the law.
- The government used the judiciary to prosecute political dissenters (USDoS, 2013).
- All citizens are equal under the law (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 21).
- Political parties have the right for remedy.
- The National Electoral Council manages and oversees elections and investigates any alleged right violation or appeal (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 293).
- The Civil and Electoral Register Commission is the specific office under the National Election Council that has oversight over appeals concerning election right violations (Bolivarian Republic of Venezuela, 2013, Title III Articles 58 and 59).
- Candidates have the right to appeal for right violations.

- The National Electoral Council manages and oversees elections and investigates any alleged right violation or appeal (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 293).
- The Civil and Electoral Register Commission is the specific office under the National Election Council that has oversight over appeals concerning election right violations (Bolivarian Republic of Venezuela, 2013, Title III Articles 58 and 59).
- Political parties are prohibited from committing violence.
- All citizens are held equally accountable under the law (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 21).
- Candidates are responsible for respecting the rights of others.
- All citizens are held equally accountable under the law (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 21).
- Political parties accept the outcome of elections.
- All citizens are held equally accountable under the law (Constitution of the Bolivarian Republic of Venezuela, 1999, Article 21).

Common among all the study countries was a lack of any specific legislation specifically mandating that political parties specifically have to accept the outcome of elections. It can be presumed that all the citizens of a country have to accept the legal outcome of elections. As a result of the research for this study, it is unlikely that any country would have specific legislation pertaining to political parties accepting the outcome of elections that would be different from legislation mandating that all citizens

accept the outcome of elections. The application of this indicator would only be diagnostic in a forensic way for postelection analysis.

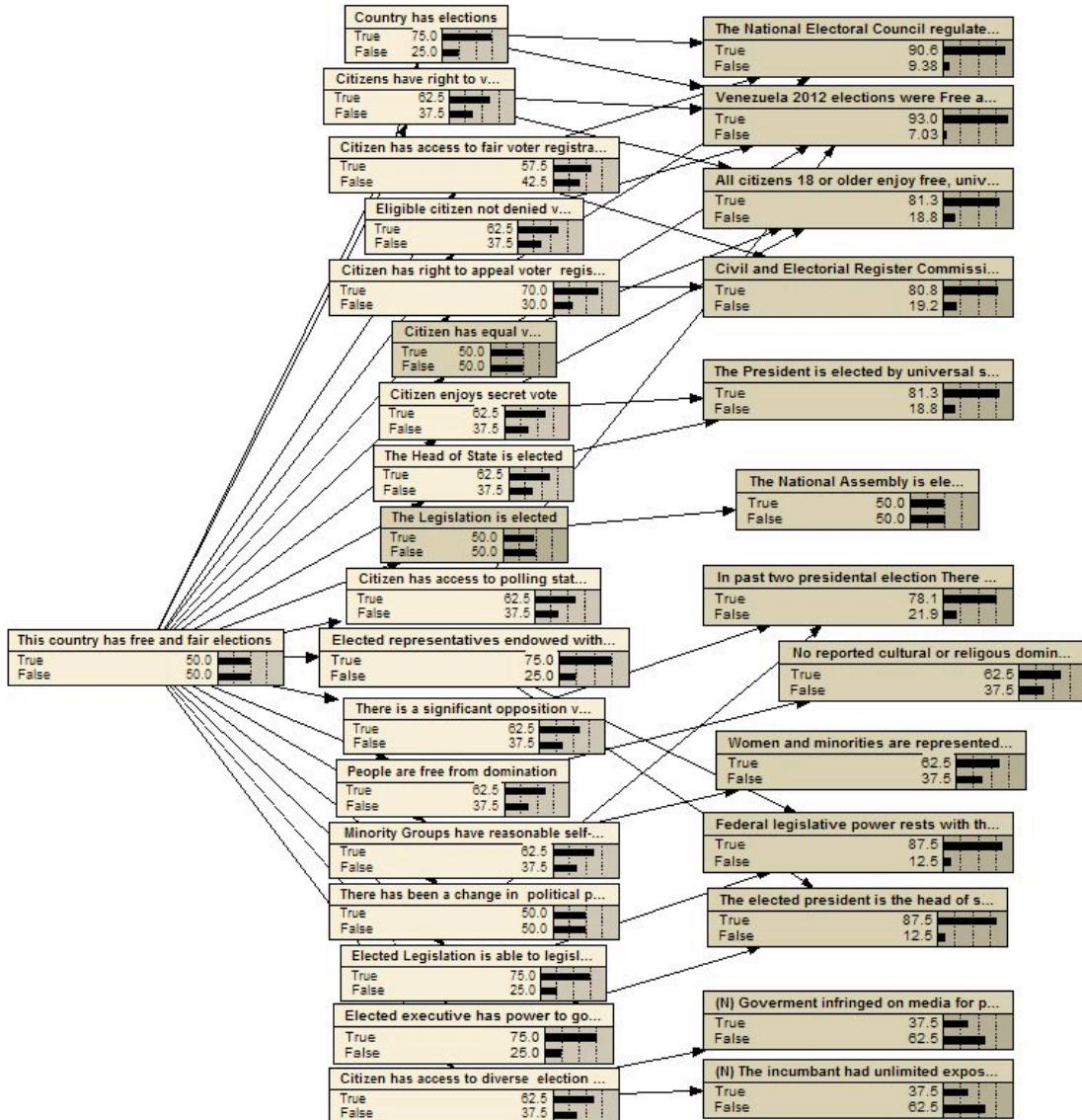


Figure 9. Compiled Bayesian network with indicators for Venezuela having free and fair elections.

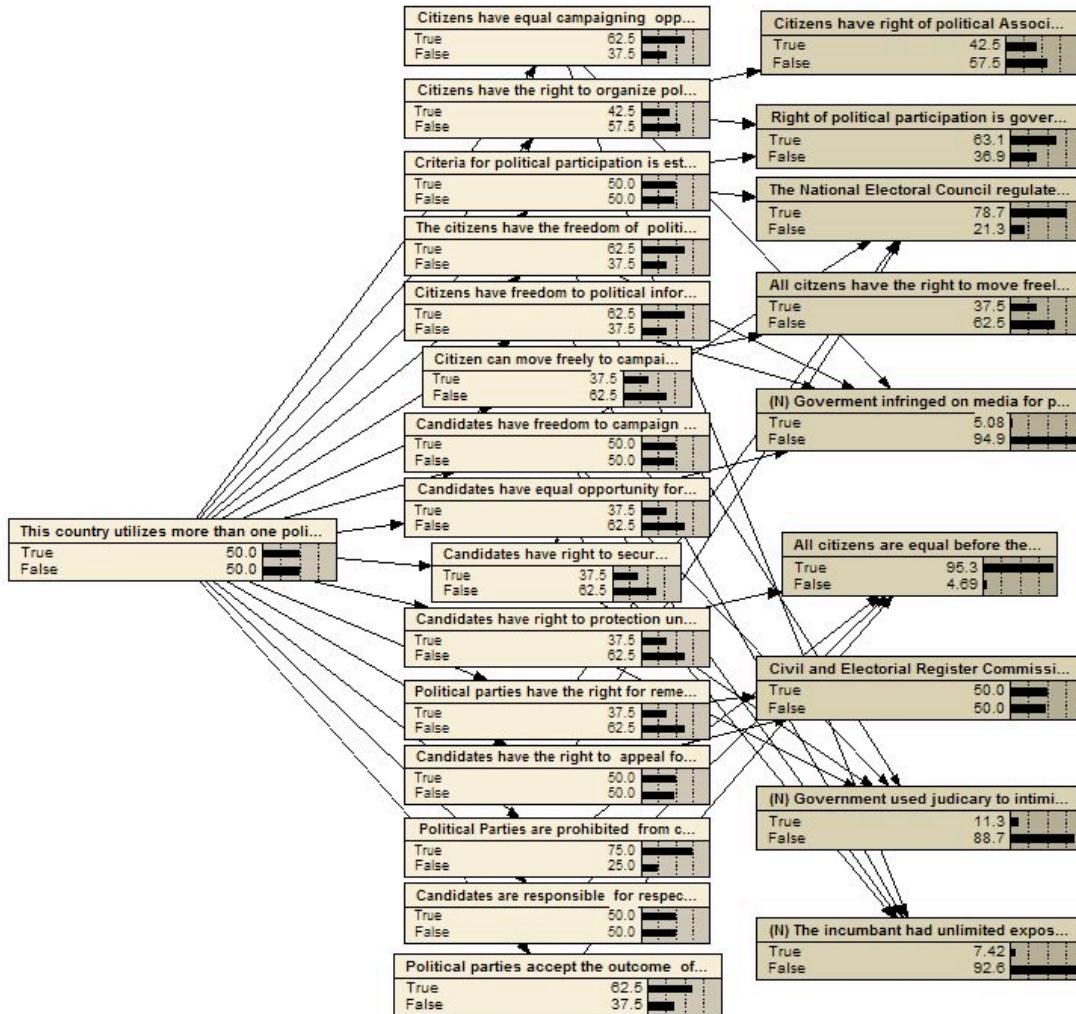


Figure 10. Compiled Bayesian network with indicators for indicators for Venezuela utilizes more than one political party.

## Vietnam

- This country has elections.
- The members of the National Assembly and the People's Councils are elected by equal, direct elections through the use of secret ballots  
(Constitution of the Socialist Republic of Vietnam, 1992, Article 7).

- Citizens have the right to vote.
- Citizen's right to vote resulted in a 99.5% voter turnout as voting is required by law (Consortium for Elections and Political Process Strengthening, 2012).
- Citizens have access to fair voter registration.
- Voter registration is established by law (Socialist Republic of Vietnam, 1997, Articles 23-27).
- Eligible citizen not denied vote.
- The 2011 elections had a voter turnout of 99.5% (Consortium for Elections and Political Process Strengthening, 2012)
- Citizen has right to appeal voter registration.
- The right to appeal voter registration violations is guaranteed (Socialist Republic of Vietnam, 1997, Articles 23-27).
- Citizen has access to polling stations.
- Voter turnout in 2011 was 99.5% and there were no reports of problems with polling stations (Consortium for Elections and Political Process Strengthening, 2012).
- Citizen has equal vote.
- The members of the National Assembly and the People's Councils are elected by equal, direct elections through the use of secret ballots (Constitution of the Socialist Republic of Vietnam, 1992, Article 7).
- Citizen enjoys secret vote.

- The members of the National Assembly and the People's Councils are elected by equal, direct elections through the use of secret ballots (Constitution of the Socialist Republic of Vietnam, 1992, Article 7).
- The head of state is elected.
- The President and the Prime Minister are the heads of state. The members of the National Assembly elect them from the elected ranks of the National Assembly. Therefore the head of state is indirectly elected however, the candidate must have already been elected to the National Assembly by the citizens (Constitution of the Socialist Republic of Vietnam, 1992, Articles 102 and 110).
- The Legislation is elected.
- Legislative power is vested in the National Assembly. The members of the National Assembly and the People's Councils are elected by equal, direct elections through the use of secret ballots (Constitution of the Socialist Republic of Vietnam, 1992, Article 7).
- Elected representatives endowed with real power.
- All elected officials are subordinate to and accountable to the National Assembly (Constitution of the Socialist Republic of Vietnam, 1992, Article 83).
- There is a significant opposition vote.

- All candidates must be nominated from the membership of the Vietnam Communist Party and be nominated through the Vietnam Fatherland Front (Socialist Republic of Vietnam, 1999).
- People are free from domination.
- The government imprisons political dissidents and places them in reeducation camps (USDoS, 2013).
- Minority groups have reasonable self-determination.
- 24% of the members of the National Assembly are women and 16% of the members of the National Assembly are ethnic minorities (USDoS, 2013).
- There has been a change in political party candidates.
- There have been minimal changes in political party candidates. All candidates must be nominated from the membership of the Vietnam Communist Party and nominated through the Vietnam Fatherland Front (Socialist Republic of Vietnam, 1999).
- Elected legislation is able to legislate.
- Legislative power is vested in the National Assembly (Constitution of the Socialist Republic of Vietnam, 1992, Article 7).
- Elected executive has power to govern.
- President, while elected, is subordinate to and accountable to the National Assembly (Constitution of the Socialist Republic of Vietnam, 1992, Article 102).
- Citizen has access to diverse election information.

- Access to media for political purposes is controlled by the Vietnam Fatherland Front (Socialist Republic of Vietnam, 1997, Articles 50-53).
- The press and the news media are under the control of the Vietnam Communist Party (USDoS, 2013).
- Citizens have equal campaigning opportunities.
- The Vietnam Fatherland Front and the Vietnam Communist Party are the only two legally recognized political parties (Constitution of the Socialist Republic of Vietnam, 1992, Article 9).
- Citizens have the right to organize political parties.
- The Vietnam Fatherland Front and the Vietnam Communist Party are the only two legally recognized political parties (Constitution of the Socialist Republic of Vietnam, 1992, Article 9).
- The government does not allow the formation of other political parties (USDoS, 2013).
- Criteria for political participation is established by law.
- Political participation is governed by law and is managed by the Vietnam Fatherland Front (Socialist Republic of Vietnam, 1999).
- The citizens have the freedom of political expression.
- The government infringes on freedom of political expression by imprisoning political dissidents (USDoS, 2013).
- The citizens have the freedom to receive and impart political information.

- Access to media for political purposes is controlled by the Vietnam Fatherland Front (Socialist Republic of Vietnam, 1997, Articles 50-53).
- The press and the news media are under the control of the Vietnam Communist Party (USDoS, 2013).
- The government infringes on freedom of political expression by imprisoning political dissidents (USDoS, 2013).
- The citizen has the freedom to move freely to campaign.
- Citizen freedom to move freely to campaign is restricted by the Vietnam Fatherland Front (Socialist Republic of Vietnam, 1999).
- Candidates have freedom to campaign on an equal basis.
- Only candidates that are approved by the Vietnam Fatherland Front or the Vietnam Communist Party are legally allowed to campaign (Socialist Republic of Vietnam, 1999).
- Candidates have equal opportunity for media access.
- Access to media for political purposes is controlled by the Vietnam Fatherland Front (Socialist Republic of Vietnam, 1997, Articles 50-53).
- The press and the news media are under the control of the Vietnam Communist Party (USDoS, 2013).
- Candidates have the right to security with respect to their lives and property.
- Only candidates that are approved by the Vietnam Fatherland Front or the Vietnam Communist Party are legally allowed to campaign. Candidates

illegally campaigning are subject to arrest (Socialist Republic of Vietnam, 1999).

- Candidates have the right of protection under the law.
- Only candidates that are approved by the Vietnam Fatherland Front or the Vietnam Communist Party are legally allowed to campaign. Candidates illegally campaigning are subject to arrest (Socialist Republic of Vietnam, 1999).
- Political parties have the right for remedy.
- Political participation is governed by law and is managed by the Vietnam Fatherland Front (Socialist Republic of Vietnam, 1999).
- The Vietnam Fatherland Front and the Vietnam Communist Party are the only two legally recognized political parties (Constitution of the Socialist Republic of Vietnam, 1992, Article 9).
- Candidates have the right to appeal for right violations.
- Only candidates that are approved by the Vietnam Fatherland Front or the Vietnam Communist Party are legally allowed to campaign. There is no mechanism for any individual candidate to appeal the decisions of the Vietnam Fatherland Front (Socialist Republic of Vietnam, 1999).
- Political parties are prohibited from committing violence.
- Political parties must follow all laws and actively prevent crime (Constitution of the Socialist Republic of Vietnam, 1992, Article 12).
- Candidates are responsible for respecting the rights of others.

- Candidates must follow all laws and actively prevent crime (Constitution of the Socialist Republic of Vietnam, 1992, Article 12).
- Political parties accept the outcome of elections.
- The Election Council reports the results of elections and their report is final (Socialist Republic of Vietnam, 1997).

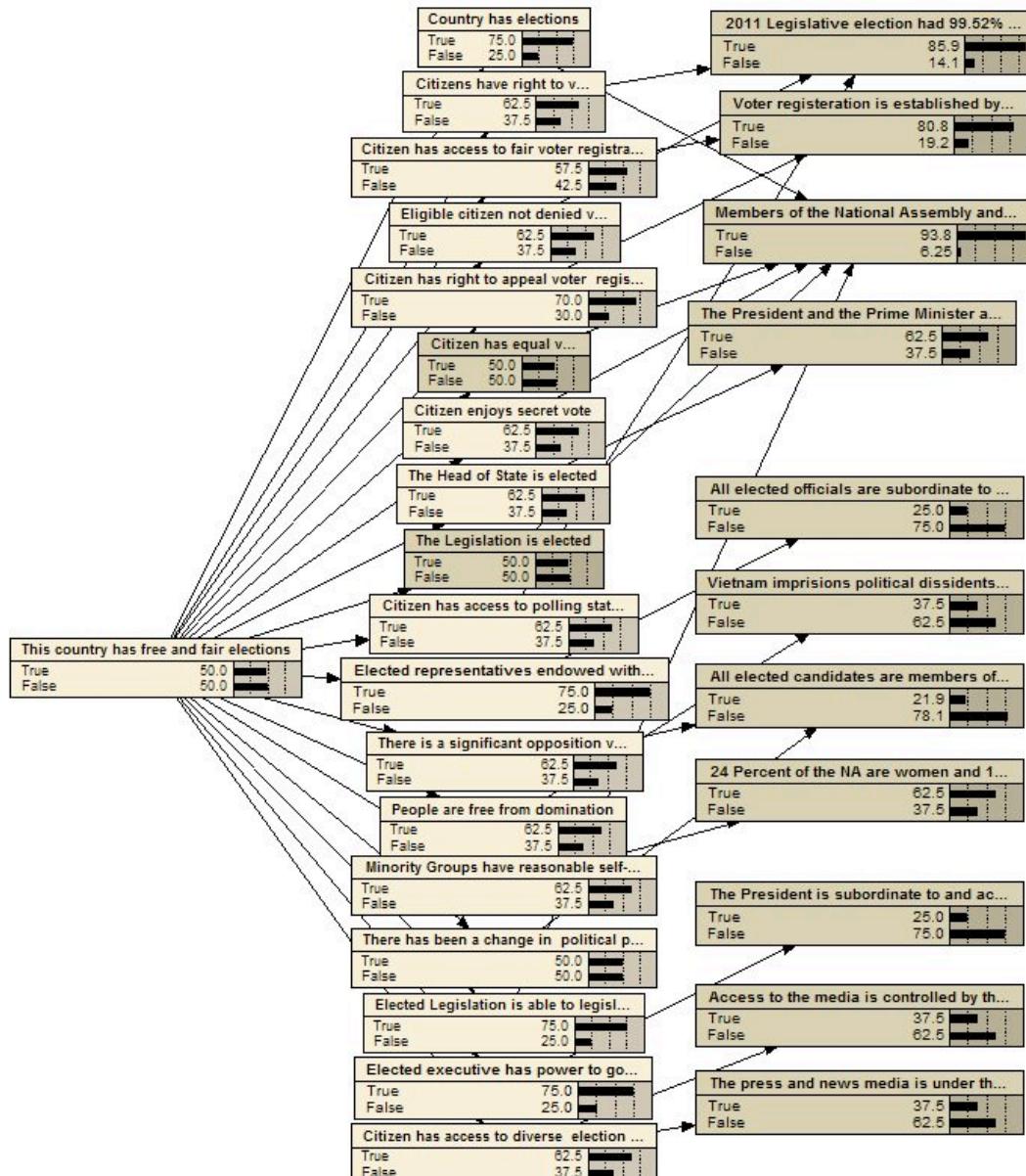
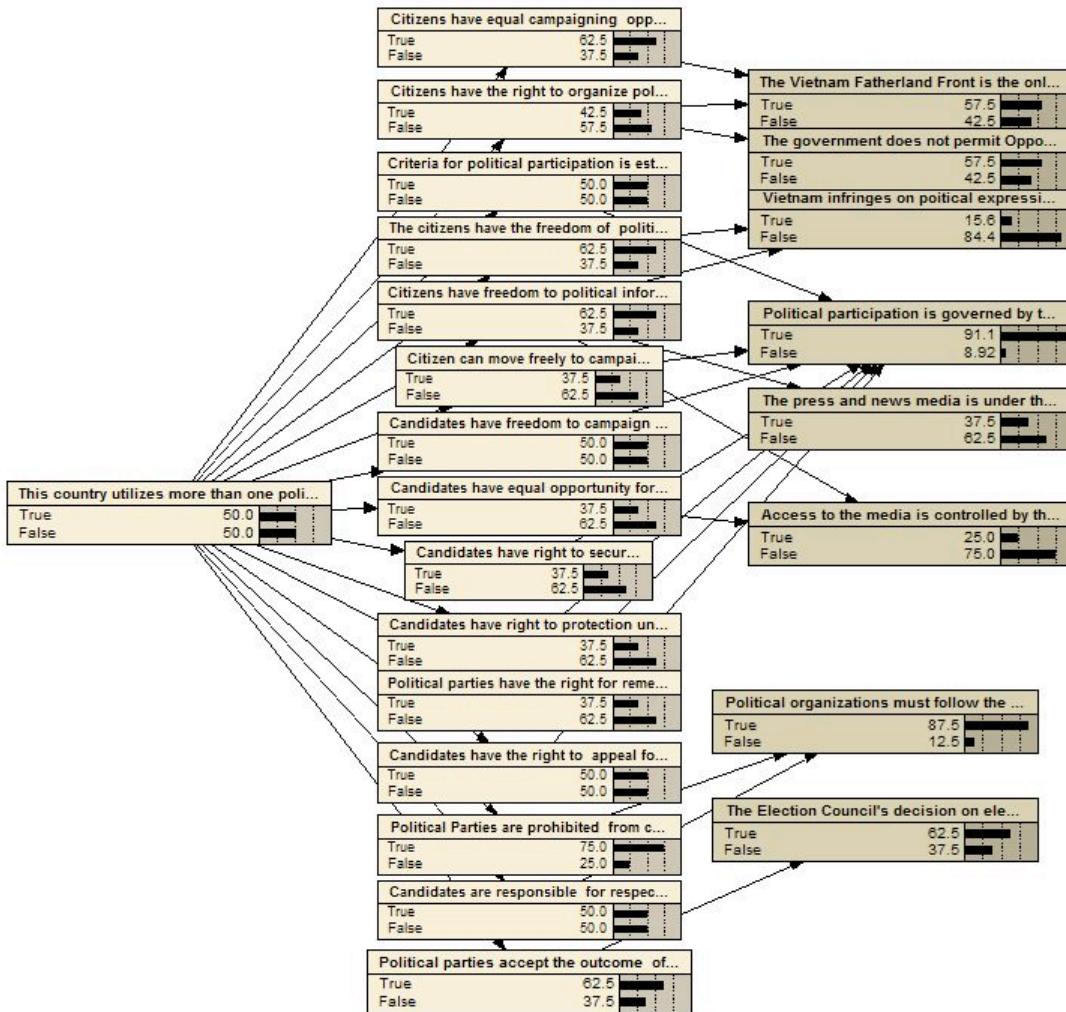


Figure 11. Compiled Bayesian network with indicators for indicators for Vietnam has free and fair elections.



*Figure 12.* Compiled Bayesian network with indicators for indicators for *Vietnam utilizes more than one political party*.

### Operating the Bayesian Belief Networks

The final step in obtaining the data was to operate each of the Bayesian belief networks for each of the five study countries. In the Netica software, this consisted of manually entering a finding for each of the observables already identified for each network. The observable nodes were deterministic in nature and had a dichotomous state set of *true* and *false*. In designing the nodes as deterministic, the software was able to

identify incompatible node states. Incompatible states in these networks were most often conflicts between what a country's law stated and what an NGO group observed. For example, a country may have a law guaranteeing freedom of the press. This was coded as its own node. A report from an NGO stating that the NGO's agents observed infringement of the press would be coded as a separate node.

During the operation of the networks phase, each of these nodes could have findings of *true*. Both nodes could be true in real life. For example, there could be a law governing an aspect of an election and the government could choose not to follow the law. This would be an instance of hypocrisy on the part of the specific government. From a Bayesian logic standpoint however, both nodes cannot contribute to the network, as their conditional probability tables would be in conflict with each other. This is a design feature of coding the network nodes as deterministic in nature. Alternatively, the observable nodes could have been coded not as deterministic but as probabilistic nodes. This would have required another layer of conditional probability tables and was outside the scope of this study. The solution used in this study was to manually change the findings of one of the incompatible node states to *false*. For the purpose of this study, a contemporary observation was given precedence over a historical law.

For this phase of the study, the observable nodes of all the networks had the appropriate finding entered into the software. The finding states were *true* or *false* depending on whether the node was a positive or a negative indicator. Great care was taken to ensure that proper and accurate finding was entered into the software, as an improper finding entry will significantly change the output results.

## Findings for Andorra

For the hypothesis of *this country has free and fair elections*, the results of the network were a 100% belief in the *true* state and a 0% belief in the *false* state. For the hypothesis of *this country utilizes more than one political party*, the results of the network were a 100% belief in the *true* state and a 0.031% belief in the *false* state. For the Netica displays the results rounded to the nearest unit digit, but for very small results displays the actual decimal result. Mathematically, the results are 99.969% and 0.031%.

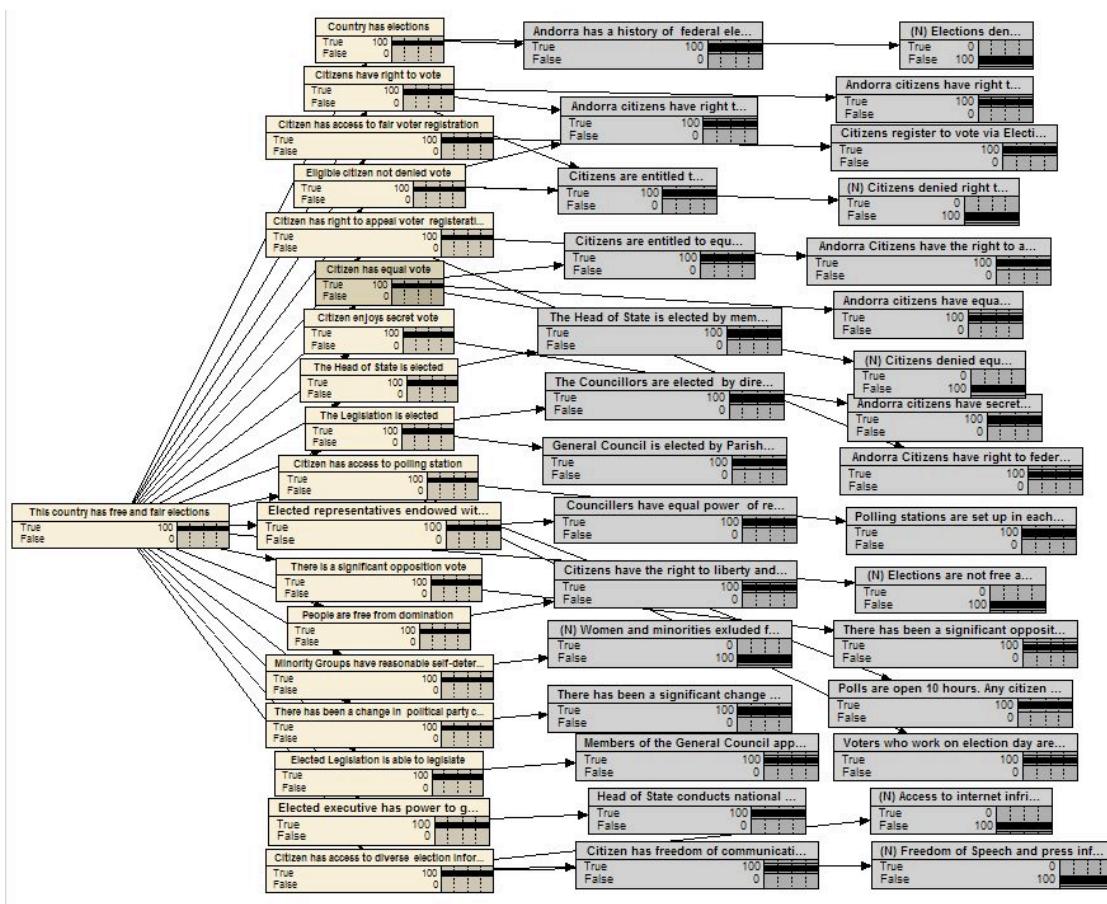


Figure 13. Results for *Andorra has free and fair elections*.

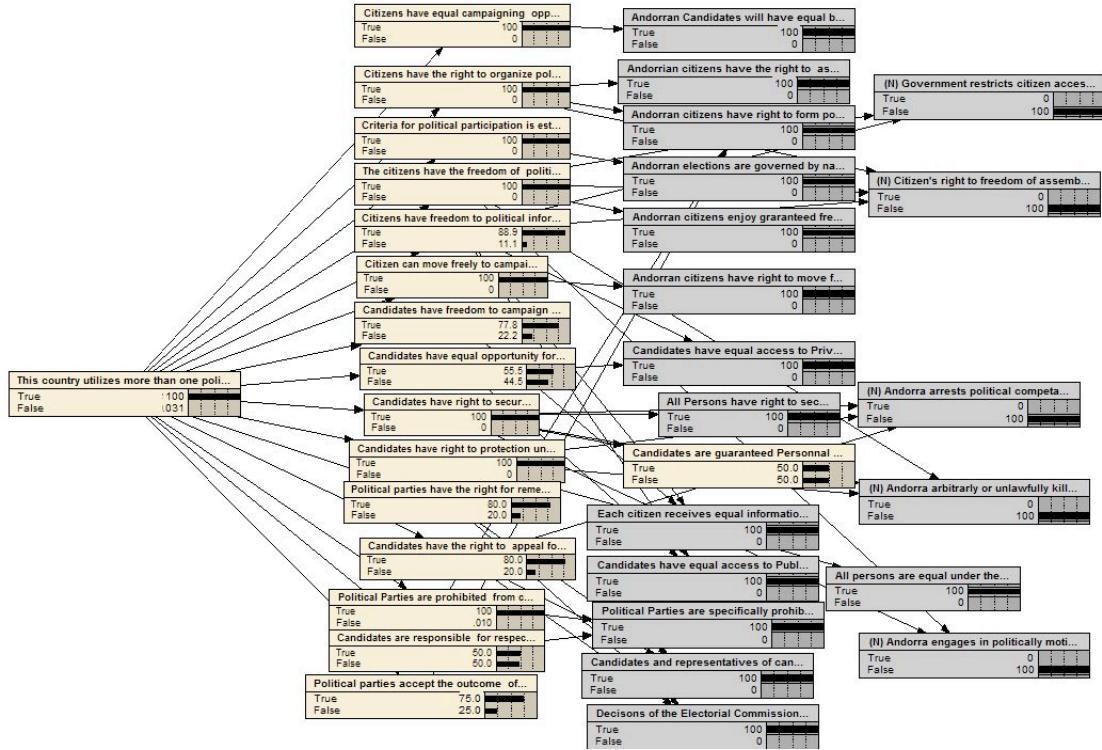


Figure 14. Results for *Andorra utilizes more than one political party*.

### Findings for Malawi

For the hypothesis of *this country has free and fair elections*, the results of the network were a 100% belief in the *true* state and a 0% belief in the *false* state. For the hypothesis of *this country utilizes more than one political party*, the results of the network were a 100% belief in the *true* state and a 0% belief in the *false* state.

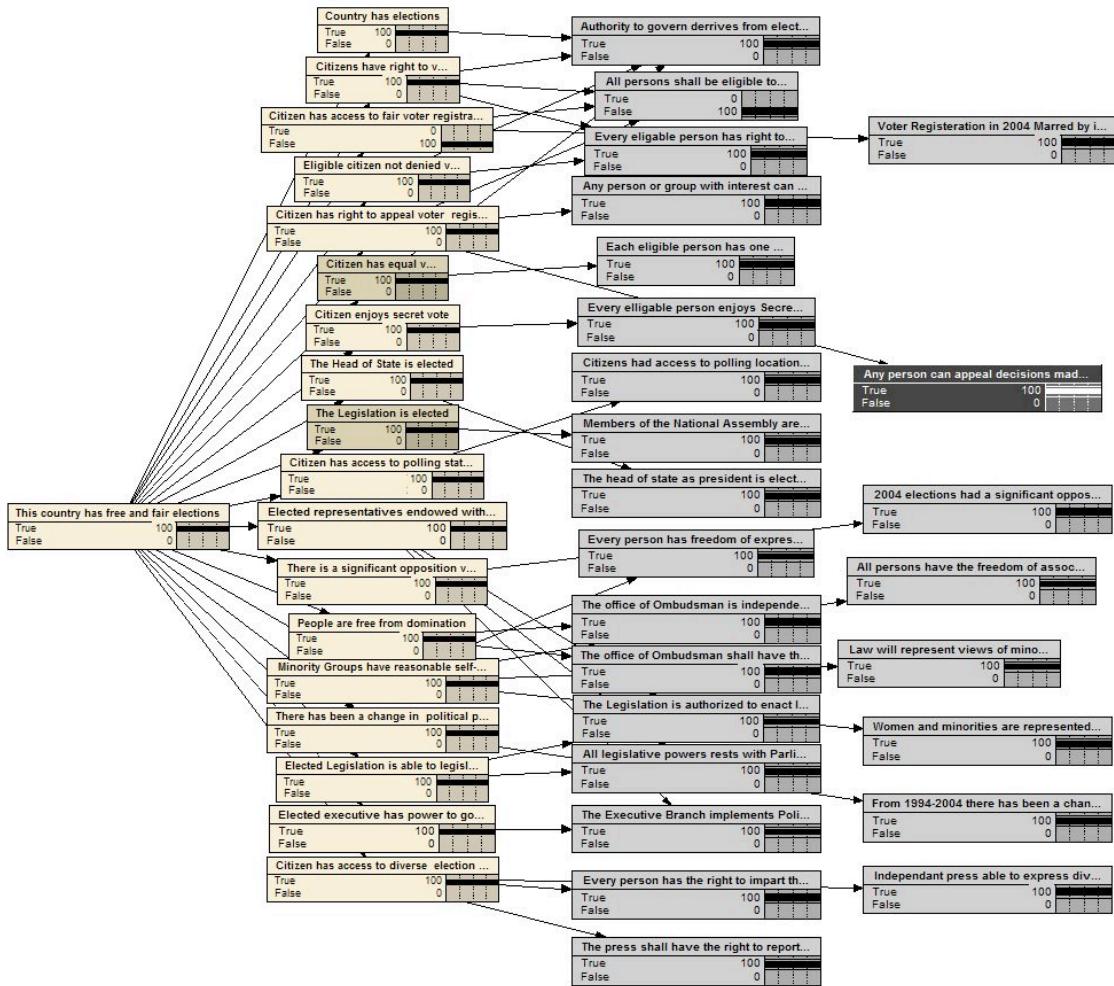


Figure 15. Results for Malawi has free and fair elections.

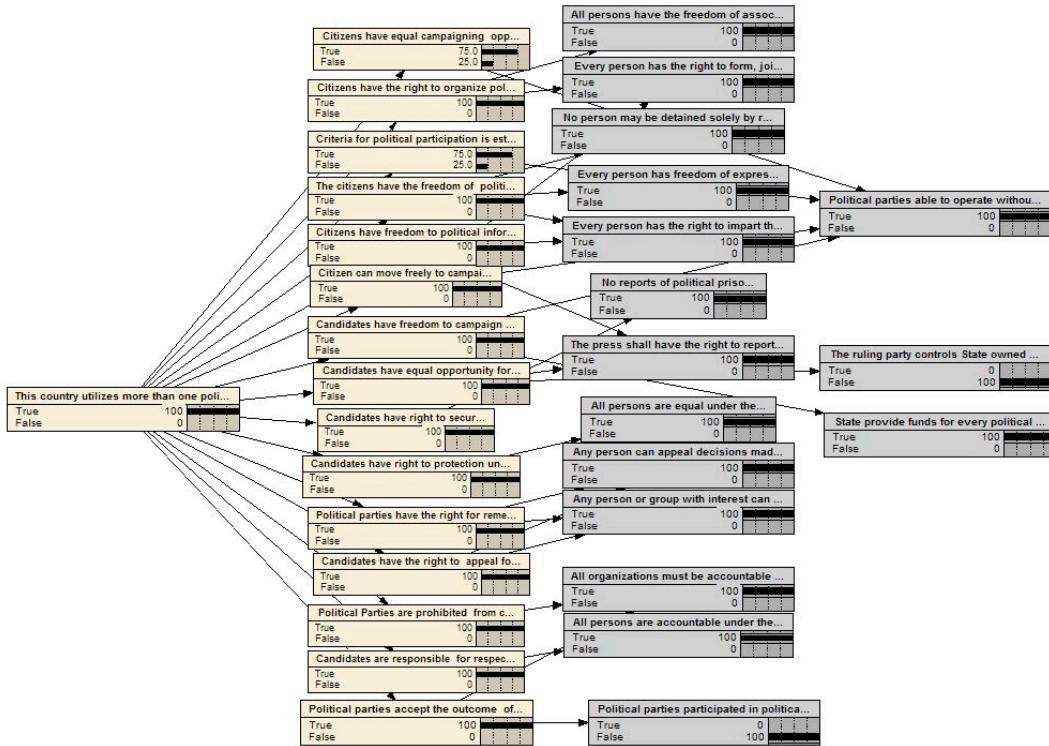


Figure 16. Results for Malawi utilizes more than one political party.

### Findings for South Korea

For the hypothesis of *this country has free and fair elections*, the results of the network were a 99% belief in the *true* state and a 0.98% belief in the *false* state. For the hypothesis of *this country utilizes more than one political party*, the results of the network were a 99.3% belief in the *true* state and a 0.66% belief in the *false* state.

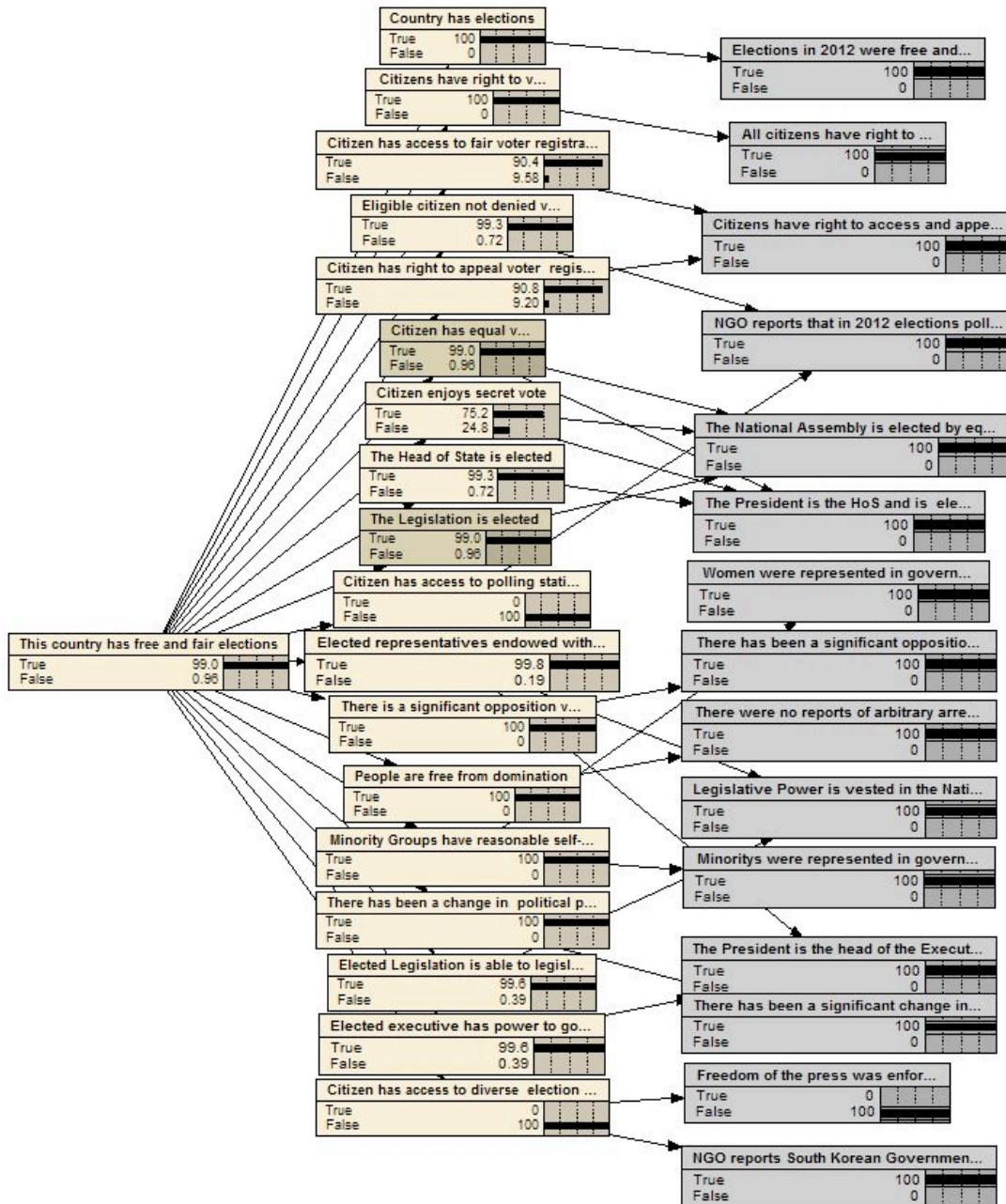


Figure 17. Results for South Korea has free and fair elections.

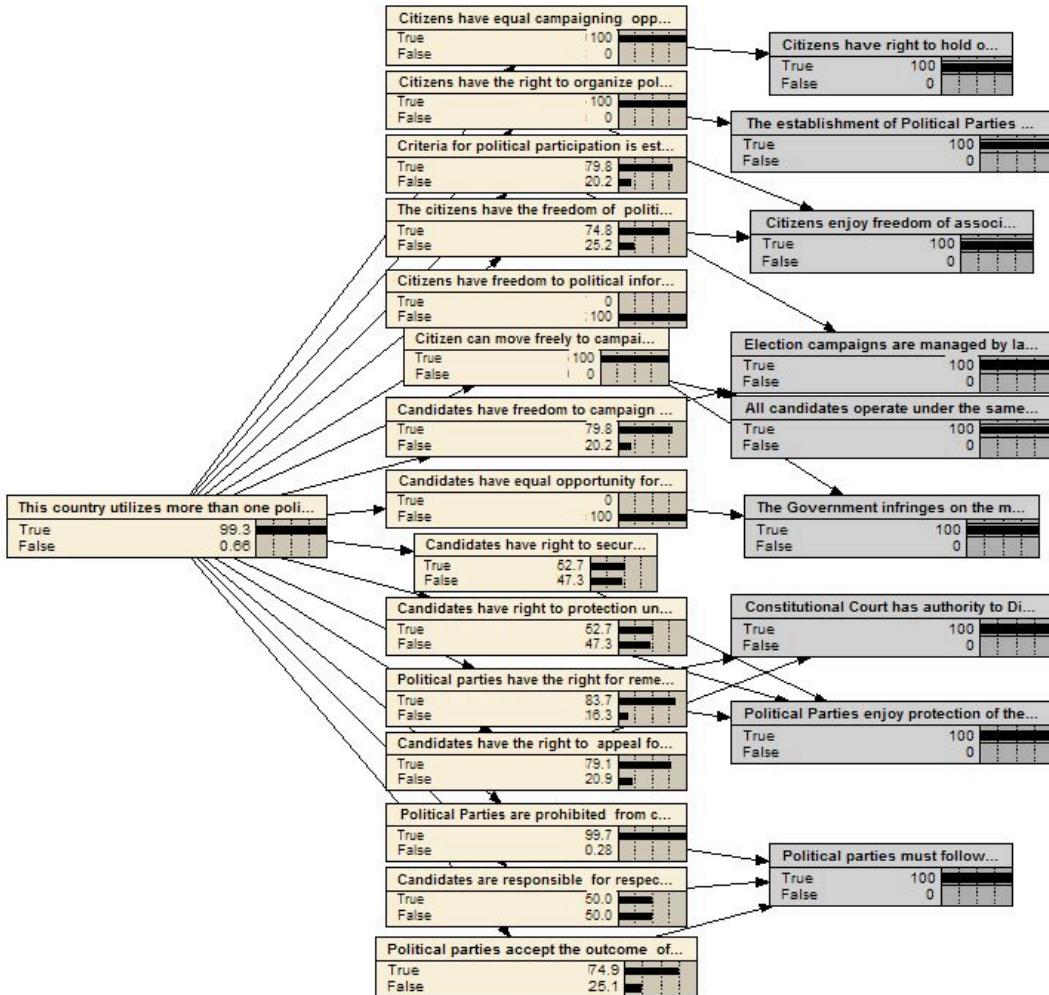


Figure 18. Results for South Korea utilizes more than one political party.

### Findings for Venezuela

For the hypothesis of *this country has free and fair elections*, the results of the network were a 100% belief in the *true* state and a 0% belief in the *false* state. For the hypothesis of *this country utilizes more than one political party*, the results of the network were a 38.8% belief in the *true* state and a 61.2% belief in the *false* state.

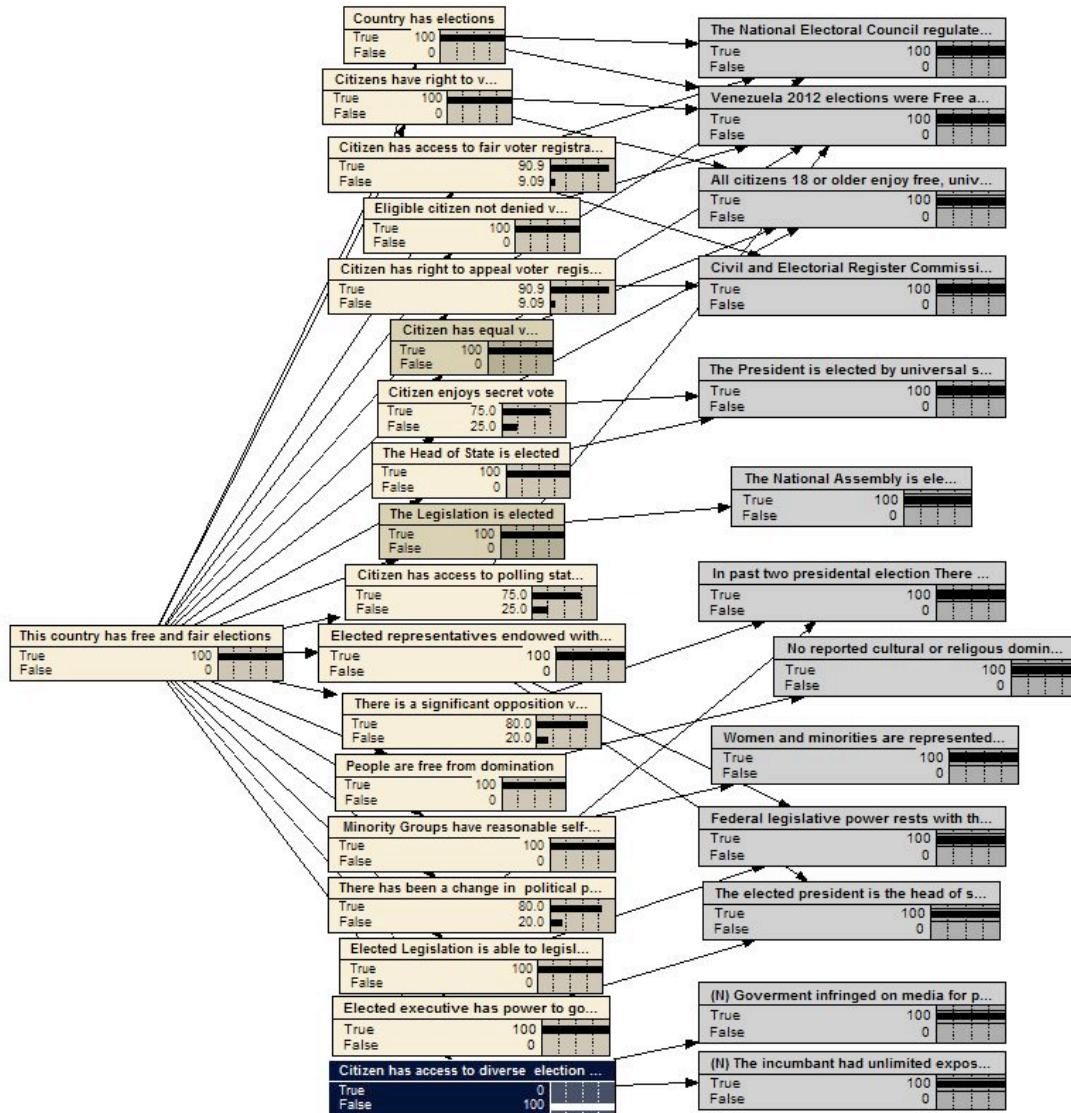


Figure 19. Results for Venezuela has free and fair elections.

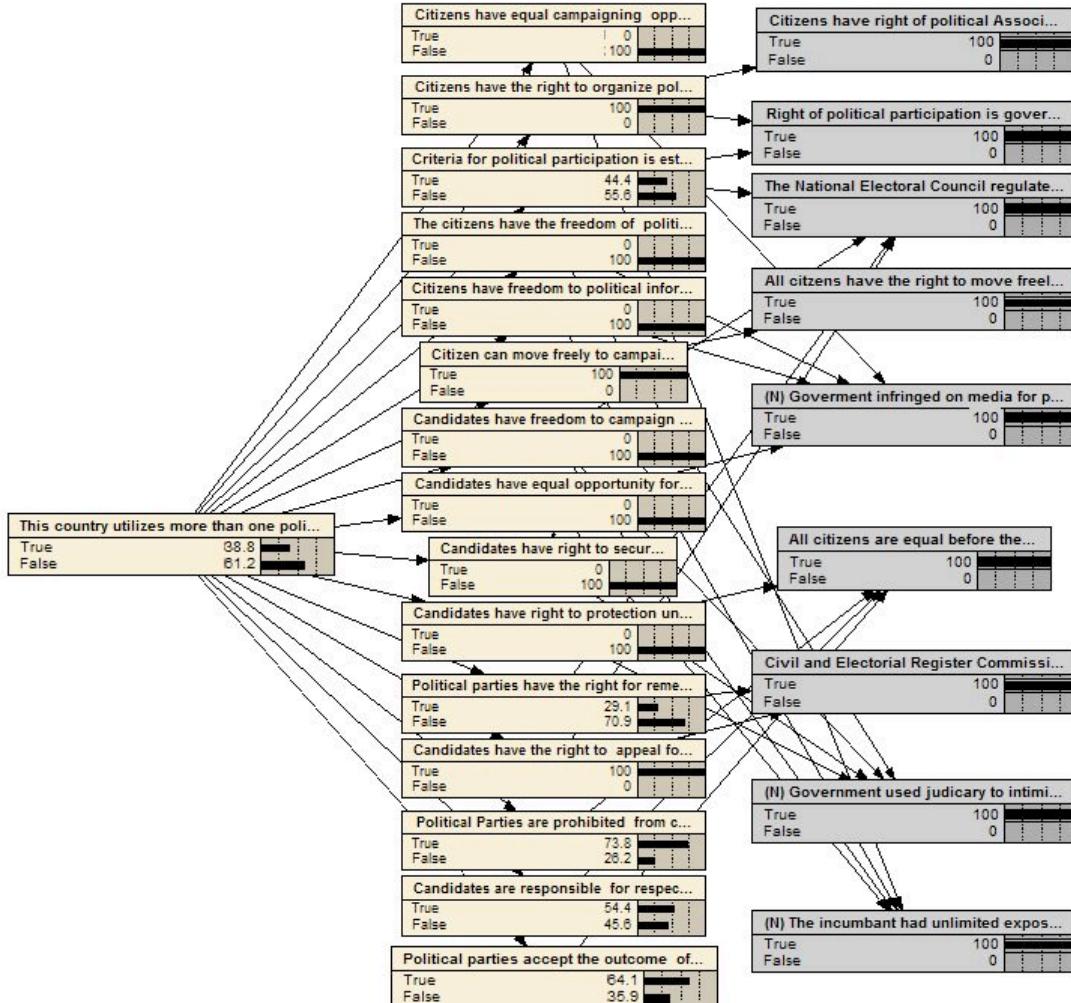


Figure 20. Results for Venezuela utilizes more than one political party.

### Findings for Vietnam

For the hypothesis of *this country has free and fair elections*, the results of the network were a 0% belief in the *true* state and a 100% belief in the *false* state. For the hypothesis of *this country utilizes more than one political party*, the results of the network were a 10.1% belief in the *true* state and an 89.9% belief in the *false* state.

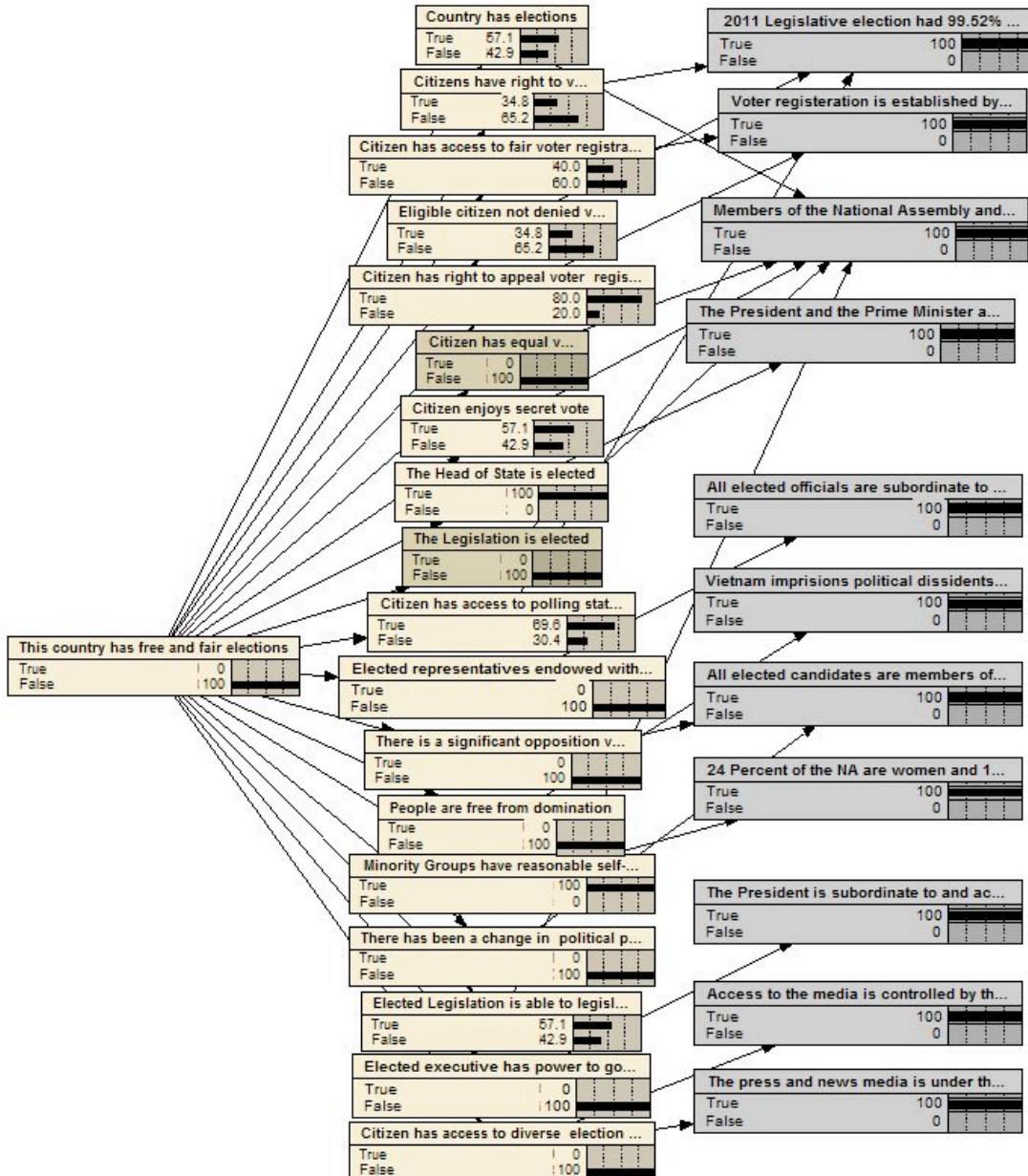


Figure 21. Results for Vietnam has free and fair elections.

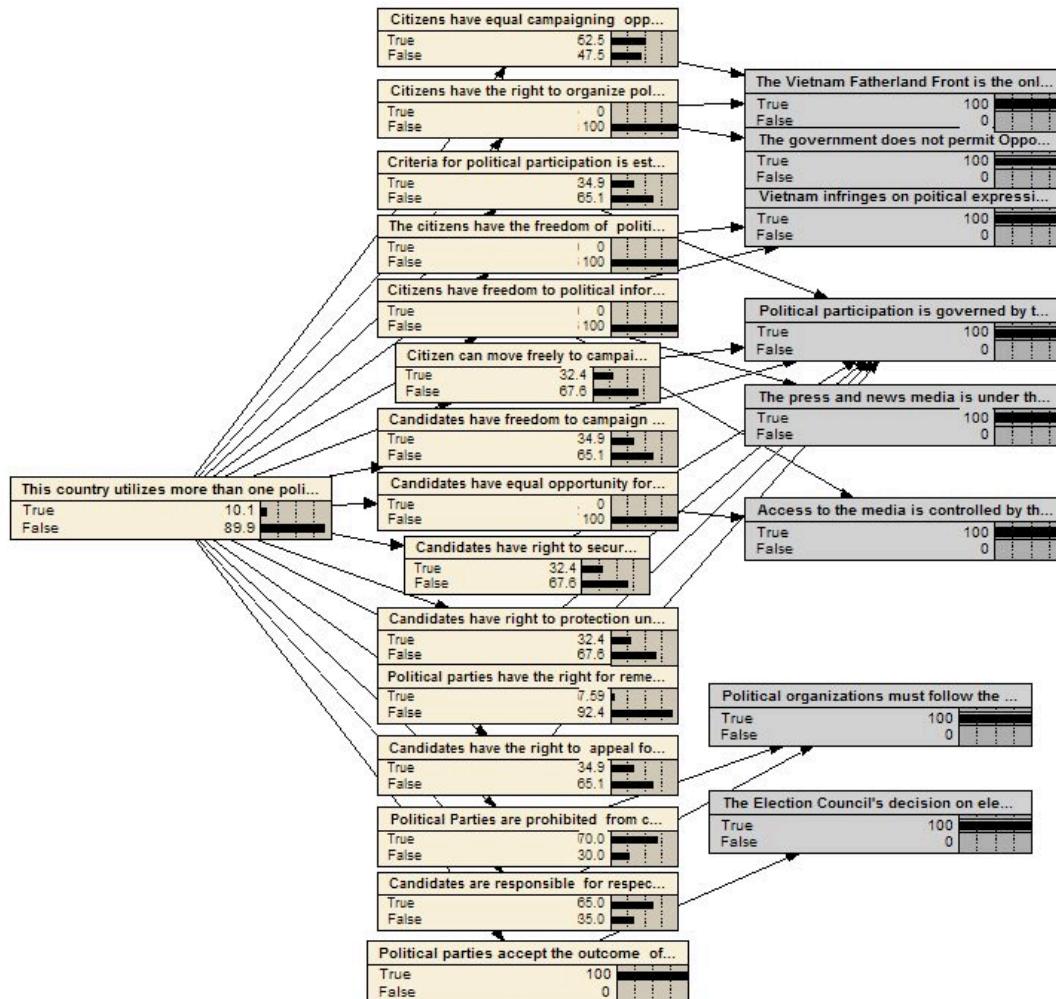


Figure 22. Results for Vietnam utilizes more than one political party.

### Addressing the Research Questions

The two research questions for this study were:

- What are the diagnostic observables for political competition?
- What are the diagnostic observables for political parties?

Goodwin-Gill (2006) consolidated of the criteria of democratic governance that were independently developed by UN (1966), IPU (1994), Diamond et al. (1995), and

other sources referenced in this study. These criteria are in the form of concepts. One of the purposes of this study was to evaluate whether these concepts can be used as diagnostic observables that can be used to evaluate a country's level of democratic governance. Mainwaring et al. (2001) and Dahl (1971) discussed how democratic governance is more complicated than a dichotomous state of democratic or not democratic, but is more a spectrum. The first consideration was whether the concepts consolidated by Goodwin-Gill and other concepts were observable.

The individual concept of democratic governance was considered observable when there were actual items of data that could be collected. For example, if the concept was *elections are governed by law*, this concept could be observable if there were a law, in that country, that governed elections. A copy of this law could be obtained and recorded as data. It is important to recognize that there is a difference between a democratic concept being observable in a general sense and a democratic concept being observable in a specific country. It is possible for an observable concept to be not observable in a country where there is a severe restriction on access to information about that government's structure.

The individual concept of democratic governance was considered diagnostic when its observation in the Bayesian network resulted in a measurable change in the belief states. A nondiagnostic observable is one that when observed or not observed, neither increases nor decreases one of the hypothesis states of the parent indicator. There are several reasons why an observable could be considered nondiagnostic.

The first reason is that the observable is not influential enough to change the states of the parent indicator. This rarely occurs in Bayesian networks as these types of nondiagnostic observables are usually discovered in the design and population steps. Observables known to be nondiagnostic are normally excluded from the networks. The second reason is that the indicator is ill-defined in such a manner as to make the identification of diagnostic observables impossible. This occurred during this study and will be documented later in this document. An example of an ill-defined indicator was *people are free from domination*. In order to identify diagnostic observables for this concept, the term domination has to be defined. One person's domination may be another person's good stewardship. This especially applies to countries with rigid religious and political backgrounds.

The extent of the domination needs to be defined. If 1% of the population claims to be under domination, is that significant? This would need to be answered before diagnostic observables could be identified for this indicator. Lastly, a way of measuring how free or not free the people are from domination needs to be created. Without these defining elements identified, it is difficult to accurately identify diagnostic observables.

The second reason an indicator/observable may be nondiagnostic is that it duplicates another already identified indicator or observable. This also occurred in this study. For example, there were two separate concepts identified by Goodwin-Gill (2006), *political parties have the right for remedy* and *candidates have the right to appeal for right violations*. Both of these concepts identify the requirement for candidates and political parties to have the right to appeal to a higher government office or court adverse

decisions made by a lower government office or court that affects the candidate or political party. The only reason to keep these two concepts as separate indicators is in anticipation of instances where one concept would be valid and the other invalid. None of the data collected on the five study countries identified any instance where there would be a difference between a candidate appealing a decision and a political party appealing a decision. As will be demonstrated in the consolidated Bayesian belief network, later in this section, the decision was made to consolidate these and similar concepts into one indicator that encompassed both related concepts. If, while using these networks to evaluate countries outside of the scope of this study, it is discovered that a specific country does differentiate between the rights of a candidate to appeal from the right of a political party to appear, or vice versa, then this concept will need to be split up.

### **The Diagnostic Observables for Political Competition**

The operation of the populated Bayesian belief networks for the five study countries generated the following results

- Andorra: 100% belief that there are free and fair elections
- Malawi: 100% belief that there are free and fair elections
- South Korea: 99% belief that there are free and fair elections
- Venezuela: 100% belief that there are free and fair elections
- Vietnam: 0% belief that there are free and fair elections

The following is a critique of the concepts of democracy previously identified in the context of the research question. Concepts that were both observable and diagnostic:

- This country has elections

- Citizens have the right to vote
- Citizens have access to fair voter registration
- Citizen has right to appeal voter registration
- Citizen has access to polling stations
- Citizen has equal vote
- Citizen enjoys secret vote
- The head of state is elected
- The Legislation is elected
- There is a significant opposition vote
- Minority groups have reasonable self-determination
- There has been a change in political party candidates
- Citizen has access to diverse election information

Concepts that were either not observable or not diagnostic:

- Eligible citizen not denied vote

For this concept, the issue was the term *eligible*. When Goodwin-Gil (2006) and others identified this as an indicator of democratic governance; the term *eligible* was not defined. There could be a case where only a small fraction of the citizens of a country are eligible to vote. When it comes time to populate the observables for this indicator, a state of true does not identify that while eligible citizens are not denied the vote, only a fraction of the citizens are eligible to vote. The solution, which was incorporated in the consolidated network discussed later in this document, was to add additional levels of

indicators to properly identify instances where the number or selection criteria of eligible voters does not violate the spirit of the original concept.

- People are free from domination

The issue with this concept is the ill-defined term domination. An objective definition of domination would need to be developed as well as thresholds of the extent of domination established. In the consolidated network, this concept was removed. In the Netica software, it is unnecessary to delete an indicator. Disconnecting it from the network removes the influence of the node to the net, but keeps the node in case of a need to incorporate it in future networks. It is unlikely that an instance would occur when the rest of the concepts of democratic governance are present and the people are not free of domination.

- Elected representatives endowed with real power
- Elected legislation is able to legislate
- Elected executive has power to govern

These three concepts, when paired with the two concepts *the head of state is elected* and *the legislation is elected* are duplicative of each other. It is unlikely to have an instance where the legislation is elected being true; elected representatives endowed with real power being true; but elected legislation is able to legislate being false. In the consolidated network, the two concepts *elected legislation is able to legislate* and *elected executive has power to govern* were disconnected and the concept *elected representatives endowed with real power* used to represent the disconnected nodes.

### **Diagnostic Observables for Political Parties**

The operation of the populated Bayesian belief networks for the five study countries generated the following results

- Andorra: 100% belief that the country uses more than one political party
- Malawi: 100% belief that the country uses more than one political party
- South Korea: 99.3% belief that that the country uses more than one political party
- Venezuela: 38.8% belief that that the country uses more than one political party
- Vietnam: 10.1% belief that that the country uses more than one political party

The following is a critique of the concepts of democracy previously identified in the context of the research question.

Concepts that were both observable and diagnostic:

- Citizens have equal campaigning opportunities
- Citizens have the right to organize political parties
- The citizens have the freedom of political expression
- The citizens have the freedom to receive and impart political information
- Candidates have freedom to campaign on an equal basis
- Candidates have equal opportunity for media access

Concepts that were either not observable or not diagnostic:

- Criteria for political participation is established by law

The issue with this concept was that it only addresses whether a country has laws governing political participation. It does not address whether the laws are conducive or inhibitive toward democratic governance. A country such as Vietnam has laws that govern political participation. These laws restrict political participation to only members of or associated with the Vietnam Communist Party. When it comes time to populate the observables for this indicator, a state of true does not identify that while Vietnam has laws that govern political participation, the laws are not conducive toward democratic governance. The solution, which was incorporated in the consolidated network discussed later in this document, was to add additional levels of indicators to properly identify instances where the laws of a country may not be conducive toward democratic governance.

- The citizen has the freedom to move freely to campaign

The issue with this concept was that none of the study countries had any laws or regulations specifically granting or inhibiting a citizen's right to move freely to campaign. Most of the laws that addressed similar circumstances granted citizens the right to freely travel for any legal purpose. In the consolidated network, this concept was included but would only be populated with negative evidence in the case where infringement was reported. This meant that the lack of positive evidence did not affect the node, but the inclusion of negative evidence would affect the node.

- Candidates have the right to security with respect to their lives and property
- Candidates have the right of protection under the law

These two concepts are closely related to each other. None of the study countries had any laws specifically granting or inhibiting a candidate from having special rights for security and protection under the law. Most of the laws that addressed similar circumstances granted all citizens the right to security and protection under the law. In the consolidated network, this concept was included but would only be populated with negative evidence in the case where infringement was reported. This meant that the lack of positive evidence did not affect the node, but the inclusion of negative evidence would affect the node.

- Political parties have the right for remedy
- Candidates have the right to appeal for right violations

None of the study countries had laws, regulations, or practices that differentiated between the rights of candidates being separate from the rights of political parties. In the consolidated network, these two concepts were combined into one that incorporated both concerns.

- Political parties are prohibited from committing violence

The issue with this concept was that none of the study countries had any laws, regulations or practices specifically prohibiting political parties from committing acts of violence. Most of the laws that addressed similar circumstances prohibited illegal activities by all citizens. In the consolidated network, this concept was included but would only be populated with negative evidence in the case where government condoned violence was reported. This meant that the lack of positive evidence did not affect the node, but the inclusion of negative evidence would affect the node.

- Candidates are responsible for respecting the rights of others

The issue with this concept was that none of the study countries had any laws, regulations or practices specifically stating that candidates are responsible for respecting the rights of others. Most of the laws that addressed similar circumstances stated that the citizens would have their rights respected. In the consolidated network, this concept was included but would only be populated with negative evidence in the case where government condoned violence was reported. This meant that the lack of positive evidence did not affect the node, but the inclusion of negative evidence would affect the node.

- Political parties accept the outcome of elections

The issue with this concept was that none of the study countries had any laws, regulations or practices specifically stating that political parties, as a separate entity are obligated to accept the outcome of elections. Most of the laws that addressed similar circumstances stated that the citizens have to accept the outcome of elections. In the consolidated network, this concept was included but would only be populated with negative evidence in the case where government condoned violence was reported. This meant that the lack of positive evidence did not affect the node, but the inclusion of negative evidence would affect the node.

### **Comparing the Results of Both Network Results**

Table 36

*Results of Operating Both Networks Indexed by Country*

Country	Free and fair elections	Uses more than one political party
Andorra	100%	100%
Malawi	100%	100%
South Korea	99%	99.3%
Venezuela	100%	38.8%
Vietnam	0%	10.1%

For each of the study counties, the two respective networks were operated independently of the other. The operation of these networks resulted in an anticipated correlation between free and fair elections and the use of more than one political party in four of the five study countries. Andorra, Malawi, and to a great extent South Korea's results indicate a high level of democratic governance in the context of the Goodwin-Gill (2006) consolidated list. Vietnam's results are also unsurprising. Technically, Vietnam has two political parties—the Vietnam Communist Party and the Fatherland Front Party. In addition, independent candidates have also run for elected offices. However, it is important to recognize that in all instances, only communist party approved candidates are allowed to run either as a Vietnam Communist Party, Fatherland Front Party, or as an independent candidate.

Venezuela's results require further explanation. In the context of the concepts consolidated by Goodwin-Gill (2006), Venezuela incorporates the concepts for free and fair elections. However, Venezuela, while allowing multiple political parties, significantly infringes on the freedom and capability of minority political parties from being able to campaign on an equal basis. In a future iteration of these networks, it might be advantageous to establish a Bayesian relationship between the two networks. This was outside the scope of this study.

The issue with Venezuela's results identified a critical vulnerability in developing and using conceptual criteria for evaluating whether a country has a democratic process. That vulnerability is hypocrisy that results when there is a difference between how the laws of a country define how the governmental structure operates and how the country's actual government structure operates. This supports the observation that democracy is often seen as a badge of legitimacy in a government. Governments who may not embrace the full concepts of democracy still want to be seen as being democratic (Roth, 2009, p. 140).

All of the study countries had constitutions, laws, regulations, procedures, and declarations guaranteeing to the citizens a democratic form of government through free, fair elections. However, there were instances where the existing laws, regulations, and procedures were not followed, or selectively followed. One of the results of this study was identifying that using democratic concepts that are focused on laws, regulations, and procedures may not be the most accurate schema to use to evaluate whether a specific country has a form of democratic governance. Direct observations on how the countries

implement their laws and regulations would have generated a better quality of diagnostic evidence.

### **Constructing a Consolidated Bayesian Network**

One of the purposes of this study was to determine whether Bayesian belief networks could be used to analyze the effects of the various concepts of democratic governance in a measurable, testable and defensible way. The results of this study have demonstrated the utility of Bayesian belief networks for this purpose. However, I also identified instances where the types of democratic concepts consolidated by Goodwin-Gill (2006), while valid, were noncollectable, nonmeasurable, or nondiagnostic. The final step in this study was to create two new networks using the same hypotheses used in this study, but modifying the indicators and their respective conditional probability tables to confine the network to indicators and observables that were collectable, measurable, and diagnostic. These two consolidated networks can be used in future studies. All the networks developed for this study were included in the data archive for this study. The two consolidated networks are depicted below.

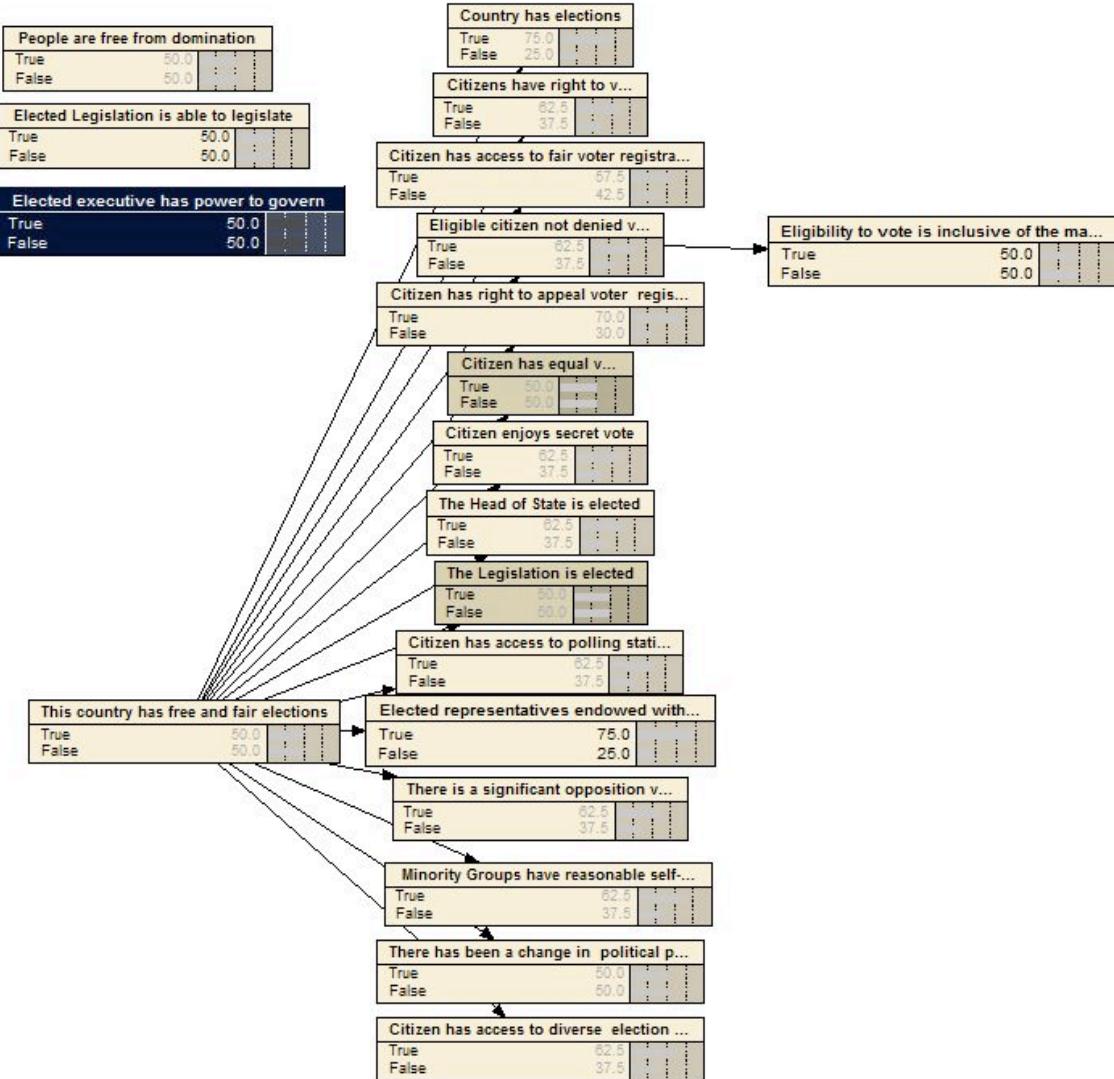


Figure 23. Consolidated network for the hypothesis *this country has free and fair elections* along with the three disconnected nodes.

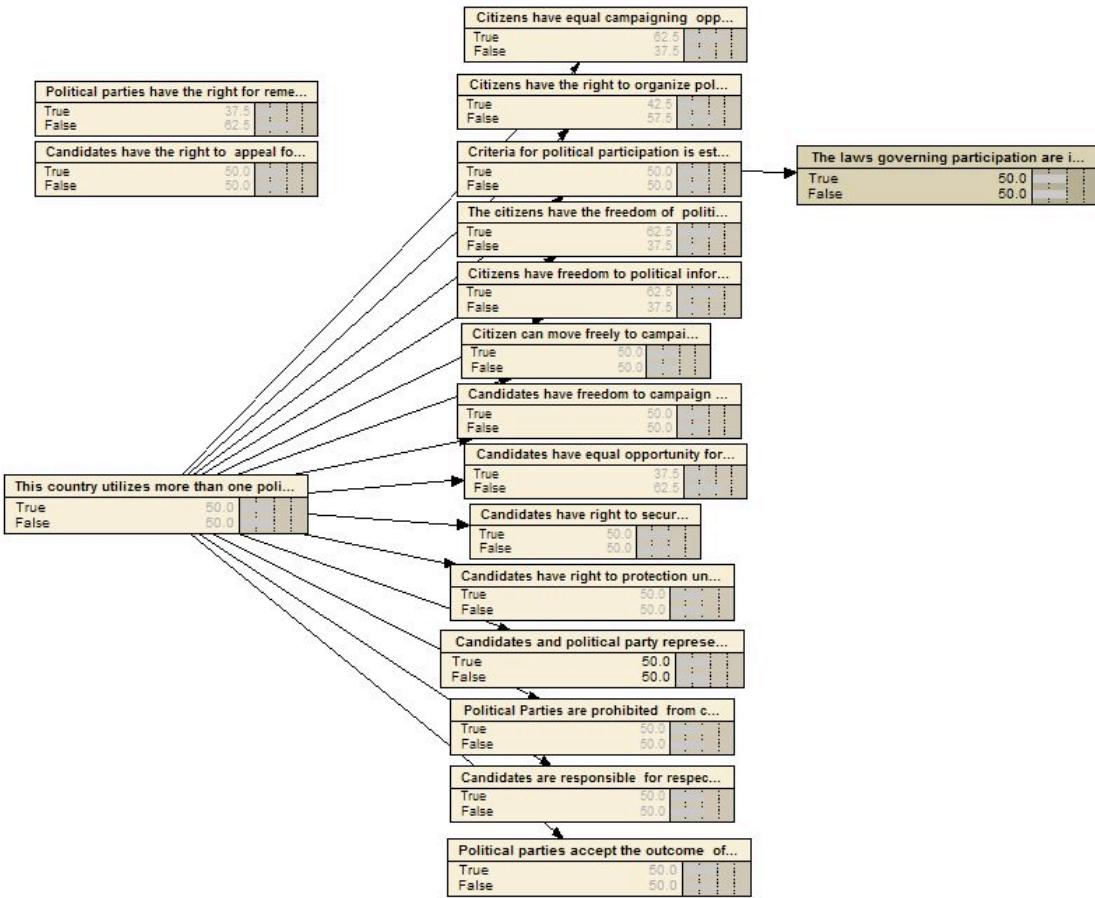


Figure 24. Consolidated network for the hypothesis *this country utilizes more than one political party* along with the two disconnected nodes.

## Summary

The design of the Bayesian belief networks, used in this study, were based on the criteria derived from the Goodwin-Gill (2006) consolidation of the criteria independently developed by UN (1966), IPU (1994), Diamond et al. (1995), and other sources. Separate networks were developed for each of the five-study countries. For each study country, two separate networks were developed, one for each of the study hypotheses. Indicators that would affect the belief in the hypothesis states were identified and conditional

probability tables defining how each indicator would affect the belief were developed and populated. Observable data sources for each of the indicators were identified and the appropriate deterministic nodes were designed and populated. Finally, each of the networks was operated and the appropriate finding entered into the software was made for each of the observable nodes.

The two research questions for this study were:

- What are the diagnostic observables for political competition?
- What are the diagnostic observables for political parties?

The result of this study provided list of observables that were observable, collectable, measurable, and diagnostic with respect to the two research questions. These observables were tested in the country specific networks. The results showed a correlation between a country having free and fair elections and utilizing more than one political party.

These results also demonstrated that Bayesian belief networks can be an effective tool for defining and analyzing how concepts of democracy can be used in a measurable, testable, and defensible manner to evaluate to what extent a specific country embraces certain aspects of democratic governance. The use of Bayesian networks was effective in detecting instances where a country had discrepancies between what the law stated and what independent observers reported.

In decomposing the concepts of democratic governance as consolidated by Goodwin-Gil (2006), specific concepts were identified as being noncollectable, nonmeasurable, or nondiagnostic. In many cases rewording or consolidating the concepts

enabled them to be collectable, measurable and diagnostic. Two additional consolidated networks were created incorporating the reworded or consolidated concepts. These two consolidated networks can be used for future studies with different countries.

In Chapter 5, I will be describing my interpretations of the findings of the study in the context of how findings relate back to the scholarly literature on democratic governance as well as in the context of the theoretical frameworks used in this study. I will address the limitations of this study and will offer recommendations for further research along the lines of this study. Positive social change, being one of the purposes of this study, I will describe how the results and methodologies developed in this study can be used by various government agencies and international nongovernment organizations in their efforts to evaluate the status of and measure the progress of democratic governance in specific countries.

## Chapter 5: Discussion, Conclusions, and Recommendations

### **Introduction**

The purpose of this study was to determine whether there are diagnostic observables for political competition and diagnostic observables for political parties. I investigated whether Bayesian belief networks could be used as a viable tool for measuring and analysing these observables in the context of evaluating whether a country implements democratic governance. Kingdon (2010) described the difference between a condition and a problem. A problem, in the context of public policy, is a condition that people desire to improve (p, 109). In the context of this study, the problem addressed was whether the concept of political competition can only be demonstrated by a governmental system that involves multiple political parties.

In the context of this study, political competition was limited to the concept of free and fair elections. The two specific research questions in this study were:

What are the diagnostic observables for political competition?

What are the diagnostic observables for political parties?

In order to establish that these observables were diagnostic, it was first necessary to determine whether the identified observables associated with each research question were collectable, measurable, and defensible. Bayesian belief networks were the analytical mechanisms used in this study. For this purpose, two Bayesian hypotheses were developed that were related to the research questions. The two hypotheses were:

- This country has free and fair elections.
- This country utilizes more than one political party.

Using Bayesian belief networks enabled the determination whether the commonly cited observables of democratic governance consolidated by Goodwin-Gil (2006) were or were not collectable, measurable, defensible, and diagnostic.

I investigated how Bayesian networks could be used as a tool to evaluate the progress of countries, outside the scope of the study, toward democratic governance. The results of this study not only increased the level of understanding of the elements of democratic governance, but also developed an application that can be practically implemented by specific U.S. government programs as well as be used by international non-government organizations. It is this practical implementation of this Bayesian methodology that moves this study from an academic study of a political condition to what Kingdon (2010) described as a problem whose solution can lead to positive social change.

The U.S. government operates, through the Department of State, the United States Agency for International Development, Office of Democracy and Governance. The U.S. Department of Defense, through the National Guard, operates the National Guard State Partnership Program. The National Endowment for Democracy operates the National Democratic Institute, the International Republican Institute, and the Center for International Private Enterprises. These government and INGO programs are all involved in evaluating other countries in the context of democratic governance and involved in implementing plans to assist nondemocratic countries in changing to become more democratic. In order for these government and INGO programs to be successful, it is important that there be a clear understanding on how a specific country implements the

elements of democratic governance and how can a country's progress with respect to democratic governance can be measured. Kingdon (2010) identified academic research as an important set of nongovernment policy affecting actors (p. 53). Kingdon identified the advantages of academic research in presenting to the government alternatives in the context of developing national policy (p.55). This study will offer to the U.S. Government and the respective INGOs an alternative methodology that can be used to assist these agencies and organizations in more accurately evaluating and measuring a specific country's progress with respect to democratic governance.

This study had three goals. The first was to examine, through case studies, whether there was a correlation between a country having free and fair elections and that country using more than one political party. The second was to determine whether the elements of democratic governance identified by the UN (1966), IPU (1994), Diamond et al. (1995) and consolidated by Goodwin-Gill (2006) were observable, measurable, and diagnostic with respect to their relationship with democratic governance. The third was to evaluate whether Bayesian networks could be a viable tool to manage the uncertainty of these observables and indicators with respect to the high-level hypotheses.

The study was successful in meeting its three goals. There was a correlation between the five-study countries' implementation of free and fair elections with respect to the country utilizing more than one political party. Diagnostic observables were identified as well as observables that were not collectable, measurable, or diagnostic. The use of Bayesian belief networks was demonstrated in a viable analytical methodology to not only evaluate the validity of indicators and observables associated with democratic

governance, but also as an analytical methodology that can be applied to different countries.

### **Interpretations of the Findings**

Information used in this study was influenced by the scholarly writings of other researchers. I confirmed many of the inferences made by many social scientists and challenged the inferences of others. There were two distinct perspectives identified in the context of determining the concepts that indicate democratic governance. The formalist perspective focused on the mechanics of free and fair elections. Hines (2008), Przeworski et al. (2000), and Schumpeter (1947) have written on the importance of not accepting the fact of an election but delving deeper and evaluating whether the election was truly free and fair, when evaluating democratic governance in a country. Many scholars have generated concepts that indicate whether an election is free and fair. These concepts were consolidated by Goodwin-Gill (2006). I tested these concepts in the context of determining whether they were collectable, measurable, and diagnostic though the mechanism of Bayesian belief networks.

Elections are a critical element of democratic governance. If a government does not have elections, they cannot be democratic in nature. But a country having elections, even though they may be free and fair, may not be an indication that the government implements democratic governance. Diamond et al. (1995) described democratic governance as involving a meaningful and extensive competition, a highly inclusive level of political participation by the citizens, and a level of civil and political liberties (pp. 6-7). The antiformalist perspective on democratic governance identified that the presence of

elections may not be enough for a country to be considered democratic. Faundez (2007), Gill (2000), Haynes (2001), Munroe (1999), and Phillip (2003) have written on the importance of considering factors separate from the mechanics of a free and fair election when evaluating democratic governance in other countries. They and other scholars have developed a set of concepts that focus more on inclusiveness of political participation as well as the levels of civil and political liberties described by Diamond et al. (1995).

I tested these concepts from both the formalist and anti-formalist perspective in the context of determining whether they were collectable, measurable, and diagnostic though the mechanism of Bayesian belief networks. The results of this study identified some of these concepts as being either immeasurable, due to a lack of definition, or not diagnostic, in some cases because multiple concepts duplicated other concepts.

Mainwaring et al. (2001) and Dahl (1971) challenged the idea that a specific country is either democratic or not. Dahl postulated that democratic governance could be classified as a spectrum and recognized that transitioning governments toward more democratic governance involves many small changes, not of larger dichotomous changes. Mainwaring et al. introduced a trichotomous classification of countries in the context of democratic governance. Under their trichotomy, governments were characterized as being democratic, semidemocratic, or nondemocratic. Dahl introduced the idea of a polyarchy as an incremental step in a country changing from nondemocratic to democratic. This was supported when Melich (2000) stated that polyarchies can serve as a mechanism for emerging democracies to start their transition from non-democratic governance toward a more democratic governance system.

The theories that democratic governance is not a dichotomous state but is more a multi-state (Mainwaring et al., 2001) or a spectrum of states (Dahl, 1971, Melich, 2000) formed the basis for using Bayesian belief networks for this study. Bayesian networks handle uncertainty about how an indicator affects a belief state of a hypothesis by depicting the relationships between hypothesis, indicators, and observables in a probabilistic schema. This allowed the results of the study to not be restricted to dichotomous end states of true or false, but a more fluid spectrum of belief probabilities that reflect the theories of Dahl, Mainwaring et al. (2001), and Melich (2000).

Several theoretical frameworks were used to guide this study. Because I dealt with how individual countries chose to implement the concepts of political competition and political parties, the theoretical framework of interpretivism, a subset of the post positivist theoretical framework was used. In interpretivism, cases are studied with respect to their individual context (Willis, 2007). The premise of this study was that different cultures and governments might approach the concept of political competition differently. If cultural context is ignored, or worse, inapplicable cultural context is applied, the risk of misunderstanding the phenomenology increases. Creswell (2007) used the term social constructivism, which has similar meaning as interpretivism. The structure of this research followed Creswell in that in social constructivism, the truth needs to be in the context of the viewpoint of the population being studied.

Grounded theory was the second theoretical framework used in this study. Babbie (2004) described grounded theory as a methodology to derive theories from the analysis of patterns of observed data. Creswell (2007) defined grounded theory as generating

hypotheses through observations. Both definitions are applicable to this study. Through the hermeneutical collection and analysis of each country's documents, hypotheses and evidences were created and observables were identified. Because I incorporated Bayesian belief networks, it can appear that the methodology of this study is based on hypothesis testing.

Babbie (2004) differentiated grounded theory from hypothesis testing by pointing out the differences in the order in which both are constructed. In grounded theory, patterns of observables are used to generate evidences and ultimately hypotheses (Babbie, 2004). In this study, the hypotheses were constructed at the end of the research as part of populating the Bayesian belief networks. Creswell (2007) described the concept of constructivist grounded theory. Constructivist grounded theory can incorporate the researcher's viewpoints in the generation of the theory. This would be an example of the concept of etic. Etic is an approach to studying a culture through a schema of criteria either universally accepted or accepted by larger numbers of cultural groups (Newman, 2011). By using a set of concepts developed by many scholars and consolidated by Goodwin-Gill (2006), I was able to incorporate both etic and constructivist grounded theory.

The third theoretical framework used in this study was case studies. Creswell (2007) stated that the decision whether to use case studies should be based on the following two questions.

- Does the problem have bounded cases to be studied?

- Is the intention of the research to seek understanding both within the individual cases and across the set of cases?

The problem addressed by this study did have bounded cases. Specifically, the five identified study countries and the larger finite number of countries in the world. The intention of this study was to increase the level of understanding on how commonly cited concepts of democratic governance are or are not implemented in other countries. The analysis and the Bayesian belief networks apply to both the five study countries and can be applied to a larger set of countries outside the scope of this study.

Each one of these theoretical frameworks helped guide and bound the scope of this study. Postpositivism recognized the importance of evaluating each country in the context of that country's culture. Grounded theory defined the process of taking observations and establishing patterns and relationships and using them to generate and test specific hypotheses. Finally, case studies helped bound the problem to a reasonable sample of countries while at the same time guided this study to ensure that the methodologies and analysis could be applied to countries outside its scope.

### **Limitations of the Study**

There were four assumptions identified when this study was first proposed. One of these assumptions proved to be incorrect, two were valid, and a fourth, demonstrated to be valid but subject to contextual interpretation. The assumption that was demonstrated to be incorrect resulted in a significant limitation on the study that would have to be addressed if this methodology is to be used for future studies. The assumption that was

subject to contextual interpretation can still be used in future studies, as long contextual sensitivities are mitigated.

The first assumption was that government documents accurately represent how these countries' governments are structured. This assumption was demonstrated to be incorrect. The results of this study identified instances where a country's laws, regulations, and procedures, while documented were not followed. This was especially demonstrated in the countries lower on the democratic spectrum – South Korea, Venezuela, and Vietnam. All of the study countries had constitutions, laws, regulations, and procedures that guaranteed the citizens free and fair elections. All the study countries but Vietnam had similar guarantees for free participation in multiple independent political parties. Roth (2009) stated that there might be advantages for a nondemocratic government to be perceived as being democratic. Whether countries were engaged in actual deception or chose not to implement all their laws affected the validity of some of the concepts of democratic governance used in this study. To mitigate the effects of this discrepancy between what a country's laws state and what actions the government takes, additional indicators were introduced in the consolidated networks. These additional indicators provided ways to measure and record instances where there were discrepancies between what a country's laws state and what actions the government takes.

The second assumption was that similar amounts of data are available for each of the five case studies used in this research. This was the assumption that was subject to contextual interpretation. This study revealed that different countries have different levels of accessibility to government information. Some of the study countries had very concise

laws, regulations and procedures concerning elections, while other study countries had fragmented laws encompassing national, regional, and local laws. This imposed the limitation of being uncertain that the research revealed the entire set of applicable legislature for a specific country. Any mitigation process would be country specific in nature. INGO reporting is not standardized and access not equally assured across all countries. In consideration with the first assumption, assured access and timely reporting by INGO observers is a necessary mitigation process for future research.

The third assumption was that the chosen distribution of cases will accurately represent a subset of countries from around the world that adequately represent the spectrum of national cultures and governmental structure. This assumption was demonstrated to be valid. The schema of selecting study countries that spanned the spectrum of democratic governance fulfilled the requirement of having a sample population that adequately represented all of the countries in the world. The five countries selected from report *Freedom in the World 2013* published by Freedom House. There were two advantages for using the Freedom House report. The first was that Freedom House's report is a commonly used and cited report for issues concerning how democracy is implemented around the world. The second reason is that Freedom House ranks these countries in the order that Freedom House's methodologies consider how these countries represent various levels of freedom (Freedom House, 2012, Methodology) This ranking is important, as the intent of this study is to sample across the spectrum of countries rated as *free* and *not free*. Sampling from a random list or using a mathematical

sampling methodology or an alphabetical list of countries would not guarantee that the sample would span the spectrum.

The fourth assumption was that the data collected would be valid for that specific country. This assumption was demonstrated to be valid. Within the constraints of the second assumption, the data that were available was demonstrated to be valid for that country. There were no instances detected of any deliberate deception involved in the data collected.

There was another limitation of the study that was identified independently of any of the study assumptions. In constructing the Bayesian belief networks, a conditional probability table needed to be populated establishing a probabilistic relationship between a lower-level child node and the higher-level parent node. Ideally, sufficient historical data would be available to generate precise probabilities. Absent of this historical data, a five-level Likert scale was used. Subjective probabilities, translated into the five-level Likert scale were used. Heuer (1999), Jensen and Nielsen (2007), Kragt (2009), and Pollino et al. (2007), all recognized that in the absence of quantified probabilities, subjective probabilities could be used in Bayesian belief networks. Future research in this area should incorporate additional research with the intent of determining whether more precise conditional probabilities can be generated for the network nodes.

### **Recommendations**

Continued research in the area of using Bayesian belief networks as a venue for determining and measuring how collectable and diagnostic concepts of democratic governance should be continued in order to identify additional indicators and observables

of democratic governance. This will serve to make the understanding of how different concepts can be applied to practical evaluations more accurately. The observable concepts of democratic governance that were identified in this study are by no means an exhaustive list. Now that the methodology has been demonstrated, the scope of indicators should be expanded to include new observables and observables that pertain to other areas of democratic governance.

Further investigation into INGOs operating in the countries of interest will yield different and perhaps more reliable data. INGOs with observers in the country are in the best position to evaluate whether there are any discrepancies between a country's published laws, regulations, and procedures and how a country implements these laws, regulations, and procedures. News media reporting can be unreliable due to biases and agendas of the media corporation and their sponsors.

Expanding future research to countries outside the scope of this study will not only provide further testing of the Bayesian methodology, but will help fine tune the list of indicators, observables, and their respective conditional probability tables. Bayesian belief networks are not intended to be static in nature but a constantly updated and tuned analytical tool.

The assumptions made in this study need to be evaluated and any study limitations or vulnerabilities from these assumptions mitigated. The assumption that using published constitutions, laws, regulations, and procedures has been demonstrated to be a risk in countries that may have discrepancies between their laws and their actual procedures. These instances of discrepancies need to be identified and a mitigation

strategy to identify, locate, and retrieve alternate data be developed. The final recommendation is that interested government and INGO offices be educated on this methodology, its strengths and weaknesses, and on the practical application of this methodology to specific real world issues.

### **Implications**

Currently, the United States government sponsors or manages several programs with the mission of evaluating the state of democratic governance in other countries. These programs use the concepts of democratic governance developed by Diamond et al. (1997), Freedom House (2013), the ongoing efforts of the U.N. and the IPU as well as the other scholarly sources identified in this study. The methodology demonstrated in this study will offer these organizations an alternative method of evaluating and measuring the effects of the democratic concepts as well as offer these organizations a methodology to track and monitor a country's progress as its government moves along the spectrum of democratic governance. Academic studies such as this one can affect changes in government policy (Kingdon, 2010, p. 55).

Based on the analysis of this study, government agencies may recognize the importance of emplacing INGO observers inside the countries of interest. INGO observers observing the implementation of the democratic governance concepts identified and evaluated in this study over a period of years will be in an advantageous position to report clear and accurate data in the context of democratic governance. Before any of these U.S. government programs can effectively affect a positive change in a foreign country, it may be advantageous to first emplace observers who can monitor the

country's elections and political parties over a period of years. Then, once there is a history of accurate and country specific precise data, the programs will have a much better understanding of how a specific country is implementing democratic governance and how its implementation may be different from another country's implementation.

### **Conclusion**

At a high level, the concept of democratic governance is easy to understand. Diamond et al. (1995) described democratic governance as involving three general concepts. These concepts are a meaningful and extensive competition, a highly inclusive level of political participation by the citizens, and a level of civil and political liberties (pp. 6-7). However, at this level, these concepts are difficult to collect and measure. Indicators of these concepts need to be developed and defined to the level where specific observable, collectable and measurable data can be collected that will decrease the uncertainty whether a country is or is not implementing that concept.

It needs to be recognized that different countries may choose to implement these concepts differently than other countries do. It is risky to assume that all countries should and do implement all these concepts exactly the same way. A country that implements one or more of these concepts differently is not necessarily evidence that the country is not implementing the concepts. There are many paths to democratic governance. Organizations evaluating the progress on the spectrum of democratic governance need to recognize the cultural, religious, and political differences and how they may affect how a country incorporates the concepts of democratic governance.

There is a need for a methodology to manage and monitor the analysis involved in evaluating a country's progress with respect to these concepts. The very nature of the differences between countries introduces uncertainty with respect to how a specific observable affects an indicator and subsequently how an indicator affects the belief state of a higher-level hypothesis. I introduced and demonstrated the utility of incorporating Bayesian belief networks as an alternative venue for analysis. The advantages of the study Bayesian networks were that they were transparent, testable, and defensible. The networks were useful in identifying discrepancies or incompatibilities of diverse data. This was useful in identifying instances of hypocrisy where what a government was actually doing was in conflict with that country's published constitution, laws, regulations, and procedures.

The Bayesian methodology is expandable to apply to other countries and can be used by government and INGO organizations as an alternative method of supporting their programs in evaluating and monitoring their countries of interest. This methodology can be used by these organizations to identify, characterize, and test new concepts of democratic governance and evaluate their respective observables for diagnostic validity.

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## Curriculum Vitae

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### **Education**

PhD Walden University, 2013, Public Policy and Administration

MS Joint Military Intelligence College, 1995, Strategic Intelligence

BT Peru State College, 1988, Business Management

### **Experience**

The Aerospace Corporation, 2005-Present, Senior Project Lead

- Analytical lead for designing, and implementing quantitative and qualitative research in support of government procurement activities
- Mentor analysts in different analytical methodologies

Titan Corporation, 2001-2005. Senior Analyst

- Analytical lead for conducting phenomenology based research in support of reconnaissance system design efforts
- Trained field deployed analysts in phenomenology based research

United States Air Force, 1981-2001, Research Analyst

- Senior analyst for conducting specialized geo-political research in support of the Department of Defense
- Lead a team of 10 analysts in implementing new analytical methodologies to address enduring geo-political issues.