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# The diffusion of norms in the international system

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THE DIFFUSION OF NORMS IN THE INTERNATIONAL SYSTEM

by

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CERTIFICATE OF APPROVAL

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PH.D. THESIS

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For my mom

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# ABSTRACT

Why do states express support for norms that go against their underlying beliefs? Scholars of policy diffusion have identified four social mechanisms – coercion, competition, emulation, and learning – that can lead to the spread of a common practice, a norm, in the international system. I build a formal model of the four mechanisms and apply them to actual cases of norm diffusion. The formal models are anchored by three variables that capture fundamental aspects of international society: hierarchy, neighborhood, and identity. The four different diffusion mechanisms operate on these variables, creating distinct over-time trajectories. Three important dynamic patterns are compared across different model specifications: the shape of the adoption S-curve, the power distribution among expressers and non-expressers, and the degree of regional clustering. I find that the four mechanisms produce unique signatures under many conditions, but that changes to some parameters such as initial number of expressers can obscure the identification of the diffusion mechanism.

In the first empirical chapter, I apply the framework to the diffusion of quotas for women's representation. I find that quotas are adopted by weak states, and that the likely source of inspiration for quota adoption are other weak states in the same neighborhood. The empirical pattern in terms of hierarchy, neighborhood, and identity point to competition as the mechanism that drove quota diffusion. Because competition is associated with norm internalization, this finding suggests that the world is really becoming more gender equal. In the second empirical chapter, I change

substantive focus to the diffusion of human rights norms. Adoption of human rights treaties seems to be associated with worse human rights behavior, but why do states that ratify human rights treaties so often fail to uphold their obligations? I find that the Convention Against Torture (CAT) treaty is adopted first by strong states in Europe, then to weaker states in a regionally-contingent pattern. This empirical pattern is most consistent with the emulation mechanism. This implies that the anti-torture norm is not associated with internalization, and solves the previously puzzling ratification-compliance paradox.

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## INTRODUCTION

### 1.1 Introduction: A tale of two norms

Seeking to take a break and distract myself from my work late one evening, I
turned on the news.[1] The headlines only threw my thoughts back to the subject of
my writing: norms. Two stories in particular caught my attention. The first was an
update on elections amidst the ongoing Ukraine crisis. The second story related an
international dispute over Chinese economic espionage against US companies. Despite
the different subject matter of these stories, they both stood out to me as perfect
examples of the puzzling relationship between the expression and internalization of
international norms that lies at the heart of the norm diffusion story.

The first story detailed the use of elections amidst the uncertainty of political
control in Eastern Ukraine. In the weeks and months since Russia's seizure of Crimea,
around 40,000 Russian troops have been positioned on Ukraine's eastern border. The
dominant cleavage in the conflict is whether Russia or the European Union (EU)
should be Ukraine's primary economic and political ally. In several Ukrainian cities,
pro-Russian supporters have taken full control of the state apparatus. Even in the
regional hub Donetsk where Ukrainian forces still have nominal control, pro-Russian
supporters are currently occupying the regional government building. One puzzling

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[1] *PBS News Hour* for May 19th, 2014. The episode is available at:
http://www.pbs.org/newshour/episode/monday-may-19-2014/ (last accessed June 16th,
2014).

aspect of the ongoing crisis in Ukraine is how often appeals to elections have been used to justify *de facto* military control. All sides have tried to legitimate their behavior by presenting to the world the supposed will of the people as measured through elections. Pro-Russian supporters held a plebiscite last week that Pro-Western supporters refused to participate in. In the coming week, the Ukrainian national elections will draw out pro-Western supporters while Pro-Russians are expected to boycott it.[2] Why are elections so important for both sides in this conflict?

The mere existence of elections in Eastern Ukraine and Crimea at this moment of crisis may seem surprising. Yet, it attests to the global power of the norm of "free and fair elections" (Kelley, 2008). Even in cases where it seems impossible that a democratic process can really occur (such as upcoming elections in war-torn Syria), states choose to have elections. Elections are an expression of democratic norms, but that does not mean that the states who hold elections are actually democratic, or that the outcome of the election is not predetermined by the ruling elite. So, why do non-democratic states express the democratic norm of elections? More generally, why do states that do not believe in the ideological content of a norm express their support for it anyway?

The second story that evening was on a cyber-security dispute between the US and China. The dispute over legal practices in cyber espionage between the US

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[2]Not only do both sides wish to show their legitimacy by winning an election, the media itself wants to influence perceptions about which side is legitimately holding power. The reporter cited a PEW study which indicated a decline in internal legitimacy, but overall support for Ukraine. By invoking PEW, the reporter is reflecting Western assumption that while elections can be rigged by corrupt governments, polling by western organizations can still be used to find the true will of the people.

and China has been ongoing for some time (Morrison, 2011). The US escalated by indicting five individuals working for a military unit in China's People's Liberation Army. The US justice department had tracked the hacking activities to a particular government building in Shanghai and was able to identify the individuals directly involved in the activities. Attorney General Eric Holder explained the charges in a press briefing, "when a foreign nation uses military or intelligence resources and tools against an American executive or corporation to obtain trade secrets or sensitive business information for the benefit of its state-owned companies, we must say enough is enough." Former Deputy Assistant Secretary of State and Professor Susan Shirk commented on the US actions. She argued that the US was right to make the indictments "as an expression of resolve that this pervasive commercial espionage is against US law and that we won't stand for it." She goes on to discuss the importance of the "norm that cyber-attacks shouldn't be used for commercial advantage." Yet, she notes that there is not yet a shared understanding of the rules of the game between the US and China. China is not expected to give up the indicted men. Nonetheless, the Chinese response to US escalation hinted at the existence of a burgeoning norm on cyber-security. Rather than argue that there is no norm against cyber surveillance of the sort the five men are accused of, the Chinese government denies that these offenses occurred at all. In a government-issued response, Chinese officials pointed out that all governments collect information for national security purposes, including the United States. China's point of US hypocrisy may play well with other states. Following the Snowden NSA leaks, the US and global public is still coming to grips

with how much information the US collects on individuals throughout the globe.

Why would the US make these demands when it knows China will never hand over the indicted men? Why does the US feel it can chastise China for its cyber activities when the US has just been exposed for collecting and analyzing so much personal data? Clearly norms on cyber-security and the limits of legitimate state surveillance are not settled. Many states are concerned with and will try to influence the content of the normative order regarding cyber security as the US is currently trying to do. The indictment of the five individuals is not only a display directed against China, it is an expression of the burgeoning norm that is observed by the entire world. China may or may not be deterred, but other countries are now informed about what the US thinks the content of the norm should be. Will the US get its way making economic espionage illegal while maintaining its legitimate right to collect information for security purposes? If the US does succeed in establishing a norm of cyber-security, will it coerce others as it appears to be doing with China? Will other states respond by expressing their commitment out of fear for retributions or because they truly believe in the norm?

Both the emerging norm on the limits of cyber-security and the established norm of electoral competition beg the question: how do norms grow from new ideas to fully-fledged norms? Answering this 'how' question helps clarify the broader theoretical question, why do actors follow norms that go against their underlying values? And can norms propagate without internalization; does it matter whether state actors are true normative believers or can expression alone be beneficial? And, critically,

when (if ever) will states internalize the norm after expressing it?[3] By understanding how the norm diffusion process occurs, we can collect revealing information about the motivations behind states' choice to express support of a norm.

The puzzle of disingenuous norm expression is important because it matters for the long term prospects of norm internalization. Once a hierarchical structure supporting a normative order is disrupted, will states revert to old norms because they never truly believed in the current normative order? Or, will they keep expressing the current norms because they are supported by internalized beliefs? Policy makers want to know when a norm is internalized and what they can do to promote internalization.

Absent some large shock to the normative system, however, internalization is unobservable. We see only the expression (behavior) of states with regard to the norm. I argue that by observing norm expression, we can make inferences about the long-run dynamics of norm internalization. However, there are many assumptions about the link between internalization and expression that must be made. Norm expression occurs for multiple reasons. A common categorization is into four diffusion mechanisms, coercion, competition, emulation, and learning. I define each of these in more detail in chapter 2. For now, three points are relevant. First, each mechanism has a different configuration of the relationship between expression and internalization. Second, each mechanism has a unique empirical signature in terms of spatial and temporal dynamics. Third, each mechanism is theorized to lead to different long-

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[3]These questions reflect four core areas of social scientific inquiry: description, explanation, prediction, and normative theory.

term patterns of internalization. Thus, by comparing actual cases of diffusion to the theoretical blueprints, I can identify the mechanism that drives the empirical process and give a prognosis of the likelihood of long-run, enduring internalization.

So, what does my model say about elections in Ukraine and the US-Chinese dust-up over the definition of cyber-security? Elections are well-established as a norm that most states feel obliged to express, even if they do not believe in the 'oughtness' of the norm. Clearly not all states that have elections are democracies. Electoral legitimacy is a top-down norm spread by coercion. If the normative structure of the international system shifted, states would gladly drop these electoral facades. Yet, there are certainly many states who have deeply internalized these democratic norms. If the democratic normative order persists, it may support the eventual internalization of norms in poseurs. On the other hand, cyber-security is in its infancy. It is not yet clear whether the norm will come from above or below or even what the content of the norm will be. The US is demonstrating its desire to define the content of the norm, but other states will want to define the norm themselves. Regardless of the outcome, the path that this norm follows will reveal its long-term prospects for internalization. If it is coercive the US will need to continue to spend resources to promote the norm, and it may succeed in forcing others to follow its rules. Given how central the US is to global communication, it has a lot of coercive power to exercise in global negotiations. If the US can convince its European allies to define amongst themselves, the norm could eventually spread widely through emulation. But, the norm would not have the power to change the behavior of those who were going to violate it anyway. Given

the importance of privacy, there are strong incentives for states in the middle and bottom to develop and promote a norm that can protect them from hegemonic abuse of power. Thus, a norm could develop and spread through learning because states recognize that it is good for them. While many states will express their support for the norm when it is finally settled, not all of them will truly believe in it.

In the rest of the introduction, I justify my approach to the question of norm diffusion. Research on norms has come a long way in the last several decades. The field of International Relations (IR) is now accepting of norms as an essential part of understanding state behavior. Recent research has focused on questions relating to the causes and consequences of norms. Despite the field's acceptance of the importance of norms, there are still major divisions in how they are studied empirically and theoretically. The general approach of this dissertation is to model norm diffusion in an agent-based modeling framework and use insights from the model to better explore empirical dynamics with large-N datasets. Because agent-based modeling is still a relatively new addition to modelers' toolkits, I explain why I chose to adopt this type of approach. Then, I discuss why I selected the topics of women's and human rights for the empirical cases.

## 1.2 Agent Based Modeling

### 1.2.1 Why use ABM approach?

In this project, I build from an IR theoretical debate about the centrality of systemic forces on the one hand and individual identities on the other which is known

as the 'agent-structure debate.' This debate is mostly settled in theory. Agents and structures are mutually constituted: agents' interactions create structures which constrain behavior.[4] In practice, scholars could do more to take these theoretical insights seriously. Empirical research often makes severe (and unquestioned) assumptions about agents that violate key parts of what system-level theorists suggest is the true data-generating process. At a minimum, faulty assumptions make empirical analysis noisier than it could be. Violations of some assumptions can have more nefarious consequences such as biased estimates or giving support to what is really a spurious relationship (de Marchi, 2005).

The consequences of my research on norms are far-reaching in the field of IR and to the social sciences more broadly. Like others before me, I am concerned with a fundamental problem of behavioral research. Given an observation of an actor's behavior, how can we know why the actor behaved the way it did? We observe the world as it is, and we seek to make inferences about the forces that created it. Unlike hard sciences which deal with unthinking entities such as quarks, atoms, molecules, minerals, and cells, the social sciences deal with actors whose behavior is motivated, calculated, and social. Actors do not simply 'act directly' on their preferences. They may be motivated by their beliefs and preferences, but they are frequently unable to achieve their desired ends. Why is this the case?

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[4]This may sound like I am saying agents are ontologically prior, but I could easily start with structure first. The real point is that there is no $t_0$, a hypothetical period in which either agents or structures existed first. We are observing systems that are already in existence; the observational $t_0$ is never at the true $t_0$.

The best way to illustrate this failure to 'act directly' according to internal beliefs is to consider game theory. Even if we observe their behavior as individuals, agents are not acting in isolation. They are frequently (if not always) thinking about how their behavior affects others who in turn will respond in ways that affect them. In other words, agents are strategic. In addition to their preferences, the agents must consider the structure of the strategic situation they are acting in.

While game theory illustrates why knowing agents' behavior is not sufficient for understanding their underlying preferences, it does not adequately describe all forms of deviation from 'acting directly.' Another framework, and the one employed in this dissertation, comes from sociological insights on the role of social forces in creating (not merely constraining how agents act on) beliefs and preferences. In this view, all behavior is social, and agents' behavior would be unintelligible if studied outside of the social system. Game theory can certainly contribute to this line of research, but it has its limitations. Primarily, it is founded on methodological individualism, "the idea that there is no other way toward an understanding of social phenomena but through our understanding of individual actions directed toward other people and guided by their expected behavior" (Hayek, 1948, 6). If structures are included, they are exogenous, ontologically prior to the individuals who behave within them.

The opposing view to methodological individualism is methodological holism. This view is likewise limited but for the opposite reason; individual motivations are held constant to explore how changes in the system structure impact actors' behavior. Hayek (1948, 6) is critical of these collectivist theories of society which "pretend to be

able to directly to comprehend social wholes like society, etc., as entities *sui generis* which exist independently of the individuals which compose them." While it may be too great a simplification, these opposing perspectives lie at the heart of differences in the fields of economics on the one hand and sociology on the other. Economists hold group dynamics constant to better observe individual behavior, while sociologists hold individual dynamics constant to better understand groups.

I believe that political science, despite its recent tendency to favor economic theories, rests squarely between these two (hypothetical) extremes. Any theory of political behavior should account for both individual motivations and structural constraints. Both agents and structure should be endogenous to the theory. This may not raise eyebrows when discussed in terms of theory, but it is no small feat to actually conduct empirical research that takes these concerns seriously (Franzese and Hays, 2008). Nonetheless, it is my goal in this project to develop a theoretical model that accounts for both agents and structure which can in turn be used to gain insight into what would otherwise be unobservable processes. To accomplish this task, I turn to a relatively recently-developed technique known as agent-based modeling.

### 1.2.2   What are ABMs?

Agent-based models (ABMs) are now a well-established tool for researchers who wish to model social processes (Tesfatsion and Judd, 2006; Axelrod, 1997; Epstein, 2011). They offer a modeling technique in which there is a strong correspondence between the actors (i.e. individual, states, and corporations) in their social

environment (society, international system, market) and agents in their programmed environment. The ABM framework is flexible, allowing researchers from all scientific fields to gain valuable insights. In international relations, ABMs have been used to study such topics as the evolution of cooperation (Axelrod, 1986), the dissemination of culture (Axelrod, 1997), the cause and evolution of insurgencies (Bennett, 2008; Cioffi-Revilla and Rouleau, 2010; Weidmann and Salehyan, 2013), the size of wars (Cederman, 2003), and the spread of zones of peace and democracy (Cederman and Gleditsch, 2004).

ABMs are a class of formal models which are generally represented and analyzed through computational simulation (Tesfatsion and Judd, 2006; Gilbert and Troitzsch, 2005; Epstein, 2011). The researcher specifies a computer program and observes the system as it evolves over simulated time. There are three main pieces to the computer program defining the system: the agents, the environment, and the rules. "Agents are either separate computer programs or, more commonly, distinct parts of a program that are used to represent social actors[and] to react to the computational environment in which they are located" (Gilbert, 2007, 5). Agents have the ability to perceive their surroundings; move, communicate with other, and act; and, remember (or forget). The environment is the "virtual world in which the agents act" (Gilbert, 2007, 6). Commonly, the environment is just a neutral grid that has very little effect on the agents, but it can also represent geographical or ideational space, or a system of network ties. The rules are what defines the how agents will interact with their environment and other agents. The rules are what gives purpose

to the agents; these are the micromotives which are behind the observation of macrobehavior, commonly referred to as emergent properties (Epstein, 2011; Schelling, 1978).

Agent-based models have become an increasingly common way for researchers to model social processes (Tesfatsion and Judd, 2006). They offer a modeling technique in which there is a strong correspondence between the actors (i.e. individual, states, and corporations) in their social environment (society, international system, market) and agents in their programmed environment. Furthermore, there is no restriction of individual homogeneity, which is common to other types of models.

Agent-based models have become more widely used due to their compatibility with computers.[5] ABMs are actually a specialized form of Markov model which are generally too complex to be analyzed analytically.

> Many agent-based models can be represented as Markov processes of very
> large dimensionality. A state of the system is specified by the location,
> information, and beliefs of the various actors. The transition probabilities
> are specified by the interaction probabilities among agents and the rules
> by which they adapt their choices and beliefs to perceived conditions (the
> learning rules). (Young, 2006, 1086).

Axelrod (1997, 156) notes that normal procedures for investigating the properties of a Markov process such as eigenvalue analysis are not helpful due to the

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[5]However, Schelling's famous segregation model makes clear that computer simulation is not necessary for agent-based modeling.

complexity of the system. Whereas only simple games were possible to simulate using hand computational methods, computers allow for seemingly endless specifications for agent interaction rules and environmental conditions.[6] Thus, while agent-based models can be represented by Markov processes, they are more naturally represented by object oriented programming languages (Epstein, 2011).

Epstein and Axtell (1996) note the differences between agent-based models and equation-based models (EBM). These three key areas of difference between agent-based and equation-based models relate to practical concerns with, "the underlying structure of a model, the naturalness of its representation of a system, and the verisimilitude of a straightforward representation" (Parunak, Savit and Riolo, 1998). First, agent-based models have heterogeneous agent populations whereas in differential equation modeling, heterogeneity is severely limited. Another difference is that differential equations generally do not represent space. They are used for examining dynamics over time, which are abstracted from any spatial component. In agent-based models, both time and space are directly represented. Finally, as noted above, agent-based models are attractive because they correspond well to a large class of social theories which focus on individual choice in complex social environments whereas equation-based modeling does not model actors directly. For many theories it is possible to adequately specify either an ABM or an EBM, but for practical purposes it

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[6]For instance, anthropologists used an agent-based model to investigate civilizational decline of the Anasazi, a civilization which existed in North America for hundreds of years before declining between the 11th and 14th centuries CE. Agents represented villages that were situated in an environment corresponding closely to the actual environment as reconstructed through archaeological, climatological, and geological evidence.

may be desirable to use an ABM.

While the agent-based model has several advantages over equation-based modeling with respect to certain types of social theories, the approach also has weaknesses. Cederman (1997, 63) notes some problems that are especially relevant to agent-based models, "ad hoc assumptions, failure to yield unique prediction, fragility of results, and lack of accumulation." Critics also argue that agent-based models are only amenable to methodological individualism. However Epstein and Axtell (1996, 16-17) argue that "the collective structures, or "institutions," that emerge can have feedback effects in the agent population, altering the behavior of individuals. Likewise, Cederman (1997) argues that the complex adaptive systems approach can incorporate historical contingency and is not constrained by methodological individualism, because they can incorporate history and real world conditions.

In the years since Cederman (1997) noted these shortcomings, there has been significant growth in methodological rigor and standardization in practices of implementation and interpretation (Epstein, 2011; Gilbert, 2007; Tesfatsion and Judd, 2006). Furthermore, the academic outlet *Journal of Artificial Societies and Social Simulation* (JASSS) has been in publication since 1998 and has inspired both interdisciplinary sharing as well as standards of appropriate research practices for a young field (Gilbert, 2002, 2007).[7] While ABMs potentially suffer from a lack of accumulation, I contribute to this growing field by borrowing the idea of cultural convergence

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[7]In the appendix A, I outline my model in terms of the ODD protocol, which has been advocated by agent-based modelers as a way to better communicate models.

(Axelrod, 1997) and defining my own model that includes insights from the theoretical and empirical literature on policy diffusion (Graham, Shipan and Volden, 2013). I lay out and justify my assumptions before comparing the ABM results to the empirical world, and discuss under what conditions my predictions are unique and the results hold.

## 1.3    Empirical Models

### 1.3.1    Formal and Empirical Link

The crucial feature of the ABM is the stage in diffusion where an actor, the receiver, first expresses a norm because it has been exposed to another actor, the sender, who already does so. This is what agent based modelers refer to as convergence (Axelrod, 1997). I use four distinct versions of the ABM to represent how convergence occurs within each of four different diffusion mechanisms–coercion, competition, emulation, and learning. Those mechanisms are in turn defined based on combinations of hierarchy, neighborhood, and identity, which represent the different types of senders that can prompt convergence and the types of receivers that are vulnerable or amenable to change. In a coercive scenario, powerful actors at the top of the hierarchy are primarily responsible for coercively driving convergence. Competition is characterized by regional neighborhoods that expose believing receivers who have not yet adopted a norm to believing senders who have. In emulation, weak receivers look to more powerful senders in their own neighborhoods. Finally, in a world where only learning operates, believing receivers express a norm when

they are exposed to senders that have previously expressed. This creates a unique spatial-temporal pattern, a stamp, a signature for each of the diffusion mechanisms.

The Dyadic Event History Analysis (DEHA) also uses convergence, but it does the opposite of the ABM. The DEHA starts with measures of hierarchy, neighborhood, and identity and then statistically identifies which mechanisms are at work in an empirical case of a particular norm's diffusion. The output from the DEHA shows how hierarchy, neighborhood, and identity combine to produce the observed diffusion pattern which can then be compared to the ideal-types generated by the ABM. By identifying the mechanism producing the particular case of norm diffusion, the long-term prospects for norm internalization can be diagnosed.

### 1.3.2   Why Women's Rights and Human Rights?

The preceding discussion has introduced a theoretical framework and method of analysis, both of which are applicable to many possible cases of norm diffusion. This dissertation does not investigate all available cases of norm diffusion. Nor does it consist of a random sample of cases. I chose to focus on norms of women's rights and human rights due to their normative importance, modern relevance, and global significance.

Women's rights and human rights are worthy goals, which states should aspire to fulfill. As scholars, we have a normative duty to understand the international legal system so that it can be better used to regulate state behavior. Both women's rights and human rights are moral imperatives which arise from liberal ideology. Human

rights represent the limits of state behavior towards individuals. Given the horrifying disregard for basic humanity exhibited in WWII, the normative content of one branch of human rights developed over the last 70 years is the right to personal integrity  to be free from unjust state action against one's body and mind. This right is at the core of all other rights because it protects against totalitarianism, a system in which the state seeks to control its population using arbitrary punishment. The result is a population crippled by fear, unable to fully enjoy whatever other freedoms they may have (Arendt, 1951). Women's rights are concerned with how states enforce fairness in legal, political, and economic opportunities between the sexes. There has always been and will always be a "sexual contract" defining the roles of men and women in all human societies, and for millennia it has generally been the case that the sexual contract is biased against women (Pateman, 1988). But the details of the contract are not set in stone. The global developments of the last 40 years may be harbingers of real advancements in gender equality making lasting changes on how states behave towards women. It is the task of the academy to guard against dangerous ideologies like totalitarianism and gender inequality by analyzing them scientifically.

The second criteria I use to select my cases is modern relevance. Both women's rights and human rights are recent, but not too recent. The time frame I use is theoretically 1945–today. However, in practice, I focus on two cases occurring during the period 1975 – 2010. This is important for two reasons. First, it means that both cases come from the same normative order. Both women's rights and human rights are a part of the current legal world order that came into existence at the end of

WWII and has continued to develop over time. At first, the normative system was dominated by ideological differences between liberals and Marxists, and the power struggle between the US and USSR. Since the end of the Cold War, liberal ideas have largely won, but they continue to compete (and coexist) with local ideas. Second, for practical purposes, data availability increases the closer we get to the present day allowing for richer empirical investigation. Women's rights and human rights are both well-established and have been in existence long enough to allow a full study. Finally, the relevance of the research to the broader world is a function of how timely the topic is. Both norms are still being contested, indicating that they are relevant aspects of global culture.

The final criteria I use is scope of the norm. For now, I am not focusing on regional or local norms. Rather I focus on norms that are universal in nature. One way to know whether a norm fits this criteria is its status at the United Nations (UN). The UN is at the center of the global human rights and women's rights regimes.[8] Both norms are recognized and promoted by the UN. Since the first general assembly resolution mentioning torture in 1972, the UN has passed 65 resolutions condemning the use of torture and promoting torture victims' rights.[9] Women are the subject of

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[8]The global human rights regime is an interconnected system of principles and norms as defined in the "international bill of rights" (Donnelly, 2003, 129). The international bill of rights is comprised of three fundamental documents, the Universal Declaration of Human Rights (UDHR) created in 1948, the International Covenant on Civil and Political Rights (ICCPR), and the International Covenant on Economic, Social and Cultural Rights (ICESR). The ICCPR and the ICESR were introduced in 1966 and gained enough ratifications to enter into force in 1976.

[9]All but four of these were adopted without vote. Those that were voted on generally had large support. The Maltreatment and Torture of Prisoners and Detainees resolution of

334 general assembly resolutions, 28 of which were passed by vote. While many of these passed with resounding support, there are several examples of serious disagreement. For instance, the 1969 Commission on the Status of Women received 48 yeas, 30 nays, and 31 abstentions. Even with allowing for a level of disagreement about the exact content of the norms, it is clear that women's rights and human rights are not universal in the sense that everyone is a true believer, but in the sense that they are intended as all-covering and could potentially be relevant to all states (Donnelly, 2003).[10]

I define the population of states based on UN membership which creates a near-universal population. The UN is the most important international organization in the human rights regime and it is also critical for state sovereignty because membership is synonymous with statehood. UN membership is a good way to limit the sample because the behavior I am interested in requires states with the legal capacity to sign treaties and govern a population. I omit non-members that cannot sign treaties because they are unrecognized by other states and fail to establish quotas because they do not have at least a nominally representative government. This implies a limit in the scope of the analysis which means that I can only speak to cases which

1972 had 121 yeas, 1 nay and 1 abstention. The 1974 resolution on Torture and other cruel, inhuman or degrading treatment or punishment in relation to detention and imprisonment was also widely supported with 125 yeas, 0 nays, and 1 abstention. A 1981 resolution on the United Nations Voluntary Fund for Victims of Torture was still widely supported, but less than the two earlier resolutions with 96 yeas, 15 nays, and 33 abstentions. Finally, in the most recent vote on the Optional Protocol to the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, there were 127 yeas, 4 nays, and 42 abstentions. Figure B.1 in appendix B shows a regional breakdown of this vote.

[10]Data on UN resolutions were retrieved from http://unbisnet.un.org on 5/1/2014.

are promoted by the current normative order. Norms that are inconsistent with UN principles would likely behave quite differently than the norms studied here. While non-UN supported norms are not represented in the empirical analysis, they are not outside the scope of the ABM analysis. It is difficult to observe these 'non-norms,' because they never make it off the ground. Yet, under many realistic settings, the formal model shows that for every norm that survives, many die.

The focus on women's rights and human rights does not mean that other norms are unimportant. In fact, there are many important norms that fit the criteria discussed in this section. Thus, the ultimate decision criteria is personal preference of the author. Both women and politics and human rights are thriving subfields whose scholarly interactions have generated interesting puzzles. Even if women's rights and human rights are outliers compared to other norms, it does not matter because I am not testing the claim that norms of a certain type behave in particular ways. If that were the case, I would need a different research design that consisted of a set of cases drawn randomly from the population of norms and well-balanced on a number of explanatory dimensions. Instead, these cases should be seen as examples of the general case of norm diffusion, as well as important in their own right.

## 1.4   Looking Ahead

The chapters to come present a formal and empirical analysis of norm diffusion. In Chapter 2, I define the key concepts: the three fundamental aspects of the international system, norms, and the four diffusion mechanisms. I argue that coercion

and emulation are not likely to lead to long-term internalization. Competition may or may not be associated with long-run internalization. However, competition has the property of leading to deep reforms, so even if competition is for the wrong reasons, it may still lead to internalization. If learning is the cause of expression, the long-term prospects for internalization are high. In fact, learning indicates that internalization has already begun.

This provides the set-up for chapter 3, an exploration of norm diffusion through a computational investigation of the four diffusion mechanisms. The four mechanisms have different logics, but what do these diffusion patterns look like? How do we know a norm was spread by coercion and not one of the other mechanisms? I develop an agent-based model (ABM) to explore the diffusion mechanisms. I show how each of the four diffusion mechanisms can be represented based on whether three societal influences are at work: hierarchy, neighborhood, and identity. Coercion is a top-down process where holdouts are likely to be powerful states at the top of the hierarchy, neighborhood dynamics are non-discernible, and poseurs can run amok. Competition is a bottom-up process where regional differences are common but hold-outs are rare. Emulation is a top-down process with regional differences that grow over time. Finally, learning is a quick process that grows from below, does not result in regional dynamics and produces only true believers.

In the fourth and fifth chapter, I conduct empirical investigations of two cases of norm diffusion, women's representation and human rights. The relationship between expression and internalization is an ongoing question in women's rights and

human rights scholarship. Why do states that don't respect women's rights adopt quotas to increase women's representation? Why do states that torture sign or ratify the convention against torture? My framework clarifies these two empirical puzzles. Using both formal logic and statistical tests to explore the diffusion mechanisms, I argue that quotas are primarily driven by competition while CAT is driven by emulation. I find that whereas the norm of women's representation shows promise in reaching widespread internalization, the human rights norm of physical integrity exhibits emulation, a pattern that is unlikely to lead to widespread internalization. This is good news for women's rights advocates. Quotas reflect a global society that values women's rights. In any individual case, the benefits of a quota may be negligible. Whether quotas directly cause women's rights to emerge (descriptive representation $\rightarrow$ substantive representation $\rightarrow$ women's empowerment) is uncertain. But, at the system level, a strong global norm of women's empowerment is being internalized widely. On the other hand, the long-term prospects for the norm against torture are less promising. The dynamics of expression suggest emulation. When they deem it necessary, many states will continue to use torture. It is true that the current hierarchy influences weak states to express their support of the anti-torture norm, but if this hierarchical order ever significantly changes, the anti-torture norm may lose its current status. In fact, it may already be exhibiting its weakness given the US re-definition of torture that occurred during its execution of the global war on terror. This was a sign that anti-torture norm must be expressed (the US went to great lengths to argue that it was doing was not torture) but that the U.S. has not

actually internalized it.

While each empirical chapter should be seen as contribution to better understanding two important norms, my methodological and theoretical insights apply to a wide variety of cases and social systems. The main contribution of this research goes beyond the particular cases. In general, scholars of norms have been more focused on theory generating than theory testing due to the difficulty in observing states recreate their identities in the global social milieu. The rich dynamics of diffusion have been under-utilized by scholars of norms. This research leverages those dynamics in more informative ways, empirically testing social constructivist arguments which do not often receive attention from positivists.

# CHAPTER 2
# NORMS, DIFFUSION, AND INTERNATIONAL SOCIETY

How do norms diffuse throughout the international system? I begin by introducing the main concepts concerning the international system and discussing the four diffusion mechanisms: coercion, competition, emulation, and learning.

## 2.1 The International System

The international system consists of states with various traits and unequal levels of power who interact with each other in predictable ways. This definition alludes to three fundamental aspects which I use to define the international system: hierarchy, neighborhood, and identity. The definition is sufficiently abstract to account for the main theoretical traditions of IR, and it reflects a standard approach towards the scientific study of international relations.

### 2.1.1 Hierarchy

The current view of the international system emanates from the work of Kenneth Waltz, as defined in his famous work, the Theory of International Politics (1979). Waltz argues that the international system is populated by states which are like-units, differentiated from each other by their level of power. Despite the shortcomings pointed out by his detractors, Waltz's biggest contribution was to elaborate what a system's theory of IR should look like. Waltz was not the first to cite power as an essential component of IR, nor was he the first to adopt a systems approach. It was

the clarity of exposition that led to his prominent place in IR history.

For Waltz, the only relevant attribute that states possess is power, the ability to "affect others more than others affected them" (Waltz, 1979). As a consequence of the focus on power, Waltz argues that the defining feature of the system is its polarity, how many great powers exist in the system. The assumption that the powerful are sufficient to explain the system as a whole is one of the main shortcomings of Waltz's framework. Nonetheless, many still assume that "the story of international politics is written in terms of the great powers of an era...the units of greatest capability set the scene of action for others as well as for themselves" (Waltz, 1979, 61).

Waltz's view of power is impoverished because it assumes the system is in a state of anarchy. Important theoretical work on hierarchy has recently emerged. It takes seriously the concept of power, but has moved beyond questions of how unipolar, bipolar, and multipolar systems behave (Lake, 2009). International behaviors is determined by the power relationships between states and the roles of dominant and subordinate states form in the system. These new works incorporate elements of the second aspect of the system, neighborhood.

### 2.1.2 Neighborhood

An early revision to Waltz was proposed by Keohane and Nye (1977), who argued that complex interdependence led to predictability amongst states' interactions. Neighborhood is the second fundamental aspect of international society. Neoliberals like Keohane and Nye view institutions and trading relationships as ties between

states, binding their interests together. States have memory of past interactions and can form relationships of mutual understanding. To deal with the complexity of interacting with all members of the system, they form institutions to coordinate their interactions. These institutions do not amount to a world government, but they have the power to shape states' range of behavior, acting as focal points and reducing transaction costs.

Generally, complex interdependence is a view that incorporates the network structure of the international system. Interacting states are not billiard balls of different sizes running into each other at random. They are particular nodes in a complex web of relationships. Looking at the network structure of the system, scholars noticed that geographic regions continue to play a large role in the world (Gleditsch, 2002). Despite being highly globalized, there are still relevant regions. States interact more with those who are closer in geographic space. This is a basic law of geography. Even in a globalized world, regionalism is reinforced by preexisting similarities between close places. However, geography is only one element of neighborhood. Ideology, culture, language and religion are also important factors.

What defines a region? Regions are geographic, socially constructed, and economically integrated (Katzenstein, 2005; Mansfield and Milner, 1999; Nye, 1968). The biggest geographic feature defining regions is the continental structure of the earth. Realities of distance make inter-regional trade more costly than intra-regional. Furthermore, the oceans, mountains, and rivers have acted as natural barriers allowing for distinct cultural development in different places. Huntington (1996) famously

posits civilizations (religion and culture) as the defining aspect of regions. Political economists point to trade behavior of states. Regions are made up of trading networks, which are more diffuse than within states but more densely connected than the globe. For my ABM purposes, I can be agnostic about how to draw the line between one region and another. I take for granted that there is a line, and allow for the possibility that interactions between members of the same neighborhood are different from the interactions between members of different neighborhoods.[1]

The lasting legacy of Keohane and Nye (1977) was to put institutions at the center of analysis as an equal partner of power. However, this view was suggestive of further refinements that would pay more attention to how institutions shape state behavior. Institutions are not just sets of rules, they are locations where international interactions occur. They offer physical space and funds to bring delegates together. Delegates meet, discuss issues, exchange information, and interact on a social basis. These representatives of states learn from each other and create shared explicit goals and shared expectations about what it means to be a state. This aspect of international organization suggests something important: states have identities.

### 2.1.3   Identity

The final fundamental aspect of the international system is identity. While it is a simple insight, it took a remarkably long time for system's theories to understand its implications. At the most basic level, identity means that the domestic politics of

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[1]In the empirical work, I use regions as defined by Hadenius and Teorell (2005). See appendix B for the coding.

states matter. States of a certain type have different strengths and weaknesses and behave in particular ways.

Wendt (1999) argues that identity is the missing element in the power and institutions approaches. The system and agents are mutually constituted; agents' identities are endogenous to the system. It is not adequate to assume that state behavior is always highly calculated. Some behavior may be expressive, purely for social display.

I draw attention to two aspects of identity as they relate to norms: expression and internalization. A norm exists when most states behave in a certain way. They may, however, behave in accordance with the norm (expression) while not really believing in it (internalization).

Using the two dimensions of identity, I create a taxonomy of actor-types. These actors are discussed in more detail in Chapter 3 as they relate to the ABM.

Table 2.1: Typology of States

|  | Expresser | Non-Expresser |
| --- | --- | --- |
| Internalizer | True Believer | Uninitiated |
| Non-internalizer | Poseur | Non-believer |

## 2.2 Norm Diffusion

### 2.2.1 Definitions

**Norms**

Norms are addressed by two general approaches to the study of IR: constructivism and rationalism. For constructivists, a norm refers to "collective expectations for the proper behavior of actors with a given identity" (Katzenstein, 1996, 5). What states do to each other and within their own borders is conditioned by the social construction of world society. States have identities defined by others within society which help them navigate their social world and make their behavior intelligible to others. For rationalists, the emphasis is less on the shared expectations, and more on the costs associated with non-compliance. "A norm exists in a given social setting to the extent that individuals usually act in a certain way and are often punished when seen not to be acting in this way" (Axelrod, 1997, 47). While constructivism and rationalism are often seen as competing paradigms, there is no *a priori* reason to juxtapose these approaches (Fearon and Wendt, 2002). The critical question is how a norm becomes established in a population. An international norm begins with an idea innovated by individuals and ends as a widely institutionalized principle with the power to shape the identity/preferences of states. For both paradigms, an idea becomes an international norm once it changes the way most actors in the system behave.

**Diffusion**

Scholars who study the mechanics of norm diffusion are not strictly rationalist or con-

structivist. The common language of coercion, competition, emulation and learning accounts for both material and ideational forces (Elkins and Simmons, 2005; Jahn, 2006; Rogers, 2003). Strang (1991, 325) offers a useful definition of diffusion: "any process where prior adoption of a trait or practice in a population alters the probability of adoption for remaining non-adopters."

### 2.2.2 Four Diffusion Mechanisms

#### 2.2.2.1 Coercion

Coercion is founded on power, the ability of one actor to make another actor do something it would not do on its own accord. This can be direct or indirect. According to DiMaggio and Powell (1983, 150), coercive isomorphism "results from both formal and informal pressures exerted on organizations by other organizations upon which they are dependent and by cultural expectations in the society within which organizations function." This mechanism is used in 'top-down' stories of norm diffusion such as Hafner-Burton's account of how coercion through preferential trade agreements can improve states' human rights behavior (Hafner-Burton, 2005). In general, the coercion mechanism describes "a world in which a few powerful players exercise disproportionate influence over othersthrough carrots and sticks, using go-it-alone power, by serving as focal points, or through hegemonic ideas" (Dobbin, Simmons and Garrett, 2007, 462).

The direct effect of coercion is given by an example of a dyadic relationship. If the more powerful state desires a particular change in the less powerful state, it can

use a variety of means such as, bribing or force, to accomplish its goal of affecting change in its subordinate. One common form of direct coercion is sanctions, such as US and EU sanctions on Russia over its annexation of Ukraine's Crimea region.

Coercion is not limited to the dyadic relationship. In fact, the social pressure that is characteristic of all social systems is another key component of coercion. Elkins and Simmons (2005) refers to this mechanism as cultural norms, defined as "common practices whose value to an actor stems largely from their prevalence in a population." For this mechanism, reputation is key to understanding why the prevalence of a norm in a population determines how valuable a behavior is. The incentives for individuals to adopt a norm increase as the it gains numerical strength within a community. Norms are only as powerful as they are accepted by a population because the likelihood that an actor will violate a norm decreases as the social pressure to conform increases. As the norm grows in prevalence, the externalities to later adopters grow rapidly, creating coercive feedback.

Direct coercion is a function of power inequality between two organizations and a desire for change in the weaker state by the more powerful state. Indirect coercion arises from dependence of the weaker on the more powerful. At the systemic level, coercion refers to social pressure which is a function of the prevalence of a given norm. For the purposes of the agent-based model, dyadic direct and indirect coercion will be indistinguishable. However, this distinction will be important during the empirical investigations. Coercion translates into the following behavioral rules: 1) *Express what the strong want.*

There may be a special case of coercion, *Do what I say, not what I do.* The United States is often thought to engage in such behavior. It has nuclear weapons while being the strongest proponent of non-proliferation. It lags in committing to important human rights treaties and institutions, such as the genocide convention and the International Criminal Court (ICC), yet actively promotes other states to accept the human rights regime. This dynamic is not captured in the model, but it could be represented by allowing the uninitiated (i*=1,i=0) to be norm promoters. However, this would violate the definition of convergence. This type of coercion is of a distinct class of behavior and is not currently accounted for in the model. This is a case of true hegemony, with an actor who exists above social influence from others.

when the diffusion of a norm expression is driven by coercion, the long-term prospects for norm internalization are poor. States that are coerced may be resentful, especially if they hold strong internal norms that conflict with the norm being forced upon them. They do the minimum necessary to make the coercing state happy without believing in it deeply. When the coercing state is not looking, or when the coercing state's power declines, poseurs will violate the norm. Coercion is also ill-suited to produce enduring internalization because the weakest states which have the lowest capacity to change their societies are the most susceptible to coercive pressures. The comparatively powerful are holdouts, and they may be strong enough as a group to resist coercion, providing an alternative norm. Such was the case with the India-led non-aligned movement which resisted coercion from the U.S. and U.S.S.R.

### 2.2.2.2 Competition

Competition occurs when actors who want something have to invest in reforms before they are able to capture it. Furthermore, competition only exists if there is a limited supply of a good, and there are requisite incentives to compete against other actors who also desire that good. The key distinction between competition and coercion is the difference between rivalrous and non-rivalrous goods. In the case of coercion, there is an unlimited supply of the benefit such that the adoption of one actor does reduce the utility in adopting for others (in fact, it should increase the utility in adoption. as more actors adopt, coercive pressure increases.) In the case of competition, the ability of one actor to attract a good limits the amount of goods available to other actors. For economic policies such as corporate tax rates, this creates a race-to-the-bottom effect in which actors converge on the policy or institution representing the lowest common denominator; that is, the best possible situation for the investor and worst for the group of reformers (Drezner, 2001). This mechanism is especially important with respect to one's neighbors who are most likely to be competing over a specific pool of resources.

There are two ways that competition can be conceived which correspond to materialist and idealist factors. In the first case, states may be competing over a material reward that is only available to a certain class of states. This incentivizes states to adopt the most extensive reforms they can afford to make themselves stand out amongst other eligible candidates. Alternatively, states may be competing over social status. The desire of leaders to boast their states' achievements should not

be discounted as a motivation. Topping the list of some development indicator, especially the level of womens representation, is of potentially great value to certain leaders. Regardless of motivation, the key to the competition mechanism is that there is a limited amount of benefits available to potential adopters (outside of the costs/benefits of the institution itself).

While competition is an important diffusion mechanism, it does not necessarily lead to policy convergence. Just as a particular incentive may cause two competing states to become more alike, they may seek to differentiate themselves from their competitors if there are multiple ways to attract investment or improve ones status (Dobbin, Simmons and Garrett, 2007, 459). Since the adoption of a gender quota is assumed to have some instrumental value, there may be a different type of institution that could substitute for it. If there is another policy which can substitute for quota, then as the prevalence of quotas grows, the likelihood of adopting the policy substitute increases because the value of the quota decreases.

This discussion of competition suggests two modeling strategies. First, it implies the rule *don't get left behind*. Moreover, it suggests that this dynamic should be especially pronounced amongst neighbors. Thus, a modification to the rule *don't get left behind* is: *don't let your neighbors leave you behind*, or *keep up with the Joneses*. Furthermore, competition calls attention to the extensiveness of institutional reforms. It is not enough to do the bare minimum. Boehmke and Witmer (2004) argue that competition can be measured by policy expansion, the continued development of a policy by states who had already adopted an innovation. Finally, the

global prevalence and regional prevalence of the norm should have opposite effects. As global prevalence increases, the utility of adoption decreases because the limited goods are being depleted. As regional prevalence increases, the utility of adoption increases because non-adoption may result in loss of external support to an enterprising neighbor.

Competition is a mixed bag concerning long-term internalization. States do not necessarily value the content of the norm they are expressing because they are motivated by an externality of the norm. Yet, unlike coercion, in which states do the bare minimum to keep coercing states happy, states are motivated by competitive pressures to make deep changes.

### 2.2.2.3 Emulation

In cases where there is high uncertainty, actors may be especially likely to look to their peers to gain information about what they should do and how they should do it. DiMaggio and Powell (1983, 151) note that mimetic isomorphism is a common response to situations, "when goals are ambiguous, or when the environment creates symbolic uncertainty, organizations may model themselves on other organizations." States may not even be aware that they have a policy problem before it is an issue in the international system. The international system defines both the problem and the solution before a given society is even aware that it has such a problem. States are pulled in two directions: towards esteemed individuals and towards those who are most like themselves. In this instance, state identities are strongly conditioned by

fads and innovations started by the highest ranking. For example, the fact that each state has a flag and that most flags have a similar form is an example of emulation from the West. States did not know they needed a flag until they noticed others with such ornaments. Actors with the identity 'state' have flags; therefore, if you want to be treated as a state, you must adopt a flag that others consider acceptable.

Information cascades emphasize the order in which actors make decisions as the critical aspect of diffusion. Take the example of driving on the right hand side of the road. In the information cascade mechanism, actors are indifferent between the left and right hand side of the road. Once the initial actor decides which side to drive on (based on the flip of a coin for instance), the remaining actors will follow suit by adopting the same behavior. Even if the second driver has a preference for the opposite side of the road, this would be overridden by her observation of the first driver. The subsequent calculation of her utility would be heavily weighted by the likelihood of a crash if she chose the opposite side of the first driver. For every subsequent driver, the initial decision is reinforced, making new decisions even easier until a common understanding is firmly established. In more complex examples, the behavior of the system is not necessarily given by the first actor. However, even under a variety of complications, Bikhchandani, Hirshleifer and Welch (1998) demonstrate that the behavior of most actors in the system will depend exclusively on the behavior of the first one, two, or three actors to move. "It is conceivable that information cascades will produce convergence toward one policy choice even in situations in which actors know nothing other than who has adopted what policy"

(Elkins and Simmons, 2005, 43). In this mechanism, there is nothing to say that the system will converge upon the most efficient or otherwise "best" policy or institution. Instead, particular forms which are chosen early tend to be re-created.

Reference groups are another way to conceive of emulation. "Imitating similar individuals is one of the simplest and most effective cognitive heuristics in the calculation of utilities" (Elkins and Simmons, 2005, 43). DiMaggio and Powell (1983, 152) note that "organizations tend to model themselves after similar organizations in their field that they perceive to be more legitimate or successful." Rather than only looking at the number of adopters of a particular policy or the available policies, another way to gain information about a reform is to look most closely at the behavior of those actors which are similar to oneself. Some of the most important ways in which states define who their reference group is are: "the country's region, the language its citizens speak, the religion they practice, and the countrys colonial origins... Policymakers will align their country's policies with those of geographically and culturally proximate nations" (Elkins and Simmons, 2005, 45).

Emulation is similar to competition because it emphasizes regional dynamics of diffusion. However, there is a subtle difference between two. In competition, states are motivated by rivalries with other states of a similar status. In emulation, lower status states look to global and regional leaders. There is a clear difference between the two mechanisms. Emulation corresponds to the behavioral rule, *act like others of your type who have a higher status.*

Emulation is associated with weak long-term internalization because of its

association with fad behavior. States are merely copying the behavior of more prestigious states like them. This means that they have no desire to spend resources on changing their internal structure. For emulators, it is all about behaving as you think you should in public. In private, there is no need to put on a show. If a state is a poseur, it will not likely lead to long-term internalization even if it expresses.

### 2.2.2.4 Learning

Learning requires that a state has specific goals that they internally need. "Policymakers ... recognize a problem in the organization or execution of service delivery, develop some basic theory about how to solve the problem, review the various solutions available, and attempt to ascertain the effectiveness of these solutions" (Elkins and Simmons, 2005, 42). While this definition of learning seems to imply that actors must be rational, this is not necessarily the case. Boundedly rational learning may occur in a context where heuristics are an efficient substitute for full information. By relaxing the assumption of rationality, I am blurring the line between emulation and learning. One way to distinguish these mechanisms is to closely look at the empirical record. In order to claim that learning occurs instead of emulation, "we would need evidence that the results of the exemplars policy experiment were known to the government doing the learning" (Dobbin, Simmons and Garrett, 2007, 462).

In general, scholars positing learning as a dominant mechanism build off of Bandura's social learning theory (Bandura, 1976). Learning occurs when a state sees

the benefits that come from having quotas by observing and communicating with others. Successful states make good models. If the reason quotas are adopted is to increase the number of women in government, then success is defined by high levels of women's representation. In other words, the states which have previously adopted a quota resulting in significant growth in women's representation provide valuable information to potential adopters. Therefore, we should expect that quotas which lead to greater women's representation are more likely to be adopted than quotas that do not result in increased representation.

The first thing to note about social learning is that individuals are lazy; the availability of information is a key to how states learn. The idea behind the availability mechanism is that actors will either find it too difficult or too costly to create a list of all possible policy alternatives. Instead, they will be drawn towards models available to them because nearby actors have a particular policy or institution, or because an actor is familiar with a particular policy. "One clear expectation is that experiences of those governments with which one communicates and interacts will be most available. . . However, it is also likely that the policy of prominent nations will be highly available, and consequently, policymakers will tend to weight those cases disproportionately" (Elkins and Simmons, 2004, 44). Rather than a cascade of information based only on observing the number of actors who have already adopted, the availability mechanism highlights the fact that information is transmitted through channels of communication. This implies that potential adopters give more weight to the adoption behavior of a particular subset of actors. While this does not distinguish

learning from emulation, the key difference is that potential adopters are not trying to learn what to do; they know what they want to do and are trying to learn what the best option is for accomplishing their goals.

DiMaggio and Powell (1983) highlight the role of professional networks in the process of normative isomorphism. They define professionalization "as the collective struggle of members of an occupation to define the conditions and methods of their work, to control 'the production of producers'..., and to establish a cognitive base and legitimation for their occupational autonomy" (DiMaggio and Powell, 1983, 152). This means that the individuals who are tasked with running states will be conditioned to think alike to the extent that they are connected to each other. Networks of state and non-state actors provide channels to access knowledge about what goals they should adopt and the best ways to accomplish those goals. DiMaggio and Powell provide two expectations for this type of diffusion: "The greater the reliance on academic credentials in choosing managerial and staff personnel, the greater the extent to which an organization will become like other organizations in its field." And, "The greater the participation of organizational managers in trade and professional associations, the more likely the organization will be, or will become, like other organizations in its field" (DiMaggio and Powell, 1983, 155). For the purposes of this work, it makes sense to link academic credentials and professional associations to membership in international organizations.

Learning results in internalization because internal beliefs proceed expression. Expression occurs because a state has an internal preference, observes another actor

expressing itself (effectively learning how to express), and then chooses to express itself. Learning therefore doesn't cause internalization; learning is a symptom of preexisting internalization.

## 2.3 Conclusion

In this chapter, I defined the key concepts of international society and norm diffusion. I introduced four diffusion mechanisms, explaining how they work and what the long-term prospects for norm internalization will be under each mechanism. Table 2.2 summarizes the main conclusions regarding the behavior and outcome of the four diffusion mechanisms.

Table 2.2: Summary of Diffusion Mechanisms

| Diffusion Mechanism | Logic | Outcome |
| --- | --- | --- |
| Coercion | Strong states are norm promoters. They pressure weak states to express even if they do not believe in the norm. | Enduring internalization unlikely |
| Competition | States race to the bottom, keeping up with the Joneses to capture a norm externality available to expressers | Short-term internalization unlikely, but long-term internalization likely. |
| Emulation | In cases of uncertainty, weak states copy the strong regardless of the merit of the norm. | Long-term internalization unlikely. |
| Learning | States have a desire to fix a problem, and they look to the population for ideas about which policy to adopt. | Short and long-term internalization is likely. |

# CHAPTER 3
# AN AGENT-BASED MODEL OF NORM DIFFUSION

## 3.1   Introduction

Norm diffusion has long been recognized as an essential feature of the study of international relations. Norms are "collective expectations for the proper behavior of actors with a given identity" (Katzenstein, 1996, 5). They are social forces which act on states' identities, and their diffusion is an outgrowth of states' interactions. Theories of norm diffusion explain how principled ideas gain power and change states' identities and behavior (Finnemore and Sikkink, 1998). An international norm begins with a principled idea shared by only a few individuals and organizations and ends as a globally institutionalized cultural trait with the power to shape the behavior of governments throughout the world. Norms spread through a population in a patterned way, called a "life cycle" which consists of three stages: emergence, acceptance, and internalization. In between the first and second stages, a burgeoning norm undergoes rapid growth in acceptance; a "norm cascade." Early adopters alter the context for the remaining potential adopters, creating feedback mechanisms which accelerate the rate of new adoptions. A principled idea becomes an international norm once it changes the way most actors in the system behave. The goal of this paper is to investigate the diffusion process by formalizing these constructivist assumptions and dynamics.

Ideas often leave rules or institutions as observable symbols of their constitutive

power, and there are markers in the historical record which reflect the process of norm diffusion. The dynamics of world cultural change create an empirical pattern which can be measured and modeled. The first step empirically is to identify a particular norm and trace its development. There are many examples of scholarly attention to the diffusion of norms and institutions in all sub-fields of IR. Recent work looks at the spread of democratic governance focusing on topics such as regime-type (Kadera, Crescenzi and Shannon, 2003; Mitchell, 2002; O'Loughlin et al., 1998; Brinks and Coppedge, 2006) and election monitoring (Hyde, 2011; Kelley, 2009)and economic policies (Elkins and Simmons, 2004; Guzman, 2006; Henisz, Zelner and Guilln, 2005). In conflict and security studies, scholars have been interested in many norms, including the conduct of states in wartime (Katzenstein, 1996), weapons bans such as the prohibition on the use of land-mines (Price, 1998; Capie, 2008), the spread of conventional weapons and nuclear non-proliferation and non-use (Price and Tannenwald, 1996; Eyre and Suchman, 1996). In the international organization sub-field, important examples include global policy convergence in environmental policies (Ward, 2006; Tews, Busch and Jörgens, 2003; Jänicke and Jacob, 2004; Jänicke, 2005) and legal norms such as prohibition regimes (Nadelmann, 1990) and legal systems and European-style courts (Alter, 2012; Mitchell and Powell, 2011).

In order to better understand the diffusion process, I focus on four mechanisms which have been developed in the diffusion literature: *coercion*, *competition*, *emulation*, and *learning* (Franzese and Hays, 2008; Dobbin, Simmons and Garrett, 2007). *Coercion* refers to direct and indirect external forces which lead a state to adopt an

innovation. Coercion can take the form of a powerful state advocating for reform, or it can manifest in the prevalence of a norm throughout the system, creating coercive social pressure to conform. *Competition* refers to policy adoption which is driven by the potential for and the limited supply of rewards, which are only available to adopters. *Emulation* occurs when states are uncertain about what they should do, so they mimic prestigious states regardless of the merits of the institution they adopt. Finally, *learning* occurs when states know they need a policy to deal with a particular problem, but are not sure about which policy would be best. By observing others, especially states that have successfully solved their policy problem, potential adopters choose the institution they believe is best suited to their needs. The differences in the logic of diffusion that these mechanisms represent provides the leverage to understand why some states deeply internalize norms, while others only adopt them symbolically (see Chapter 2).

Constructing a model of each of the four diffusion mechanisms – coercion, competition, emulation, and learning – requires attention to both individual motivation as well as systemic properties. An agent-based model (ABM) offers a powerful tool to explore the dynamics of norm diffusion. ABMs are valuable because they offer a strong correspondence between agents in their programmed environment and real-world actors such as individuals, states, and corporations in social environments such as society, the international system, and markets. The aspects of identity, external pressures, and inner reconfiguration in the norm diffusion process make agent-based models an excellent modeling choice. In this chapter, I will 1) define the baseline

structure of the model and then translate each of the diffusion mechanisms into a distinct system of agent and environment rules, 2) explore the emergent phenomena of each diffusion mechanism as measured by the shape of the adoption S-curve, the power distribution amongst adopters and non-adopters, and the degree of regional clustering, and 3) discuss future extensions of the ABM models.

## 3.2   Theory

In this section, I explain how important characteristics of the diffusion process can be represented with an ABM approach. I will begin by defining the key concepts. Each definition has two parts. First, I situate the concept in terms of its application to international relations. Second, I offer a specific definition as it is programmed into the ABM framework. The act of translating the verbal theoretical description into the formal model requires some abstraction. Despite being highly abstracted, each formal definition must be precise enough to be executed in a well-specified computer program. This feature of formal models allows others the ability to critique the assumptions in an open and specific manner.

### 3.2.1   Convergence

How should a state organize its bureaucracy? What type of judicial system should it establish? How should it set its tariffs? Such questions imply that states have autonomy to set their own policies and design their own institutions, and a naive observer may expect to see great variety in the design of states. Instead, there is a high degree of similarity amongst the institutions and policies of states in the

international system. For various reasons, states often adopt policies or institutions that other states have already put into place. This is the concept of convergence. For example, Finnemore (1996, 38) identifies the diffusion of "formal state science policy bureaucracies" amongst members of UNESCO. These institutions previously unknown in states became common, thanks to advocacy at the IO. Another prominent example is gender mainstreaming (True, 2003; True and Mintrom, 2001), the proliferation of women's policy bureaucracies throughout the globe. While women could not vote in most states a century ago, now numerous states have agencies designed to address gender inequality in government.

I adopt my definition of convergence from Axelrod (1997) who uses an agent-based model to investigate cultural change. He defines culture through the use a list of features which each contain a set of traits. Imagine there are three relevant features of a culture: language, religion, and butter side up/down. The trait for the first feature, language, would be represented by a number that is common to all English speakers and different from French and Mandarin speakers, for instance. In the model, there is no need to specify what the features and traits are; they can be abstracted to symbols since the only relevant information is whether they are the same or different from another actor. Axelrod (1997, 154-5) uses a very simple set of rules to explore the dynamic of culture:

Repeat the following steps for as many events as desired.

Step 1. At random, pick a site to be active, and pick one of its neighbors.

Step 2. With probability equal to their cultural similarity, these two sites

interact. An interaction consists of selecting at random a feature on which
the active site and its neighbor differ (if there is one), and changing the
active site's trait on this feature to the neighbor's trait on this feature.

I build off of Axelrod's model by adopting the idea of cultural convergence, the
mutation of an actor resulting in increased similarity to another actor.[1] Convergence
is defined as a change in the form of one actor such that it becomes more like another
actor. Formally, a $\boldsymbol{R}eceiver$ state is said to converge toward a $\boldsymbol{S}ender$ state when
an element $i_R$ of its identity $I_R$ changes to match the corresponding $i_S \in I_S$. Using
the subscript $t$ to represent time, convergence can be described by the following
conditions:

- $i_{St} = 1$

- $i_{Rt} = 0 \rightarrow i_{Rt+1} = 1$

Convergence is not specific to a particular mechanism of norm diffusion, nor
does it mean that a norm is transmitted from $\mathbf{S}$ to $\mathbf{R}$. The receiver could indepen-
dently change its own identity based on purely internal processes while coincidently

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[1]Axelrod (1997, 151) employs just two simple assumptions about the social world: "peo-
ple are more likely to interact with others who share many of their cultural attributes, and
interactions between two people tend to increase the number of attributes they share." He
finds several interesting emergent phenomena (model behavior), and the most significant is
global polarization. Despite a built-in tendency for actors to become like their neighbors,
the model produces unique zones of cultural differences. While it was Axelrod's formal
definition of cultural convergence that first inspired my model, the question of insincere
expression led the modeling in a different direction, and so I was forced to leave behind
much of the of the model design. Specifically, I do not make the critical assumption of
homophily, I limit my focus to a single trait, and I change the formal definition of neigh-
bor. These differences are significant enough to mean that I am not directly contributing
to a refinement of the original model, and that insights generated from Axlerod's (1997)
exploration are not directly relevant to my model.

interacting with a sender. This would still be considered convergence, however, this type of behavior is not explicitly accounted for in this model.[2]

I propose the following model to explain change in the international system. The model defines convergence of a **R**eceiver to **S**ender as a function of three variables, hierarchy, neighborhood, and identity. Agents interact in a series of dyadic exchanges such that system dynamics emerge from the dyads. All agents have the opportunity to interact with one another. The social influence between any two agents is given by a function of three dyadic variables and depends on which mechanism is under observation. Without specifying a particular functional form, I can write this as:

$$C_{RS} = f(I, N, H)$$

where $C_{RS}$ is the convergence of the **R**eceiver towards the **S**ender. $I$ is the identity of the **R** and **S** which may be more or less congruent with the norm. $N$ is the neighborhood connection between **R** and **S**. $H$ is the the difference in rank between **R** and **S**.

### 3.2.2   Identity

Identity is like genetic code (Florini, 1996). It is the structure of an organism that, in addition to environment, conditions its behavior by determining underlying

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[2]Empirically, this special case can cause a misattribution problem. It may look like convergence is occurring when in fact the true data generating process is "similar responses to similar conditions" (Elkins and Simmons, 2005). It is just as problematic to assume interdependence without allowing for the possibility of independence as it is to naively assume independence between observations.

preferences. States are like organisms in that they have a set of domestic institutions and attributes. This structure consists of the formal rules that define the powers of government. While institutions are key, they alone do not constitute the identity. Identity is also attributed to culture, "facts on the ground," the resource endowments, and the population in terms of its size and organization. In other words, identity is everything that defines a state. Some configurations of identity will more readily lead to particular adaptations than others. That is, the way in which the ruling group is organized and the characteristics of the population are likely to alter the likelihood of expression. For instance, some populations may have cultures that are consistent with international norms (Acharya, 2004). Alternatively, some ways of organizing the government may alter the way that elites interact with their own populations and the international environment, making norm expression more or less likely.

Identity I is a set consisting of many elements $i_i$. For the model, we will focus on two subsets, $i$ and $i^*$ and pay close attention to how they are related.[3] $i^*$ is the set of elements necessary to internalize a norm, and it represents internalization, the latent aspect of norm adherence. $i^*$ is the largely unobserved aspect of norm. $i$ represents the expression of the norm, and it is observed by the other actors in the system. For behavioral research purposes, we often assume that if we observe $i$ then

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[3]I focus on the case when the number of elements in the subsets $i$ and $i^*$ is one. However, there is no theoretical reason to suspect that these sets are limited to a single element. If $i^*$ contains more than one element, it is a multidimensional norm. While we are assuming only one dimensional norms, the model can extend to n-dimensional norms. The main argument in favor of limiting the identity to one dimension is that each increase in the number of dimensions will geometrically increase the level of complexity of the system. However, future iterations of the model will explore what happens when $i^*$ consists of multiple elements.

Table 3.1: Definition of Identity

| | | Internalization | |
|---|---|---|---|
| | | $i^* = 1$ | $i^* = 0$ |
| Expression | $i = 1$ | True Believers | Poseurs |
| | $i = 0$ | Uninitiated | Nonbelievers |

it must be true that $i^*$ is also present. In other words, that $p(i^* = 1|i = 1) = 1$. Whereas we focus on behavior in the empirical social sciences for obvious reasons, many of our theories hypothesize unseen structures that are related to behavior but not necessarily in straightforward (linear) ways. Unfortunately for empirical scholars, it is not sufficient to observe a behavior and infer that it represents an internalized belief.

Table 3.1 is a cross-tabulation of the typology of agents. Rather than refer to these types using their formal descriptions, $(i = 1, i^* = 1); (i = 1, i^* = 0); (i = 0, i^* = 1); (i = 0, i^* = 0)$, I introduce four names that capture the basic aspects of each agent-type: true believers, poseurs, uninitiated, and non-believers. **True Believers, (TB)** are norm internalizers and norm expressers. The term has both positive and negative connotations. Hoffer (1951) uses the term to refer to individuals in social movements who are radicalized and believe deeply in movement ideologies. He uses the case of Nazi Germany, and points to the danger that true believers can have in shaping society. On the other hand, just as the mass movements that led to totalitarianism had true believers, all social movements must have them. Whether or not a norm is normatively good is not at issue, rather it is the structure of the identity of the true believer that we are concerned with. **Poseurs, (P)** are not norm

internalizers, but they do express the norm. For whatever reason, they believe it is better to demonstrate to the world that they follow a norm. This type of actor is common to ethnographers who study counter-culture (Fox, 1987), but the prevalence of poseurs extends into all social systems. The existence of this type of actor is especially problematic for empirical studies because poseurs behave just like true believers. **The Uninitiated**, **(U)** are norm internalizers but not norm expressers. They have not yet begun expressing the norm. This could be due to the fact that they haven't been exposed to the norm or exposure was from the wrong type of actor. If they adopt a norm they become true believers. **Non-Believers**, **(NB)** have neither the internalization nor the expression of the norm. Like true believers, they are in a stable state. $i$ and $i^*$ are in congruence. However, non-believers may still adopt $i$. If so, they become poseurs.

### 3.2.3   Neighborhood

Neighborhood can be understood as a local community or social network. As "community," neighborhood refers to a world divided into subcategories of relevant regions. While relevant regions are defined in large part by geographic factors, they are smaller than continental regions (Nye, 1968). Regions are often hard to define empirically. Huntington (1996) has argued for large cultural regions, but others have criticized his classification for being both too general (the inclusion of all majority-Muslim countries into one category) and too specific (isolating Japan). Katzenstein (2005) emphasizes the social nature of regions, arguing that geography is arbitrar-

ily defined. Regions can also be thought of as economic units that are more diffuse than states but more connected than the globe. The regional political economy approach operationalizes regions as geographically clustered preferential trade agreements (Mansfield and Milner, 1999). Whether culture, geography, or economic factors are used to determine how a region is defined, there is one common thread to all uses of regions: states share more in common with other states within their own region than with states from other regions. Furthermore, they almost certainly interact more with states in their own region. Thus, regions can be defined as barriers to social influence.

Despite the existence of world society in which all parts of the globe are interconnected to some degree (Meyer et al., 1997), regionalism is a persistent feature of the international system (Mansfield and Milner, 1999). Regionalism implies that the global community is constituted by relatively weak ties between regions. This is represented dyadically by regional communities where the ties are stronger between members of the same region than between members of different regions. However, within the regionalist approach it is still possible that some members of the global community are relevant to all others regardless of their region. Even in systems with globally relevant actors, most members are regional first. In the global perspective, regional ties are not necessarily weak, but they do not preclude strong global ties.

The relevant question is whether $\mathbf{R}$ and $\mathbf{S}$ are in the same region or not. This makes neighborhood a dichotomous indicator. However, neighborhood can be defined in a continuous way if it is conceived of as a network. This would lead to a

question about the strength of the community ties between two states. The use of the network metaphor helps address the problem of using only physical geography (contiguity/distance) to establish arbitrary regions. Scholars of international organizations have argued that shared IO membership is a good way to think of global ties (Pevehouse, 2005; Pevehouse and Russett, 2006). Others have focused on the structure of alliance ties (Maoz et al., 2007; Maoz, 2011). The present analysis dichotomizes neighborhood, but future extensions need not be limited by the current modeling restriction.

- $N_S = N_R \rightarrow 1$

- $N_S \neq N_R \rightarrow 0$

### 3.2.4   Hierarchy

The final aspect of the international system that is represented in the model is hierarchy. Recent works on hierarchy such as Lake (2009) are the latest manifestation of Thucydides' millennia-old adage about power, "the strong do what they can and the weak suffer what they must." The concept of hierarchy is built upon the concept of a systemic set of power relationships. Power is traditionally defined in political science as the ability of A to change the internal structure of B without altering its own structure. "Power in this narrow sense is conceived on the analogy of the hardness scale of minerals, of the scratching of glass by a diamond, or of the 'pecking order' in a chicken yard" (Deutsch, 1966, 111).

There are two sources of power, material (hard) and ideational (soft). Material

power is based on physical capabilities that can be mobilized towards the purpose of political influence. In international relations, this is generally conceived of as military capabilities. Ideational sources of power are the mechanisms of social influence that do not emerge solely from material inequality. However, in practice the two are linked closely because the militarily powerful are able to control sources of soft power. The concept of prestige captures the dual nature of power. Some actors are venerated and are socially influential due to the respect they have earned by virtue of being leaders. However, leaders often rise to such prestigious positions because they control material resources. Therefore, social power is hard as well as soft.

While the two faces of power can be discussed separately, it is difficult to distinguish between them empirically. There is a strong tendency to favor material power which can be measured more systematically than ideational power which is difficult to measure. In the formal model, however, there is no need to worry about the complexity between physical and social foundations of power. Hierarchy is operationalized as the extent to which power/rank differences increase the likelihood of convergence.

If there is one interacting population, the members can be sorted into a hierarchy based on their levels of power. Figure 3.1 shows the relative frequency of different ranks in the social system based on different distributions. For social rank, the first hypothetical distribution is based on the probability mass function of the Poisson distribution with $\lambda$ set to 1. This hypothetical distribution of power is characterized by many more weak actors than strong. It indicates the high degree of inequality

Figure 3.1: Distributions Representing Hierarchy
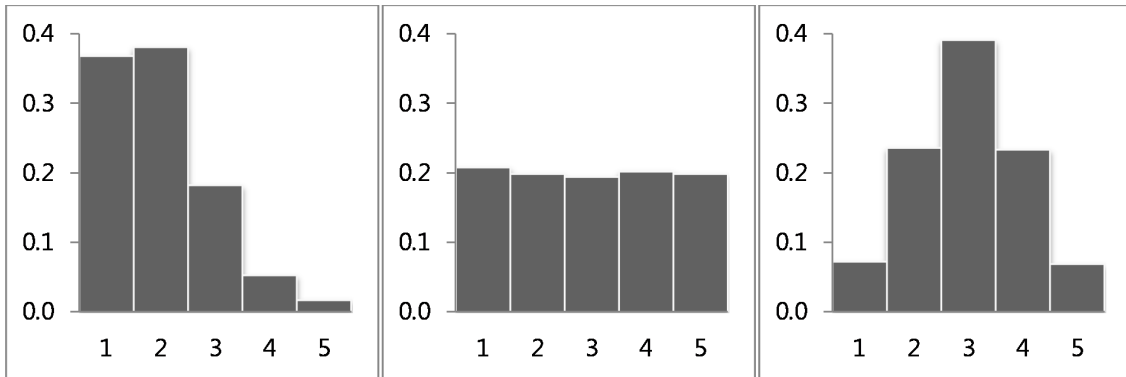


between the higher and lower ranks: a few very powerful states, a middling number of somewhat powerful states, and a large number of very weak states.

The Poisson distribution is a potentially good choice because it corresponds well to the empirical record. However, other choices are possible. A second assumption might be that there are an equal number of states represented at different levels of social rank, which would be represented by the uniform distribution. Alternatively, there could be a large middle class with few very powerful and very weak states. The third column of Figure 3.1 shows a distribution of this type, a normal distribution which has been truncated and assigned five integer values using cutpoints. While some distributions may be more realistic than others (having greater face validity), it is possible to test whether the findings are robust to alternative assumptions of the underlying distribution of social power.

- $H_S > H_R \rightarrow$ "top-down"

- $|H_S - H_R| \leq 1 \rightarrow$ "bottom-up"

There are two ways that hierarchy is modeled for top–down mechanisms. The hierarchy score of the sender must be greater than the hierarchy score of the receiver for transmission to occur. In bottom–up processes, agents are limited to looking at others of a similar rank as them (either in the same rank or one above/below).

### 3.3   Models

Figure 3.2 provides a visual representation of the model set-up using Netlogo software Wilensky (1999).[4] The lattice is the spatial environment of the agents, and in this case it is made up of 10 rows and 10 columns which are subdivided into two equal neighborhoods which are indicated by the green and lavender areas. An agent occupies each cell, and its shape and color identify its type as discussed in section 2.2. Black agents do not express the norm while white agents do. The shape of the agents reflect whether they have internalized the norm (star) or not (square). The two sliders to the left of the lattice are used to set the initial levels of norm internalizers and norm expressers. In this case, the values under the slider indicate that approximately 80% of agents begin the simulation with the internal norm, $i^* = 1$. Of the population of agents with $i^* = 1$, 10% start with the external norm, $i = 1$. Each agent has a rank (1, 2, 3, 4, 5) which is indicated by the small number in the lower right quadrant of each cell. The histogram to the left of the lattice shows the distribution of power for the population of agents. In this case, hierarchy is drawn from the poisson distribution.

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[4]Netlogo is an object-oriented programming environment which was developed by Uri Wilensky at Northwestern University's Center for Connected Learning and Computer-Based Modeling.

Figure 3.2: Initialization
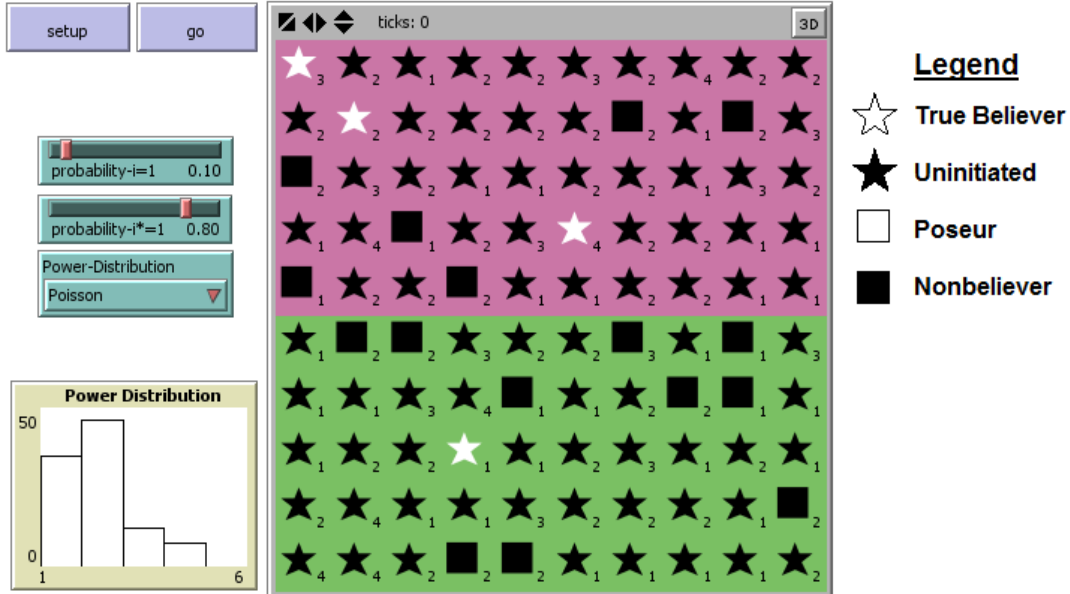


In each round, one agent $R$ is selected at random to be the potential $Receiver$. Then, another agent $S$ is selected as the $Sender$. $R$ is the agent who will potentially change, and $S$ is the agent whose attribute will potentially be transmitted to $R$. For each tick, (discrete time period) two randomly chosen agents $R$ and $S$ are activated, and H, N, and I are observed. If $R$ does not exhibit the norm ($i_{Rt} = 0$) and $S$ does ($i_{St} = 1$), the exhibited trait is potentially transmitted to $R$ from $S$ so that $R$ externally displays the norm in the next time period ($i_{Rt+1} = 1$). This process is called convergence, and it occurs according to a function, $f(H, N, I)$.

Consider figure 3.3. The red cell indicates that this agent has been selected as $R$ and the agent on the blue cell is $S$. $R$ has a rank of 1. $S$ has a rank of 2. The difference in hierarchical rank is $H_S - H_R = 1$. They are both in the same region, so

Figure 3.3: Non-convergence
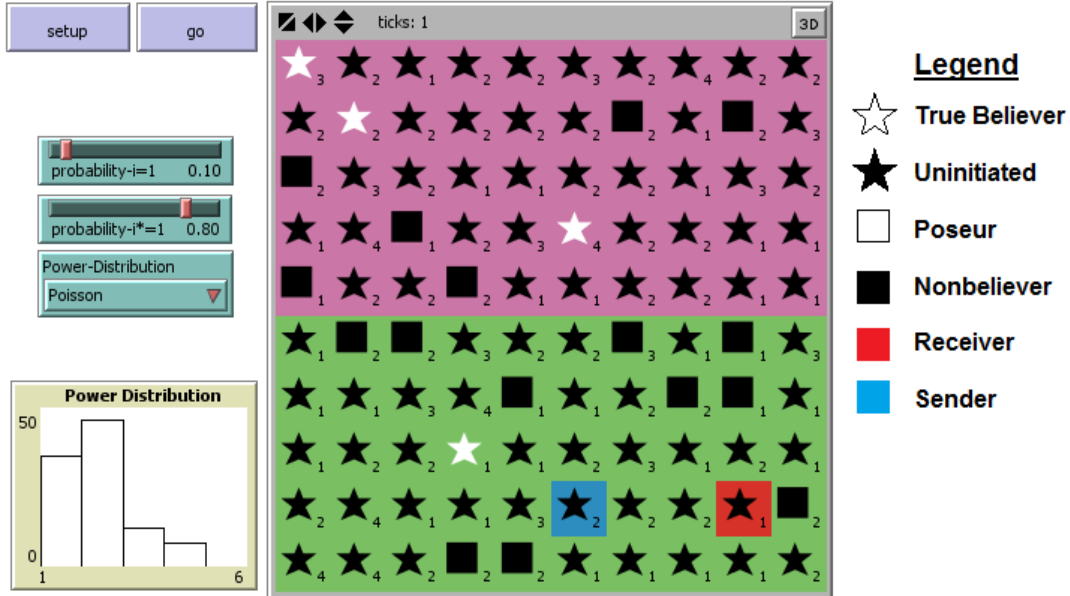


they score one indicating they are neighbors ($N_S = N_R$? $yes = 1$). **R** is a nonbeliever $(i = 0, i^* = 0)$ while **S** is an uninitiated $(i = 1, i^* = 0)$. In this case, due to an as yet undefined rule, **R** does not converge to **S**, and the **R**eceiver's color remains black.

By comparison, Figure 3.4 offers an example of convergence. Two new agents are selected, as indicated by the red and blue cells. As we can see, **R** has changed from an uninitiated to a true believer due to its contact with **S**. In this case, the agents were from differing neighborhoods indicating that influence was not hindered by the neighborhood barrier. **R** is of rank 1 and **S** is of rank 4, so the difference in hierarchy $H_S - H_R = 3$, indicating that influence came from above.

The ways of defining the function which maps *Hierarchy, Neighborhood,* and *Identity* onto *Convergence* are limitless, so I draw on the diffusion literature to help

Figure 3.4: Convergence
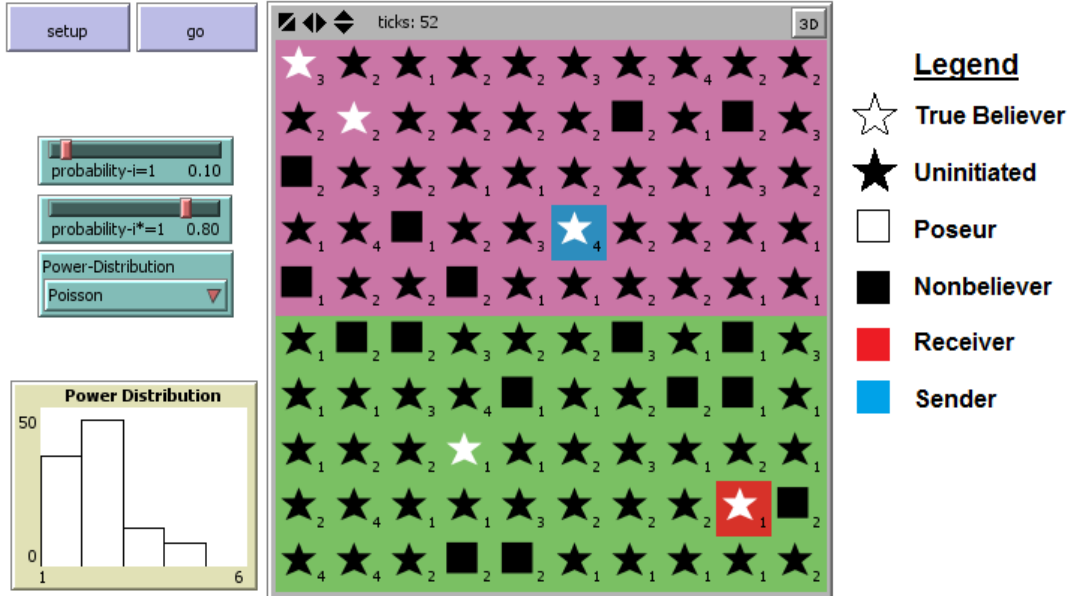


guide the specification process. In particular, the literature suggest four distinct diffusion mechanisms, coercion, competition, emulation and learning (Franzese and Hays, 2008; Dobbin, Simmons and Garrett, 2007; Elkins and Simmons, 2005). I define a model function for each, and the four resulting functions, which are summarized in Table 3.2.

Table 3.2: Formal Definitions of Diffusion Mechanisms

|  | Hierarchy $H_S > H_R$? | Neighborhood $N_S = N_R$? | Identity $i_S^* = 1$? | $i_R^* = 1$? |
|---|---|---|---|---|
| Coercion | X |  | X |  |
| Competition |  | X |  | X |
| Emulation | X | X |  |  |
| Learning |  |  |  | X |

### 3.3.1 Coercion

*Express what the strong express.*

Coercion refers to the involuntary changes undergone in an agent due to external pressure. For instance, one common form of direct systemic coercion is the conditionality requirements that the IMF sets in order to provide aid and loans (Dobbin, Simmons and Garrett, 2007). In general, the coercion mechanism describes "a world in which a few powerful players exercise disproportionate influence over others – through carrots and sticks, using go-it-alone power, by serving as focal points, or through hegemonic ideas" (Dobbin, Simmons and Garrett, 2007, 462).

I define coercion as a top-down, global mechanism in which the sender must be a true believer while the receiver can be an uninitiated or a non-believer, as indicated in the first row of Table 3.2.

### 3.3.2 Competition

*Express before your rivals.*

Actors often have to invest in reforms before they are eligible for external support. In the case of competition, states may be competing over a material reward that is only available to a certain class of states. If there is a limited supply of that good, then there are incentives to compete against the other actors who also desire that support.

States are more likely to compete with others of the same rank. If the adoption of some trait leads to a competitive edge amongst ones' peers, actors will be

pressured to adopt. Competition piques when actors are of a similar rank because it is easier to surpass those close to you than those far ahead. This logic is the same regardless of whether the competition is over social status or an economic good. This means that the likelihood of convergence increases as the difference in rank of $S$ to $R$ decreases. For the same reason that competition occurs amongst actors of a similar rank, competition is more likely amongst members of the same neighborhood. The probability of interaction is higher if $S$ and $R$ are from the same region.

Reading from left to right on the second row of Table 3.2, I define competition as a bottom-up, local mechanism in which the receiver must be an uninitiated while the sender can be a true believer or a poseur.

### 3.3.3 Emulation

*Express when powerful neighbors express.*

In competition, states are motivated by rivalries with states of a similar status. In emulation, lower status states look to global and regional leaders as models. Especially in cases of high uncertainty, actors may look to their esteemed peers in order to gain information about what they should do and how they should do it. DiMaggio and Powell note that mimetic isomorphism is a common response to situations "when goals are ambiguous, or when the environment creates symbolic uncertainty, organizations may model themselves on other organizations" (DiMaggio and Powell, 1983, 151). In other words, states may not even be aware that they have a policy problem before they are adopting policies designed to solve it. The international sys-

tem defines both the problem and the solution before a given society is even aware that it has a problem. In general states value prestige, but they also seek to maximize similarity such that there are regional as well as global leaders. In this way, state identities are strongly conditioned by fads that originate with the innovator class.

Actors will either find it too difficult or too costly to create a list of all possible policy alternatives. Instead, they will be drawn towards models which are available to them whether because nearby actors have a particular policy or institution. "One clear expectation is that experiences of those governments with which one communicates and interacts will be most available ... However, it is also likely that the policy of prominent nations will be highly available, and consequently, policy makers will tend to weight those cases disproportionately" (Elkins and Simmons, 2005, 44).

Reading from left to right on the third row of Table 3.2, I define emulation as a top-down, regional mechanism in which the sender can be a true believer or a poseur and the receiver can be an uninitiated or a non-believer.

### 3.3.4   Learning

*Express when internally motivated.*

Learning occurs when a state sees the benefits that come from adopting some policy by observing and communicating with others. Learning seems to be the most straightforward mechanism, but it quickly slips into fuzzy conceptual territory. Bayesian learning offers the strictest definition of learning. Agents update their beliefs about the world when given new information from their environment. Agents

are rational, using all available information to make the best decisions to maximize their utility. But what if agents have limited information? When they apply Bayes' rule to update their beliefs, they are still learning. Now, however, they are potentially incorrect in their assessment of what the world looks like because they are sampling from a subset of the population. No one would begrudge an agent who acted on the limited information, as using the available information is still the most rational action an agent can take. In these uncertain environments agents take shortcuts called heuristics to make their decisions. It is these shortcuts that confuse the difference between learning and emulation.

One heuristic is to identify a reference group which has similar needs and motivations. Agents can then act like the reference group, and assume that their actions will also be in their own best interest. But at what point does using the reference group to make more informed decisions become emulation, copying the reference group? Another shortcut is to follow what powerful actors desire. Coercion can alter the payoff structure for the receiver, making the adoption of a policy rational even if it would not be absent the external pressure. If an actor is better off by following the wishes of the coercive actor, doesn't that count as learning? The same can be said of competition. As the external environment changes and payoffs shift due to competitive pressures, actors learn how to maximize their utility. In this sense, learning just becomes a general term for all of the other mechanisms. It is simply any adaptation to the environment pursued by the receiving state. Nonetheless, despite these ambiguities, learning should be seen as a distinct mechanism that differs in

important ways from the others. To do so, I choose to limit the definition of learning so that it is not all-inclusive of emulation, coercion, and competition. While this may shift what learning means away from its common usage, it is necessary in order to bring analytical clarity to an otherwise sprawling concept.

When the internal aspect of the norm $i^* = 1$, a state is assumed to be actively seeking out information from its environment. It will adopt $i = 1$ when it is a receiver in a dyad where $i_S = 1$. Learning is not restricted by position in the global hierarchy nor regional differences. My classification of learning is that it is an active global search by the uninitiated in their search to become true believers. Whenever these types interact, the receiver becomes like the sender. Reading from left to right on the last row of Table 3.2, I define learning as a bottom-up, global mechanism in which the sender can be a true believer or a poseur while the receiver must be an uninitiated.

### 3.4   Computational Investigation

To summarize the discussion above, the model has the following parts:

1. Each agent is distributed onto a lattice which is divided into 2 neighborhooods of equal size.

2. The internal norm $i^*$ is distributed in the population with some probability $\pi_{i^*}$.

3. Of those with the internal norm $i^*$, some proportion of those states begin with the expression of the external norm, $i$.

4. Each agent has a social rank from 1 (lowest) to 5 (highest) which is distributed in one of three ways:

    (a) Uniform [1,5]

    (b) Normal (2.5,1)

    (c) Poisson (1)

### 3.4.1 Typical Runs

In order to establish a baseline, I begin the discussion of the model behavior by omitting NB from the sample.[5] Then, after the logic of the model is established, I will demonstrate what the introduction of NB adds to the model. Importantly, it is the addition of NB and P that gives the model the ability to link patterns of diffusion with the ultimate idea of internalization. Figures 3.7, 3.6, 3.8, and 3.5 show snapshots of a typical run for each mechanism over the course of a single simulation. The four figures demonstrate how the model performs under the following parameters.

1. The proportion of states with $i^*$ at setup, $\pi_{i^*} = 1.00$

2. The proportion of states with $i$ at setup, $\pi_{i^*} = 0.05$

3. $n = 2$ regions

4. An unequal social hierarchy distribution, Poisson ($\lambda = 1$)

Figure 3.5 shows the typical run for learning. The learning mechanism exhibits a classical diffusion S-curve. There are some regional differences, but they are small. On average, regional differences wash out, and the typical run displays this behavior.

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[5]Consequently, the possibility that any P will emerge is 0.

The average power of the norm adherents compared to the average power of the non-adopters is close to equal for most of the simulation. However, as the S-curve passes its inflection point, the average power of the adherents grows relative to the non-adherents. This implies that the non-adopters are relatively weak compared to the adopters.

The typical case for competition is shown in 3.6. Competition also produces a classic S-curve, but it takes longer to complete the diffusion cycle than the learning mechanism. Initially, the two regions have similar numbers of adherents. Not long into the cycle, regional differences begin to emerge. There is no reason why one region will be quicker than the other, but they are likely to have different adoption patterns. The regional difference continues to grow and peaks about half way through the diffusion cycle. It then declines as the lagging region finishes its cycle. The relative power of norm adherents compared to non-adherents remains relatively equal throughout the simulation until the end. Like learning, the average power of adherents compared to the average power of non-adherents increases as the diffusion cycle matures.

In a typical run for coercion as shown in 3.7, the S-curve is much flatter than either learning or competition which means the process of diffusion occurs more slowly. This run does not reach full adoption in the population. There are no strong regional dynamics, although chance can lead some regions to appear to have faster cycles than others. Because coercion is a top-down mechanism, it is not surprising that the average power of adherents decreases relative to the average power of non-adherents as the simulation goes on. This means that at the end of the simulation, it

is the strong states that are the remaining non-adopters while the weak states have all adopted.

Finally, figure 3.8 shows the behavior of a run of the emulation mechanism. For emulation, the S-curve is the flattest among all the diffusion mechanisms. This run of emulation does not lead to full expression within the population, and as the analysis demonstrates, this is typical of emulation. While initial differences between regions are small, these differences grow over time and can become quite large by the end of a simulation. Some regions may gain close to full adoption while other regions have a very low level of norm prevalence.Like coercion, the average power of expressers decreases relative to the average power of non-adopters over the course of the diffusion cycle. This means that the powerful states are holdouts.

Figure 3.5: Learning typical run
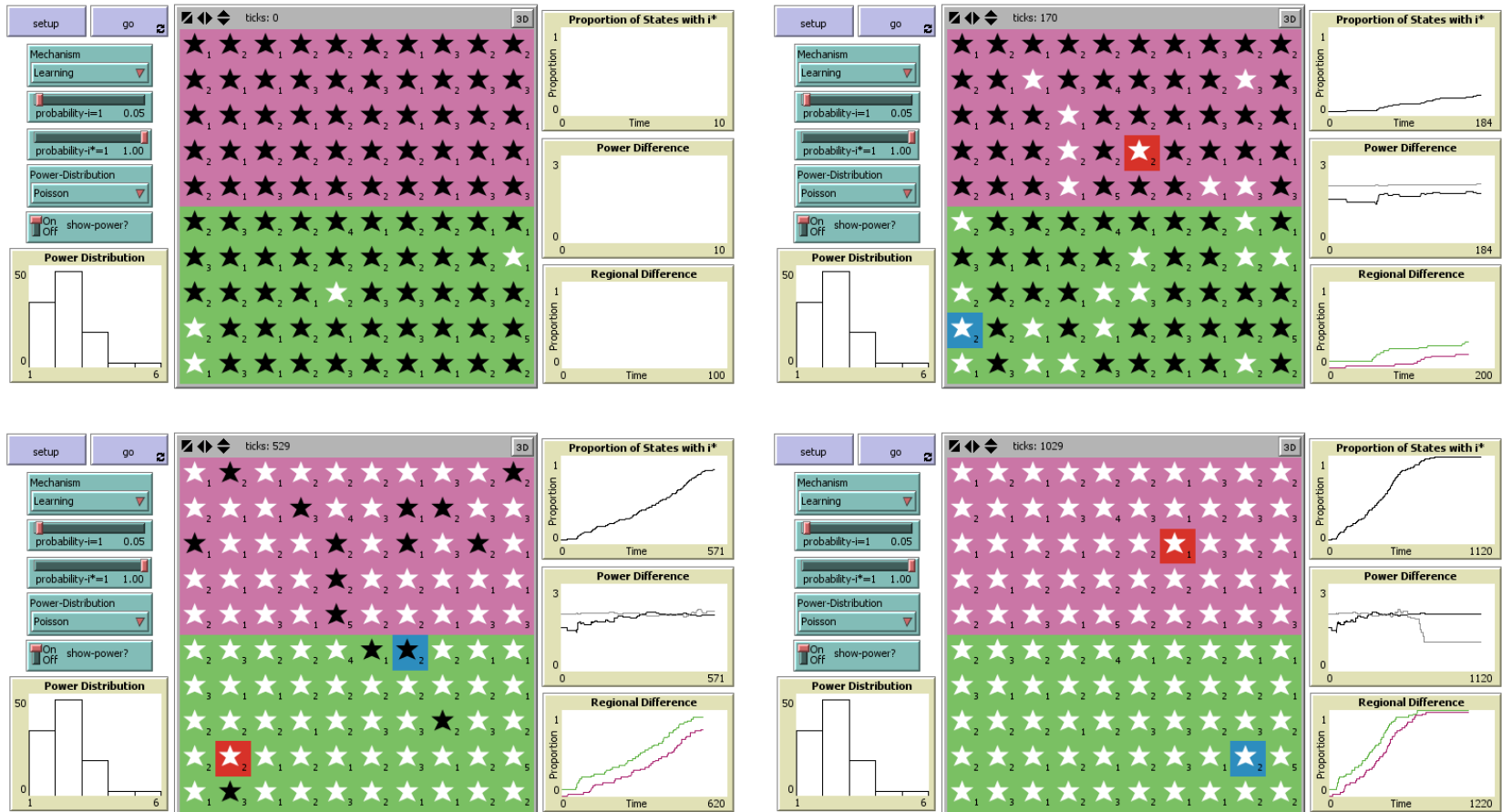
Figure 3.6: Competition typical run
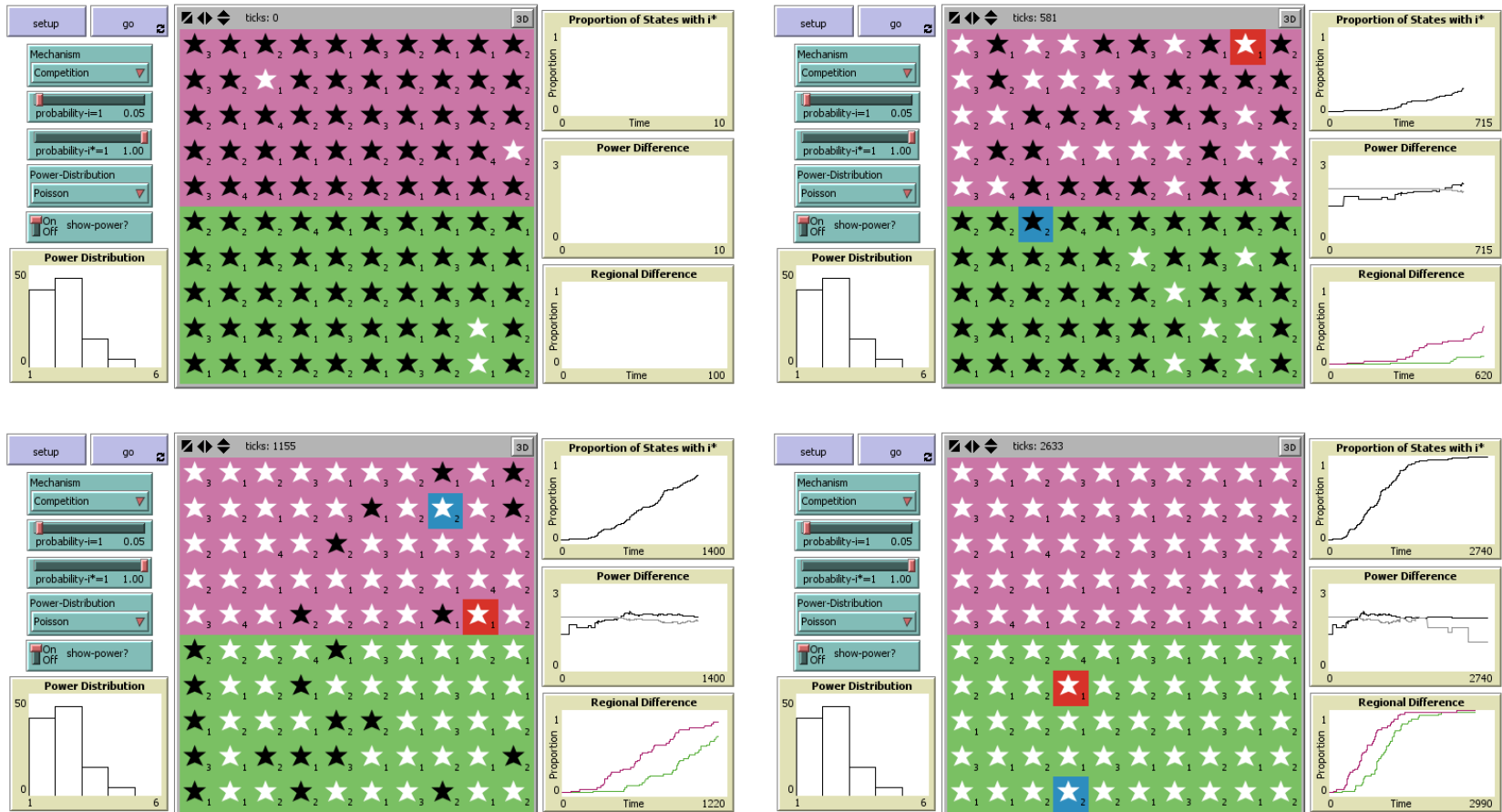
Figure 3.7: Coercion typical run
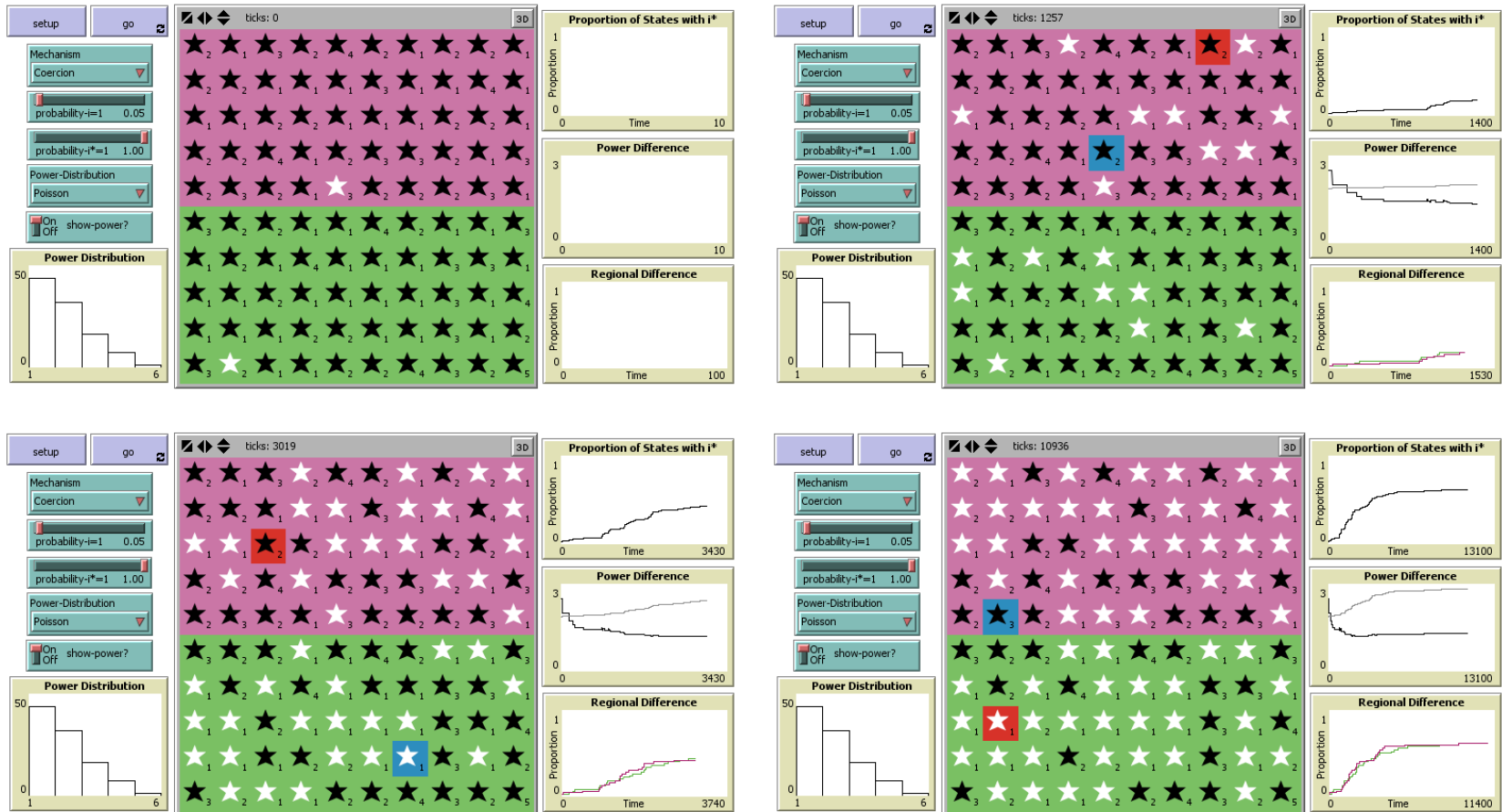
Figure 3.8: Emulation typical run
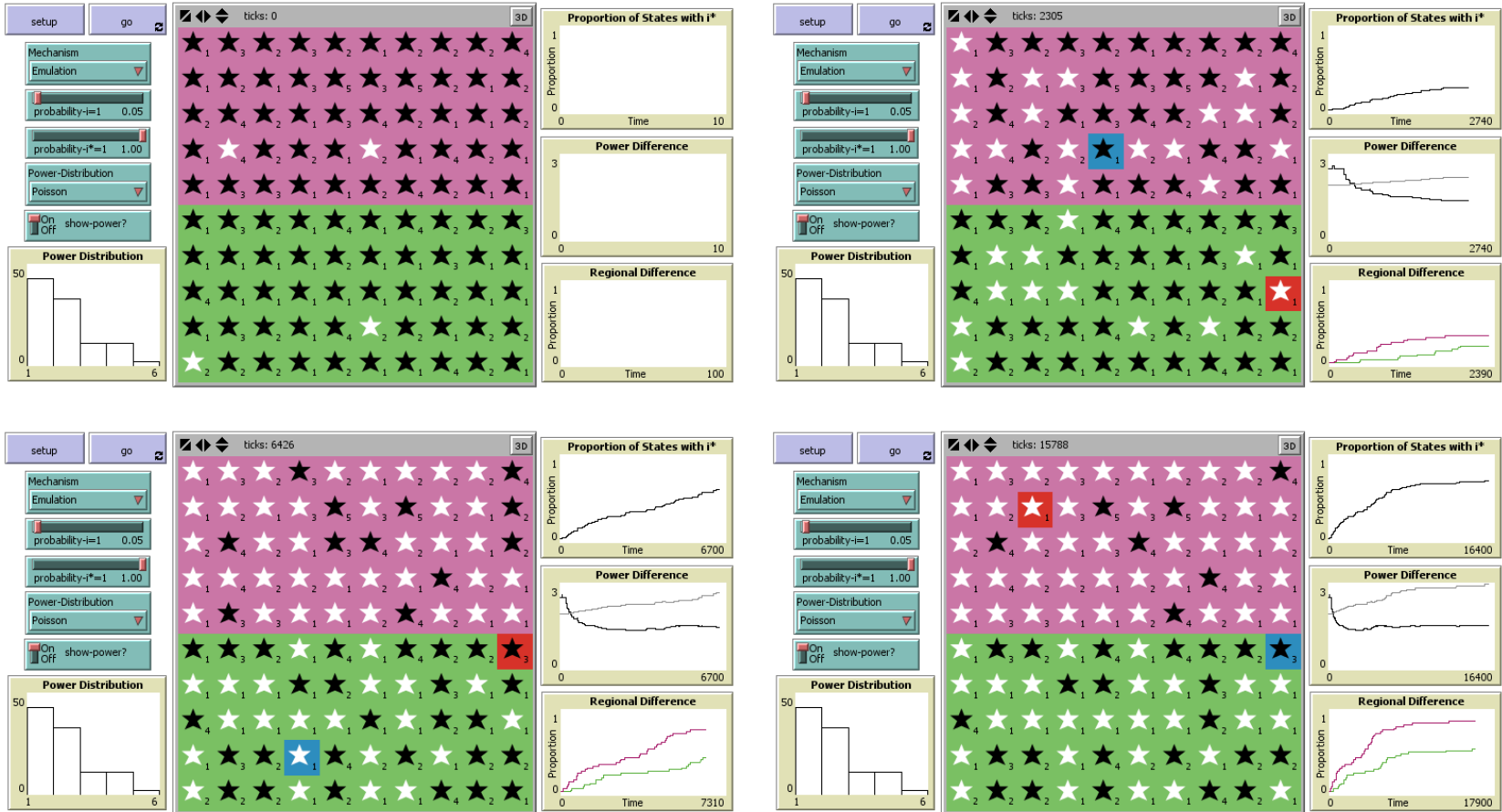
### 3.4.2 Emergence

Figures 3.9, 3.10, and 3.11 show 10 runs for each of the diffusion mechanisms. The three figures show quantities of interest over time: relative power of adopters to non-adopters, regional differences in adoption, and the shape of the adoption S-curve. While most of these results are not especially surprising given the assumptions of the model, they offer a good starting point to discuss the general patterns associated with the mechanisms. The parameters used for each of these simulations are:

1. The proportion of states with $i^*$ at setup, $\pi_{i^*} = 1.00$

2. The proportion of states with $i$ at setup, $\pi_i = 0.05$

3. $n = 2$ regions

4. An unequal social hierarchy distribution, Poisson $(\lambda = 1)$

### 3.4.2.1 Speed and completeness of adoption cycle

The most obvious emergent property to observe is the expression of the norm over time. At any given time period, I collect the number of expressers, agents with $i = 1$. Let's call these $n_x$, and agents who are non-expressers are $n_{\sim x}$. If we lived in a universe where it was possible to observe internalization $i^*$, we could have a count of all four actor types, the number of true believers $n_{TB}$, poseurs $n_P$, the uninitiated $n_U$, and non-believers $n_{NB}$. The following equation shows how I measure 'speed and completeness,' or what is commonly known as the S-curve (Coleman, Katz and

Figure 3.9: Adoption S-Curves, No Poseurs
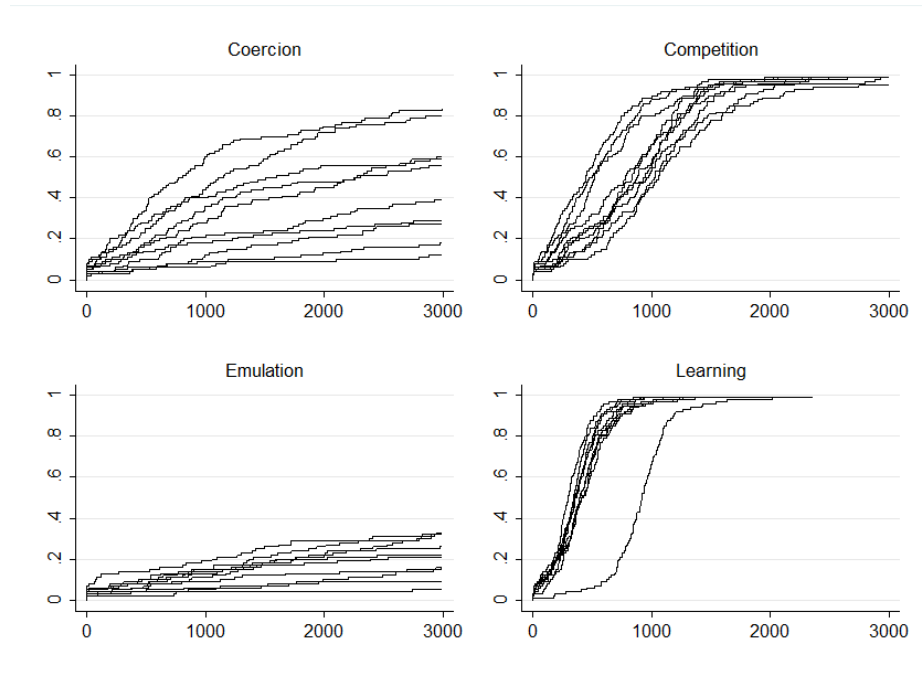


Menzel, 1957).

$$\frac{n_{TB} + n_P}{n_{TB} + n_P + n_U + n_{NB}} = \frac{n_x}{n_x + n_{\sim x}} = \frac{n_x}{N}$$

Figure 3.9 shows the S-curves of the different mechanisms. While it is premature to make general claims about the behavior of the different mechanisms, these initial trials are telling. The learning mechanism is by far the fastest, while emulation is the slowest. Furthermore, although it is not necessarily obvious based on the truncated time frame, neither coercion or emulation tend to produce systems that end with full expression while competition and learning do result in complete population adoption. It is theoretically possible for coercion and emulation to result in

full adoption, but this is rare because it would require the initial population of norm adherents to include the most powerful states. In the empirical world, this special case may actually be a common way for norms to spread. However, in the parameter space, these cases are infrequent. Thus, the model has identified an interesting implication, if coercion an emulation are dominant in all parts of the diffusion cycle, we may only observe norms that originate amongst the most powerful states because other potential norms originating from below never spread widely. On the other hand, this also supports Finnemore and Sikkink (1998) who argue that different mechanisms operate at different parts of the life-cycle. The results of this analysis suggests that coercion and emulation are unlikely to be how a successful norm spreads through the system, at least in the initial stages of diffusion or they begin with the most powerful agents.

### 3.4.2.2 Neighborhood Differences

The second emergent property that I observe is regional differences in expression. To capture this, I take the absolute value of the difference between the proportion of expressers in the two neighborhoods. The following expression summarizes the quantity of interest, where $N_A$ and $N_B$ are the total number of agents in each neighborhood and $n_{Ax}$ and $n_{Bx}$ are the number of expressers in each neighborhood.

$$\left| \frac{n_{Ax}}{N_A} - \frac{n_{Bx}}{N_B} \right|$$

Figure 3.10 shows how differences in regional adoption patterns emerged over

Figure 3.10: Neighborhood Differences, No Poseurs
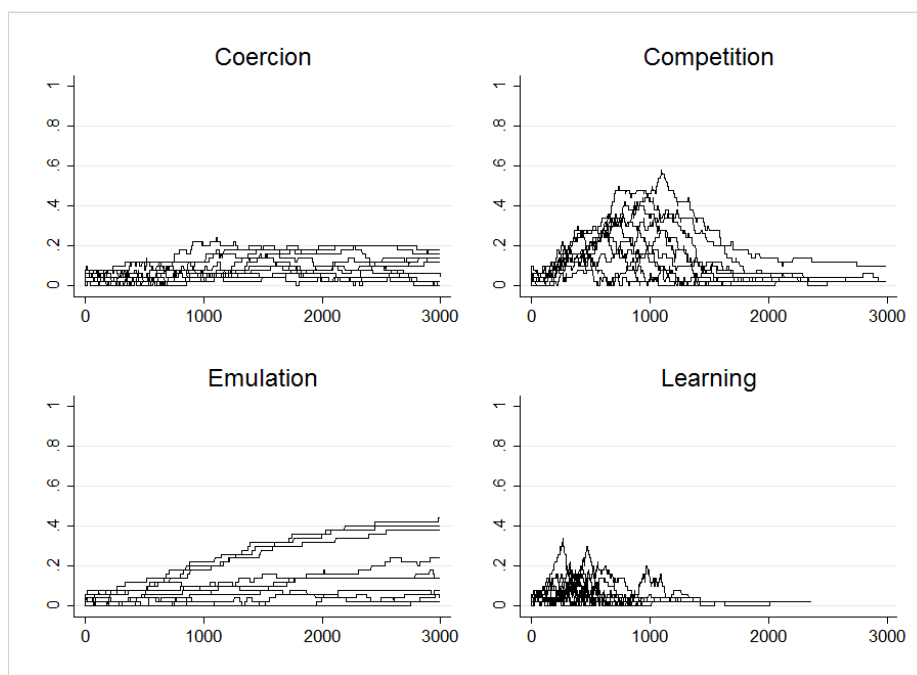


the course of the simulations for the different mechanisms. The plots show the 10-run

behavior of the absolute value of the difference between regional prevalence. Un-

surprisingly due to the setup of the model, competition and emulation demonstrate

regional dynamics while coercion and learning do not. However, the pattern of neigh-

borhood expression that characterizes competition and emulation was not predicted

beforehand. In competition, one neighborhood will "take off" ahead of the other due

to chance conditions. Over time, the lagging neighborhood closes the gap and both

neighborhoods end with full diffusion. In emulation, the neighborhood difference is

slow to emerge, but it continues to grow and the differences do not shrink as the

diffusion cycle comes to an end. This means that emulation can produce lasting

neighborhood differences. Such lasting changes may be an analogue to speciation

in the biological sciences in which different species emerge from the division of an original species due to isolation of the different populations. Because of the barrier between the two neighborhoods, the social dynamics of the system encourage differences between regions to emerge and be solidified. While coercion and learning do not tend to display neighborhood differences, it is possible for them to produce regional dynamics where underlying regional factors do not exist. Due to the quickness in the learning mechanism, it is possible that chance will lead the neighborhoods to have different levels of expression. Likewise, in the coercion mechanism, due to completely random features of the initial distribution, it is possible to have as high as a 20% difference in expression rates between neighborhoods. This may be enough to lead to falsely attributing a neighborhood effect when none exists.

### 3.4.2.3   Relative Power

The final emergent property I collect is relative power of expressers compared to non-expressers. To calculate the difference in the average power between adopters and non-adopters, first calculate the average power of each of the two groups. Notice that the two groups will be of differing sizes except possibly once in a simulation when the proportion of expressers equals .5, and two populations exactly equal each other in size. That means that the power of only a few states is weighted very heavily in the calculation of the average power of expressers in early stages of the diffusion process and the average power of non-adopters in the late stages. This feature of the measure is by design. Rather than calculating the power of the community (the

Figure 3.11: Difference in Average Power between Expressers and Non-expressers
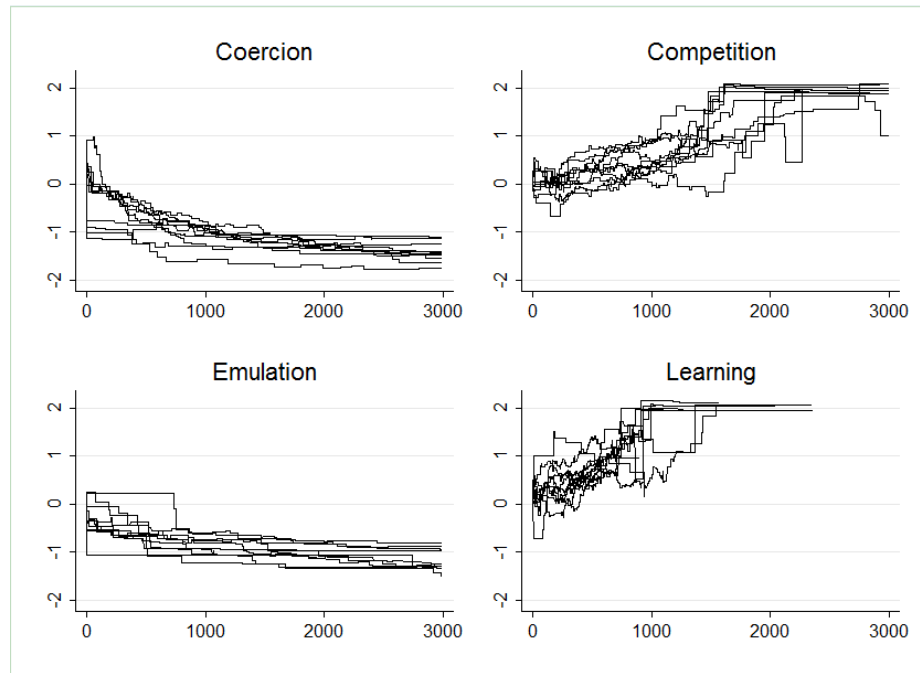


interaction between power and norm prevalence), I am instead interested in how the population of expressers and non-expressers changes over time.

$$\frac{1}{n_x} \sum_{x=1}^{n_x} H_x - \frac{1}{n_{\sim x}} \sum_{\sim x=1}^{n_{\sim x}} H_{\sim x}$$

Figure 3.11 shows the difference between the average power of the population of expressers and the average power of non-expressers. In emulation and coercion, the average power of the expressers is less than the average power of non-expressers. For both mechanisms, this difference grows over time so that by the end of the simulation, the powerful states are much less likely to have the norm than the weak states. The somewhat surprising finding is that the average strength of the community of adopters

increases relative to non-adopters in the case of competition and learning. This implies that, despite the fact that learning and competition are limited to states of a similar status $\pm 1$, it is not only possible for an innovation to diffuse from below. It is actually the case that relatively powerful states are adopting more quickly than weak states.

What about those special cases in which powerful states start with a norm? In other words, how do initial conditions matter? Under some conditions, it really matters which states are amongst the first to have the norm. In some mechanisms, a norm may never fully spread to the population if the initial value of relative power of norm adherents to the population is too low. In the learning and competition mechanisms, it is possible for a norm to spread under almost any set of initial conditions. For emulation and coercion, a higher level of initial relative power is necessary to lead to full adoption. To test this, I can calculate number of runs where each mechanism can "escape" a low condition of initial relative power. For coercion and emulation, many norms never get off the ground because they are initially distributed to weak states who are unable to spread the norm vertically. This may lead to interesting patterns concerning regional outcomes. It can potentially provide answers to questions about what the initial power and regional distribution of norm entrepreneurs must be in order to spark a cascade.

## 3.5   Conclusion

### 3.5.1   Future Simulations

Because models are created with respect to a particular empirical phenomenon, it is unsurprising that the present model is able to accurately describe the norm diffusion process. However, there are an infinite number of models which could be constructed to fit the empirical record. Thus, for a model to be useful, it is necessary but not sufficient that it predict the phenomenon it was designed to explain. Once the model is created, we can discover what other implications can be derived from it rather than simply observing whether or not a model fits particular data. One advantage of simulation is its ability to explore a wide parameter space (de Marchi, 2005). With the small set of variables included in this model, it is already a large task to explore the different combinations of parameters without complicating the model further. Nonetheless, the model as constructed is easily amenable to including more detail. Future simulations may include more assumptions, but the current parameters are sufficient to ask and answer a wide range of questions relating to norm diffusion. The following questions will guide the next iteration of model exploration.

First, recall that I am modelling the convergence of R to S along the expression dimension, $i$. This means that the model is set up to study the following two cases, when the uninitiated become true believers and when non-believers become poseurs.

- $U \rightarrow TB$

- $NB \rightarrow P$

While these cases are interesting, there are many other processes that could be imagined in this framework. How do poseurs become true believers $P \to TB$? How do non-believers become true believers and vice versa? Assume that the likelihood of simultaneously changing internal and external norm adherence is low compared to experiencing the change in a sequence. Then, there are two pathways between these two types. Does the path taken matter, $NB \to P \to TB$ vs $NB \to U \to TB$? What about backsliding? Do TBs ever 'lose their norm' and revert to being the uninitiated, $U \leftarrow TB$? What conditions would lead a poseur to quit with the facade and become a non-believer again, $NB \leftarrow P$? These are questions that will be explored in future iterations of the model.

A second question which will be explored further is how does the initial distribution of power change the diffusion patterns of the different mechanisms? The Poisson, uniform, and normal distributions are much different assumptions about the structure of the global hierarchy. A more equal international society may produce different outcomes. Paradoxically, one early result is that emulation and coercion are more likely to reach full adoption in a more equal society (represented by the uniform distribution) than an unequal society (the Poisson distribution). I also suspect that the important regional differences in the emulation mechanism will diminish as equality increases while no change in regional dynamics will occur in the other mechanisms.

A third important question not explored in this paper that can be answered by the model is how does the number of neighborhoods change the outcomes? More

neighborhoods implies fewer agents per neighborhood. This will likely impact the speed at which competition and emulation occur. Further, it may decrease further the completeness of the diffusion process for the emulation mechanism.

### 3.5.2   Contribution

This model contributes to the understanding of norm diffusion in several ways. First, it provides a formal account of the norm life cycle that is consistent with large body of constructivist research. Finnemore and Sikkink (1998) posited several specific claims about the norm life cycle which I reproduce in the formal model using limited assumptions. For instance, they argue that the dominant mechanisms of norm diffusion differ based on what part of the life cycle a norm is in. My model demonstrates that if we observe a fully accepted norm, coercion and emulation are unlikely to have been dominant in the earliest stages of the life cycle. The agent-based model provides a way to distinguish between cases of norm diffusion that are empirically very similar. If we suspect that the likelihood of norm internalization varies accross diffusion mechanisms, we can make predictions about which norms will be powerful and which are weak.

Second, the formalization of the norm life-cycle theory also helps advance the empirical literature. In general, scholars of norms have been more focused on theory generating than theory testing due to the difficulty of observing states recreate their identities in the global social milieu. Yet, it is possible to observe the power of ideas given a specific focus and using formal logic to capture latent and unobservable

processes. For sound methodological reasons, much empirical constructivist research relies on small-n comparative case studies. However, there is also room for large-N analyses in the study of norms. By formalizing the norm life-cycle, I am able to investigate aspects of norm diffusion that have previously been overlooked by qualitative scholars and quantitative scholars alike. The model suggests that differences in the spatial and temporal pattern of norm diffusion between the various mechanisms will be an important piece to the empirical puzzle.

Finally, this model helps clarify the long-standing agent-structure debate in the field of IR. Rather than argue which is ontologically prior, I adopt an approach in which both agents and the structure are simultaneously constituted. On the one hand, the structure of the system appears to be created by the interactions of the agents. However, those interactions are not dependent solely on the attributes of the agents; the structure is fundamentally distinct. On the other hand, despite the strong environmental impact on agent behavior, agents are distinct units that are driven from within as much as they are responsive to their environment. Thus, as many constructivists have argued, agents and structures are mutually constituted and cannot be analyzed independently of their environment just as a system cannot be understood without reference to the individuals comprising it. While many have come to this conclusion theoretically, many fewer have been able to specify empirical or formal models that take the agent-structure problem seriously. Using agent-based modelling to represent this important feature of the international system is an important theoretical contribution.

The analysis presented in this paper represents a first step in understanding the norm life cycle. So far, it has shown that a small number of relatively non-contentious assumptions are sufficient to reproduce important arguments from the extant literature. Through further investigations, previously unknown relationships and deductions may emerge from the model. By answering the questions posed in the previous section, the agent-based model presented in this paper will potentially provide numerous insights on the norm life cycle and policy diffusion literatures.

# CHAPTER 4
# THE DIFFUSION OF WOMEN'S EMPOWERMENT

## 4.1 Quotas for Women's Representation

Why do states without strong domestic norms of women's equality adopt quotas for women's representation? Does the proliferation of quotas mean that global culture is becoming more gender equal? In this chapter, I apply the findings from the Agent-based Model (ABM) developed in chapter 3 to identify which mechanism drives the diffusion of quotas for women's representation. Women's rights scholars are concerned with quota adoption, but disagree about whether quotas are adopted by states who genuinely want to improve women's rights or whether quota adoption is a (relatively) meaningless gesture by states to improve their legitimacy. I treat quota adoption as norm expression, and compare the empirical pattern of quota adoption to the spatial-temporal patterns for the different diffusion mechanisms.[1] Using a dyadic event history analysis, I find that in terms of a variety of measures of hierarchy, neighborhood, and identity, quota diffusion is best explained by the competition mechanism. While it is impossible to tell if quota adoption is sincere or not in any individual state, competition indicates that women's status in world culture is improving as the society of states has accepted the norm that women should have equal

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[1]I am not seeking to falsify the ABM, nor am I scrutinizing the assumptions of the model. This chapter does not contain a traditional test in which I find whether an independent variable is statistically related to a dependent variable. Instead, I use the data to help decide which diffusion model most closely matches the empirical world. The model works as a guide for empirical clarification, not as a test of a falsifiable theory.

representation in political power.

To make a direct link to chapter 3, quota adoption is treated as norm *expression* while women's empowerment is norm *internalization*. Quotas are institutional reforms designed to increase the number of women in a state's national legislature. They are founded on an international norm for women's equality in political representation. Many actors promote this norm, including states like Norway, Argentina, and Uganda, IOs like the United Nations (UN) and the International Institute for Democracy and Electoral Assistance (IDEA), and numerous NGOs. Quotas are a modern invention, having emerged as an idea in the last 100 years and spread widely in the international system only in last 20 years.

Not all gender quotas are the same, but they can be generally defined as institutional reforms created to ensure women are better represented in government than they would be otherwise. Quotas are classified in various ways according to theoretical need. For my purposes, I use the most basic formulation, which is lumping all quotas of any type into a single indicator. However, there are two dimensions of quotas that are used to make a more nuanced classification. First, quotas are either adopted by parties or governments. Parties may voluntarily adopt quotas to guide their own behavior, without the formalization of a quota as an official act of government. In the case of governments, a legislative act or a constitutional provision is in place to increase women's presence. Second, quotas may either require parties to nominate women, or directly reserve in women's only elections or by appointment. Figures 4.1, 4.2, and 4.3 show how the global landscape of quotas has developed over

time: white indicates no quota, yellow indicates a party quota, light green indicates a legal quota, and dark green indicates a constitutional quota.

Figure 4.1: Quota Adoption 1975
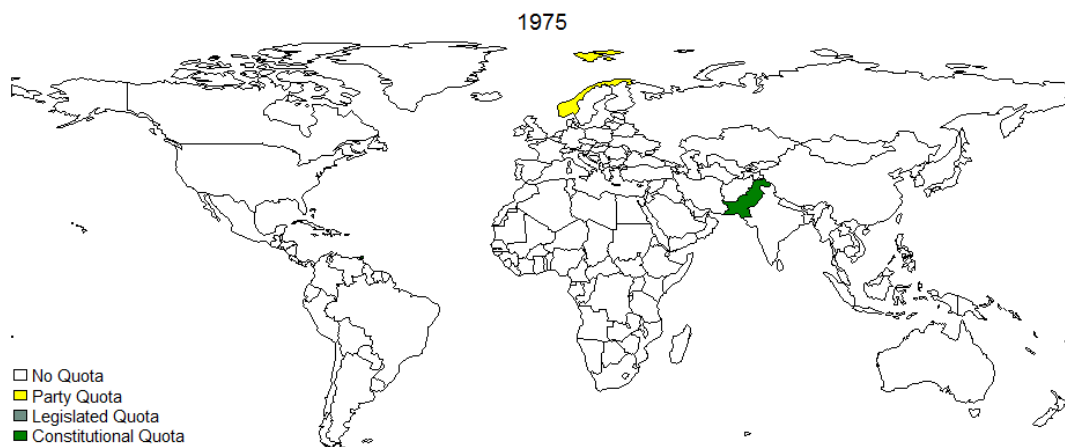


### 4.1.1    Four Stories of Quota Adoption

Scholars of quotas are aware that the decision of one country to adopt is dependent on others' adoption behavior (Krook, 2006; Bush, 2011; Towns, 2012). The adoption of quotas in Afghanistan, Peru, Rwanda, and Sweden are examples of the four different paths to quota convergence, the diffusion mechanisms coercion, competition, emulation, and learning.[2]

Sarah Bush (2011) and Mona Lena Krook (2006) discuss the case of Afghanistan as an example of coercion.  External agents of the global community have been present

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[2]While I am using these cases to illustrate the different diffusion mechanisms, I am not classifying them in the categories.  There are many interpretations for any individual case, which is why I am interested in the behavior of the system instead of individuals.

Figure 4.2: Quota Adoption 1995



Figure 4.3: Quota Adoption 2014

in Afghanistan since 1993 with the UN Special Mission to Afghanistan (UNSMA). After the conflict with the US and its 'coalition of the willing' in 2001, Afghanistan faced a lot of international pressure to include women in its new government. The constitutional drafting process was heavily influenced by the Western forces, and the new constitution included a gender quota when it was adopted in 2004. UN officials and government officials from Western countries had an instrumental role in establishing the Afghan quota. They lobbied the constitutional commission to include a quota especially given how unequal conditions for women had been under the Taliban government. Gender quotas were only one of many liberal reforms that were lobbied for by the international community. Given the weakness of the Afghan government, it accepted many constitutional changes in order to keep a core part of its identity: the Islamic faith. The result was a "relatively liberal Islamic constitution" (Rubin, 2004, 5). The top down process of Afghanistan's constitution-writing is a clear demonstration of coercion. The influencing states were from half a world away and were much more powerful than the extremely weak post-conflict state of Afghanistan.

The reason that senders such as the true believers involved in the UN mission use coercion is because they believe that by changing expression, receivers will become norm internalizers. Yet, coercion is the mechanism that is most problematic in that regard. In areas where local norms for women's role in society are much different than the universalistic liberal norms of the West, states may be resentful to have quotas forced upon them from above. For instance, according to a Ugandan anti-corruption and women's rights activist, "coercion from the top down is fragile; it is considered

bullying, and can lead to backlash."[3]. This could lead to backlash and actually make conditions worse in individual countries. Furthermore, it may lead to a weak norm at the system level with a population of a few powerful true believers and a large set of poseurs who do not just not believe in the norm, they are actively resentful of its imposition.

Peru provides an example of emulation, adopting a quota in 1997 after observing regional leader Argentina adopt a quota in 1991 (Schmidt, 2003). Women's groups had been advocating for quotas since at least the late 1980s, but they received little national attention until the 1994 elections. In the case of Peru and other Latin American countries who adopted quotas in the mid 1990s, many scholars point to the influence of Argentina as a trend setter (Preschard, 2002). Leaders of Latin American states often found themselves in precarious domestic situations, and they coveted the external support of powerful neighbors, especially the United States. In Peru, former president Alberto Fujimori was instrumental in bringing quotas to national attention when he publicly supported them during his campaign for reelection. While it is not clear whether he shared the same values of women's empowerment as the quota advocates, he believed he could gain a benefit from showing support (Schmidt, 2003, 2).[4] After Argentina adopted, leaders saw that that a regional leader had adopted a quota adoption, and they formed a belief that they should do so as well. The behavior of Peru and other Latin American countries can plausibly be described as emulation,

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[3]Interview with Jacqueline Asiimwe. See appendix B for the notes on the interview

[4]Nonetheless, he fled the country only three years after the quotas were adopted. If they gave him a boost in legitimacy, it was short-lived.

where they look to a regional leader and mimic the behavior they observe, regardless of any internalized belief that women should be equally represented Htun and Jones (2002).

If emulation is the culprit in the quota diffusion story, it would mean that Peru would have no effect on its neighbors. It is smaller than most in the region, especially those closest to it geographically. Many scholars paint a picture in which Argentina is the dominant sender in the region (Krook, 2006; Htun and Jones, 2002). The other states in Latin America that subsequently adopted were influenced by Argentina, not each other, according to the logic of emulation. Thus, while any (even all) of these states may be moving from uninitiated to true believer, there are also some who are moving from non-believer to poseur. Because emulation is driven by the receiver's desire to act like the sender, there is no further pressure to internalize once a norm has been expressed. Emulation has weak enduring pressure to move the system toward full internalization. If Latin American states really are just mimicking Argentina, internal patriarchies are likely to persist.

In 2004 Rwanda adopted a new constitution which included a gender quota (Powley, 2005). Prior to that, its neighbor Uganda adopted a gender quota in 1995. Rwanda's quotas ended up being the most far reaching in terms of increasing women's representation. This was a deliberate act by the constitution writers under the leadership of the Rwandan Patriotic Front (RPF), a political party and military organization and President Paul Kagame, its leader. Rwanda's adoption illustrates its competitive orientation to Uganda. This is a case in which the two states are relatively close in

terms of hierarchical position. Rwanda adopted a gender quota that saw significantly higher women's representation than Uganda, which had previously been the regional leader.

Rwanda provides an excellent example of why a system-level approach is helpful. Many critics argue women are less well off than they may seem, because legislatures have no power relative to the 'strong man' patriarchal presidents who govern in each country. Whether Rwanda was a non-believer becoming a poseur or an uninitiated becoming a true believer is ambiguous (Longman, 2006; Burnet, 2008). As an example of competition, it must be the case that Rwanda is a true believer, and some details clearly fit the competition story. Women's groups in East Africa have become an important part of society as leaders of peace movements and the development of civil society (Tripp et al., 2009; Amadiume, 2000) [5]. However, there is still widespread inequality in most societies and many traditional legal norms continue to prevent women from exercising their political, economic, and social rights. In the case of women's representation, this has been changing drastically in the last two decades. Rwanda adopted extensive reforms resulting in genuinely equal representation, not just the bare minimum. Moreover, domestic conditions seem to support its classification as an uninitiated prior to its adoption. Women's groups were active despite strong patriarchal legacies. Women had a powerful place in their own familial politics and with growing liberalization and the global women's rights movement women in

[5]East Africa includes: Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Somalia, Uganda, Zambia, Zimbabwe

African societies have become important political voices (Bauer and Britton, 2006; Bauer, 2008).

Sweden provides a clear case of an uninitiated becoming a true believer due to learning when a Swedish party first adopted a quota in 1981. Sweden plausibly learned from Norway, given the earlier adoption of quotas by a party in Norway in 1975. But, prior to its adoption of quotas, Sweden was already a leader in women's representation. It "knew" that it wanted to have women in power, and it was doing a relatively good job getting them there. However, when it saw Norway (who was in a similar position) do something to increase women's representation further, Sweden also wanted to address its shortcomings. Since 1981, Sweden has increased its representation from 28% in 1980 to near equality with 45% in the current parliament.[6]

> Only some political parties in Sweden have introduced quotas for public election, whereas others have rejected the idea. The Center Party, for instance, has enjoyed the highest representation of women in the Swedish parliament, more often than any other party since the 1970s, without quotas or even recommendations on more women in politics. Most importantly, the political parties in Scandinavia first introduced electoral gender quotas during the 1980s, when women already occupied 20-30 per cent of the seats in parliament, at that time also the highest in the world. The real breakthrough for Scandinavian women parliamentarians occurred in

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[6]The most recent elections were on September 19, 2010. Information was retrieved from http://www.ipu.org/parline-e/reports/2303.htm on June 23, 2014.

the 1970s, before the introduction of any quotas. (Freidenvall, 2003, 2)

Scandinavian states are considered exceptional due to high rates of women in their national legislatures (Phillips, 1995). Some claim that the difference between states with high and low representation is due to a unique cultural orientation (Norris and Inglehart, 2001). In other words, some states are by nature uninitiated or non-believers. Others, however, suggest that the cause is indeed a part of Scandinavian states' identity, but that it is not unique to their region. Rosenbluth, Salmond and Thies (2006) contend that the welfare state is the underlying causal mechanism that explain women's representation in the Nordic states as well as elsewhere in the world. Welfare states free women from traditional care-taking roles by providing services to care for children and the elderly while also providing public sector jobs for women. According to this view, we should see more women advocate for reform in government when women are more integrated into the public workforce and when the society shares a norm of gender equality. In either case, the main insight is that internal conditions of gender equality preceded expression.

As the four cases of Afghanistan, Rwanda, Peru, and Sweden illustrate, there are numerous paths to quota adoption (Krook, 2009). However, I argue that while these individual differences are important from a historical point of view, focusing on the particulars of the cases obscures broader trends which can help identify how the system will develop over time. Therefore I do not intend to code each of the quota adoptions as being caused by the four diffusion mechanisms. Instead, I look at the pattern of adoptions at the systemic level to better understand how the *expression* of a

norm for women's political equality (quota adoption) is related to its *internalization* (women's empowerment). In the next section, I discuss the relationship between quotas and women's empowerment.

### 4.1.2    Quotas and Women's Political Empowerment

When we ask and answer the question, 'why do states adopt quotas?,' what are we actually learning about women's empowerment? Quotas are not equivalent to women's empowerment, but the two are related in complex and interesting ways. States use institutional reforms to empower women based on underlying preferences for gender equality (**U**ninitiated → **T**rue **B**eliever). Yet they also adopt quotas due to social pressures to conform. Just because a state adopts a quota does not mean that it is sincerely committed to gender equality (**N**on**B**eliever → **P**oseur). Understanding why states adopt quotas helps address the bigger question of how quotas may alter the future direction of women's empowerment and whether global society is really becoming more gender equal. In order to address these big questions, we need to have a better idea of when quotas are reflective of pre-existing levels of empowerment, and when they are imposed from above by powerful states.

Some societies have very restrictive rules about gender relations. The various roles that women play in society are defined within culture, which is governed by local, national, and international institutions. In large parts of the world (especially the US, China, and Europe), national institutions are stronger than international institutions (Catholic Church, NATO, UN) and local institutions (schools, communi-

ties) in defining these roles. However, there are numerous examples in which national institutions are trumped by local and/or international definitions for significant parts of the globe. For instance, the Amish use rural isolation to define gender roles separately from the rest of the US according to locally defined institutions (Kraybill, 2001). Another example are the Lubavitchers, conservative Jewish communities that exist in urban centers in the US and Canada (Feldman, 2003) who define their own gender roles independent of national society. Institutions such as the Catholic Church (influencing Irish marriage laws, etc) the EU (defining rules about women's rights for its members), and various sects/denominations of the world religions are international actors who are sometimes more important in defining women's rights than national actors. Due to all the different forces influencing culture, women's status in society varies greatly throughout the world.

Women interact with the polity in a variety of ways. They are members of civil society (Flexner and Fitzpatrick, 1959; Banaszak, 2010; Htun and Weldon, 2012), voters (Andersen, 1996; Norrander, 1999; Paxton, 2000), candidates (Carroll, 1994; Lawless and Fox, 2010), policy-makers (McBride, Mazur and Lovenduski, 2010; Outshoorn, 2004), and representatives (Lawless and Pearson, 2008; Paxton, 1997; Paxton, Hughes and Painter II, 2010; Reynolds, 1999; Osborn, 2012; Phillips, 1995). They are also frequently the primary caretakers of the fundamental political unit, the family. I define women's empowerment as the ability of individuals regardless of their gender to engage freely in political activities. To be empowered politically is to be legally free from inequalities built into local or national laws. In the last century and

a half, the world has undergone significant changes in women's empowerment. One crucial aspect of empowerment is women's representation in political office. I take a state-centric approach and look at representation in terms of the adoption of quotas and the percent women serving in parliament.

Empowerment is more than legally defined rights and institutions. It is also "agency, resources, and achievement" (Kabeer, 1999, 14). Viewing empowerment in this way leads the focus away from abstract political rights and onto the lived experiences of women in society. By taking a state-centric approach, I am necessarily abstracting away from the lived experiences of women while I focus on the diffusion of a particular institution related to empowerment, I do not claim that quotas are equivalent to women's empowerment.

Women's representation is commonly defined as the level of women's presence in a state's national legislature. For comparative purposes, reported representation is from the lower house only. In 1975, the level of women's presence in national legislatures averaged less than 7% across the globe. By 2010, the global average of women's presence doubled to over 17% (IPU). Despite the persistence in women's underrepresentation, the increase in women's representations indicates a significant growth towards global gender equality. The level of representation symbolizes the extent to which women are able to reach the top politically. It also holds the possibility for social transformation through gendered policy shift. However, scholars are well aware that women's presence (descriptive representation) does not necessarily lead to women-friendly policies (substantive representation). There are several ways

that impediments can potentially limit the impact of women's representation. Legislatures are sometimes constrained by powerful executives, particular legislators can be sidelined by more powerful members, and women can be excluded from important committees or other leadership roles.

Thus, the level of women's representation is not simply a reflection of domestic conditions of gender equality. While representation is partially determined by culture, quotas can increase or decrease representation independently of local women's empowerment norms. This has led to some surprising examples of high levels of women's representation in countries despite few guarantees for women's rights. The existence of quotas means that the relationship between women's local, national and global norms of representation is complex.

Many states behave in ways that would not be obvious given their identity. Pakistan was one of the earliest adopters of a quota for women's representation when it included reserved seats for women in its 1956 constitution. While the level of representation was low by current standards (originally 3%), the quota ensured that Pakistan ranked higher on the list of representation than similarly situated states for several decades. As the global women's movement focused on representation issues in the 1970s, many states began taking measures to increase women's representation. Pakistan responded by increasing the proportion of seats reserved for women to 10% in 1985. However, five years later, it removed the quota and women's representation dropped to below 4%. Pakistan reinstated a constitutional quota in 2002 guaranteeing women 17% of the seats in the parliament. This new number will likely keep Pakistan

near the global average for some time to come. Pakistan's history with quotas may seem surprising given that its most recent ranking by the WomanStats Database project placed it in the lowest category of a women's rights index indicating that "women lack physical security."[7] In fact, many states ranked at the bottom of the women's physical security index have quotas. Figure 4.4 gives the distribution of the women's security ranking by whether a state has a quota or not.

Figure 4.4: Quotas and Women's Security, 2010
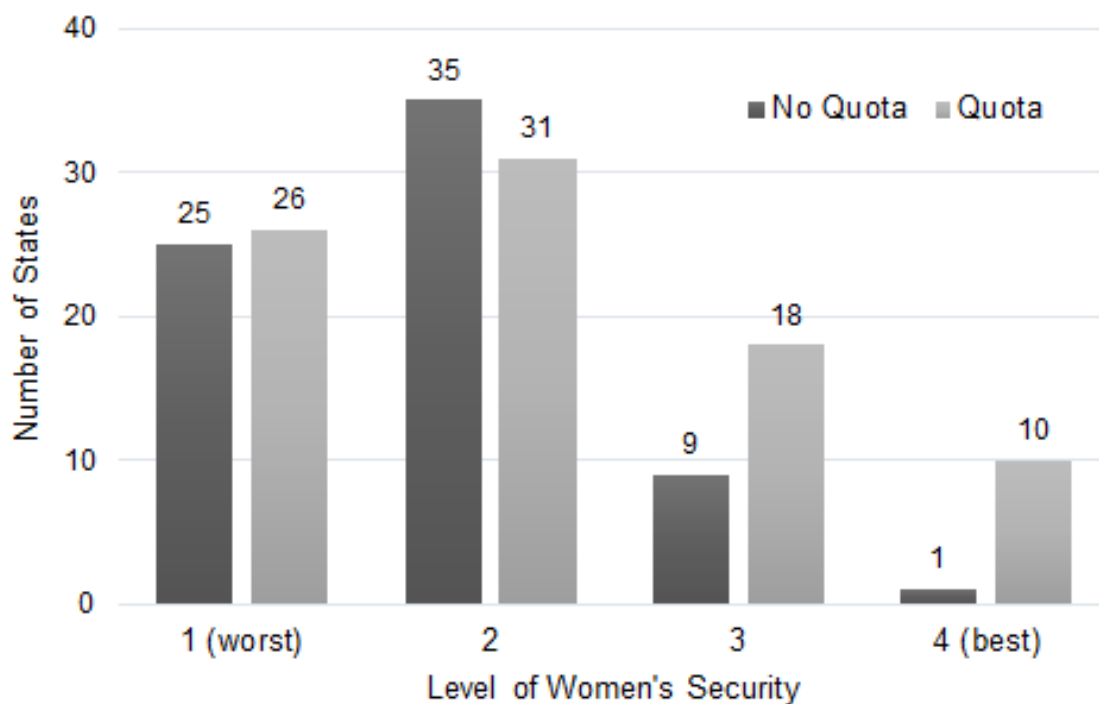


Figure 4.4 is a histogram comparing states with quotas to states without quo-

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tas. It exhibits a couple of interesting patterns. First, there appears to be a positive relationship between women's security and quotas. As women's physical security increases, states are more likely to have quotas. Or, looking at it the other way around, states with quotas have greater security on average than states without quotas. The Tau-C coefficient is .17 indicating a small but real relationship.[8] The second thing to notice is that this positive relationship is non-linear. Among states at the highest level of women's security, the relationship between quotas and rank is stark. States are ten times more likely to have a quota than not when they have the highest level of women's security. On the other hand, amongst the states at the lowest level of security (which comprise a total 75% of the sample) there are roughly equal numbers of states with and without quotas. This non-linearity suggests that there may be multiple processes at work, that a single process has differential effects depending on its level, or that there is a tipping point.

Figure 4.4 uses data from WomanStats, a data project with the goal of developing "the most comprehensive database on the situation and status of women in the world" (WomanStats Project Overview, 2010).[9] While this project is comprehensive in terms of cataloging the condition of women globally, it lacks one important dimension: time. We need measures of women's rights over time to begin to think about how quotas might lead to changes in rights conditions, or how quota adoption

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[8]Tau-C is the most appropriate test statistic due to the rectangular nature of the matrix. The measure is bounded by -1 and 1 indicating a perfect negative or positive relationship and zero indicating no relationship. Other tests of association support this finding, Pearson's r correlation coefficient is .19 ($p < .02$) while the Tau-B is .15.

[9]http://www.womanstats.org/images/WomanStatsOverview.pdf accessed 04/23/2014

is potentially influenced by preexisting rights conditions. For that task, I turn to the Cingrinelli-Richards (CIRI) human rights data project. Primarily using State Department reports, researchers have created a host of indexes measuring various human rights. Of current importance are the three variables measuring women's social, political, and economic rights which are available from 1981-2011. Figure 4.5 gives the aggregate over-time dynamics of these three women's rights variables.

Figure 4.5: Women's Rights and Quotas, 1981-2011
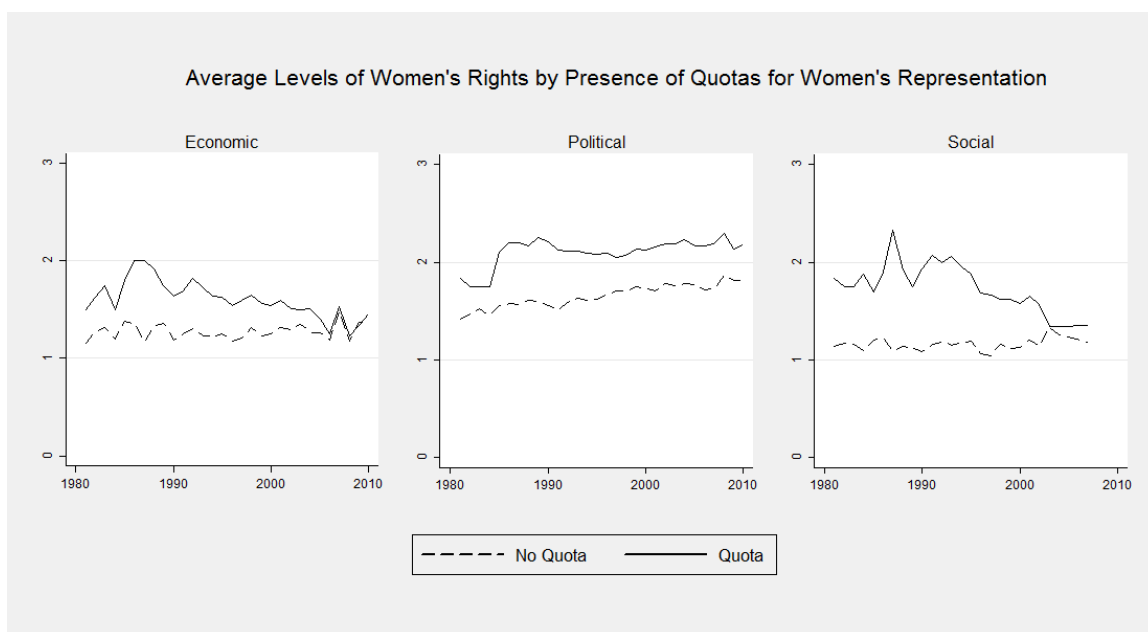


Again, several interesting patterns are evident in the data. First, states with quotas have on average, higher levels of all three types of rights. Yet, at some point around 2005, the average level of social and economic rights in states with quotas reached approximately the same level as in states without quotas. Notice that the

trend in social and economic rights of non-quota states is flat while the trend of states with quotas is negative. Third, the pattern that political rights exhibit differs from social and economic rights. Both the average of non-quota and quota states is increasing in parallel over time in contrast to economic and social rights which are converging. Why is this the case? Have political rights really improved amongst quota adopters while social and economic rights declined?

So let's collect all of the empirical facts we must explain. From the cross-sectional Womanstats data, we must explain why:

1. States at the highest levels of security are much more likely to have quotas than not.

2. States at the lowest levels of security are equally likely to have quotas or not.

From the time-series cross-sectional data, we must explain why:

1. States with quotas have, on average, higher levels of economic, political, and social rights than states without quotas.

2. The average of economic and social rights in the population of states without quotas is constant over time.

3. The average of economic and social rights in the population of states with quotas is decreasing over time.

4. The average of political rights is increasing at close to the same rate amongst states with and without quotas.

One crucial thing to keep in mind in constructing an explanation for these patterns is that quotas can cause women's rights and women's rights can cause quotas. The trend lines displayed above capture two distinct processes. For one, they show the macro-dynamics, how the populations of those with and without quotas are changing. On the other hand, they also capture the micro-dynamics, the effect that women's rights has on adopting a quota and its inverse, the effect that adopting a quota has on women's rights development. This is sometimes referred to as policy feedback, changes in women's substantive representation resulting from shifts in descriptive representation.

### 4.1.3 The Great Debate of Quota Diffusion

Earlier work on quotas has advanced our understanding of women's empowerment, but as I will demonstrate, the use of my diffusion ABM brings more theoretical clarity to this rich body of research. Quotas are the product of domestic and international forces and ideas. However, the domestic story of quota adoption is better understood than the international story. In response to historical developments and the explosion of gender quota adoptions in the 1990's and 2000's (see figure 4.6), scholars became interested in quotas and have written about them extensively since around 2000 (see figure 4.7).[10] Due to the small number of cases available, much of

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[10]This is a rough sketch and it likely overestimates the number of articles published on legislative gender quotas. GoogleScholar often includes conference papers, and other bibliographic entries, that do not constitute research articles. Nonetheless, the pattern should be evident. Scholars are responding to the empirical world by focusing on this new phenomena. With a more refined measure than five-year averages, it would be possible to test for Granger causality to see whether scholarly attention Granger causes adoption or whether adoption Granger causes scholarship. This relates to my longer term project of

the early research on quotas (pre-2005) uses either a historical case study approach or compares within regions using most similar system designs. Quotas are the subject of numerous studies including country case studies (Antic and Gortnar, 2004; Baum and Espirito-Santo, 2012; Bereni, 2007; Haug, 1995; Holli, 2004; Meier, 2004; Verge, 2012), regional small-n comparisons (Bauer, 2008; Dahlerup and Nordlund, 2004; Jones, 2009; Kittilson, 2011; Kjerulf Dubrow, 2011; Mateo Diaz and Millns, 2004), and large-n global comparisons (Bush, 2011; Caul, 2001; Celis, Krook and Meier, 2011; Hughes, 2011; Krook, Lovenduski and Squires, 2009; Paxton, Hughes and Painter II, 2010). There are nearly as many explanations as there are cases. If these authors are correct, then there are a multitude of causal pathways to states adopting quotas (Krook, 2009). Krook summarizes the literature into a single framework, but it is very complex, containing:

> four common arguments: women mobilize for quotas to increase women's representation, political elites recognize strategic advantages for pursuing quotas, quotas are consistent with existing or emerging norms of equality and representation, and quotas are supported by international norms and spread through transnational sharing...They indicate three categories of potential actors in quota campaigns: civil society actors,...state actors,...and international and transnational actors...They point to seven motivations for quota reform: principled stands, electoral considerations, empty gestures, promotion of other ends, extension of representational

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linking diffusion to the NGO network of scholars and activists.

guarantees, international pressure, and transnational learning. (Krook, 2009, 208)

Research on gender quotas has significantly advanced our understanding of the adoption process. However, domestic-level explanations have dominated the field's understanding, and inferences drawn from these studies are incomplete due to the omission of important international variables. A domestic story cannot adequately capture the connectedness between states, the social nature of norms, and the spread of ideas in a social system. These types of studies do not necessarily ignore international forces, but they cannot provide the analysis that is required to understand quota diffusion as a systemic process.

Figure 4.6: Quota Adoptions, 1975-2014
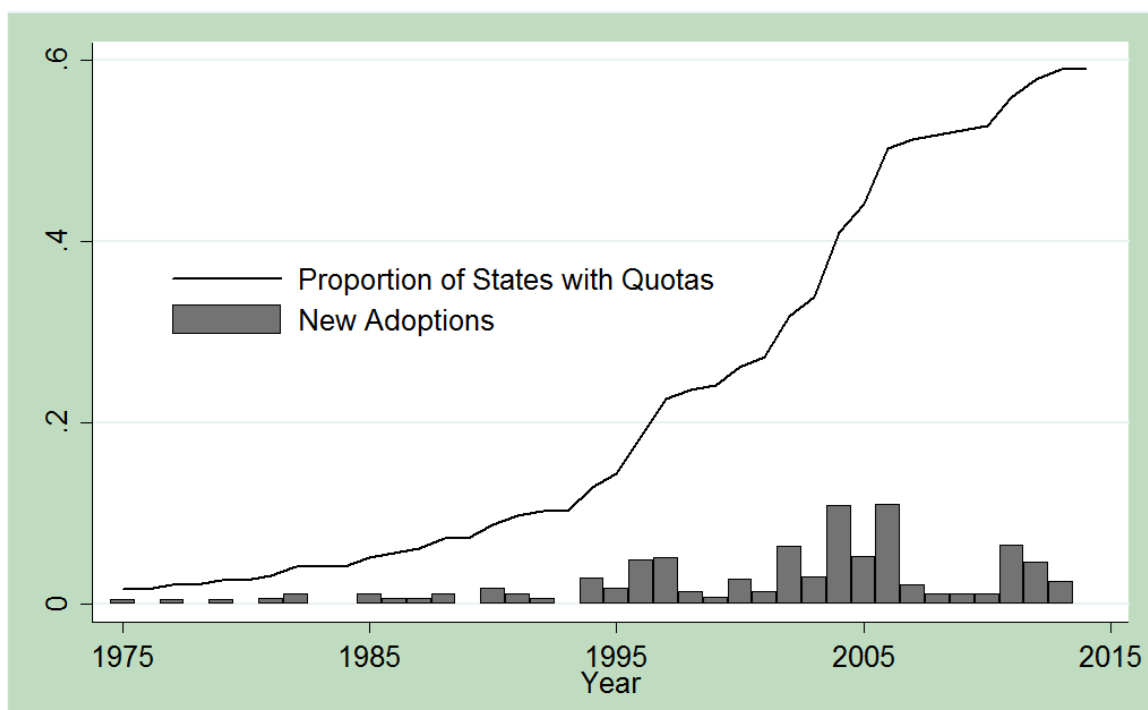
Figure 4.7: The Diffusion of Quota Research
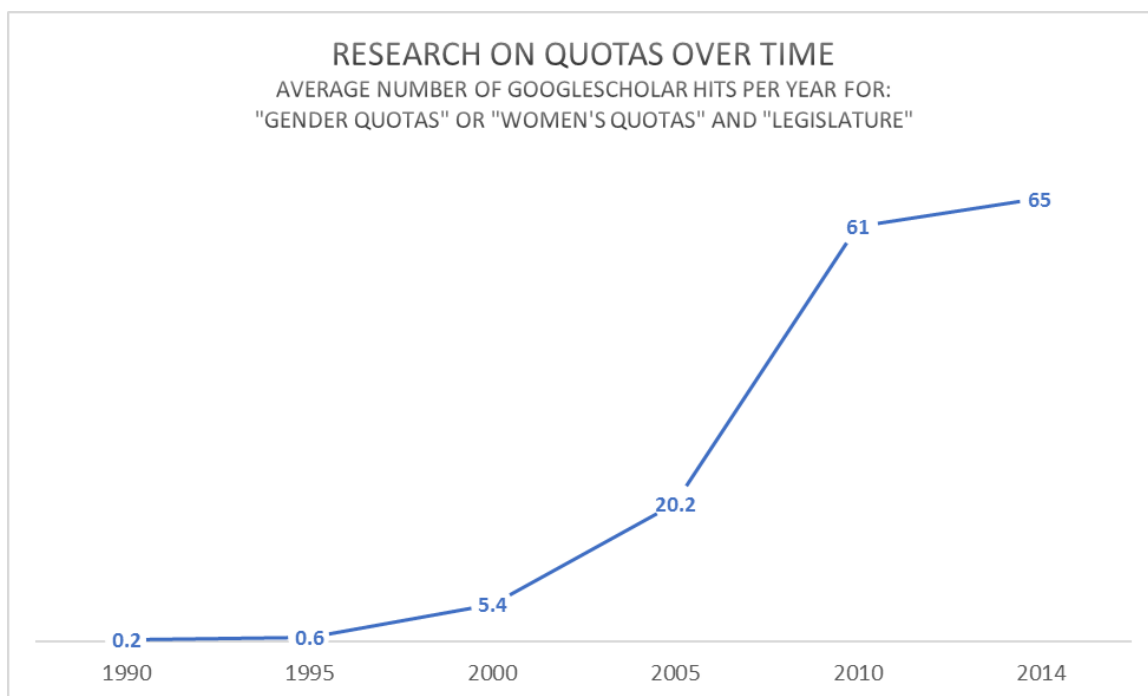


Recently, two scholars tackled the question of quota adoption from various IR perspectives (Bush, 2011; Towns, 2012). Using event history analysis, Bush (2011) finds support for direct and indirect coercion as measured by UN peacekeeping operations, internationally observed elections, and foreign aid dependence. Evidence rejects social constructivist arguments, finding no empirical social pressure as measured by the proportion of states with quotas in each region. Conversely, Towns (2012, 181) takes a constructivist approach that emphasizes norms and social hierarchy to explain how diffusion occurs. She argues that "the diffusion of sex quotas is not a case of hegemonic socialization, of the poor and peripheral copying the rich and central, nor of core liberal states adopting and promoting a new liberal standard." Instead,

diffusion is driven "from below" by states in the periphery who are seeking to enhance their rank in the international social system. While both of these recent works recognize that weaker states are adopting, they come to very different conclusions about the diffusion process that led to this empirical reality. Bush tells a top-down story of powerful states and ideas changing the behavior of weak states while Towns tells a bottom-up story of weak states innovating and competing with each other for social rank.

Bush's main argument is that the quota diffusion process entails coercive and emulative mechanisms. "The international legitimacy of gender quotas leads them to be adopted through two causal pathways: directly, through post-conflict peace operations, and indirectly, by encouraging countries, especially those that depend on foreign aid, to signal their commitment to democracy by adopting quotas" (Bush, 2011, 103). Due to the success of the world-wide women's movement, the goal of creating global gender equality has been adopted by important democracy-promoting institutions such as the UN. The link between democracy and gender equality amongst the international community is crucial to Bush's theory because adopters are assumed to be motivated by incentives from powerful democracies "the diverse benefits that leaders perceive quotas to foster – from foreign aid to improved legitimacy" (Bush, 2011, 103). In other words, it is the coercive pressure to conform to democratic governance which drives states' decisions to adopt gender quotas. Quotas in the developing world are not adopted due to internal forces such as modernization, or learning from others in the world polity. "Instead, they are adopted by developing countries due

to the direct influence of the international community in post-conflict societies and the indirect inducements of the international community in countries that are concerned with foreign aid, foreign investment, international reputation, and legitimacy" The desire to capture this legitimacy is an incentive.[11]  The legitimacy is bestowed by the democracy establishment, "a network of intergovernmental, governmental, quasi-governmental, and nongovernmental actors" (pg 110) who "share a common set of normative and cause-effect beliefs" (pg 111).  The democracy establishment actively (coercion) and passively (emulation) promotes quota adoption.  Bush uses an indicator of the democracy-promoting UN peacekeeping mission to measure active promotion and finds support for direct coercion. She also concludes that foreign aid makes adoption more likely.

Towns (2012), on the other hand, argues that the weak states are not forced into quotas; weak states are innovators.  She argues that, "social hierarchies create incentives for new policies to develop at the margins of international society so that policies may diffuse 'from below.'"  States aspire to have a higher ranking in the system and a desire to change their perceived status from 'traditional' to 'modern.' Towns (2012, 183) argues:

> The diffusion of sex quotas is not a case of hegemonic socialization, of the
> poor and peripheral copying the rich and central, nor of core liberal states

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[11]This implies that legitimacy increases as a result of adoption, but it is an untested empirical implication of her model.  I explored the idea that adopting a quota increased leader survival, but it does not. The theoretical link between leader tenure and legitimacy also fails a validity check. How do leaders turn quota adoption into personal gain?

adopting and promoting a new liberal standard. Although these claims are not without general merit, one possibility has been overlooked: new policy measures may emerge 'from below' as peripheral states attempt to improve their standing. . . Exhibiting a larger share of female legislators is seen as one indication of a state being 'advanced' and 'modern,' a sign of being a developed democracy with political institutions that are conducive to investments and market-based growth. . . A state's placement in the social hierarchy between the 'modern' and 'traditional' provides the framework and much of the urgency for passing quota legislation.

I argue that a state's rank is fixed. Instead, quotas are a fad amongst the system of states. The fact that they are a fad does not devalue their potential for improving women's empowerment. (It does, however, imply that many states are adopting for the 'wrong' reasons. Whether the fad ends up reinforcing a growing norm is highly conditional as we shall see.)

Comparing the theoretical arguments of Bush (2011) and Towns (2012) illustrates the full spectrum of diffusion mechanisms. Both agree that the primary driving mechanism is the position in the global hierarchy of norm promoters. They divide the world into "traditional" or "modern" (Towns) or developed and developing (Bush). While this dichotomy is helpful, it doesn't fully describe hierarchy; states exists at a variety of ranks in a social system. While Bush (2011) and Towns (2012) offer many insights into quota adoption, I build on their work in two directions which are highly interrelated. They limit the scope to the developing world, and they focus

only on legal quotas. Towns limits her time frame, stating that the "current trend of adopting legal quotas began in 1989 and really took off in the second half of the 1990s" (189). But limiting the time frame in this way obscures the role of the early adopters. I argue that we should always consider the full system in order to understand norm diffusion. Instead of looking only at legal quotas, we need to consider all forms of quotas as well as other efforts to increase representation. After all, the norm is 'women ought to be equally represented in parliament' not 'states ought to have a legal quota.' Furthermore, using only a subsample of the system unnecessarily omits valuable data as well as potentially obscuring important causal relationships. Ideas about increasing women's representation take many forms (party quotas, domestic norms), and if a theory is systemic in nature, it should account for the whole system, not just a part of it.

Table 4.1: Empirical Expectations

|             | Hierarchy  | Neighborhood | Identity | Duration Dependence |
|-------------|------------|--------------|----------|---------------------|
| Coercion    | +          | null         | null     | -                   |
| Competition | - or null  | +            | +        | + or null           |
| Emulation   | +          | +            | null     | -                   |
| Learning    | - or null  | null         | +        | + or null           |

Table 4.1 shows the empirical expectations for each of the diffusion mechanisms. Each of the mechanisms suggests its own pattern of quota diffusion with respect to hierarchy, neighborhood, and identity. I collect a variety of measures of

each of these concepts and use them to construct statistical models of quota diffusion using dyadic convergence as the key dependent variable. Before discussing the operationalizations of the variables, I introduce the statistical approach I use to evaluate the dynamics of quota diffusion empirically.

## 4.2   Event History Analysis

Event history models are defined by the structure of the data. Beginning with time series cross sectional data, the researcher constructs a variable indicating the date of adoption of an innovation. In discrete EHA, the researcher uses the state-year (for instance) as the unit of analysis. Within each year, a state that does not have the policy can adopt it or not. Once a state adopts, it receives a value of 1 for that year and then drops from the risk-set in subsequent years. States that do not adopt during the period under study are right censored. The standard Logit, Probit, or other binary estimator is employed with the use of time dummies, cubic polynomials of time, or splines to account for duration dependence Beck (2010); Carter and Signorino (2010$a$).

Despite the general versatility of the state-year EHA, diffusion processes are more nuanced than EHA allows. Recent research has sought out alternative ways to model diffusion processes that more accurately reflect the theoretical arguments being made. As many scholars have already argued, the idea of geographic contagion is but one part of the diffusion process. While states are likely to look to their neighbors or feel the weight of social pressure proportional to the prevalence in the system,

they are also likely to consider successful states or states that are more like them. The dynamics of diffusion described by scholars rely on mechanisms of coercion, competition, emulation and learning in which states look to others to inform their policies in a variety of ways. There are numerous properties of the system that can influence the diffusion process which are richer than mere numerical growth.

One way to do this is through a dyadic event history model (Boehmke, 2009; Gilardi and Füglister, 2008; Volden, 2006). Although dyadic models are applied frequently in search of solutions to puzzles in international relations, the dyadic event history framework is a relatively new addition to modelers' toolkits. In the case where the researcher models only the presence/absence of a policy (and not degree or component of a policy) a dichotomous dependent variable is employed, and the model can be estimated like the monadic discrete case. The dependent variable is convergence and assumes the value 1 when both $i_R = 1$ and $i_S = 1$ given $i_R = 0$ and $i_S = 1$ in the previous period $t$-1. The dependent variable is zero when either **R** or **S** or both are equal to zero. This coding follows Volden (2006); however, in the case of a single policy component, observations after which convergence has occurred should be dropped because the dyads are no longer at risk of convergence. In order to control for the logic of opportunity, observations in which the leader (**S** in my examples) has not yet adopted the policy should be removed. Policy leaders are, by definition, those states that have enacted some policy and subsequently become the models for other potential adopters. Another way to think about it is to "limit the analysis to the set of observations for which policy convergence is possible. In general, this involves

eliminating dyad-year observations in which both states had the same policy in the previous year" (Boehmke, 2009, 1129). Thus, I drop dyads in time $t$ in which $i_R = 0$ and $i_S = 0$ in time $t$-1. The second case is a significant adjustment to the population of cases defined as "at risk." Thus, once a state has adopted, it is dropped as the receiver state in all dyads, but remains as a sender in dyads in which the receiver has not yet adopted.

To illustrate DEHA, consider a system of three potential quota adopters over a period of three years: Brazil, Paraguay, and Uruguay from 1996–1998. Paraguay introduced quota reform during more general electoral reforms in 1996. In 1997, Brazil passed a law introducing a 25% quota for party lists. Although reformers in Uruguay were early advocates for gender quotas in the late 1980s, attempts to enact gender reform legislation were unsuccessful until much more recently, following 2009 reforms. table 4.2 illustrates the data in event history form. The state year is the unit of analysis and the dependent variable, adoption, has a sample space {0,1}. Adoption takes on the value 0 in all years before a state has adopted a quota, Brazil 1996, Uruguay 1996–1998. Adoption takes on the value 1 in the year a state adopts a quota (Brazil 1997, Paraguay 1996) and subsequent state-years are dropped. Uruguay, which never adopts a quota in the time period 1996–1998, is said to be right censored. While the case contains no 1s, it still contributes information to the maximum likelihood estimates of the effects of covariates.

From the standard EHA data set-up, the construction of a dyadic EHA is straightforward. The new unit of analysis is the directed dyad year denoted by the

Table 4.2: Example of Monadic Event History Analysis Data

| State | Year | Adoption |
|-------|------|----------|
| Brazil | 1996 | 0 |
| Brazil | 1997 | 1 |
| Brazil | 1998 | . |
| Paraguay | 1996 | 1 |
| Paraguay | 1997 | . |
| Paraguay | 1998 | . |
| Uruguay | 1996 | 0 |
| Uruguay | 1997 | 0 |
| Uruguay | 1998 | 0 |

subscript $RSt$ where $RS \neq SR$. Each state is paired with every other state twice in each year, once as the leader and once as the adopter. Directed dyads are used because, for instance, the influence from Brazil to Paraguay is not the same as from Paraguay to Brazil. Table 4.3 illustrates the data in directed-dyad form over the 3 year span 1996-1998. The dependent variable takes on a 1 in time $t$ if $adoption_R$ and $adoption_S = 1$ and $adoption_R = 0$ and $adoption_S = 1$ in time $t - 1$. The only observation where this occurs in the illustration is Brazil-Paraguay 1997. After state $R$ has adopted, it is no longer at risk of convergence and all dyads in which $adoption_R = 1$ in time $t - 1$ are dropped. Thus, since Brazil adopted in 1997, Brazil-Paraguay 1998 and Brazil-Uruguay 1998 are treated as missing. Additionally, Paraguay-Brazil 1997 and 1998 and Paraguay-Uruguay 1997 and 1998 are missing because Paraguay adopted in 1996 and is no longer able to converge.

Boehmke's (2009) modification of Volden's (2006) convergence model controls for the opportunity to adopt by dropping cases where the sender has not yet adopted the policy in question. For instance, in the 1996-1998 time frame, there are no cases

Table 4.3: Example of Dyadic Event History Analysis Data

| Receiver | Sender | Year | Convergence |
|----------|--------|------|-------------|
| Brazil | Paraguay | 1996 | 0 |
| Brazil | Paraguay | 1997 | 1 |
| Brazil | Paraguay | 1998 | . |
| Brazil | Uruguay | 1996 | . |
| Brazil | Uruguay | 1997 | . |
| Brazil | Uruguay | 1998 | . |
| Paraguay | Brazil | 1996 | . |
| Paraguay | Brazil | 1997 | . |
| Paraguay | Brazil | 1998 | . |
| Paraguay | Uruguay | 1996 | . |
| Paraguay | Uruguay | 1997 | . |
| Paraguay | Uruguay | 1998 | . |
| Uruguay | Brazil | 1996 | . |
| Uruguay | Brazil | 1997 | . |
| Uruguay | Brazil | 1998 | 0 |
| Uruguay | Paraguay | 1996 | . |
| Uruguay | Paraguay | 1997 | 0 |
| Uruguay | Paraguay | 1998 | 0 |

in which Uruguay has the opportunity to be emulated because it has not adopted quotas. Rather than treat these as non-convergences and coded 0, they should be coded as missing. Thus, Brazil-Uruguay 1996–1997, Paraguay-Brazil 1996, Paraguay-Uruguay 1996, Uruguay-Brazil 1996-1997, and Uruguay-Paraguay 1996 are recoded as missing. What is left as 0s are cases in which a dyad could converge but does not in that particular year: Brazil-Uruguay 1996, Uruguay-Brazil 1996-1998, and Uruguay-Paraguay 1996-1998.

With the data structure in mind, it is now obvious what type of information is included in the likelihood function used to estimate such models. In this illustration, the only failure that occurs is recorded in the case of Brazil-Paraguay. If this were the

entire universe, we would conclude that there is something about Paraguay that makes it a leader in this area (it was, after all the first to adopt). Additionally, there may be something about the relationship between Paraguay and Brazil (perhaps that they are geographic neighbors), and something about Brazil that led to its adoption in 1997. We would also conclude that there is something about Uruguay and the relationships between Uruguay and Paraguay and Uruguay and Brazil that contributes to non-convergence over this period. Of course, it would take a larger system than three states over three years to uncover these relationships; the point here is merely to illustrate what types of inferences are possible.

In order to use the diffusion model empirically, I construct a dataset consisting of domestic, international, and relational variables over a period of approximately 40 years. The data come from common sources such as the World Bank and Polity. Data on quotas are adapted from the Global Database of Quotas for Women hosted by the *International Institute for Democracy and Electoral Assistance* (IDEA). Where necessary, due to ambiguous dates given on the IDEA website, I followed links to other sources, such as official country websites and news sources to establish a date of adoption. Data used to construct independent variables were retrieved primarily from the *Quality of Government* data repository [12] and the *Expected Utility Generation and Data Management Program* (EUGene) data management tool.[13] The unit of analysis is the state-year in the EHA and the directed dyad-year in the DEHA created

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[12]http://www.qog.pol.gu.se/data/

[13]http://www.eugenesoftware.org/

from a sample of approximately 150 states from 1970-2010. Table 4.4 shows the conceptualization and operationalization of the variables used in the models.[14]

### 4.2.1 Hierarchy

I employ several operationalizations of hierarchy to capture the social, military, and economic aspects of the concept. I take two variables from the Correlates of War (COW) project, the Composite Index of National Capabilities (*CINC*) and *Major Power*, two from Penn World Table, Gross Domestic Product (*GDP*) and Gross Domestic Product per Capita *GDP/Capita*. The final measure of hierarchy is whether a state had an internationally *Observed Election* taken from research on election monitoring by Kelley (2009).

*Major Power* is a dichotomous variable indicating whether the sender is considered a major power.[15] It captures the social aspect of hierarchy. Prestigious states are esteemed, and they have the ability to inspire imitation or use their social power to coerce the weak. Even though major powers are militarily powerful, there is not a strong correlation with other measures of hierarchy that focus on different dimensions of power.[16]. *Major Power* unique among the hierarchy variables because it is the only one measured at the level of the sender.

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[14]In appendix B, table B.4 provides descriptive statistics and table B.5 shows a correlation matrix of all of the variables used in the models.

[15]While there is much stability in this variable over time, Japan moves into major power status in 1991. Major powers include: the United States, United Kingdom, France, Germany, Russia, Japan, and China.

[16]See table B.5 in appendix B to compare the correlations of the various measures of hierarchy

Table 4.4: Operationalization of independent variables

|  | Concept | Operationalization |
|---|---|---|
| Hierarchy | Social Power | Major power status of the sender, Observed elections in the receiver |
|  | Military Power | Difference between sender and receiver in Composite Index of National Capabilities (CINC) scores, ln(CINC) |
|  | Economic Power | Difference between S and R in Gross Domestic Product (GDP), ln(GDP), GDP per Capita, ln(GDP/Capita) |
| Neighborhood | Geographic | Contiguity, Distance, Shared region |
|  | Social | Alliance partners, Shared International Organization (IO) membership |
|  | Economic | Total trade between R and S |
| Identity | Democracy | Receiver's combined democracy-autocracy Polity IV score [-10,10], and democracy dichotomy 0,1 with states coded as democracies when they are $\geq 6$ on the full scale |
|  | Electoral System *Ch 4 only* | Dummies for Proportional Representation (PR) and Single Member Districts (SMD) |
|  | Women's Empowerment *Ch 4 only* | Level of women's representation, CIRI measures of women's social, economic, and political rights |
|  | Legal System *Ch 5 only* | Dummies for Common law, Civil law, Islamic law and mixed legal systems |
|  | Human Rights *Ch 5 only* | Political Terror Scale (PTS), CIRI measures of empowerment, physical integrity, and torture |
| Time | Duration Dependence | Fixed effects, linear, quadratic, and cubic polynomials, splines |

A second measure that captures the social aspect of hierarchy, *Observed Election*, is also unique because it is measured at the level of the receiver. *Observed Election* is a dichotomous variable coded as 1 when a state has at least one international election monitor in a given year, and 0 when no international observers were present. I also use an alternative specification, which takes on a value of 1 for non-election years after an internationally observed election until an election without international observers occurs. If a state has an internationally observed election, it is more likely to be influenced by global pressure because representatives of powerful states are physically present to transmit their norms. Moreover, having an internationally observed election is an indicator of the lowest ranking states, which do not have the power to keep others from meddling in its internal political affairs.

The other hierarchy measures are relational; they are measured at the level of the receiver-sender dyad. The military dimension of hierarchy is captured by the difference between a sender and receiver in terms of capabilities. This can be accomplished by using one of two measures, the *CINC* and the natural log of CINC, *lnCINC. CINC* is a widely used measure of state power. It is an index comprised of six components: energy consumption, iron & steel production, military expenditure, total population, and urban population. The final scores for each state are computed by "summing all observations on each of the 6 capability components for a given year, converting each state's absolute component to a share of the international system, and then averaging across the 6 components."[17] I also take the natural log of the

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[17] From the COW website, http://www.correlatesofwar.org/COW220Data/Capabilities/nmc3-

*CINC* score because it is skewed.

The second group of relational hierarchy measures capture the economic aspect of power. From the World Bank, I use two measures of economic might, *GDP* and *GDP/Capita. GDP* is a measure of the overall size of the economy of a state, while *GDP/Capita* is a measure of the wealth of a society. Even though these measures both relate to the economy, they are very different conceptually. When only *GDP* is considered, states like India and China are much higher on the list than if *GDP/Capita* is considered. Small states such as Monaco and Luxembourg rank high on this list, but low on raw *GDP*. On the other hand, there are many states that rank highly on both measures, such as the US and Germany. Data on the size of the economy and population are taken from the Penn World Tables which cover 189 countries from 1950–2010.[18]

### 4.2.2 Neighborhood

I use a variety of variables to capture the spatial neighborhood effect. *Contiguity* and *Distance* are taken from COW. *Same Region* is created from regions as defined by Hadenius and Teorell (2005).[19] Regional quota adoption trends are shown

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02.htm, last accessed May 15, 2014

[18]Version PWT 7.1 last updated November 30, 2012 (Heston, Summers and Aten, 2012).

[19]Table B.3 in appendix B lists the members of each of these regions:(1) Eastern Europe and post Soviet Union (including Central Asia),(2) Latin America (including Cuba, Haiti & the Dominican Republic), (3) North Africa & the Middle East (including Israel, Turkey & Cyprus), (4) Sub-Saharan Africa,(5) Western Europe and North America (including Australia & New Zealand),(6) East Asia (including Japan & Mongolia),(7) South-East Asia,(8) South Asia,(9) The Pacific (excluding Australia & New Zealand),(10) The Caribbean (including Belize, Guyana & Suriname, but excluding Cuba, Haiti & the Dominican Republic)

in figure **??**. International *Trade* is the total trade between the sender and receiver
generated from Barbieri and Keshk (2012) data. The final neighborhood variable is
*Shared IO* membership taken from Pevehouse and Russett (2006).

There are three ways that neighborhoods are defined in terms of geographic
space. *Contiguity* is coded as 1 if states share a land border and are separated by less
than 400 miles of water.[20] Second, *distance* between capitals is also used. Distance is
highly skewed, so all analyses include the natural log transformation. Tobler's 1st Law
of Geography captures the fundamental importance of geographic space: "everything
is related to everything else, but near things are more related than distant things"
(Tobler, 1970, 236). A third measure of geographic space conforms most closely to the
ABM. I use an indicator *Same Region* representing whether the sender and receiver
are in the share a common geographic region.

Other neighborhood variables move away from a geographic focus. I employ
three variables that capture the economic and social aspects of neighborhoods. *Trade*
captures the economic relationship between states, and it is measured by the total
trade (imports and exports) between the receiver and the sender. I also create Relative
Trade, which is total trade normalized according to the size of the receiver's economy
(GDP). Due to skewness, I also run analyses with logged versions of these variables.
On the social aspect of neighborhoods, *Alliance* is a dichotomous variable indicating
whether the sender and receiver have any type of military alliance. Friends conform to

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[20]Robustness checks were conducted at the 5 different water distance cut points, land or
river, $\leq 12$ miles, $\leq 24$ miles, $\leq 150$ miles, $\leq 400$ miles.

similar trends and look to each other for advice, even if they are friends of convenience; it is the heightened level of interaction that comes with being part of the same group. Thus, in addition to alliances, I look at *Shared IO*. Pevehouse and Russett (2006) uses approximately 495 international organizations (IOs) creating dyadic measures of the level of IO connectedness between all the pairs of states. It is the connection between states and policy experts in IOs that lead to policy innovation. This is the sense in which IOs are teachers of norms (Finnemore, 1993). IOs, especially the UN, have been and continue to be critical in coordinating the global women's movement by organizing the efforts of regional IOs, national and international NGOs, and states towards goals of gender equality (Pietila and Vickers, 1996).

### 4.2.3   Identity

I use five measures for identity. In the dyadic model, the identity variables are measured on the receiver, and they are assumed to affect the outcome of convergence independent of the profile of the sender. The first measure is *Democracy* from the Polity IV project. It is a general aspect of identity, and I will use it again in chapter 5. The other four measures of identity are specific to women's empowerment. Because I am dealing with quota expression, I include *Electoral System* which is perhaps orthogonal to women's rights, but an important part of quota adoption. Additionally, I use indexes of women's social (*WSR*), economic (*WER*), and political rights (*WPR*) from the Cingranelli and Richards (CIRI) Human Rights Data Project.

*Democracy* is from the Polity IV project (Marshall and Jaggers, 2002). The

level *Democracy* is perhaps the most fundamental aspect of a state's identity. It is certainly the most studied aspect of internal politics in IR Fearon (1998). There are numerous indicators and indexes that scholars have created to capture this important concept.[21] Polity IV is representative of one of the main ways of measuring democracy, which is to focus on procedural elements - the inputs of democracy. Other measures such as Freedom House's annual rankings, focus on democratic outputs such as political and civil liberties. While each of these types of measures can be useful, I stick with the structural/procedural definition of democracy. The Polity IV measure combines two scales of regime type (institutionalized democracy and autocracy) into a single measure. Democracy is an additive scale ranging from 0 to 10 created from coding on three dimensions: competitiveness of participation, openness and competitiveness of executive recruitment, and constraints on the executive.[22] Autocracy is also an additive scale ranging from 0 to 10 coded using the same elements as democracy.[23] The combined score that I employ is generated by subtracting the autocracy score from the democracy score which creates an additive index from -10 to 10. For robustness

[21]See Munck and Verkuilen (2002) and Bowman, Lehoucq and Mahoney (2005) for a review of the most common quantitative measures of democracy used in IR and comparative politics.

[22]"Democracy is conceived as three essential, interdependent elements. One is the presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders. Second is the existence of institutionalized constraints on the exercise of power by the executive. Third is the guarantee of civil liberties to all citizens in their daily lives and in acts of political participation" (Quality of Government Codebook 2014, 119).

[23]"In mature form, autocracies sharply restrict or suppress competitive political participation. Their chief executives are chosen in a regularized process of selection within the political elite, and once in office they exercise power with few institutional constraints" (Quality of Government Codebook 2014, 120).

checks, to address concerns that democracy is a type and not a scale, and to conform to scholarly convention, I also include a dichotomous measure of democracy which uses a score of six on the combined *Democracy* scale as a cutoff. Any state with a six or higher is coded as a *Democracy* while those less than six are non-democracies (Collier and Adcock, 1999; Elkins, 2000).

Whereas *Democracy* is a general element of a state's identity, there are also elements of the identity which are specifically important with regard to women's empowerment and quotas for women's representation. The first of these variables is *Electoral System.* Some *Electoral Systems* are more easily adaptable to a quota system; proportional representation (PR) make quota adoption more likely because there are simple ways to implement the quotas. Unlike single member districts (SMD), which tend to reduce to two parties, proportional representation systems and high district magnitude tend to lower the barrier for entry by traditionally marginalized groups. In list PR systems, shares of the total vote determine how many members of a legislature will come from a given party. The party allocates its earned seats according to a list which can easily be adjusted (voluntarily or not) to insure diversity on the party ticket and in the parliament. Each race in SMD is contested by individuals who, although they could be independent, are usually supported by a party. While a party could support diversity, it would have a difficult time forcing any particular district to accept a candidate solely for the sake of the party's national-level interests. *Electoral System* comes from the Institutions and Elections Project at Binghamton University.

The final set of variables related to a state's identity are measures of women's social ($WSR$), economic ($WER$), and political rights ($WPR$) from the Cingranelli and Richards (CIRI) Human Rights Data Project. The CIRI project provides four-value ordinal scales of rights in these three areas over the period of 1981-2010. While the time frame is limiting, CIRI is the only data source for women's rights conditions that has any time series component at all. Thus, the thirty year period is actually quite impressive. Women's economic rights include rights such as "equal pay for equal work...[and] Free choice of profession or employment without the need to obtain a husband or male relative's consent" among several others. Women's political rights include the right to vote, run for political office, hold office, join political parties, and petition the government. Women's social rights include such rights as freedom from forced sterilization, the right to initiate a divorce, and the right to equal inheritance.[24]

### 4.2.4 Time

What is duration dependence, and how does it help identify the diffusion mechanism? Duration dependence is "the extent to which the conditional hazard of the event of interest occurring is increasing or decreasing over time" (Zorn, 2000, 367). Positive duration dependence means that the longer the wait, the higher the likelihood of failure. Figure 4.8 shows examples of positive duration dependence. For three different initial probabilities, there are three curves which increase monotonically over

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[24]The CIRI variables are described in the CIRI codebook http://humanrightsdata.blogspot.com/, and a summary of each is available in the Quality of Government codebook, pages 70–72.

time. On the vertical axis is probability of failure or adoption. On the horizontal axis is time. As time goes on, the probability of failure increases until it reaches one.

Figure 4.8: Positive Duration Dependence
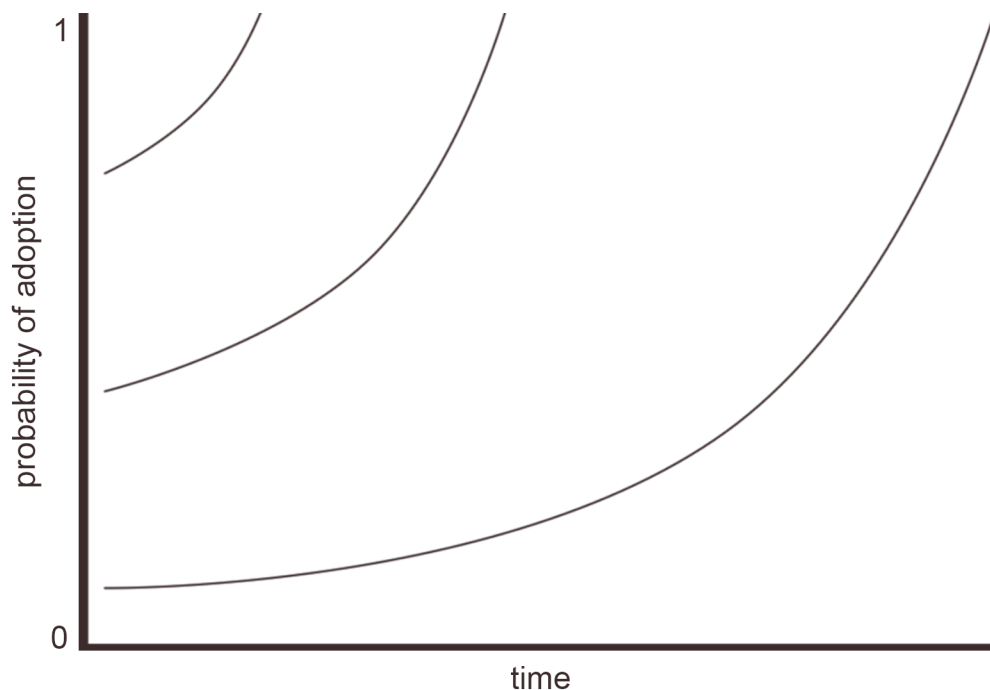


Negative duration dependence means that the longer the wait, the lower the likelihood of failure. Figure 4.9 shows three examples of negative duration dependence. Starting from three different initial probabilities of failure, each of the lines decreases so that the more time that has passed, the less likely the adoption is to occur.

So, what will the slope of the overall adoption curve look like? Figure 4.10

Figure 4.9: Negative Duration Dependence
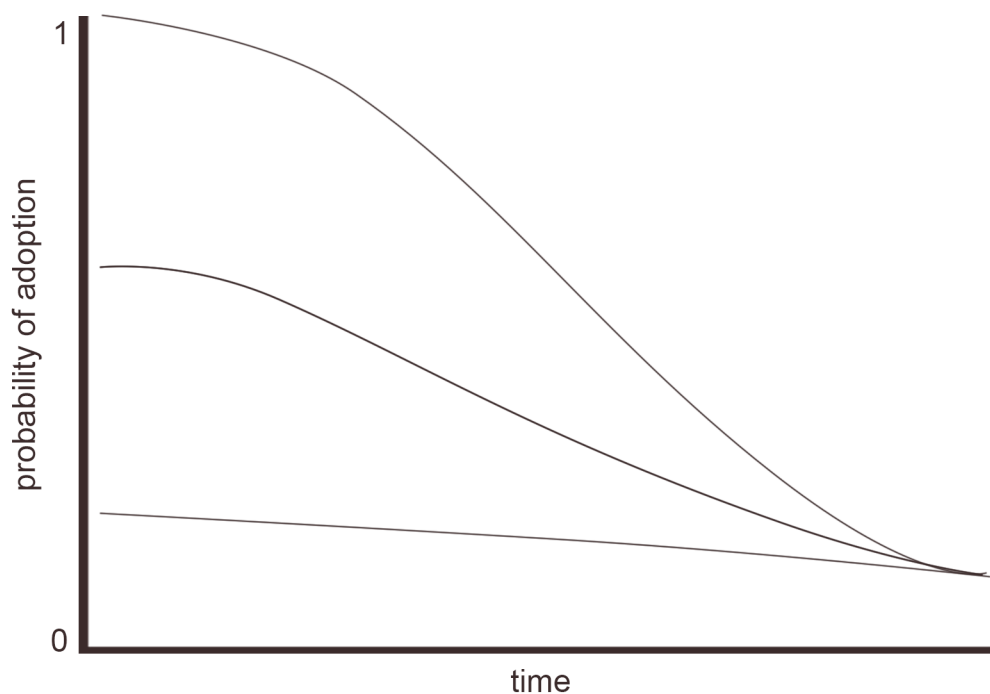


plots the probability of survival. The straight line indicates duration independence. Imagine the first derivative of each of the lines. For the straight line, the first derivative is a constant, a horizontal line indicating that at every point in time, there is the same likelihood of failure. With positive duration dependence the slope will be shallow at first and become steeper over time. This ensures that the first derivative of the survival function is always negative and grows more negative over time. With negative duration dependence, the slope is steep at first, but becomes shallower over time. The first derivative starts out very negative and approaches zero over time.

Duration dependence is empirically modeled in a variety of ways, and it is generally treated as a nuisance that obscures the effects of theoretically driven covariates

Figure 4.10: Duration Dependence
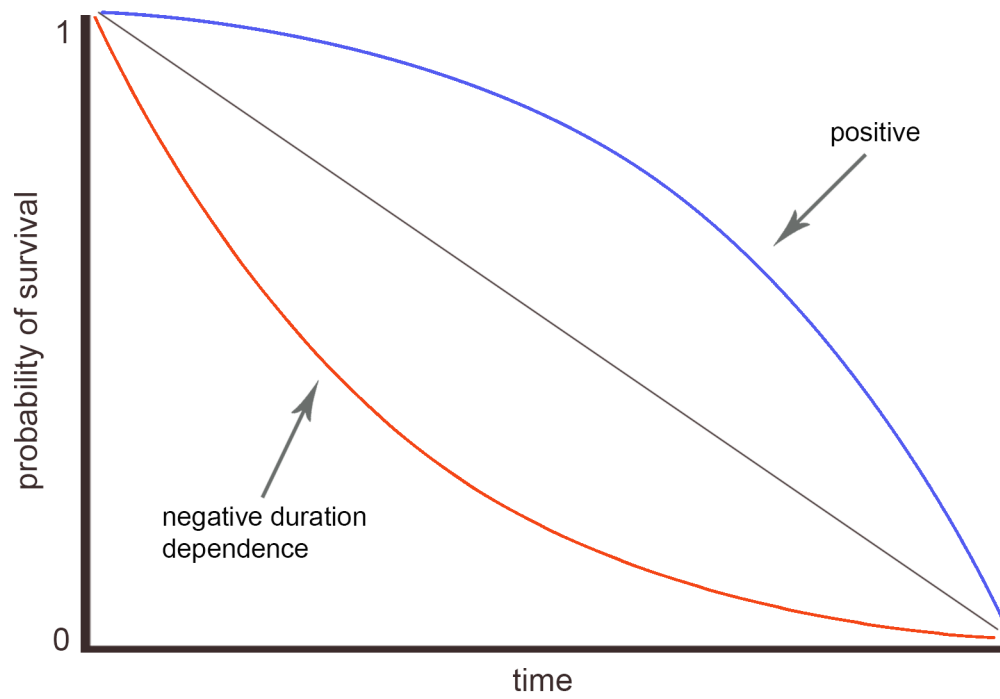
(Beck, Katz and Tucker, 1998). The common feature of each of the modeling strategies is the inclusion of time into the statistical model. It can be included as fixed effects (a series of $T - 1$ indicators) or in any number of functional forms including linear, quadratic, and cubic. Another fix creates a non-linear function of time using the data to suggest good-fitting splines.

Beck (2010) argues that we should not interpret time in our models. "But issues of the shape of the baseline hazard graph cannot be used to discriminate between alternative theories or to otherwise provide substantive knowledge of the political universe. Just as we should not substantively interpret time trends or correlated errors, we should not theoretically interpret duration dependence. Time is not a theoretical variable" (Beck, 2010, 294). However, others are skeptical about the outright dismissal of any interpretation of time in event history models. Carter and Signorino (2010b) ask in response to (Beck, 2010) "how seriously should we take 'time'? From a theoretical perspective, dynamic choice models and repeated games take time (and the discount factor) quite seriously. From a statistical perspective, the time series and survival analysis literatures consider time as the central modeling concept." However, the Carter and Signorino (2010b) agrees that straightforward interpretation of, "'the effect of time' should not be undertaken quite so literally. Time is not an independent actor here. Rather, the hazard reflects unmodeled processes and/or omitted regressors."

I do not interpret the effect of time as an important theoretical concept, but I do include duration dependence for further consideration than as just a statistical

control. Why is duration dependence an important theoretical point to consider? If new adoptions become more likely over time (there is positive duration dependence), that is a sign that learning or competition is in place. If on the other hand, there is negative duration dependence and new adoptions become less likely over time, this would be a sign that coercion or emulation are at work. Why does learning and competition lead to positive duration dependence while coercion and emulation lead to negative duration dependence? Let's consider that.

In coercion and emulation, weak states that adopt due to influence from powerful senders do not necessarily become senders themselves. There are many fewer states who are weak enough for those weak states to coerce. In competition and learning, new expressers become senders with the potential to influence other receivers. In coercion and emulation, it is possible for a state that was coerced to in turn coerce another state, but this occurs less frequently than in learning and competition.

Let's suppose we start with a small system of nine agents represented in figure 4.11 at various levels of hierarchy. If agent A begins as the sole external expresser, there is a one in nine chance of the norm spreading in the next time period because there is a one in nine chance that A will be chosen as **S**ender. Let's say that B adopts next. Now, the probability that an additional state adopts has gone down because B cannot re-adopt and it cannot spread to any other actor through coercion. If C is randomly selected as the potential **S**ender, the overall probability of adoption for remaining non-adopters would increase compared to the previous period, but it would make the next decease even larger. The general pattern is one of negative duration

dependence. The same logic holds for emulation.

Figure 4.11: Nine-Agent World
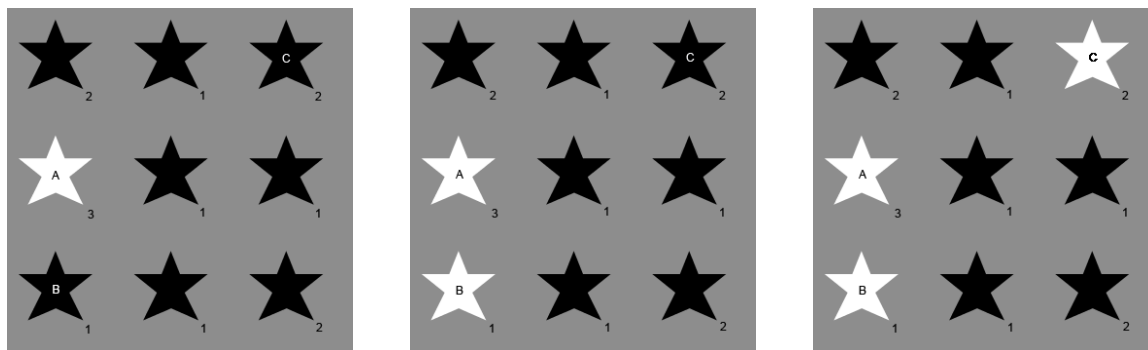


On the other hand, let's take the case of learning. When a receiver converges towards a sender, it increases the pool of potential senders. This, makes duration dependence positive, at least until over half of the receivers have become senders. Then, randomly selected RS pairs will have fewer and fewer opportunities for transmission. This implies that a full adoption curve of learning should be duration *in*dependent. However, when dealing with the empirical world, there is an extra specification decision to consider: when to start and end the time frame used for analysis. If a researcher includes a lot of time before the adoption cycle begins, statistical tests would likely point to more negative duration dependence than really exists. Fortunately, there is a convention to begin analyses in at the time of the first adoption. On the other hand, the end point of the analysis is also very important. Duration dependence is sensitive to this decision, and oftentimes, researchers are unable to control the end-point of their analyses. The primary consideration is data availability, but an

often overlooked point is that we, as researchers often like to study processes that are not yet complete. While there are also conventions to deal with right-censored data, this issue makes interpreting duration dependence problematic at best. Thus, while I still contend duration dependence can provide important theoretical implications, I agree that interpreting duration dependence should be done with caution. Thus, I use duration dependence only as tertiary evidence after considering what hierarchy, neighborhood, and identity reveal about quota adoption.

Several scholars have emphasized the series of global conferences on women as a form of coordination. These meetings took place in Mexico City (1975), Copenhagen (1980), Nairobi (1985), and Beijing (1995) and included representatives from women's groups throughout the world (Friedman, 2003). While these interactions of diverse actors working on women's issues have not created a monolithic global movement, they have resulted in a successful frame that uses equality, development and peace to link women's rights with dominant global liberal meta-frames.

## 4.3   Results

Tables 4.5, 4.6, 4.7 show results from dyadic event history models for each of the different hierarchy, neighborhood, and identity measures discussed in the previous section. In all model the dependent variable is quota convergence, the adoption of the quota by a receiver that has already been adopted by a sender. Positive coefficients indicate that the variable is associated with an increased likelihood of adoption. A negative coefficient indicates the variable is associated with a longer time to adoption.

All models are estimated with logit and the standard errors are clustered on $\mathbf{R}$.[25] Each of the variables are used in a variety of specifications, but to begin I look only at the simplest models. These models include the single measure and a control for time. This gives a baseline understanding of how each operationalization behaves with respect to quota convergence. In each of the models I model duration dependence using a linear measure for time. This makes classification into positive, negative, or no duration dependence easier. However, I use the other specifications for duration dependence discussed above in a host of other unreported models to check for robustness.

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[25]However, one specification decision does make a difference in findings. Following Boehmke (2009), I cluster the standard errors on $\mathbf{R}$. However, it is also possible to cluster on $\mathbf{S}$ or the directed dyad $\mathbf{RS}$. Choosing either of these alternatives deflates the standard errors relative to clustering on state $\mathbf{R}$. Thus, the decision to cluster on $\mathbf{R}$ reflects the most conservative approach to modeling confidence in the DEHA (Boehmke, 2009).

Table 4.5: DEHA Results for Hierarchy Measures

| | b/se | p | b/se | p | b/se | p | b/se | p | b/se | p |
|---|---|---|---|---|---|---|---|---|---|---|
| CINC | 2.89 | 0.50 | | | | | | | | |
| | (4.25) | | | | | | | | | |
| lnCINC | | | -0.13 | 0.00 | | | | | | |
| | | | (0.03) | | | | | | | |
| GDP/Cap | | | | | 0.00 | 0.68 | | | | |
| | | | | | (0.00) | | | | | |
| lnGDP/Cap | | | | | | | 0.06 | 0.29 | | |
| | | | | | | | (0.05) | | | |
| Major Power | | | | | | | | | 0.17 | 0.00 |
| | | | | | | | | | (0.03) | |
| Time | 0.11 | 0.00 | 0.11 | 0.00 | 0.03 | 0.01 | 0.03 | 0.01 | 0.04 | 0.00 |
| | (0.02) | | (0.02) | | (0.01) | | (0.01) | | (0.01) | |
| constant | -6.29 | 0.00 | -6.15 | 0.00 | -4.43 | 0.00 | -4.52 | 0.00 | -4.85 | 0.00 |
| | (0.47) | | (0.49) | | (0.26) | | (0.29) | | (0.21) | |
| Observations | 126506 | | 126506 | | 138658 | | 138658 | | 163508 | |
| Log-Likelihood | -16478.65 | | -16191.75 | | -16798.85 | | -16782.22 | | -18277.72 | |

In table4.5, I model the effect of five different measures of hierarchy on quota convergence. Three of these, *CINC, GDP/cap,* and *lnGDP/cap* are insignificant, but two measures of hierarchy, *lnCINC* and *Major Power* of the sender attain significance. However, they have opposite effects. *lnCINC* has a negative relationship with the probability of failure while *Major Power* has a positive relationship. The simple models hold up to other controls. Both of these measures consistently attain significance in more fully specified models. The three insignificant variables occasionally attain significance in particular specifications, but they generally remain insignificant. The finding for *Major Power* is the only one that supports a top down story, either emulation and coercion. However, the negative coefficient on *lnCINC* is consistently negative, which means the greater the hierarchical distance between sender and receiver, the less likely convergence is to occur. he negative finding for *lnCINC* and the null results of the other hierarchy measures supports the idea of a bottom up process in which states of a similar rank are more likely to influence each other. The overall pattern that emerges is negative or null, lending support to the bottom-up mechanisms competition and learning.

Table 4.6: DEHA Results for Neighborhood Measures

| | b/se | p | b/se | p | b/se | p | b/se | p | b/se | p | b/se | p |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Contiguity | -0.12 | 0.00 | | | | | | | | | | |
| | (0.02) | | | | | | | | | | | |
| Distance | | | -0.00 | 0.00 | | | | | | | | |
| | | | (0.00) | | | | | | | | | |
| Same Region | | | | | 0.51 | 0.00 | | | | | | |
| | | | | | (0.11) | | | | | | | |
| Trade | | | | | | | -0.00 | 0.65 | | | | |
| | | | | | | | (0.00) | | | | | |
| Shared IO | | | | | | | | | 0.02 | 0.00 | | |
| | | | | | | | | | (0.01) | | | |
| Alliance | | | | | | | | | | | 0.38 | 0.02 |
| | | | | | | | | | | | (0.17) | |
| Time | 0.03 | 0.00 | 0.03 | 0.00 | 0.05 | 0.00 | 0.05 | 0.00 | 0.08 | 0.00 | 0.05 | 0.00 |
| | (0.01) | | (0.01) | | (0.01) | | (0.02) | | (0.02) | | (0.01) | |
| constant | -3.86 | 0.00 | -4.22 | 0.00 | -5.33 | 0.00 | -4.60 | 0.00 | -6.30 | 0.00 | -5.28 | 0.00 |
| | (0.29) | | (0.23) | | (0.20) | | (0.36) | | (0.54) | | (0.20) | |
| Observations | 153664 | | 153664 | | 186857 | | 51138 | | 37460 | | 186857 | |
| Log-Likelihood | -17812.03 | | -17741.57 | | -18624.00 | | -7354.57 | | -4917.46 | | -18669.06 | |

I look at six different neighborhood measures in table 4.6. All but one show significant relationships with quota convergence. *Contiguity* and *Distance* have negative coefficients, which seem to contradict each other. The finding for *Distance* supports a regional story because the greater the geographic space between the sender and receiver, the less likely the receiver is to converge towards the sender. However, *Contiguity* says the opposite. When the receiver and sender are next door neighbors, the receiver is actually less likely to converge towards the sender. This may seem strange because it implies that near senders are less influential than far senders. Yet, there should be some skepticism of the meaning of this variable. Due to global nature of the analysis and the importance of regional dynamics, contiguity may be picking up more noise than actual geographic influence. The *Same Region* variable has a large statistically significant effect supporting a regional story. If the sender and receiver are in the same region the likelihood of convergence increases. The indicator of the economic region is insignificant while the two measures of social neighborhood, shared IO membership and alliance, are significant. Overall, the findings are somewhat ambiguous but there does seem to be support for a neighborhood effect supporting the interpretation that emulation or competition may be the mechanism driving the diffusion process. In general the neighborhood effect represented by same region is one of the most consistent variables and provides some of the strongest evidence in support of the neighborhood effect. Even when controlling for important hierarchy and identity variables, the fact that neighborhood persists demonstrates that states are responding to their local environments when adopting quotas. The strong regional

dynamic suggests competition or emulation is likely driving quota diffusion.

Table 4.7: DEHA Results for Identity Measures

| | b/se | p | b/se | p | b/se | p | b/se | p | b/se | p |
|---|---|---|---|---|---|---|---|---|---|---|
| Democracy | 0.08 | 0.00 | | | | | | | | |
| | (0.02) | | | | | | | | | |
| Proportional Representation | | | 1.11 | 0.00 | | | | | | |
| | | | (0.29) | | | | | | | |
| WSR | | | | | 0.01 | 0.94 | | | | |
| | | | | | (0.15) | | | | | |
| WPR | | | | | | | 0.87 | 0.00 | | |
| | | | | | | | (0.19) | | | |
| WER | | | | | | | | | 0.12 | 0.43 |
| | | | | | | | | | (0.16) | |
| Time | 0.05 | 0.00 | 0.07 | 0.00 | 0.02 | 0.04 | 0.01 | 0.26 | 0.07 | 0.00 |
| | (0.01) | | (0.01) | | (0.01) | | (0.01) | | (0.02) | |
| constant | -5.15 | 0.00 | -5.83 | 0.00 | -4.40 | 0.00 | -5.73 | 0.00 | -5.62 | 0.00 |
| | (0.28) | | (0.29) | | (0.30) | | (0.41) | | (0.41) | |
| Observations | 139322 | | 186857 | | 150219 | | 150645 | | 97861 | |
| Log-Likelihood | -15524.67 | | -18346.18 | | -16436.29 | | -16215.82 | | -10406.47 | |

Table 4.7 shows the dyadic event history results for the identity measures. There is general support for the claim that a state's identity makes a difference in quota convergence. Three of the five identity measures attain significance: *Democracy, Proportional Representation, and Women's Political Rights. Democracy* has a positive relationship with quota convergence. This makes intuitive sense as democracies are better able to respond to changing social norms. However, the finding actually contradicts some research in the field which argues that opportunistic authoritarian leaders have incentives to adopt quotas to bolster their legitimacy. In fact, *Democracy* is one of the most powerful of the independent variables. It frequently attains significance in models with controls for hierarchy and neighborhood, and as a control, it often causes other variables that are normally significant to lose their significance. Somewhat surprisingly, *WSR* and *WER* are not significantly related to quota convergence while textitWPR are positively related to quota convergence. The overall pattern from the identity results is that internal motivations of the receiver play an important role. This pattern support either learning or competition.

Finally, time is consistently positive across the models, although its magnitude varies depending on specification. It reaches standard levels of significance in all but one of the models. In other specifications using dummies, splines, and other functional forms, I find general support for positive duration dependence. This is more tentative evidence that learning or competition is responsible for diffusion of quotas. While I use cubic polynomials of time to control for duration dependence, the time variables are not reported for space constraints. I also investigate the use of other controls for

time. Generally, there are very few differences when using alternative specifications for time.

Table 4.8 collects all of the evidence from the DEHA models. Comparing the results to the table of empirical expectations, Table 4.1, we see that competition best fits the emergent patterns left by quota diffusion.

Table 4.8: Summary of DEHA Results

| Hierarchy | Neighborhood | Identity | Duration Dependence |
|-----------|--------------|----------|---------------------|
| - or null | + | + | + or null |

## 4.4   Conclusion

The rapid growth in the proportion of states that adopted quotas in the past 40 years as well as regional clustering patterns of particular quota types suggests a norm diffusion process driven in part by contagion from ideological or geographical neighbors (Krook, 2006, 2009). Several scholars have noted the similarity between the spread of gender institutions and the diffusion framework (Bush, 2011) as well as the usefulness of EHA to model the spread of gender institutions (True and Mintrom, 2001; Paxton, Hughes and Green, 2006). The analysis presented in this paper builds on these works. I find that the empirical record supports the theoretical work of Towns (2012): the diffusion of quotas is primarily a function of competition over social rank within the global hierarchy of states.

Understanding the relationship between women's representation and equality should be a central concern for scholars who are interested in the normative implications of women's representation for democracy and human rights. Activists throughout the globe have advocated for states and political parties to adopt gender quotas, institutional rules designed to mitigate women's persistent underrepresentation at the highest levels of political power. Over the course of the last four decades, more than 100 countries have adopted some form of quota to increase women's presence in the national legislature. The trend of greater women's presence in positions of political power is a positive development for women's rights advocates, but does an increase in descriptive representation necessarily indicate greater gender equality? In order to answer this question, it is first necessary to establish the causes for gender quota adoption. Depending on the process by which a state adopts a quota, some reforms are more likely to lead to genuine changes in gender equality while others may be masking (and thus perpetuating) gender inequality.

However, because scholars often assume that women's representation is a proxy for broader social gender empowerment, they sometimes fail to acknowledge that representation is neither a necessary nor sufficient condition for empowerment. The increase in women's presence in national legislatures throughout the globe is related to changing domestic gender norms, but it is also driven by the spread of quotas, which are specifically designed to address women's underrepresentation. This means that the use of women's representation in quantitative analyses should be undertaken with caution.

I have demonstrated that institutional reforms addressing women's underrepresentation are adopted for reasons that are at times unrelated to improvements in women's empowerment more broadly. This finding accords well with previous scholarship (Krook, 2009; Bush, 2011). Yet, I have also shown that changes in women's presence in legislatures represents a significant improvement in women's empowerment even if the change is not immediate. Developing democracies that adopt quotas appear to be doing so because they believe that equal representation is a legitimate aspect of the global normative landscape. They do not wish to be left behind by their peers, so they take measures to ensure that they do not end up at the bottom of lists of women's representation. This "race from the bottom" will continue to fuel the system as it pushes states toward greater women's empowerment.

Despite some potential weaknesses of the model, it is important to note the potential normative contribution that this type of analysis can provide. Addressing descriptive underrepresentation directly has been advocated by activist-scholars, and has become the ideological foundation for movements to reform national electoral systems and legislatures (Dahlerup, 2003). Understanding how quotas, women's representation, and women's empowerment diffuse through the international system offers valuable information for activists seeking institutional change. As noted by retired Representative Jim Leach (R-IA) in conversation, it also potentially helps those who wish to slow down women's empowerment. Quotas are used by advocates and adversaries of women's empowerment, and who controls them likely has important consequences for the future. Quotas may have unintended consequences leading to

real social developments. Even if representation is not substantively meaningful in the present, it may have a long-term impact on society.

# CHAPTER 5
# THE DIFFUSION OF HUMAN RIGHTS

## 5.1   Human Rights

Human rights scholars are faced with the compliance paradox: adoption of human rights treaties is associated with worse human rights behavior. Why do states that ratify human rights treaties so often fail to uphold their obligations? Like quota adoption and women's empowerment, treaty ratification and human rights are a part of broader social processes that are not reducible to the individual decisions of adopters. Explanations of the account for why states express support for human rights norms to understand the true effect of human rights treaties. In this chapter, I employ dyadic event history analysis to explore how coercion, competition, emulation, and learning are potentially related to Convention Against Torture (CAT)treaty expression. I use data on CAT expression from the UN, human rights behavior from the Political Terror Scale, CIRI Human Rights project, and data on state attributes and dyadic relationships generated from Quality of Government and Correlates of War data repositories. To investigate the interdependence between **senders** and **receivers**, and represent the diffusion mechanisms more theoretically, I model the dyadic convergence of human rights treaty expression. The analysis includes approximately 150 states from 1985-2005. The findings of this research add to the human rights literature by demonstrating that diffusion dynamics are integral to understanding why some states ratify treaties despite their proclivity for violating human rights.

Specifically, I find some support for that the Convention Against Torture (CAT) treaty is spread by emulation and learning. This implies that the anti-torture norm is not associated with internalization, rather, states express their support for CAT commitment because they are following the lead of more powerful states.

Human rights are principles defining the obligations that a state has to the human beings residing in the territory under its control. These principles have a dual nature. They are an aspirational, normative, philosophical concept on the one hand. On the other hand, they are legally recognized objects, enshrined in both international treaties as well as domestic policies and institutions.

One of the critical questions in human rights research is whether international human rights treaties have the ability to change state behavior (Hafner-Burton, 2013; Hathaway, 2001; Hill, 2010; Lupu, 2013a; Risse, Ropp and Sikkink, 2013; Simmons, 2009). The promise of human rights treaties is that they can improve the condition of humankind by altering the behavior of states. The peril of human rights treaties is that they provide window-dressing which allows states the cover to abuse human rights at the same or a higher rate than they would have without a treaty. This suggests there are three possible outcomes. The first two are obvious, that human rights treaties increase respect for human rights (they are successful) or they don't (they are unsuccessful). The third possibility is less obvious, that human rights treaties decrease respect for human rights. Empirically, scholars have found that poor human rights records are associated with treaty ratification, a finding that seems to support the third possible outcome (Hafner-Burton, 2008; Hathaway, 2001; Conrad and Ritter,

2013). But, is this a real relationship or is it an artifact of the statistical modeling process as some more sophisticated models seem to suggest (Hill, 2010; Lupu, 2013*b*)? If it is not merely due to improper modeling, then what theory can explain this? I argue that my model of norm diffusion provides a good way to understand this paradox; scholars must better appreciate the social nature of the ratification process if they want to evaluate the true power of human rights and the possibility that human rights treaties can improve human rights conditions in the long run.

### 5.1.1  Three Theories of Human Rights

To understand the puzzle, I start from the insights of three dominant perspectives in IR: incentives (Hafner-Burton, 2013), institutions (Simmons, 2009), and ideas (Risse, Ropp and Sikkink, 1999, 2013). Each theory explains how the international system shapes states' human rights behavior. While they have many overlapping elements, they have one crucial disagreement. Do treaties have a positive causal effect on states' human rights behavior? The incentives school says no, treaties are epiphenomenal to the real power of human rights which comes from powerful states coercing weak states using their economic influence. The ideas school says yes, as long as a norm gains acceptance in the population, it will continue to exert influence on states in a long-run process of norm internalization. The institutionalist school says the answer depends on the particular domestic institutions and the content of the norm.

On one extreme ideas are the only thing that matters. Risse, Ropp and Sikkink

(1999, 2013) use social theory to explain patterns of human rights behavior, and the fact that treaties have been so widely adopted is a signal of the legitimacy of the global human rights regime. While many (all?) states violate some norms some of the time, they also respect most norms most of the time. Treaties are an essential part of this view because they act as a global constitution providing a common definition of rights within the society of states. States use treaties as focal points ensuring they will behave correctly. With respect to human rights treaties, this has also come to include how states treat their own citizens. Ideas scholars argue that treaties have important effects on human rights. Yet, they do not expect that once a state signs a treaty it will immediately change its behavior. Instead, treaties are powerful in that they define the normative order of the system and have long-term impacts on states.

On the other extreme are skeptics who claim that treaties have no independent effect (Hathaway, 2001; Hafner-Burton, 2005; Hafner-Burton and Tsutsui, 2007; Hafner-Burton, 2008). Some go so far as to argue that treaties may have a negative causal impact in some cases (Conrad and Ritter, 2013). Human rights behavior can be pushed in a positive direction by the international system, but treaties are not essential to this process. Instead, powerful states coerce weak states to improve their practices by using material incentives (Hafner-Burton, 2005). At best, the fact that so many states have signed important human rights treaties is epiphenomenal to the power of human rights ideas. At worst, signing onto human rights treaties can worsen human rights by instigating an escalation in the opposition-repression cycle (Vreeland, 2008; Davenport and Armstrong II, 2004; Conrad and Ritter, 2013).

The international incentives theory is founded on rationalist assumptions (Hafner-Burton, 2008). When states violate personal integrity rights, they do so because it is in their interest. Rationalists focus on three dimensions affecting the likelihood for repression: capacity, opportunity, and willingness (Davenport and Armstrong II, 2004). By definition, governments have the capacity to repress through their military and police forces. Political dissent provides the opportunity for repression. While extreme forms of dissent are comparatively rare, there is presumably always some individual or group engaging in pesky opposition behavior (Conrad and Ritter, 2013). Thus, rationalists often focus on the dimension of government willingness to locate their theories. Repression is one of many policy options, and states will be willing to repress when repression offers the highest expected utility (Davenport and Armstrong II, 2004). Treaties without teeth have no impact on state behavior because they do not alter the payoffs for repression compared to other options. What does alter potential repressors expected utility are side payments in the form of economic incentives.

In the middle are institutionalists who argue that treaties can have a positive independent causal impact on state behavior but under limited conditions. Crucially, the factors within the adopting state are likely to affect both the likelihood of adoption as well as the subsequent behavior (Simmons, 2009). While many states sign or ratify human rights treaties, the treaties only improve the situation in some of those states. Institutionalists have made great strides in identifying conditional relationships, noting the importance of domestic conditions such as legal system and

democracy.

### 5.1.2   The Ratification Compliance Paradox

Hill (2010) uses matching to account for characteristics of states that make them more likely to adopt a treaty. Since these internal characteristics are also related to a state's repressive behavior, the effect of treaties on behavior would be biased if we simply compared the population of state-years with a treaty to the population without treaty ratification. Even when removing this bias, Hill (2010) finds that the CAT treaty is negatively related to physical integrity rights. The negative effect of treaties on human rights behavior found in previous quantitative research seems to hold. However, Hill also finds that the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) is positively related to women's rights, a result that had previously been obscured. This leads Hill (2010) to suggest that there should be domain specific theorizing, a conclusion with which I agree and one that is at the heart of this dissertation.

Lupu (2013b) uses a slightly different insight than Hill (2010) to attack the problem. Treating the issue as a selection problem, he models and controls for a states preferences, which determine the likelihood to adopt the various treaties. Lupu (2013b) also uses matching to alter the comparison between ratification state-years and non-ratification state-years. He finds the same effect that Hill does for CEDAW. But, he finds null effects for CAT and the International Covenant on Civil and Political Rights (ICCPR). He uses this to argue that human rights treaties (while not always

effective) are at least not making human rights conditions worse.

A few scholars have become more attuned to the ratification compliance paradox as an estimation problem and have offered several ways to account for it (Hill, 2010; Lupu, 2013*b*). Although I laud the work of these scholars, the matching techniques they employ treat the endogeneity of treaty ratification as a nuisance that gets in the way of determining treaties true effect on state behavior. Instead, I argue that to understand the human rights commitment-compliance paradox, we should take a closer look at the diffusion of human rights expression, the signing and/or ratification of important human rights treaties.

Similar to several institutionalists, my main argument is that human rights treaties will matter, but only under certain conditions (Hill, 2010; Lupu, 2013*a*; Simmons, 2009). Rather than ask in which states internalization is likely to occur, however, I am concerned with which diffusion processes are more likely to lead to internalization. If a human rights treaty spreads throughout a population due to coercion or emulation, the long-term benefits of the treaty will be limited. If the treaty spreads through competition or learning, conditions are favorable for long-term benefits. The empirical goal is therefore not just to identify why some states express before others. It is to assess whether the overall diffusion cycle displays a discernible pattern consistent with one of the mechanisms in order to identify long-term prospects of the norm.

## 5.2 Treaty Expression

Some scholars have already looked directly at treaty expression. Simmons (2009, 108-9) is authoritative, developing a theory of rationally expressive ratification. She finds that true believers are common: "governments ratify when their preferences line up with the contents of the treaty." However, there are false negatives (the uninitiated), "governments . . . [that] value the contents of the treaty in principle but delay or fail to ratify because domestic institutions raise barriers or otherwise create disincentives to do so." Simmons (2009) points to domestic legal systems as the most important of these disincentives, noting that common law countries are much slower to express (and use more reservations). And, there are false positives (poseurs), states that engage in 'opportunistic ratification.' Simmons (2009, 110) lists numerous reasons a state may benefit from ratification: "a sense of joining the world's law-abiding states, the desire to avoid criticism as a nonratifying outlier, a bit of international praise, a stronger claim to a right to participate in future international rights discussions, and the support of some domestic constituency." However, she is skeptical that ratification carries no costs because, "patently insincere ratification is likely to be revealed" (Simmons, 2009, 110). Vreeland (2008) focuses more explicitly on poseurs. [1] He starts from the observation that "dictatorships that practice torture are more likely to accede to the UN Convention Against Torture (CAT) than dictatorships that do not practice torture" (Vreeland, 2008, 65). He argues that this is a spurious relationship. There are two types of non-democracies: power-sharing and

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[1]what Simmons (2009) calls false positives.

consolidated. Even though consolidated dictatorships may be more repressive, torture is more likely to occur where power is shared compared to consolidated, because there is more opportunity for protest and subsequent need for repression. Power sharing also causes the regime to make concessions, which may include CAT expression. Hence, torture and CAT expression are both caused by regime type.

Goodliffe and Hawkins (2006) also directly address the question of CAT ratification using event-history analysis. They find support for regional and global norms and domestic cost variables (especially legal system type). They operationalize norms in two ways, as the number of states that have previously adopted, and as the number of states in the same region that have previously adopted. Regarding the global variable, this is simply an increasing function that says that as more states express, the likelihood of future states expressing increases. This may be preliminary evidence for diffusion, but it does not consider the multiple pathways that diffusion can take. We can learn more about how previous adopters influence subsequent adopters with a different research design.

The authors find support for congruence, "the higher the congruence between a state's policy and the international treaty, the lower its policy costs in committing the treaty and the more likely it is to commit sooner" (Goodliffe and Hawkins, 2006, 363). In my model, this is represented by the relationship between identity and expression and the four actor types. My argument is that states that already have internalized the norm are going to express it (sign or ratify) when they are exposed to someone else who has expressed it previously. This is the definition of learning.

Finally, Goodliffe and Hawkins (2006) make an argument about state power, but it is also different from mine. They argue that, in addition to common law countries, weak states are more vulnerable to the possibility of having a treaty used against them. Thus, "for powerful states, the likelihood of unintended consequences is lower than for weak states" (Goodliffe and Hawkins, 2006, 363). I argue that state power is related to ratification, but it is not because of the logic of unintended consequences. Instead, it is due to the importance of hierarchy in the spread of innovations in social systems.

## 5.3 Event History Analysis

In the rest of this chapter I compare the observed pattern of CAT expression diffusion to the four theoretical templates of norm diffusion. I compare how CAT expression diffused in terms of hierarchy, neighborhood, identity, and time to the theoretical templates to help classify which mechanism is driving the human rights diffusion process.

Let's take a look at the CAT expression data in more detail. According to the UN, there are 155 parties to the treaty, which means that there is over 80% adoption rate.[2] The treaty came into effect on June 26 1987 after the prerequisite conditions were met. The UN website gives up to two dates for each state, the dates of signature and ratification (with a note indicating whether ratification came through accession or succession). Many states ratified after they signed, but many skip the signature stage

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[2]I gathered the data from the UN website for treaty information: https://treaties.un.org/ accessed on 5/13/2014.

and go straight to ratification. Since there is usually a significant gap in time between signature and ratification and some states that sign never ratify, the natural question is, how should we deal with this? The answer is that the operationalization must be driven by theory. Some scholars run separate analysis for signature and ratification. Some scholars treat the process as ordinal (0 – unsigned, 1 – signed, 2 – ratified) (Goodliffe and Hawkins, 2006). While these operationalizations of treaty commitment are useful in some contexts, they do not fit the concept of norm expression. For my purposes, I see the treaty signature or ratification as a norm expression, an explicit signal to the world that the state believes in the norm in question. The first formal public proclamation in support of the treaty is considered the date of norm expression.

Each day since February 4, 1985, states have had the opportunity to express their support for CAT. Figure 5.1 plots the Kaplan-Meier function of CAT expression, which is simply the non-parameterized survival function. At each point in time, it displays the number of states who have not yet expressed divided by the number of states in the population.[3] By the 10,000th day (about 28 years) since CAT had been open for signature and ratification, it was already expressed by over 80% of the population. Only 39 states remained as holdouts. The rate of adoption (the slope of the curve) is nearly linear after the first day, although it does appear to have a shallow change in slope around 2500 days (about 7 years) indicating a potentially important tipping point. However, the intriguing question suggested by the curve is the behavior of states very early on in the risk-set with around 25% of the population

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[3]I take the minimum of (signature date, ratification date) as the date of failure.

Figure 5.1: Kaplan-Meier Survival Curve for CAT
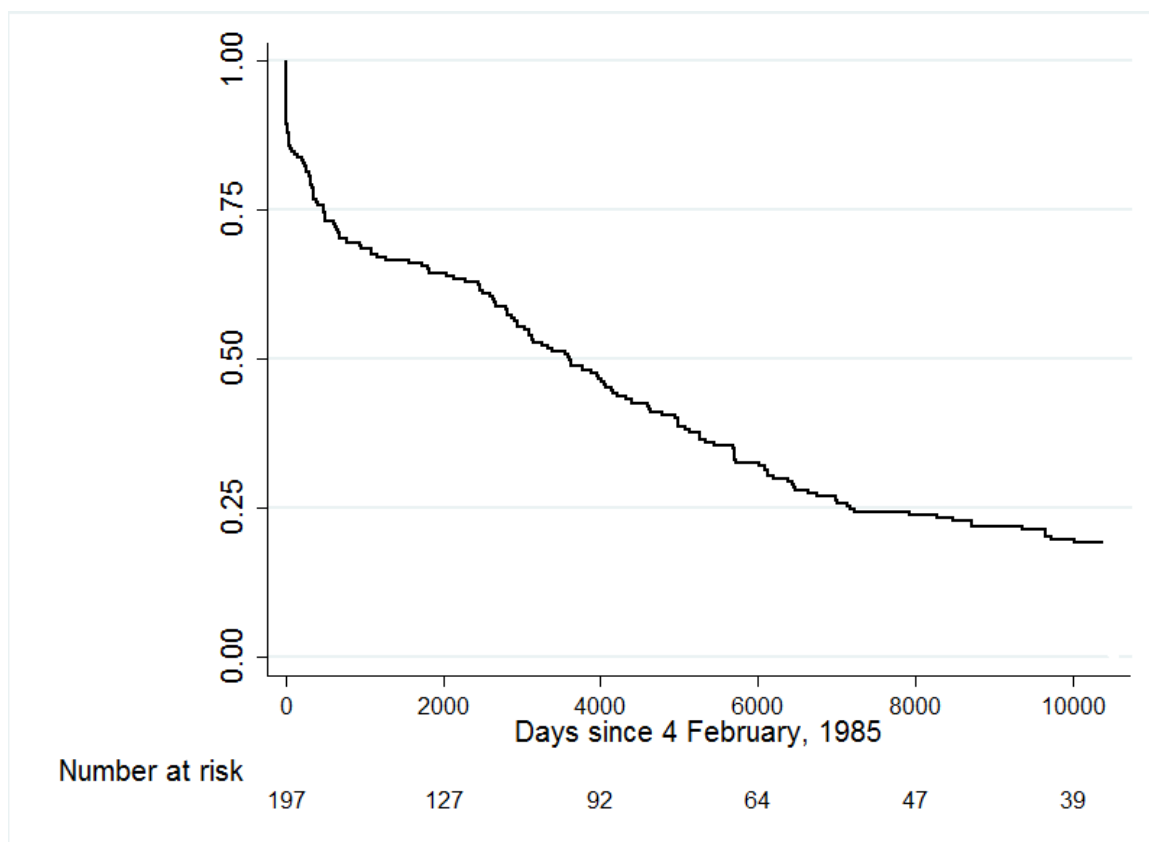


expressing CAT in the first year.

Twenty-one countries signed the CAT on the first day it was available Febru-
ary 4, 1985. Table 5.1also shows the countries which immediately expressed their
commitment to CAT. Table 5.1 shows that regional dynamics are a large part of the
story of original expressers. Western Europe and North America account for over
half of the initial CAT expressers despite making up only 14% of the population of
states. Latin America is also well represented in the list of initial expressers with six
countries. Are these countries different from others in their regions? The next table

summarizes regional rates of expression for states expressing in the first year. The regional dynamics that were evident on the first day continued to operate in the first year with both Western Europe & North America and Latin America achieving high rates of expression compared to much lower rates in the other regions.

Table 5.1: First Day CAT Signers

| Region | Country |
|---|---|
| Latin America (6) | Argentina, Bolivia, Costa Rica, Dominican Republic, Ecuador, Uruguay |
| Sub-Saharan Africa (1) | Senegal |
| South Asia (1) | Afghanistan |
| Western Europe and North America (13) | Belgium, Denmark, Finland, France, Greece, Iceland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland |

Figure 5.2 takes a closer look at regions.[4] I include only four regions for comparison, Sub-Saharan Africa, North Africa & the Middle East, Latin America, and Western Europe & North America. The difference between regions that is evident in table 5.2 is reaffirmed in figure 5.2. Western Europe and Latin America reach 75% adoption within the first 1000 days while Sub-Saharan Africa and North Africa & the Middle East do not reach this milestone until around 6000 days.

The most common unit of analysis used in EHA of treaty expression is the state-year. Before throwing away valuable data, I explore the adoption data at the state-day level. In order to keep the finer-grained dependent variable, I collapse the

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[4]See B.3 in appendix B for a breakdown of the regions.

Table 5.2: First Year CAT Expression

| Region | Non-expressers | Expressers | Total | Regional Expression Rate |
|---|---|---|---|---|
| Eastern Europe | 8 | 0 | 8 | 0.00 |
| Latin America | 7 | 13 | 20 | 0.65 |
| North Africa & the Middle East | 19 | 2 | 21 | 0.10 |
| Sub-Saharan Africa | 42 | 3 | 45 | 0.07 |
| Western Europe & North America | 8 | 19 | 27 | 0.70 |
| East Asia | 6 | 0 | 6 | 0.00 |
| South-East Asia | 9 | 1 | 10 | 0.10 |
| South Asia | 7 | 1 | 8 | 0.13 |
| The Pacific | 9 | 0 | 9 | 0.00 |
| The Caribbean | 13 | 0 | 13 | 0.00 |
| Total | 128 | 39 | 167 | |

Figure 5.2: Kaplan-Meier Survival Curve for CAT by Region
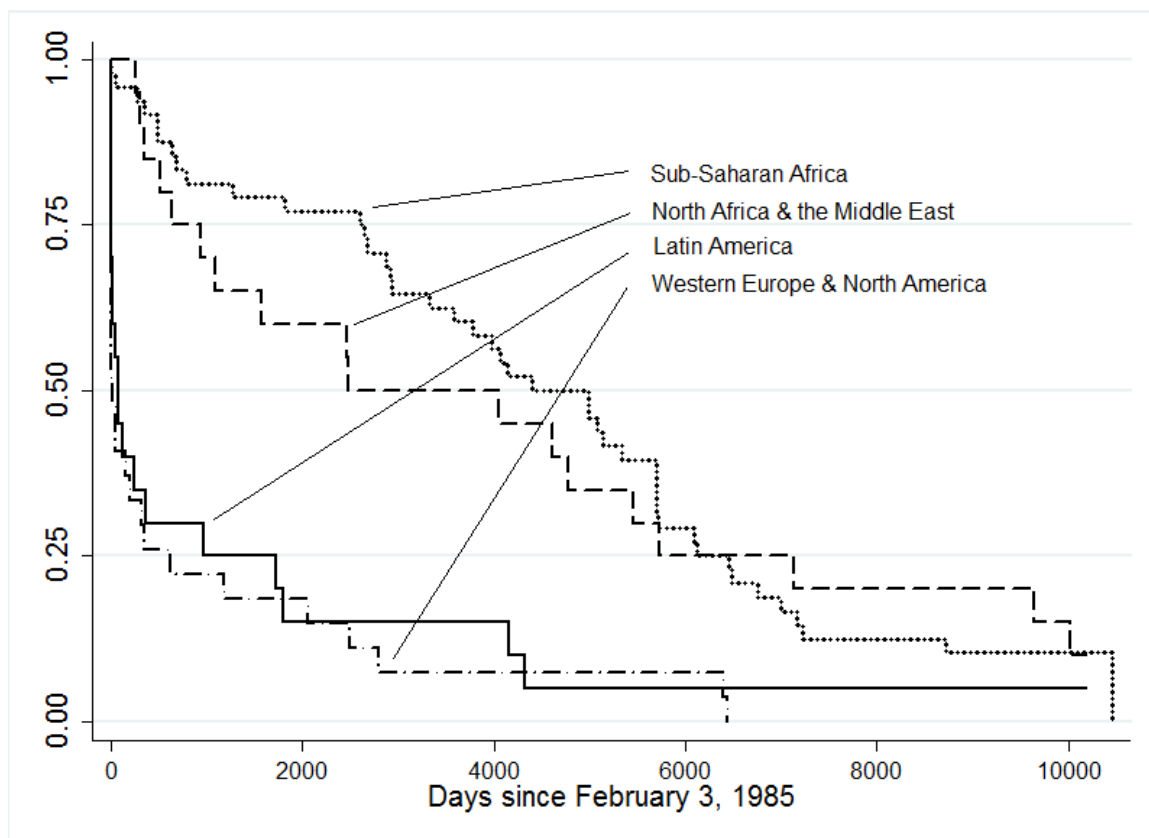
Figure 5.3: Hierarchy and CAT Expression
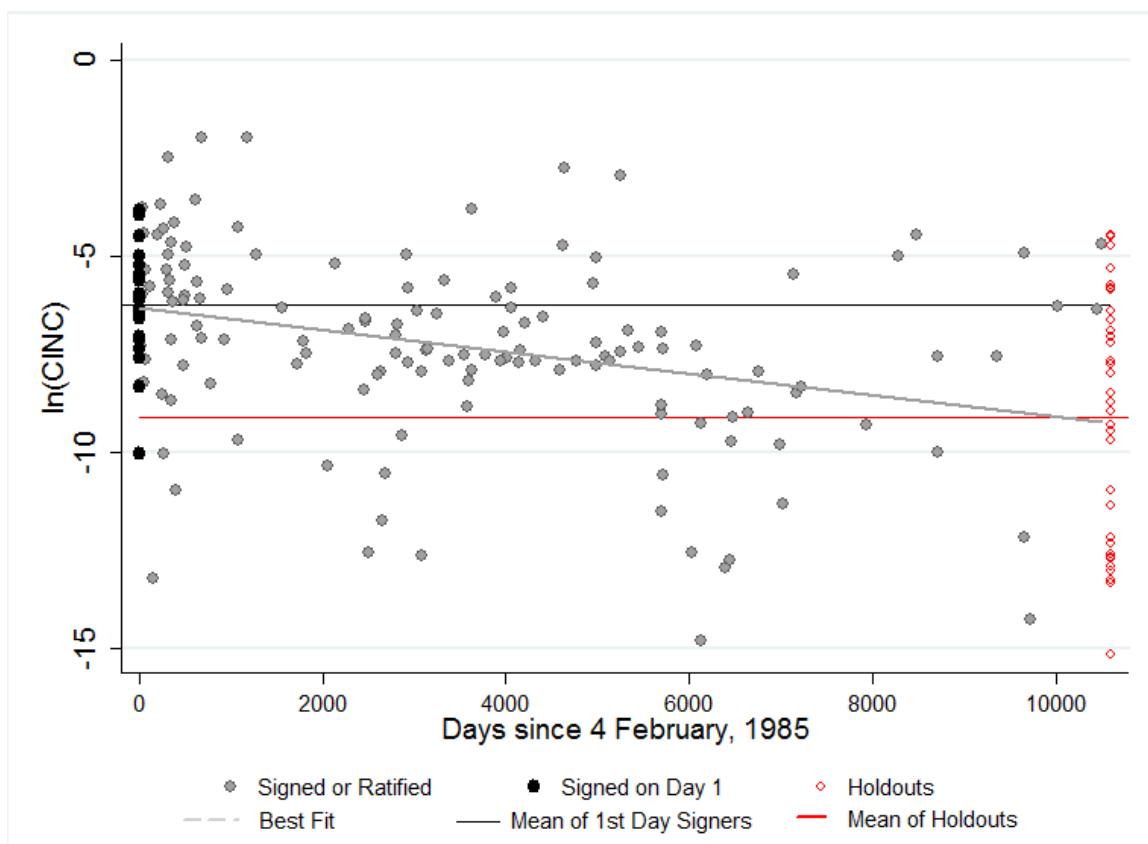


main independent variable, the state's level of power. I drop the time variation in

CINC by using the average of the natural log of CINC scores for each country over

the time period 1985–2007.[5]

The raw data suggest that CAT diffusion is generated from a top-down mecha-

nism. Figure 5.3 is a scatter plot comparing a state's power (measured as the natural

log of the 27 year average of the states CINC score) to the time until CAT expression.

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[5]The non-time-varying mean of the $ln(CINC)$ is a good approximation for the time-
varying $ln(CINC)$ scores. As the figure B.2 demonstrates in appendix B, ln(CINC) is stable
over the time period in question.

States that expressed on the first day (all of which were signatures, not ratifications) are dark black circles and the black line indicates their average power. The gray circles are states that expressed after the first day, and the gray line is the line of best fit. The best-fit line slopes downward, indicating that the average power of CAT expressers decreases over time. At the end of the time series, the states who never expressed (the right censored data) are plotted in red with a horizontal red line indicating the average power of these holdouts. The figure shows that, on average, states that express on the first day are more powerful than those who never express.

Considering only the linear relationship obscures potentially important relationships. The next figure continues to explore the relationship between time until CAT expression and state power. I now switch to an aggregation at the yearly level. The figure shows the average power (measured as the natural log of the CINC score) of norm expressers (blue) compared to non-expressers (red). The dashed line is difference between the expressers and the non-expressers $ln(CINC_x) - ln(CINC_{\sim x})$. Algebraically, this is equivalent to the natural log of the ratio of the power of expressers compared to non-expressers $ln(\frac{CINC_x}{CINC_{\sim x}})$.

The average power of expressers is decreasing over time, but so is the average power of non-expressers. For this to occur, it must be the case that the relatively powerful amongst the non-expressers are joining the expressers. On average, new expressers come from above the red line. As these states leave the population of non-expressers, the average power of non-expressers decreases. Yet, as they join the population of expressers, they are drawing down the average level of power. This

Figure 5.4: Average Hierarchy and CAT Expression
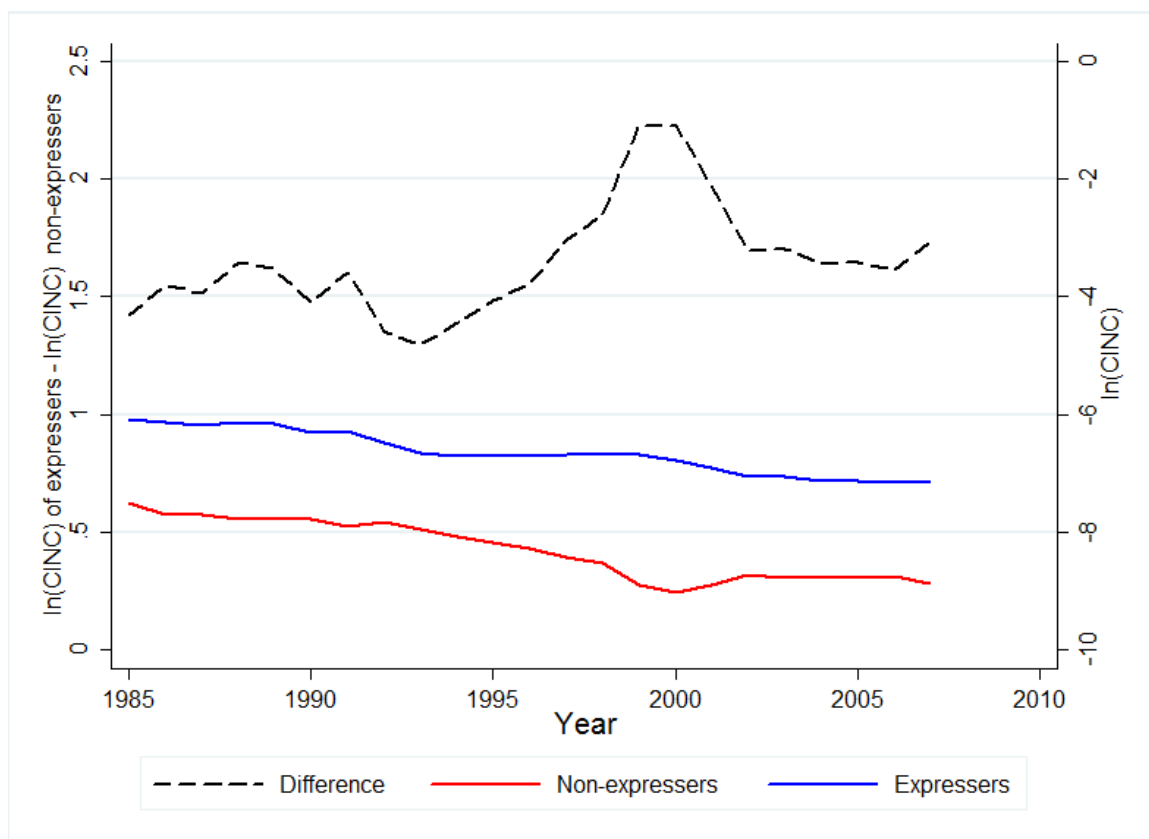
Figure 5.5: Average Hierarchy and CAT Expression
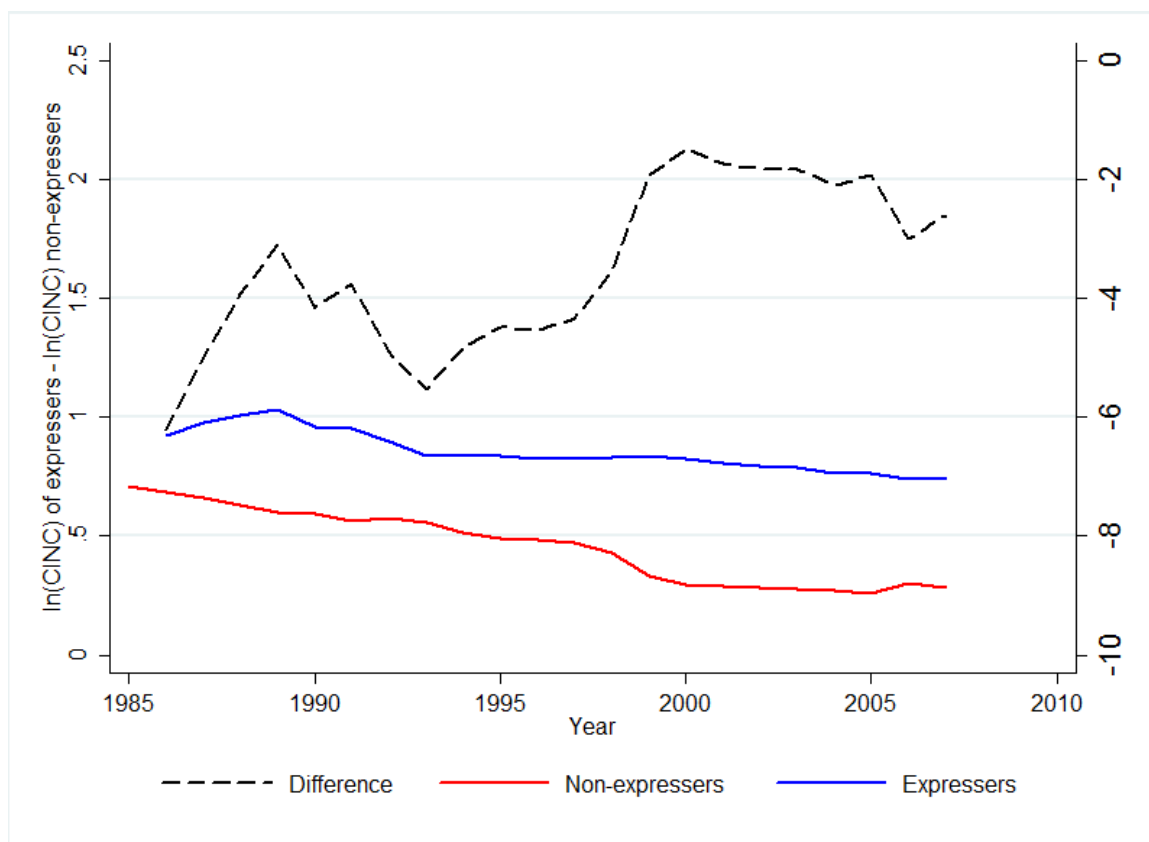


means that, on average, they are coming from below the blue line, suggesting that the weakest states are the slowest adopters. This pattern holds up when looking at ratification only. In fact, the positive trend in difference is more discernable when looking at ratification only. As time goes on, the average power of expressers flattens while non-expressers continues to decrease.

This provides the first clue that CAT adoption is driven by emulation. While it is a top down process, it does not appear to be coercion. In coercion, powerful states actively promote the norm. If so, the weakest states would have been the first

to adopt and the relative power of non-expressers would eventually converge toward the expressers. Emulation is also a top down process, but it is driven by the potential expresser rather than by an actively norm-promoting entrepreneur. Emulators choose which population to imitate, and they do not always sample the whole population. For that reason, emulation also displays strong regional variation. Due to this combination of the regional and power dynamics displayed in the expression cascade, the preliminary evidence points to emulation.

The last piece of the puzzle is identity. This is the hardest to measure (hence this dissertation), but many authors have tried to do so. All of these boil down to expert-coded measures of democracy and other aspects of good governance. Polity measures democracy and autocracy using domestic governance structures. Freedom House measures democracy as civil and political freedom. CIRI empowerment index measures human rights surrounding political freedoms. The PTS and CIRI scales measure physical/personal integrity reported in US government and NGO monitoring organizations.

Figures 5.6, 5.7, 5.8 show how a state's human rights behavior compares to its expression behavior in three different regions. Let's first take a quick look at some raw data in three regions. Human rights behavior is measured as the CIRI physical integrity rights index which ranges from 0 to 8 with larger numbers indicating greater respect for physical integrity rights. The index is an additive scale of ordinal measures for extrajudicial killings, disappearance, torture, and political imprisonment.

In Africa, there is evidence to support the skeptical view. Looking for concor-

Figure 5.6: CAT Expression and Human Rights in Africa

dant cases, those in which treaty expression preceded improvements in conditions, is a simple (but not rigorous) way to identify a relationship. There are numerous examples of states expressing commitment to CAT and later declining in their physical integrity rights score (Nigeria, Sudan, Kenya, Ivory Coast, etc). While the negative relationship is far from perfect, there are many fewer cases which fit the optimistic story, that human rights conditions improve after expression. For instance, at first look Mali seems to fit the case, but its score actually begins to increase prior to signing. Liberia is one example that clearly fits the optimistic case, but it may be an artifact of a spurious relationship. The ending of the civil war likely influenced both CAT expression as well as the drastic increase in the physical integrity rights score. Five African states are non-expressers (Angola, Central African Republic, Eritrea, Tanzania, and Zimbabwe). The preliminary analysis of Africa does not suggest a causal link between human rights behavior and expression (states at all levels of behavior express). However, there are some interesting clues of a negative relationship between expression and behavior (expressers' human rights behavior stays the same or declines).

In Western Europe and North America, the story is different. First, there is not good data coverage prior to when most states expressed. While this is a testament to how early most states expressed in the region, the early expression makes it difficult to tease out any intervention effect that expression may have had. It also calls into question studies that make dynamic theoretical claims, but test them on what is essentially cross sectional data.

Figure 5.7: CAT Expression and Human Rights in Western Europe
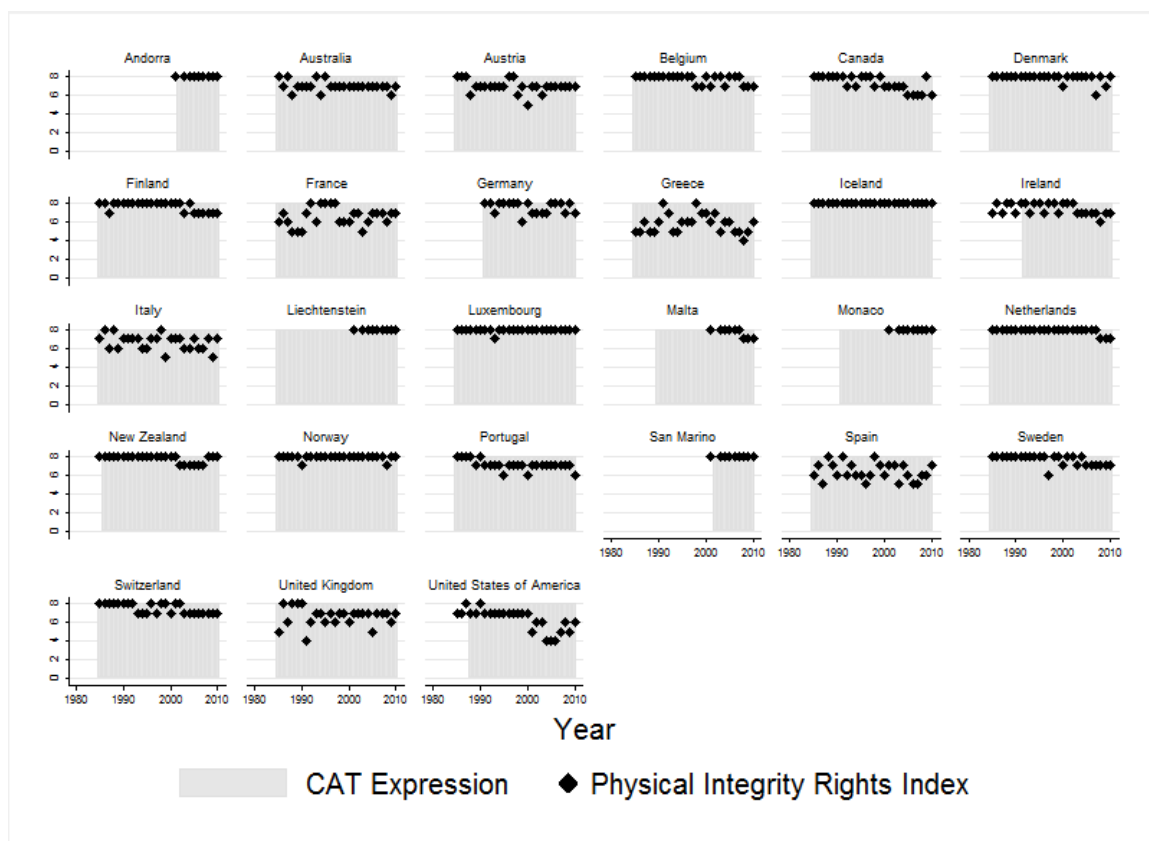
Finally, in Latin America, we face a similar problem with data availability in the early years of the sample. The sample is also limited in its cross-sectional coverage due to the limits of the CIRI data. Haiti is the only state in the region to remain a non-expresser, and most states were very early expressers. Besides El Salvador, Guatemala, and Honduras all of the sates in Latin America expressed in the first year CAT was available. The relationship between human rights behavior and expression is mixed. There are examples of both states with high levels of rights (Costa Rica) and low levels of rights (Nicaragua) who were early expressers. Some states' human rights conditions increase after adoption (Peru, Chile) while others decrease (Argentina, Dominican Republic). Cases like El Salvador reemphasize the potential spuriousness of the relationship. Improvements in human rights conditions come before CAT expression, hinting that some unaccounted factor is driving both human rights behavior and expression.

## 5.4    Results

With some important characteristics of the raw data in mind, I now move on to a more rigorous investigation of CAT expression. As I have argued throughout the dissertation, it is the relational nature of previous expressers to potential expressers that needs to be accounted for to take diffusion seriously. Thus, as with quotas, I use a dyadic event history analysis to further investigate which mechanism is best supported by the empirical evidence.

Tables 5.3, 5.4, 5.5 show the dyadic event history analysis results for hierarchy,

Figure 5.8: CAT Expression and Human Rights in Latin America
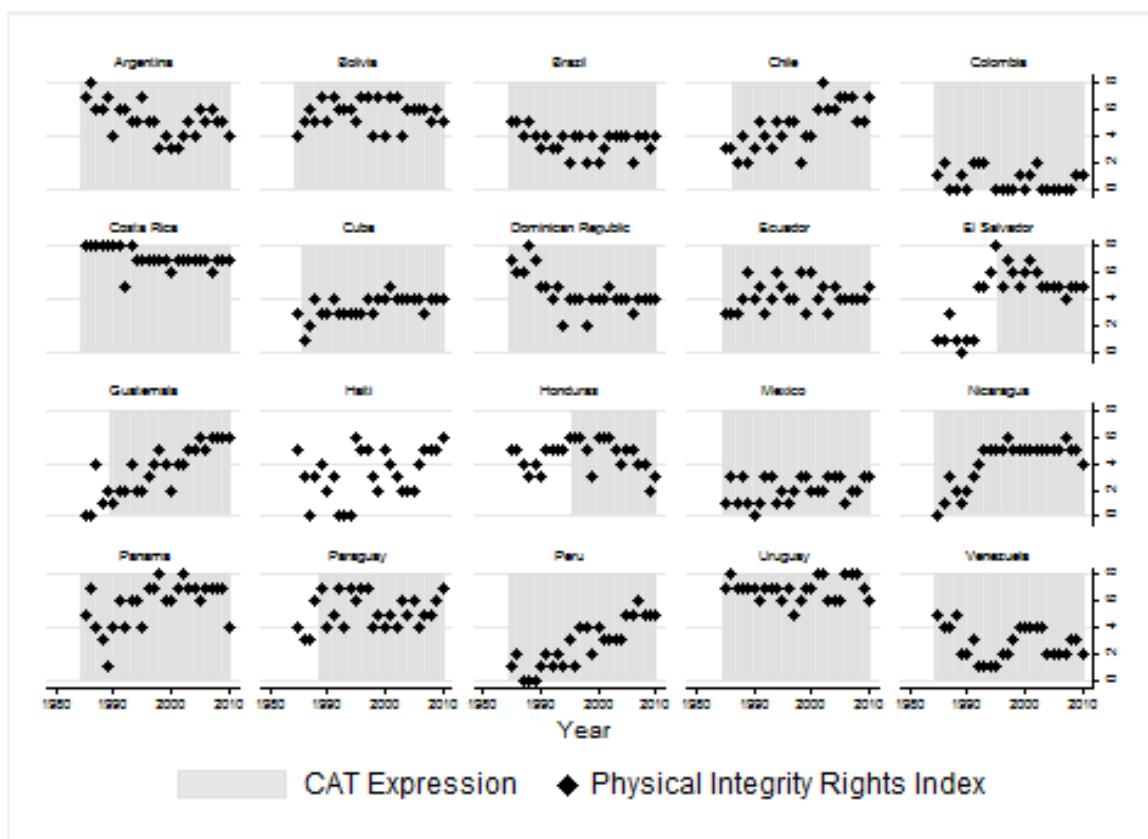
neighborhood, and identity variables. The hierarchy and neighborhood variables are measured the same way as in the previous chapter and are described therein. The identity measures however are unique to the normative domain of human rights and are described above. [6] The only identity variable in common between the two analyses is democracy. The overall pattern is more ambiguous for human rights than it was for women's empowerment. However, the data suggests that CAT expression is best explained by emulation due to the hierarchical and regional dynamics displayed by the system. Learning also receives some support. The hierarchy dynamics are not especially robust while several identity variables are consistently related to CAT convergence, a finding which casts some doubt on the emulation conclusion.

Table 5.3 shows the five different hierarchy variables, four of which attain at least marginal levels of statistical significance. Three are in a positive direction while one, *lnCINC* is negative. This would imply that as the gap between the power of the sender and the receiver grows, the receiver is less likely to converge. *GDP cap*, *lnGDP cap*, and *major power* tell the opposite story. As these measures of hierarchy increase, the likelihood of CAT convergence increases.

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[6]Descriptive statistics and a correlation matrix of independent variables are found in appendix B.

Table 5.3: DEHA Results for Hierarchy Measures

| | b/se | p | b/se | p | b/se | p | b/se | p | b/se | p |
|---|---|---|---|---|---|---|---|---|---|---|
| CINC | -2.60 | 0.22 | | | | | | | | |
| | (2.12) | | | | | | | | | |
| lnCINC | | | -0.05 | 0.07 | | | | | | |
| | | | (0.03) | | | | | | | |
| GDP/Cap | | | | | 0.00 | 0.07 | | | | |
| | | | | | (0.00) | | | | | |
| lnGDP/Cap | | | | | | | 0.10 | 0.04 | | |
| | | | | | | | (0.05) | | | |
| Major Power | | | | | | | | | 0.03 | 0.00 |
| | | | | | | | | | (0.01) | |
| time | 0.03 | 0.12 | 0.03 | 0.11 | 0.02 | 0.19 | 0.03 | 0.15 | 0.03 | 0.12 |
| | (0.02) | | (0.02) | | (0.02) | | (0.02) | | (0.02) | |
| constant | -3.07 | 0.00 | -3.03 | 0.00 | -3.04 | 0.00 | -3.10 | 0.00 | -3.09 | 0.00 |
| | (0.20) | | (0.21) | | (0.21) | | (0.23) | | (0.20) | |
| Observations | 161583 | | 161583 | | 143243 | | 143243 | | 161583 | |
| Log-Likelihood | -36311.70 | | -36206.83 | | -33010.36 | | -32967.34 | | -36326.12 | |

Table 5.4 shows the DEHA results for the neighborhood variables on CAT convergence. *Contiguity* and *distance* are negatively related to CAT convergence, while same region is positively related. As opposed to the quota diffusion story, the social aspects of neighborhood are not significant in the human rights story. However, the economic definition of neighborhood does gain marginal significance in the CAT model. Overall this is a similar pattern of neighborhood effects that emerged in the quota diffusion story.

Table 5.4: DEHA Results for Neighborhood Measures

| | b/se | p | b/se | p | b/se | p | b/se | p | b/se | p | b/se | p |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Contiguity | -0.07 | 0.00 | | | | | | | | | | |
| | (0.02) | | | | | | | | | | | |
| Distance | | | -0.00 | 0.00 | | | | | | | | |
| | | | (0.00) | | | | | | | | | |
| Same Region | | | | | 0.54 | 0.00 | | | | | | |
| | | | | | (0.10) | | | | | | | |
| Trade | | | | | | | 0.00 | 0.06 | | | | |
| | | | | | | | (0.00) | | | | | |
| Shared IO | | | | | | | | | 0.01 | 0.31 | | |
| | | | | | | | | | (0.01) | | | |
| Alliance | | | | | | | | | | | -0.08 | 0.63 |
| | | | | | | | | | | | (0.17) | |
| Time | 0.02 | 0.16 | 0.03 | 0.10 | 0.03 | 0.11 | 0.02 | 0.47 | 0.01 | 0.58 | 0.03 | 0.12 |
| | (0.02) | | (0.02) | | (0.02) | | (0.02) | | (0.02) | | (0.02) | |
| constant | -2.65 | 0.00 | -2.49 | 0.00 | -3.16 | 0.00 | -2.87 | 0.00 | -3.09 | 0.00 | -3.08 | 0.00 |
| | (0.26) | | (0.24) | | (0.21) | | (0.24) | | (0.32) | | (0.20) | |
| Observations | 159685 | | 159685 | | 161583 | | 50499 | | 50499 | | 161583 | |
| Log-Likelihood | -36222.00 | | -35727.82 | | -36175.03 | | -11960.07 | | -11947.86 | | -36324.87 | |

Table 5.5 shows the effects of six identity variables on CAT convergence. *Democracy* is positive and significant. *Common law* legal system is negative and significant. As several other scholars have noted, legal systems are an important part of the human rights story since the judiciary is the primary defender of rights in a state (Mitchell, Ring and Spellman, 2013). Because common law systems are better at using treaties to protect rights and limit state authority, states with common law systems are more hesitant to sign on to treaties (Simmons, 2009; Goodliffe and Hawkins, 2006). I also take measures of human rights from the Cingranelli and Richards (2010) human rights data project and one measure from the political terror scale. The empowerment rights index from CIRI reaches statistical significance while torture, physical integrity, and the PTS measure are insignificant in nearly every model specification. This replicates Goodliffe and Hawkins (2006). It shows that while state behavior regarding CAT expression is related to internal characteristics, it does not seem to be related to those characteristics which directly correspond to the normative content of the CAT treaty (torture and physical integrity rights). It is unclear theoretically why empowerment would be related to CAT convergence, while torture and physical integrity would not. The best explanation for this is that democracy and empowerment are preexisting conditions and CAT expression is a learning process. However, this conclusion contrasts with the conclusions reached from considering hierarchy and neighborhood.

Table 5.5: DEHA Results for Identity Measures

| | b/se | p | b/se | p | b/se | p | b/se | p | b/se | p | b/se | p |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Democracy | 0.04 | 0.01 | | | | | | | | | | |
| | (0.02) | | | | | | | | | | | |
| Common Law | | | -1.18 | 0.00 | | | | | | | | |
| | | | (0.30) | | | | | | | | | |
| Empowerment | | | | | 0.09 | 0.00 | | | | | | |
| | | | | | (0.03) | | | | | | | |
| Torture | | | | | | | 0.01 | 0.93 | | | | |
| | | | | | | | (0.17) | | | | | |
| Physical Integrity | | | | | | | | | 0.03 | 0.55 | | |
| | | | | | | | | | (0.06) | | | |
| Political Terror (PTS) | | | | | | | | | | | -0.04 | 0.70 |
| | | | | | | | | | | | (0.11) | |
| Time | 0.03 | 0.13 | 0.04 | 0.04 | -0.00 | 0.94 | 0.01 | 0.76 | 0.00 | 0.86 | 0.03 | 0.09 |
| | (0.02) | | (0.02) | | (0.02) | | (0.02) | | (0.02) | | (0.02) | |
| constant | -2.92 | 0.00 | -2.90 | 0.00 | -3.36 | 0.00 | -2.72 | 0.00 | -2.83 | 0.00 | -2.93 | 0.00 |
| | (0.22) | | (0.21) | | (0.30) | | (0.24) | | (0.34) | | (0.35) | |
| Observations | 119842 | | 160603 | | 118207 | | 118657 | | 117695 | | 113179 | |
| Log-Likelihood | -29767.86 | | -34824.12 | | -28292.10 | | -29046.54 | | -28960.55 | | -27121.04 | |

The time trend in CAT convergence is nearly always insignificant. When it does reach significance it indicates a small but positive duration dependence. While the time trend is weakly positive, the overall assessment is that there is duration independence. 5.6 shows the summary of empirical results. Null or positive duration dependence supports learning and competition. But, as discussed in chapter 4, this should be treated with caution.

The visual, bivariate interpretation of CAT expression supports emulation as the responsible diffusion mechanism but there is also some support for learning. When controlling for other factors, many of the already weak results lose significance. Yet, same region, economic and social hierarchy, and democracy are amongst the most consistent factors from a variety of specifications.

Table 5.6: Summary of DEHA Results

| Hierarchy | Neighborhood | Identity | Duration Dependence |
|-----------|--------------|----------|---------------------|
| + or null | + | + | null |

## 5.5   Conclusion

The compliance ratification paradox has supported a large literature in human rights in the last couple decades. Explanations have run the gamut from treaties being window dressing, treaties sparking the protest repression cycle, to explanations that the empirical models use to establish the paradox were mis-specified. I contribute

to this literature by showing that emulation is likely a dominant mechanism in the diffusion of CAT expression. This means that not all of the states that express are sincere in their commitment to human rights norms. It also implies that powerful states are not necessarily promoters of the anti-torture norm. Instead, relatively weak states observe regional leaders and follow the script given to them from above.

This is consistent with Simmons (2009) whose rationally expressive theory of treaty ratification finds further support using the dyadic history analysis approach. One major improvement of my analysis however, is to further clarify what the regional dynamics of CAT expression could mean. Simmons takes the effect of regions to provide support for her theory of strategic behavior within regions. However, she notes that there are multiple interpretations to the effects and that a simple account of percent ratified in the region can not distinguish between strategic and normative theories. My use of dyadic history analysis allows for regions to be defined in more theoretically interesting ways than simple geography. Thus, while I ultimately do not refute any of Simmon's key findings, I do provide an alternative way to understand the important effect of regions. The human rights literature has provided another illustration of the power of the norm diffusion framework.

By using an agent based model to create empirical expectations, I can take evidence which has been used to support a wide range of theories, and provide a neutral testing ground. Under these conditions, I find mixed results for the optimistic and pessimistic story of the power of human rights treaties. According to the DEHA, democracy and empowerment are positively related to CAT convergence. Optimists

would point to this finding as evidence that internal characteristics of states really are important, and that CAT expression is more or less sincere. However, the regional and hierarchy dynamics suggest that the process might be more like what pessimists describe, where weak states simply mimic the behavior of stronger states, not really believing in the norms they are expressing. This contradicts some recent work which has tried to show that the compliance ratification paradox is a statistical artifact rather than a real relationship.

## CHAPTER 6
## CONCLUSION

Norms are like a state's conscience; they are the unnoticed voice telling the state how to behave. They guide and grow from the US-Chinese conflict over cyber espionage; they force leaders like Bashar Al-Assad to hold elections in war-torn Syria; they are responsible for gender equality in the legislatures of Rwanda, Andorra, Cuba, and Sweden; and they explain why signing the convention against torture has very little to do with beliefs about torture. This dissertation has introduced a framework that provides clarity to all of these otherwise puzzling international behaviors.

### 6.1  Recap

The four diffusion mechanisms, coercion, competition, emulation, and learning, provide the theoretical leverage to explore norm diffusion and the puzzle of insincere norm expression. I used the diffusion mechanisms in three distinct ways. First, I built the concepts up from theoretical accounts in sociology and political science. Next, I formalized them in an agent-based model according to three variables, hierarchy, neighborhood, and identity. Using that formalization, I generated distinct fingerprints for each of the four mechanisms. Using the outcomes of the ABM, I investigate two cases of norm diffusion. Working from the opposite direction as the ABM, I apply a statistical technique known as dyadic event history analysis. I start with the hierarchy, neighborhood, and identity concepts and operationalize them using a variety of variables measured at different levels – on the senders, receivers, and

the relationship between senders and receivers. In the case of quotas for women's representation, I find that quotas diffused in a bottom-up, regionally distinct pattern, which suggests the competition mechanism. In the case of the convention against torture, the evidence is for a top-down, regionally distinct pattern, suggesting the dominance of the emulation mechanism in the diffusion process.

In chapter 2, I introduced the four diffusion concepts and the three fundamental aspects of international society. I also defined norms and diffusion. Norms are behavioral expectations for actors of a certain type. They begin as principled ideas and eventually some of those ideas become powerful enough to shape the identity of actors in the social system. Since norms have to do with behavior, but they are also intimately linked with identity, the internal structure and beliefs of the actor. When a norm becomes powerful it is adopted by certain actors who are less concerned about the norm itself and more concerned with the social pressures to behave a certain way. Coercion is a top down process in which powerful states use their might to promote change in other actors. Thus, the senders are true believers, but they don't care whether the receivers an uninitiated non-believer. They only care if the receiver expresses. Competition is a bottom up process in which weak low status states vie for international acceptance. The most likely competitors are those closest to each other. Neighbors seek to distinguish themselves which leads to deep implementation. Emulation is a top down process in which weak states look to powerful states as models. In emulation receivers are not motivated by their belief in the norm, they are merely following leaders. While it is top down it is limited by neighborhood because

receivers need to choose models who are enough like them. Learning is a bottom up mechanism and it assumes that the receiver is actively searching for information on how to change from an uninitiated true believer. The way that a norm grows from its beginnings in a localized context to widespread adoption matters a lot for the ultimate prospects of norm in terms of internalization. Coercion and emulation are associated with weak internalization in a population while competition and learning are associated with high prospects for long term internalization.

In chapter 3, I build up an ABM of the four diffusion mechanisms. Using the conceptual definitions of the mechanisms developed in the previous chapter, I formalize them using hierarchy, neighborhood, and identity. The crucial feature of the ABM is the stage in diffusion where an actor, the receiver, first expresses a norm because it has been exposed to another actor, the sender, who already does so. This is what agent based modelers refer to as convergence. I use four distinct versions of the ABM to represent how convergence occurs within each of four different diffusion mechanisms–coercion, competition, emulation, and learning. Those mechanisms are in turn defined based on combinations of hierarchy, neighborhood, and identity, which represent the different types of senders that can prompt convergence and the types of receivers that are vulnerable or amenable to change. In a coercive scenario, powerful actors at the top of the hierarchy are primarily responsible for coercively driving convergence. Competition is characterized by regional neighborhoods that expose believing receivers who have not yet adopted a norm to believing senders who have. In emulation, weak receivers look to more powerful senders in their own neighborhoods.

Finally, in a world where only learning operates, believing receivers express a norm when they are exposed to senders that have previously expressed. This creates an over-time pattern for each of the diffusion mechanisms.

With the formalizations complete I then experiment with different parameterizations in order to establish behavior of each of the mechanisms under a wide range of conditions to observe the patterns I keep track of three emergent properties: the overall diffusion pattern captured by the S curve, regional dynamics captured by the adoption pattern in each region, and hierarchy dynamics by comparing the average power of expressers to the average power of non-expressers.

In chapter 4 and 5, I move from the theoretical world to the empirical world, applying the conceptual and formal insights of norm diffusion developed in chapters 2 and 3 to the domain of women's rights and human rights. My main empirical strategy is to look at the diffusion of particular norms at the systemic level. I use a set of techniques known as event history analysis, including an important extension of standard event history analysis known as dyadic event history analysis. Like the ABM, the DEHA also uses convergence but it does the opposite of the ABM. The DEHA starts with measures of hierarchy, neighborhood, and identity and then identifies which mechanism is responsible for producing a particular empirical case of norm diffusion. The output from the DEHA shows how hierarchy, neighborhood, and identity combine to produce the actual diffusion pattern which can then be compared to the ideal-types generated by the ABM. By identifying the mechanism producing the particular case of norm diffusion, the long-term prospects for norm internalization

are better understood.

I chose women's empowerment and human rights, two important domains of norms to study empirical chapters. While there are many norms that can be explained using the framework i developed in this dissertation, I chose these to fields for their normative importance, because they are well developed sub fields in political science and IR, with a lot of previous research to build upon, finally they are relevant to policy makers and activists. While they are well established in some senses, they are still relatively new and contested in others. This makes them ideal areas to focus reasearch on norm diffusion because there is enough data to support rigorous analysis, but there is also the opportunity to contribute to future developments on the ground.

In the first empirical application I focus on women's empowerment, with a special focus on women's representation and the innovation known as quotas, which have recently lead to a rapid increase in women's representation across the globe. Research on quotas for women's representation has become well established in the last decade but one of the biggest challenges for quota researches has been to deal with the apparent widespread insincere quota adoption. Why would states ever adopt a quota if they did not actually believe in the norm of women's political empowerment. My explanation for this puzzle is that the quota adoption process is largely driven by competition over social rank. States believe that women's representation is a valid way of measuring social rank, so they compete with each other to increase women's representation by adopting quotas. This is consistent with the theoretical work of Towns and provides evidence against the conclusions of Bush, who argued that quota

adoption was not a bottom up process and instead was a top down process of coercion by powerful states in the democratic community.

In the second empirical application I look at human rights and focus my specific attention on the convention against torture. The CAT is a relatively recent human rights treaty dealing with one of the fundamental human rights: the right to personal integrity. The use of torture has come to be seen as an inappropriate to state power. Nonetheless, torture appears to still be a commonly used technique by police and military forces in many states throughout the globe in their quest to maintain control over their own populations or for intelligence gathering during military conflicts. Recent scholarship in the area of human rights has paid a lot of attention to the behavior of states regarding the convention against torture and state practices of torture. The enduring paradox from this literature is that while many states signed CAT don't go on to torture, some states continue to use torture despite signing or ratifying. In some cases the over human rights conditions worsen. This has caused a lot of discussion in the literature about the best way to empirically model the effect that treaty ratification has on subsequent behavior. I set aside the search for the effective treaties on behavior and focus more attention on the signing and ratification process itself. I find evidence for emulation. The CAT is diffusing from above, but it is dominated by regional dynamics as opposed to global dynamics. This explains the paradox because the uninitiated and non believers both express their support for human rights by signing or ratifying the treaty. Thus, the ultimate population of norm expressers contains both true believers and poseurs. This explains why looking for

the effect of a treaty in a particular state within a short time frame after ratification is a poor way to evaluate the effect of treaties. My long term hypotheses generated from this chapter is that the CAT is a weak institution that will ultimately not change the behavior of non-believers and poseurs. This does not mean that human rights are inconsequential but it does shift focus away from the "scraps of paper" that treaties sometimes are.

## 6.2   Contribution

I make a general contribution to IR by linking the four mechanisms of policy diffusion to the constructivist model of the norm life cycle. By formalizing the world using hierarchy, neighborhood, and identity, I am able to adequately capture the main components of IR theories. Thus, I am able to weigh in on numerous issues regarding the development and diffusion of norms in the international system. I am building on a rich body of research, and in this regard, my overall contribution is small. However, only in the last decade have formal modelers and constructivist theorists begun to see their approaches as possibly complementary rather than competing Fearon and Wendt (2002).

My contribution to the human rights literature is to solve the ratification-compliance paradox. The ratification compliance paradox is that some states who ratify CAT end up with worse human rights conditions. Some states ratify and never intend to uphold the conditions of the treaty. I build on recent institutionalist work treating ratification as a complex process(Simmons, 2009; Hill, 2010; Lupu, 2013a;

Vreeland, 2008). I share the goal of these authors in wanting to better understand why the empirical record appears to show widespread abrogation of the CAT treaty by those who signed or ratified. I take a more deductive approach to the problem by starting with a simple model of the international system and theorizing what the different diffusion mechanisms would look like in this system. The deductive approach compliments these recent works which are largely inductive. I find support for emulation due to the particular regional and power dynamics. This explains why there are many states who are true believers of the norms contained in CAT and thus their expression is genuine. It also explains why CAT has a reputation of being weak and is associated with higher levels of torture in some states. My work identifies what conditions produce internalization, thus making clear when actual progress in human rights progress takes place.

My contribution to women's rights literature is to bring more theoretical clarity to quota adoption. Three scholars in particular have done a lot of theoretical and empirical work on the international dimensions of quota adoption (Krook, 2009; Towns, 2012; Bush, 2011). Krook has written prolifically on quotas and her personal work and edited volumes contain encyclopedic accounts of cases of quota adoption from all over the globe. These stories of norm diffusion are invaluable, but looking at the micro-causes of norm adoption can obscure broader patterns. Krook lays out all possible paths to quota adoption but never makes a specific theoretical argument about a unifying global account. Towns and Bush on the other hand stake out specific sides of a theoretical debate. They both recognize that quotas have been widely

adopted in states that may seem surprising given what we supposed were their internal beliefs about women's empowerment. Bush sees weak states adopting and argues that it is caused by coercion and emulation. Towns sees weak states adopt and argues that they are competing over social rank and advancing women's rights from below. I start from the theoretical insights of these three important works but instead of focusing on cases of quota adoption I draw conclusions by observing the system as a whole. This allows me to take the empirical evidence and arbitrate between the competing theories using a neutral model.

### 6.3   Future Directions

This dissertation project has led to at least as many new questions as it answered. The formal model suggests directions for further development because it makes obvious what is currently missing from the analysis. For instance, The four different actor-types that I created to deal with convergence actually suggest there are many different ways that actors can evolve. The notion of backsliding, which is an obvious possibility given the formal model, was not something I intended to include. Its exclusion now makes the model seem deficient. Further extensions will build on this insight both theoretically and empirically. I see three directions for research building off of the model and findings of thsi dissertation, 1) an extension of neighborhood from dichotomous to continuous to be used in both theoretical and empirical models 2) an extension of the mechanisms formalized in the ABM to include the full path from non-believer to true believer and the presence of backsliding 3) an

empirical application using different levels of analysis to investigate the patterns of diffusion 4) empirical applications to a wider variety of cases to better understand aggregate diffusion patterns.

A new issue area calls into question some of the model's limiting assumptions. Lesbian, Gay, Bisexual, and Trans-gender (LGBT) rights, are an important normative development in international society, and they suggest some theoretical implications that are not addressed in the current iteration of the ABM. One limitation of the extant model is that it treats norm internalization as being permanent. This area of new research modifies that assumption by allowing states to backslide. It links the expression of a norm (policy adoption) to differential levels of feedback on norm internalization by the type of state that adopts. It relates back to a larger question suggested by the formal model: how does the path from *non-believer* to *true-believer* affect the likelihood of norm acceptance in the population? Moreover, it suggests another important question: how does norm death occur? When, if ever, does a population of *true-believers* go back to being *non-believers*?

This idea of norm backlash may provide a clue as to the strange behavior of the system with regard to LGBT rights. Unlike women's and human rights, there is not widespread international agreement that sexual minorities should be extended full rights and legal protections. At the same time that many states are expanding sexual minority rights (i.e. through anti-discrimination statutes and the legalization of same sex marriage), many others are taking explicit steps to criminalize same sex relationships. This issue area provides an important case in which diffusion results in

both norm expansion (norms moving into new jurisdictions) as well as norm backlash (the status quo is reinforced or even moved in a more conservative direction). This project extends the dynamic theory of norm diffusion by focusing on how international socialization and localized internalization can lead to a bifurcated global culture.

Another way to investigate empirical patterns of diffusion is to consider different levels of analysis. This requires moving beyond the state-centric approach and looking at individuals working as activists in global society. Both women's rights and human rights provide opportunities for further research at the level of NGOs. The primary objective of conducting research at this alternate unit of analysis is to create an important new variable measuring neighborhood as a continuous variable. One of the key dimensions of the model is neighborhood, which is treated as dichotomous. You are either in the same neighborhood or not. However, neighborhoods in social systems are more like networks which can be described by dyadic relationships. Ties are stronger between members of the same neighborhood than between members of different neighborhoods. But ties between members of different neighborhoods still exist. While neighborhoods can still create distinct localized norms, that does not mean that they are completely uninfluenced by the broader world. Earlier theoretical work describes the existence of transnational advocacy networks (TAN), a dense global web of activist and donor NGOs. However, we have limited empirical and theoretical insight into their structures. The experience of NGO leaders will provide another layer of evidence which can be used to compliment the findings of this dissertation.

# APPENDIX A
# ABM SUPPLEMENTAL MATERIALS

## A.1  Diffusion Model ODD Description

This appendix describes the model discussed in my dissertation, *The Diffusion of Norms in the International System.*

**Purpose**

The model is designed to explore four diffusion mechanisms that are common in social systems, coercion, competition, emulation, and learning. The basic question is: under what conditions do the interactions of states lead to the emergence of norms, common behavioral practices which are supported by changes in states' internal identities? How does variability in the states' hierarchical position, neighborhood, and identity affect the emergence of norms under different mechanisms?

**Entities, State Variables, and Scales**

The model has one kind of entity: states. States are distributed onto the lattice into two neighborhoods. In other words, each cell is occupied by one and only one agent which is immobile. The size of the population is a potentially an important feature. It is initially set with a size of 10 10, but it can be manipulated to be smaller or larger test for robustness. Each state is characterized by three variables. Hierarchical position is a variable with higher numbers indicating greater rank. Neighborhood is a nominal variable identifying each region (A or B). Each agent within a region has the same value for this variable. Identity has two elements (i = expression i* =

Figure A.1: NetLogo Interaction Rules

```
to interact
  if Mechanism = "Coercion" [
    if i-s = 1
    and i*-s = 1
    and hierarchy > 0 [
      ask turtles with [r? = true] [set i 1]
      ]
  ]

  if Mechanism = "Competition" [
    if i-s = 1
    and i*-r = 1
    and hierarchy <= abs 1
    and neighbor = true [
      ask turtles with [r? = true] [set i 1]
      ]
  ]

  if Mechanism = "Emulation" [
    if i-s = 1
    and hierarchy > 0
    and neighbor = true [
      ask turtles with [r? = true] [set i 1]
      ]
  ]

  if Mechanism = "Learning" [
    if i-s = 1
    and i*-r = 1
    and hierarchy <= abs 1 [
      ask turtles with [r? = true] [set i 1]
      ]
  ]
end
```

internalization) which are indicators whether the trait is present or not.

**Process Overview and Scheduling**

There is only one process in the model: dyadic convergence of identities on the expression dimension. On each time step, one dyad (consisting of states R and S) interacts, potentially resulting in a change in the identity of R. State R and S are chosen randomly with equal probability.

**Design Concepts**

The *basic principle* addressed by this model is the concept of norm diffusion– the convergence of states along an element of identity due to social interaction. This concept is addressed by seeing how norms *emerge* differently as three parts of the model (hierarchy, neighborhood, and identity) interact in different ways due to the differ-

Figure A.2: NetLogo Agent and Environment Variables

```
patches-own[
          region           ;The region of the world, A or B
          ]

turtles-own[
          power-star       ;to get the normal into a discrete variable
          power            ;The power level of the state, distributed (normal, poisson, uniform)
          i                ;Indicates whether the state internalizes the norm (yes=1,no=0)
          i*               ;Indicates whether the state internalizes the norm (yes=1,no=0)
          r?               ;Indicates whether the state is the receiver (yes=1,no=0)
          s?               ;Indicates whether the state is the sender (yes=1,no=0)
          ]

globals[
          power-s          ;The power level of the sender.
          power-r          ;The power level of the receiver.
          power-without-i  ;The average level of power of states with i=0
          power-with-i     ;The average level of power of states with i=1
          power-difference ;The difference in the level of power between senders and receivers (power_s - power_r)
          neighborhood-s   ;The neighborhood of the sender.
          neighborhood-r   ;The neibhorhood of the receiver.
          same-region?     ;Indicates whether the sender and receiver are in the same neighborhood (yes=1,no=0)
          proportion-regionA-i ;The proportion of states in the green region with i=0
          proportion-regionB-i ;The proportion of states in the magenta region with i=0
          regional-difference  ;The absolute difference in the proportion of states with i=1 between the two regions
          i-s              ;Indicates whether the sender expresses the norm (yes=1,no=0)
          i*-s             ;Indicates whether the sender internalizes the norm (yes=1,no=0)
          i*-r             ;Indicates whether the receiver internalizes the norm (yes=1,no=0)
          ]
```

Figure A.3: NetLogo "Go" and "Activate Dyad" Commands

```
to go
  activate-dyad
  interact
  ask turtles [if i = 1 [set color white ]]
  if not any? turtles with [color = black] [stop]
  calculate-proportion-i
  caclulate-proportion-region-i
  calculate-power
  tick
end

to activate-dyad
ask patches [
    if region = 0 [set pcolor 56]  ;Reset the previous sender and receiver
    if region = 1 [set pcolor 127] ;to their original color of their region.
    ]

ask one-of patches [set pcolor red] ;select a random receiver
ask one-of patches [set pcolor sky] ;select a random sender

ask turtles [
  set r? false ;reset the previous receiver
  set s? false ;reset the previous sender
  if pcolor = red [set r? true] if pcolor = sky [set s? true] ;set indicator for sender and receiver
]

set i-s count turtles with[i = 1 and s? = true] ;update the indicators
set i*-s count turtles with[i* = 1 and s? = true]
set i*-r count turtles with[i* = 1 and r? = true]

end
```

Figure A.4: NetLogo Setup and Initialization of Patches

```
to setup
  clear-all
  clear-all-plots
  ask patches [ initialize-patches ]
  ask turtles [ initialize-turtles ]
  reset-ticks
end

to initialize-patches
  sprout 1 ;Populate the world with 100 agents with one on each cell
  if pycor < 5    [
                  set region 0
                  set pcolor 56 ;A shade of green
                  ]
  if pycor >= 5   [
                  set region 1
                  set pcolor 127 ;A shade of magenta
                  ]
end
```

ent diffusion mechanisms (coercion, competition, emulation, learning). *Convergence* is modeled via a simple rule that reproduces the behavior observed in real states: institutional isomorphism.

*Sensing* is trivial in this model: states are assumed able to identify the characteristics of others without making mistakes, but this can be manipulated.

**Initialization**

Hierarchy, neighborhood, and identity are initialized when the model starts. Two of these variables are defined by parameters which can be manipulated through sliders or choosers on the interface tab. With hierarchy, the user can select from three different distributions of rank, the normal, uniform, and Poisson which are transformed from continuous to ordinal where necessary. Identity has two parts to initialize. First, states are randomly assigned into being norm internalizers ($i^*=1$) or not ($i^*=0$). Of those with $i^* = 1$, a certain proportion begin as norm expressers ($i = 1$). The user sets the initial probability that each state will be an internalizer and an expresser (given that it is an internalizer) on the interface tab using the top two sliders.

Figure A.5: NetLogo Initialization of Agents

```
to initialize-turtles
  set color black
  set shape "ringshape"
  set size .8
  if Power-Distribution = "Poisson" [
      set power random-poisson 1 + 1
      if power > 5 [set power 5]
  ]
  if Power-Distribution = "Normal"  [
      set power-star random-normal 2.5 1
      if                       power-star < 1 [set power 1]
      if power-star >= 1 and power-star < 2 [set power 2]
      if power-star >= 2 and power-star < 3 [set power 3]
      if power-star >= 3 and power-star < 4 [set power 4]
      if power-star >= 4                   [set power 5]
  ]
  if Power-Distribution = "Uniform"  [
      set power random 5 + 1
      if power > 5 [set power 5]
  ]

  set i* random-float 2
  ifelse i* / 2 > probability-i*=1 [set i* 0 ] [set i* 1]
  if i* = 1 [
    set shape "ringstar"
    set i random-float 2
    ifelse i / 2 > probability-i=1 [set i 0 ] [set i 1]
  ]
  if i  = 1 [set color white]

  ifelse show-power? [ set label power ] [ set label "" ]
  set label-color black

end
```

To allow observation of norms, I define several measures which are displayed in the monitors on the interface tab. The most basic thing to observer is "norm prevalence," the proportion of states in the system with a particular trait. This measure is also observed for the two regional subsets. The final measure is the average level of power amongst for the two sets of states with i = 1,0.

Figure A.6: NetLogo Reporters and Output

```
to-report hierarchy
  ask turtles with [s? = true] [set power-s power]
  ask turtles with [r? = true] [set power-r power]
  report power-s - power-r
end

to-report neighbor
  ask turtles with [s? = true] [set neighborhood-s region]
  ask turtles with [r? = true] [set neighborhood-r region]
 ifelse neighborhood-s = neighborhood-r [set same-region? true] [set same-region? false]
  report same-region?
end

to calculate-proportion-i
  set-current-plot "Proportion of States with i=1"
  let number_i count turtles with [i = 1]
  let number_turtles  count turtles
  let proportion-i number_i / number_turtles
  plot proportion-i
end

to caclulate-proportion-region-i
  set-current-plot "Regional Difference"

  set-current-plot-pen "RegionA"
  let number_regionA_i count turtles with [i = 1 and region = 0]
  let number_regionA_turtles count turtles with [region = 0]
  set proportion-regionA-i number_regionA_i / number_regionA_turtles
  plot proportion-regionA-i

  set-current-plot-pen "RegionB"
  let number-regionB-i count turtles with [i = 1 and region = 1]
  let number-regionB-turtles count turtles with [region = 1]
  set proportion-regionB-i number-regionB-i / number-regionB-turtles
  plot proportion-regionB-i
 |
 end

to calculate-power
  set-current-plot "Power Difference"

  set-current-plot-pen "Mean-i=0"
  set power-without-i mean [power] of turtles with [i = 0]
  plot power-without-i

  set-current-plot-pen "Mean-i=1"
  set power-with-i mean [power] of turtles with [i = 1]
  plot power-with-i

end
```

# APPENDIX B
# DEHA SUPPLEMENTAL MATERIAL

## B.1   Interview with Women's Empowerment Activist

*An Interview with Ugandan activist Jacqueline Asiimwe on the state of women's rights in local and global contexts.*

Today (9/25/2013) I am writing about women in Africa. I will recount the interview I conducted with Jacqueline Asiimwe on 9/23/2013. Asiimwe came to the U of I to give a talk on an anti-corruption movement in Uganda, the Black Monday movement. She was sponsored by International Programs (IP) and the University of Iowa Center for Human Rights (UICHR). Edward Miner, the bibliographer for African, Middle Eastern, and South Asian Studies, organized the event. I contacted Edward beforehand to arrange a meeting.

I met Asiimwe at the UICHR office in the old capitol mall. After introductions, we walked down Washington St. to the Java House to have coffee while we talked. She told me she had been in town since last Friday (it was a Monday), and that she comes to the US about once a year. She was in Iowa for the first time because of an invitation from Miner. Asiimwe knows Miner because he is married to a Ugandan who has known Asiimwe for some time, around 10 years.

We got to the coffee shop, ordered coffee (which I paid for saying that my department would reimburse me), and found a place to sit. I asked if it would be OK for me to take notes. She replied that, as a lawyer, she would think it strange if I

didn't take notes. She was soft spoken, but very firm in the delivery of her message. Despite her strong sense of justice and commitment to movement ideals, she did not show anger or zeal when discussing the 'facts on the ground.' She spoke efficiently about a wide range of topics and never relied on movement lingo or cliches to make her points.

I began the interview by saying that I wanted to tell her about my project and then let her speak openly about her experiences as she thinks they relate. I had a list of questions that I would use to advance the conversation. I used several of them when needed, but most of them were answered without actually asking them.

I said that my work was on norms and how ideas spread throughout the world, how global and local interactions result in patterns of changes. I said that my theory is removed from the level of the activist, but that my theory required by assumption that people like her existed. "So, I want to know about how you interact with global society," I said. I primed her by asking about her professional network and the role of conferences and workshops in the growth of her own ideas on human rights and women's rights.

Rather than take on the broader questions of how she developed her ideas, she began by addressing the most straightforward question I had asked, and described her international training. In 1999, she went to a project management and adminis-tration workshop for senior level managers of NGOs at the Akademie Klausenhof in Germany. It was a 6 week program hosted by an women's rights NGO key donor, which was a German foundation. Geographic diversity was maintained with African

representatives from countries all across the region. She noted that a big part of the workshop was dedicated to the *log frame*, which is "a logical method" to facilitate the interaction of donors and recipient international aid organizations. The Germans like to have applications for aid that specifically outline the project's goals, monitoring, and assessment: "what change you want to create, verifiability, risks." In the US, the application for aid happens in a different way (Asiimwe is currently working for a US-based aid organization). Asiimwe noted that it would be beneficial to systematize the aid application process across different donors. "Why waste all the energy of an organization to the application process?," she queried.

In Arusha, she participated in a two-week project management workshop hosted by a Danish group MS-TCDC. She noted that the location of the workshop was helpful because it allowed more people to attend and a greater diversity of participants than the German workshop.

Here is their description of the group that hosted the Arusha workshop: "MS-TCDC is a Training Centre for Development Cooperation in Eastern and Southern Africa. We are situated close to Arusha in Northern Tanzania (East Africa). Throughout the year different courses and workshops run concurrently in a lively international atmosphere promoting sharing of experience and cross cultural discussions. Excellent facilities together with a quiet and pleasant atmosphere make it an ideal place for reflection and learning" [1]

She described the organization as focusing on the training of development

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[1]http://www.mstcdc.or.tz/

workers and building organizational development. The group she participated in was an EU project. There were about 20 people from all over Africa participating, and she has stayed in contact through Twitter with at least one of the participants. This prompted her mention the importance of access to communication technology. We briefly discussed the importance of smart phones, including the Nokia version which is much cheaper than Apple and other versions. There are very few Apple products in Uganda due to the price, yet the market for cellular phones is booming. After this, our conversation developed more naturally and we moved through several topics including, layers of power/governance, quotas, women's rights, challenges faced by NGOs, the difference between legal rights and reality.

In regards to the layers of global government, the first thing Asiimwe mentioned was that "the personal is political." She noted that without fairness at the household level, the changes at the other levels would be pyrrhic. She also said that with respect to local, regional, and global levels, "the higher you go, the less in touch." However, she mentioned that she had entertained thoughts of running at the regional level as an Ugandan delegate to the East Africa Community (EAC), a regional IO tasked with fostering economic development. Themes from this jumping between layers of governance continued throughout the conversation.

After she had brought up the EAC, I asked her about the curious fact that all of the members of that organization have quotas. "Everyone learned from Uganda," she responded. However, we did not linger on the adoption of quotas. These are already realities for these societies. Uganda adopted 18 years ago in 1995. Asiimwe

focused the discussion much more on what I hope is not too pessimistic to call the 'false promise' of quotas.

She discussed the case of Uganda. The state had recently increased the size of its legislative body in terms of members of the chamber. Women increased proportionally with the increase. However, fewer women are directly elected and more come from appointment. She notes that parties are still gendered in nomination processes. She called quotas (or the women who serve due to their appointment) a tool for patronage, despite the grassroots efforts that had led to quota adoption in the first place. Women who use their position to speak against the government are simply replaced because the president maintains the right to 'hire and fire.' Thus, rather than a tool of society for women's voices to be heard, it is a tool of authority to "remind women of their place." Whether in the home or in the government, women have a role but it is distinct from men's roles. She referred to this as backlash, where advocates get replaced by party hacks. The message is clear, she said, "send your stereotypical women, docile and quiet, to replicate what is in the home."

She blames some of the lack of progress on the shortcomings of the movement itself. She said that advocates initially paid attention to politics, not practicalities. In other words, they were ideological without a strong sense of how the implementation would occur. "Women were energized coming back from Beijing and making demands of their governments." There were early gains, both local and international, with an international conversation around the convention on the elimination of All forms of Discrimination Against Women (CEDAW). But, when it came down to it, the

strong pro-CEDAW reception amongst states was 'political posturing.' I asked her if she thought that Ugandan president Yoweri Museveni had intended to co-opt the women's rights movements for his own political gains or if that is just how it worked out. In other words, did he plan on using the movement for his own political gain this the whole time? She said that despite much initial optimism, that yes, Musevini had intended it from the beginning and that the movement was naive to ignore the details of government in their pursuit of grand ideological gains (which arguably, have been largely achieved).

It is the male patriarchs who continue to manage the affirmative action program. To explain her point, she equated the governmental affirmative action with affirmative action in university. While you increase the number of women, you put them in the arts and reserve the sciences for men. Women are kept to the side and expected to only focus on certain areas of policy. They are placed in particular ministries: gender, justice, energy, education & health. There is a difference of rank within ministries, and few women hold the highest level positions, although one woman has a cabinet level position. Jesica Alupo is the minister of education. The powerful ministries, such as the ministry of justice are less inclusive of women. "The police, prisons, judiciary, are all men." Appointments are still determined by "tribe and religion, not quality." She emphasized the current need for advocates to pay attention to issue areas because it is in the details that patriarchy continues to operate. This leads to an unfortunate outcome, "the appearance of progress but in reality it is the status quo."

Despite the connection to the global human rights and women's rights discourse, rights are locally defined. Uganda signed onto the regional women's rights agreement, but placed a reservation on article 14 dealing with abortion. She cited the strong role of the Catholic Church as the primary reason Uganda made that reservation. Despite 'losing' on that issue, there have been many legislative victories. She mentioned the anti-female genital mutilation bill, the anti-trafficking bill, and the marriage/divorce law.

She also noted that there is a lot of wiggle room in a constitution. Despite the enumeration of rights in a constitution, there are policy decisions that ultimately determine how those rights can be realized. Even more importantly are the hidden aspects of the legislative process, especially concerning the control of resources. Without the capacity or willingness to spend limited resources to fund programs, high ideals can be completely sidelined and thus practical progress stymied. "There are so many layers of decision-making, without technocrats, things fall into cracks."

This led to the question, "can laws change lives?" We discussed the Ugandan constitution and the 1995 constitutional review that included rights specific to women. The optimistic thing to note is that "these guarantees are 'locked down' even though governments can dilly-dally, dragging their feet at the implementation stage. Additionally, the leaky corruption tap results in funds being spent for political survival. For example, there is more money allocated for riot gear than for anti-trafficking. Control of the budget is key for implementation. Laws can change, but awareness at the local level is ensured through the implementation process." There

have been constitutional challenges on issues such as discrimination in divorce law which unfairly defined adultery in different ways for men and women. In this case, the court ruled on the side of women's rights, but the actual consequence of the ruling is to shoot the issue back to the parliament which hasn't been able to fully address the issue.

The legal discussion led us back to the personal. "Even if I know my rights, how do I come out of the space and claim those rights." There are still numerous social and economic barriers preventing the realization of rights progress. While changing the make-up of government can be achieved through quotas, "political, patriarchal attitudes change more slowly."

We also talked about the international context. She said that the number of women in parliament has been used as a way to silence or ignore international criticism about the lack of progress on the issues mentioned above. For instance, the fact that the US has fewer female representatives than Uganda is held up as an "easy way for African governments to flip the argument." Even though the US has led globally on human rights/women's rights, it does not have the symbolic power it once did.

She then brought up regional integration in which all of East Africa would have a single currency and one president. She seemed skeptical that this could occur, but she also seemed hopeful that some issues can be managed at this level. It was unclear if she thought women's rights were among them. She noted that a similar affirmative action dynamic was taking place at the EAC; 1/3 of the 9 delegates from

each country must be women. She thought, but was unsure, that no country sends more than the minimum

As we began to wrap up the conversation, I asked about two topics that had not come up naturally: social competition and coercion. I felt like most of her discussion revolved around emulation and learning. (Of course, all mechanisms depend on the existence of local movements which are assumed to always be at work). When I asked her about competition, she affirmed that those arguments were frequently in operation "Kenyan women are at point B, why are we still at point A?" Or, "Look at Rwanda, we need to also achieve equal representation." She also affirmed that it was primarily between neighbors. As for coercion, she said that pressure from the top down is fragile; it is considered bullying, and can lead to backlash. However, it did help prevent the passing of an anti-gay law in Uganda recently. "In some governments it can work. Dependency on foreign aid is key."

After finishing our coffees, I thanked her for all the information she shared with me. The interview lasted about an hour and a half. On the way back to the UICHR, we discussed personal and professional networks and the importance of meeting people across the globe. We spoke about how she had come to Iowa to give a talk on her anti-corruption movement. She had met the event organizers over ten years ago in Indiana through her studies. Thus, it was the structure of global higher education that linked Jackie and Edward. She asked if there was anywhere to buy a case for her Ipad. I led her to the tech store in the Old Capital mall, thanked her again, and said goodbye.

## B.2   Scholarly Interest in Quotas

Table B.1: Scholarly Interest in Quotas

|           |      | Total Articles | Articles per year |
|-----------|------|----------------|-------------------|
| 1986 –    | 1990 | 6              | 1.2               |
| 1991 –    | 1995 | 29             | 5.8               |
| 1996 –    | 2000 | 105            | 21                |
| 2001 –    | 2005 | 293            | 58.6              |
| 2006 –    | 2010 | 775            | 155               |
| 2011 –    | 2014 | 899            | 224.75            |

Table B.2 shows how scholarly interest in quotas has grown. This is a rough sketch, I simply searched using google scholar using the following search terms "gender quota" OR "women's quota." I refine the search to focus more closely on the type of quotas that interest me by adding a search term to limit the results to legislative quotas: "gender quota" OR "women's quota" AND "legislature."

Table B.2: Scholarly Interest in Legislative Quotas

|           |      | Total Articles | Articles per year |
|-----------|------|----------------|-------------------|
| 1986 –    | 1990 | 1              | 0.2               |
| 1991 –    | 1995 | 3              | 0.6               |
| 1996 –    | 2000 | 27             | 5.4               |
| 2001 –    | 2005 | 101            | 20.2              |
| 2006 –    | 2010 | 305            | 61                |
| 2011 –    | 2014 | 260            | 65                |

This is a rough sketch and it likely overestimates the number of articles published on legislative gender quotas. GoogleScholar often includes conference papers, and other bibliographic entries, that do not constitute research articles. Nonetheless, the pattern should be evident. Scholars are responding to the empirical world by focusing on this new phenomena.

### B.3 Supplemental Quantitative Information

Table B.3: Definition of Regions

| | |
|---|---|
| Eastern Europe and post Soviet Union | Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan |
| Latin America | Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela |
| North Africa & the Middle East | Algeria, Bahrain, Cyprus, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, United Arab Emirates, Yemen |
| Sub-Saharan Africa | Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe |
| Western Europe and North America | Andorra, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Malta, Monaco, Netherlands, New Zealand, Norway, Portugal, San Marino, Spain, Sweden, Switzerland, United Kingdom, United States of America |
| East Asia | China, Japan, Mongolia, North Korea, South Korea, Taiwan |
| South-East Asia | Brunei, Cambodia, East Timor, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam |
| South Asia | Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka |
| The Pacific | Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu |
| The Caribbean | Antigua & Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago |

Table B.4: Summary statistics for Women's Empowerment

| Variable | Mean | Std. Dev. | Min. | Max. | N |
|---|---|---|---|---|---|
| lnCINC | 0 | 3.45 | -13.56 | 13.56 | 998520 |
| CINC | 0 | 0.03 | -0.2 | 0.2 | 998520 |
| GDP/Cap | 0 | 17001.38 | -136007.59 | 136007.59 | 987692 |
| lnGDP/Cap | 0 | 1.84 | -6.34 | 6.34 | 987692 |
| Major Power | 0.03 | 0.18 | 0 | 1 | 1257267 |
| Contiguity | 5.9 | 0.67 | 1 | 6 | 1320192 |
| Distance | 4940.22 | 2819.34 | 5 | 12347 | 1320192 |
| Same Region | 0.13 | 0.33 | 0 | 1 | 1434003 |
| Trade | 301.06 | 4387 | -18 | 575191 | 536179 |
| Tradea | 8.27 | 0.79 | 1.61 | 9.42 | 1320192 |
| Alliance | 0.05 | 0.22 | 0 | 1 | 1434003 |
| Shared IO | 24.85 | 11.98 | 0 | 108 | 462200 |
| Democracy | 1.1 | 7.38 | -10 | 10 | 1071499 |
| Democracy Indicator | 0.42 | 0.49 | 0 | 1 | 1071499 |
| Proportional Representation | 0.15 | 0.36 | 0 | 1 | 1434003 |
| Women's Social Rights | 1.33 | 0.69 | 0 | 3 | 920152 |
| Women's Economic Rights | 1.78 | 0.65 | 0 | 3 | 930099 |
| Women's Political Rights | 1.25 | 0.85 | 0 | 3 | 716599 |
| year | 1992.51 | 10.39 | 1975 | 2010 | 1434003 |

Table B.5: Cross-correlation table for Women's Empowerment

| Variables | $H_1$ | $H_2$ | $H_3$ | $H_4$ | $H_5$ | $N_1$ | $N_2$ | $N_3$ | $N_4$ | $N_{4a}$ | $N_5$ | $N_6$ | $I_1$ | $I_{1a}$ | $I_2$ | $I_3$ | $I_4$ | $I_5$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| lnCINC | 1.00 | | | | | | | | | | | | | | | | | |
| CINC | 0.47 | 1.00 | | | | | | | | | | | | | | | | |
| GDP/Cap | 0.17 | 0.14 | 1.00 | | | | | | | | | | | | | | | |
| lnGDP/Cap | 0.14 | 0.13 | 0.83 | 1.00 | | | | | | | | | | | | | | |
| Major Power | 0.24 | 0.52 | 0.14 | 0.13 | 1.00 | | | | | | | | | | | | | |
| Contiguity | -0.00 | 0.00 | 0.00 | 0.00 | -0.04 | 1.00 | | | | | | | | | | | | |
| Distance | 0.00 | 0.00 | 0.00 | 0.00 | -0.02 | 0.23 | 1.00 | | | | | | | | | | | |
| Same Region | 0.00 | -0.00 | -0.00 | 0.00 | -0.01 | -0.27 | -0.38 | 1.00 | | | | | | | | | | |
| Trade | -0.02 | -0.08 | -0.02 | 0.00 | 0.11 | -0.13 | -0.04 | 0.07 | 1.00 | | | | | | | | | |
| Tradea | -0.00 | 0.00 | 0.00 | -0.00 | -0.01 | 0.42 | 0.90 | -0.48 | -0.07 | 1.00 | | | | | | | | |
| Alliance | -0.00 | -0.00 | -0.00 | -0.00 | 0.03 | -0.25 | -0.28 | 0.35 | 0.10 | -0.36 | 1.00 | | | | | | | |
| Shared IO | 0.02 | 0.01 | -0.03 | 0.02 | 0.10 | -0.21 | -0.31 | 0.35 | 0.19 | -0.36 | 0.35 | 1.00 | | | | | | |
| Democracy | -0.09 | -0.08 | -0.18 | -0.27 | 0.00 | 0.01 | 0.07 | -0.02 | 0.05 | 0.03 | 0.03 | 0.26 | 1.00 | | | | | |
| Democracya | -0.10 | -0.09 | -0.22 | -0.32 | 0.00 | 0.01 | 0.05 | -0.03 | 0.05 | 0.02 | 0.04 | 0.23 | 0.88 | 1.00 | | | | |
| PR | -0.09 | 0.05 | -0.06 | -0.11 | 0.00 | -0.01 | -0.04 | 0.00 | -0.02 | -0.04 | 0.03 | 0.14 | 0.33 | 0.32 | 1.00 | | | |
| WSR | 0.01 | -0.03 | -0.31 | -0.35 | -0.00 | 0.02 | 0.02 | -0.03 | 0.06 | -0.01 | 0.01 | 0.10 | 0.37 | 0.37 | 0.13 | 1.00 | | |
| WER | -0.05 | -0.04 | -0.03 | -0.07 | 0.00 | 0.00 | -0.01 | 0.02 | 0.02 | -0.01 | 0.01 | 0.14 | 0.40 | 0.34 | 0.17 | 0.35 | 1.00 | |
| WPR | -0.02 | -0.04 | -0.29 | -0.34 | -0.00 | 0.02 | 0.03 | -0.03 | 0.05 | -0.00 | 0.01 | 0.13 | 0.47 | 0.46 | 0.17 | 0.72 | 0.44 | 1.00 |

Figure B.1: Optional Protocol Voting by Region
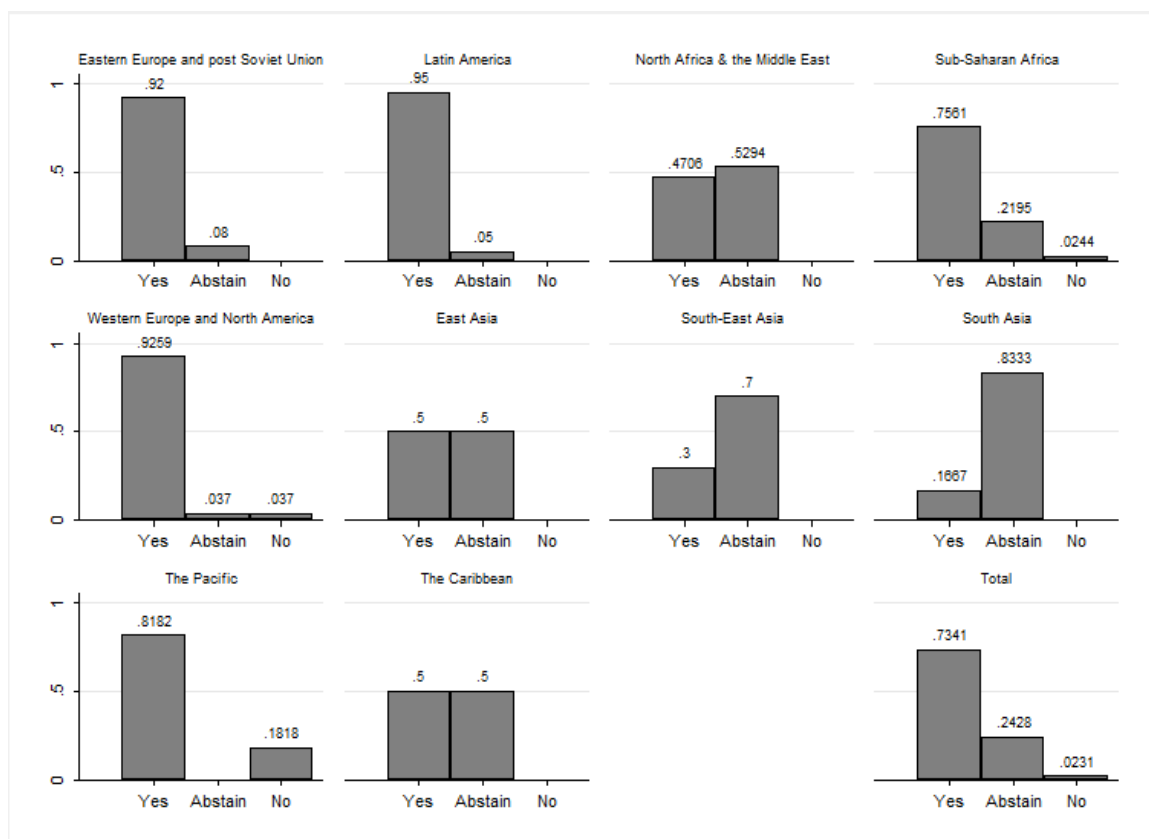
Table B.6: Summary statistics for Human Rights

| Variable | Mean | Std. Dev. | Min. | Max. | N |
|---|---|---|---|---|---|
| lnCINC | 0 | 3.54 | -13.56 | 13.56 | 757202 |
| CINC | 0 | 0.03 | -0.2 | 0.2 | 757202 |
| GDP/Cap | 0 | 18169.29 | -136007.59 | 136007.59 | 790274 |
| lnGDP/Cap | 0 | 1.87 | -6.34 | 6.34 | 790274 |
| Major Power | 0.04 | 0.19 | 0 | 1 | 947225 |
| Contiguity | 5.9 | 0.67 | 1 | 6 | 953472 |
| Distance | 4940.22 | 2819.34 | 5 | 12347 | 953472 |
| Same Region | 0.12 | 0.33 | 0 | 1 | 1036003 |
| Trade | 353.88 | 4932.5 | -18 | 575191 | 415520 |
| Tradea | 8.27 | 0.79 | 1.61 | 9.42 | 953472 |
| Alliance | 0.06 | 0.23 | 0 | 1 | 1036003 |
| Shared IO | 26.5 | 12.14 | 0 | 108 | 341541 |
| Democracy | 2.17 | 7.05 | -10 | 10 | 795884 |
| Democracya | 0.48 | 0.5 | 0 | 1 | 795884 |
| Common Law | 0.24 | 0.43 | 0 | 1 | 680392 |
| Empowerment | 8.5 | 4.26 | 0 | 14 | 574217 |
| Torture | 0.76 | 0.74 | 0 | 2 | 578737 |
| Physical Integrity | 4.91 | 2.34 | 0 | 8 | 576349 |
| Political Terror Scale | 2.69 | 1.12 | 1 | 5 | 521837 |
| year | 1997.51 | 7.51 | 1985 | 2010 | 1036003 |

## Table B.7: Cross-correlation table for Human Rights

| Variables | $H_1$ | $H_2$ | $H_3$ | $H_4$ | $H_5$ | $N_1$ | $N_2$ | $N_3$ | $N_4$ | $N_{4a}$ | $N_5$ | $N_6$ | $I_1$ | $I_{1a}$ | $I_2$ | $I_3$ | $I_4$ | $I_5$ | $I_6$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| lnCINC | 1.00 | | | | | | | | | | | | | | | | | | |
| CINC | 0.47 | 1.00 | | | | | | | | | | | | | | | | | |
| GDP/Cap | 0.16 | 0.14 | 1.00 | | | | | | | | | | | | | | | | |
| lnGDP/Cap | 0.12 | 0.14 | 0.83 | 1.00 | | | | | | | | | | | | | | | |
| Major Power | 0.24 | 0.51 | 0.14 | 0.14 | 1.00 | | | | | | | | | | | | | | |
| Contiguity | -0.00 | -0.00 | -0.00 | -0.00 | -0.04 | 1.00 | | | | | | | | | | | | | |
| Distance | -0.00 | 0.00 | 0.00 | 0.00 | -0.02 | 0.23 | 1.00 | | | | | | | | | | | | |
| Same Reg. | -0.00 | -0.00 | -0.00 | 0.00 | -0.01 | -0.28 | -0.40 | 1.00 | | | | | | | | | | | |
| Trade | -0.02 | -0.09 | -0.02 | -0.00 | 0.12 | -0.14 | -0.05 | 0.07 | 1.00 | | | | | | | | | | |
| lnTrade | -0.00 | -0.00 | -0.00 | -0.00 | -0.01 | 0.42 | 0.90 | -0.51 | -0.07 | 1.00 | | | | | | | | | |
| Alliance | -0.00 | -0.00 | -0.00 | -0.00 | 0.03 | -0.27 | -0.30 | 0.36 | 0.11 | -0.38 | 1.00 | | | | | | | | |
| Shared IO | 0.03 | 0.01 | -0.05 | -0.00 | 0.11 | -0.22 | -0.32 | 0.38 | 0.20 | -0.37 | 0.36 | 1.00 | | | | | | | |
| Democracy | -0.07 | -0.07 | -0.15 | -0.25 | 0.00 | 0.01 | 0.08 | -0.02 | 0.05 | 0.04 | 0.04 | 0.20 | 1.00 | | | | | | |
| $Dem_a$ | -0.09 | -0.08 | -0.19 | -0.30 | 0.00 | 0.01 | 0.07 | -0.03 | 0.04 | 0.03 | 0.04 | 0.18 | 0.87 | 1.00 | | | | | |
| Com Law | 0.21 | -0.02 | -0.00 | 0.01 | -0.00 | 0.03 | 0.18 | -0.04 | 0.03 | 0.15 | 0.00 | -0.05 | 0.09 | 0.04 | 1.00 | | | | |
| EMP | 0.11 | 0.05 | -0.21 | -0.26 | 0.00 | 0.03 | 0.09 | -0.01 | 0.04 | 0.06 | 0.05 | 0.13 | 0.82 | 0.73 | 0.15 | 1.00 | | | |
| Torture | 0.16 | 0.05 | -0.34 | -0.30 | -0.00 | 0.03 | 0.00 | -0.01 | 0.03 | -0.01 | -0.02 | 0.00 | 0.27 | 0.30 | 0.09 | 0.41 | 1.00 | | |
| PIR | 0.19 | 0.06 | -0.34 | -0.35 | -0.00 | 0.03 | 0.01 | -0.00 | 0.03 | -0.01 | 0.00 | 0.04 | 0.41 | 0.42 | 0.10 | 0.54 | 0.78 | 1.00 | |
| PTS | -0.12 | -0.02 | 0.29 | 0.30 | 0.00 | -0.03 | -0.01 | 0.01 | -0.04 | 0.00 | -0.01 | -0.04 | -0.27 | -0.31 | -0.12 | -0.40 | -0.54 | -0.76 | 1.00 |

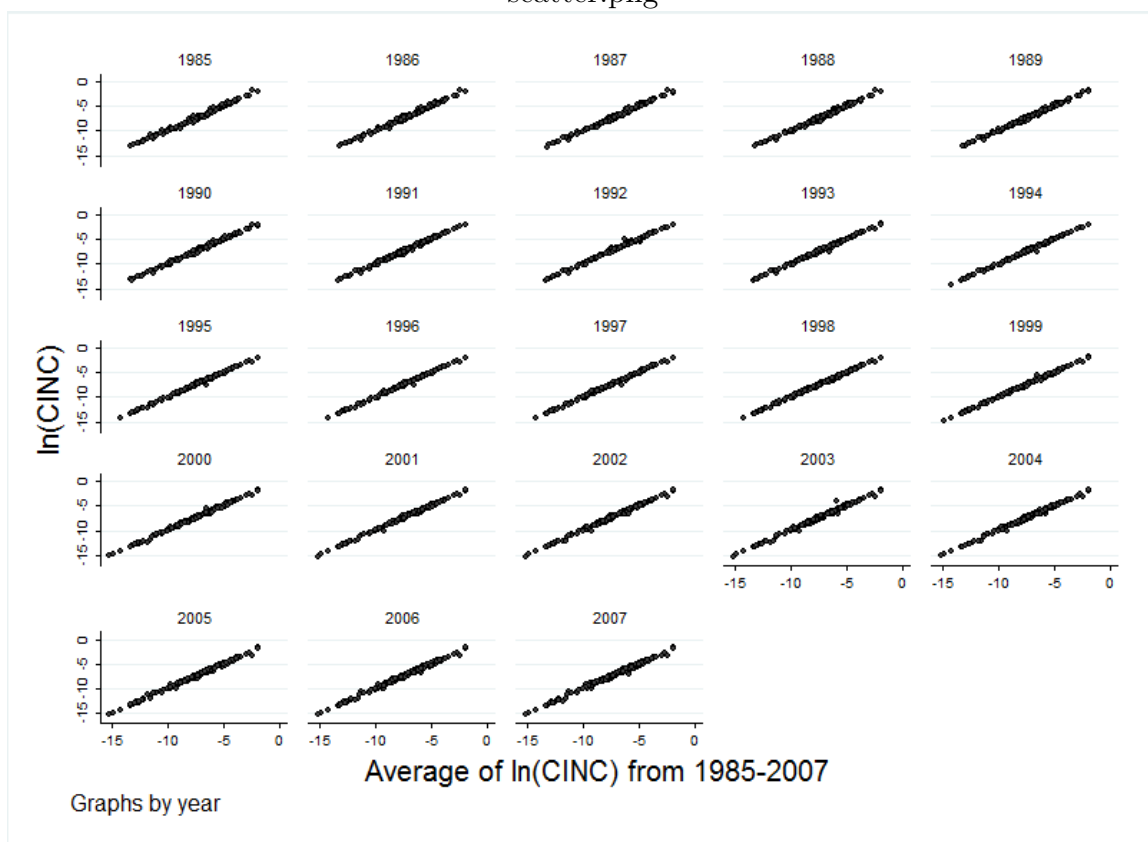Figure B.2: Comparison of Time-Varying and Time-Independent lnCINC scores

scatter.png



Graphs by year

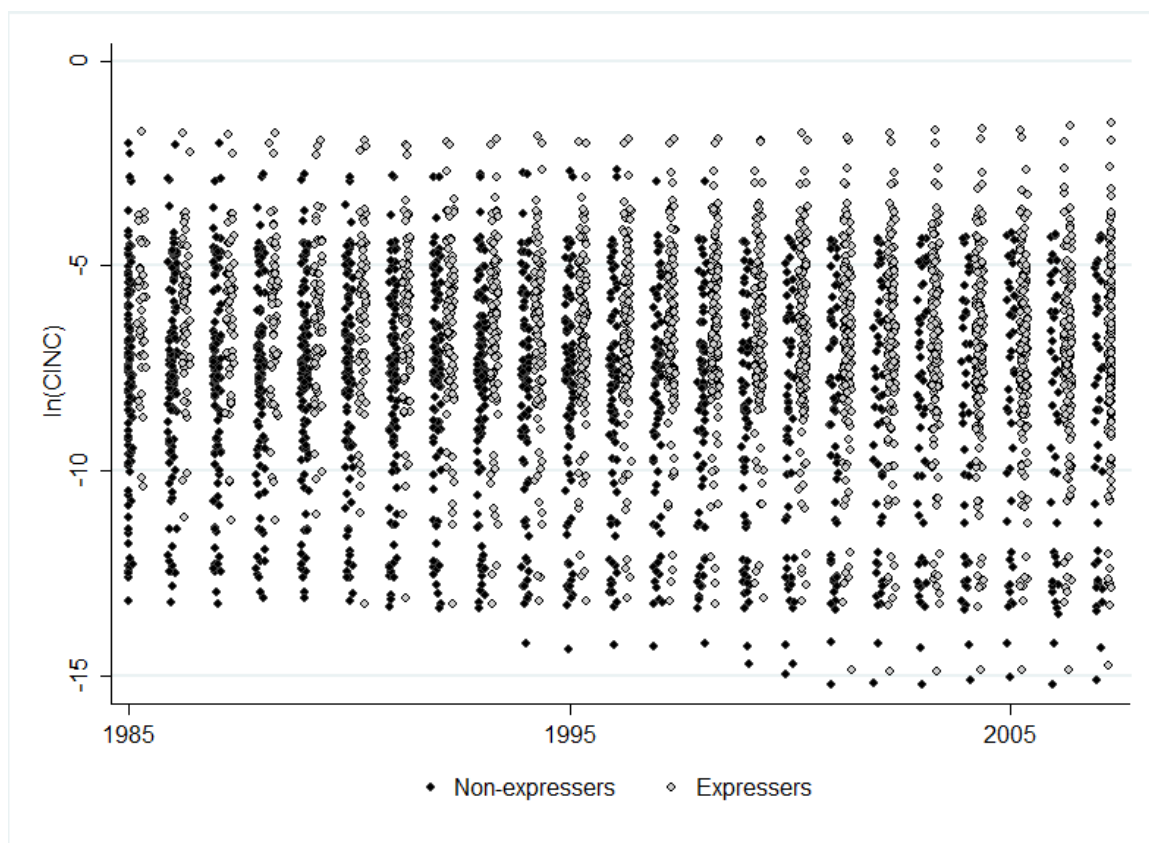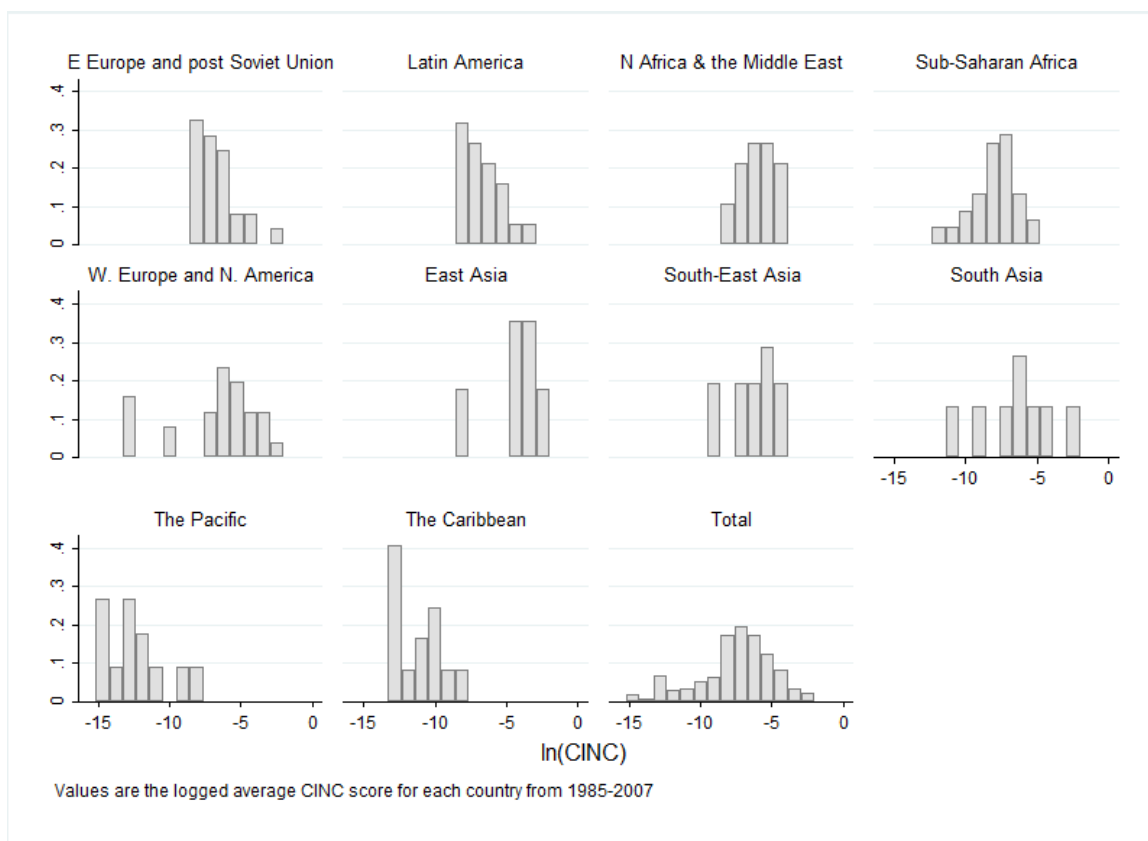Figure B.3: lnCINC Distribution by CAT Expression

Figure B.4: lnCINC Distribution by Region



Values are the logged average CINC score for each country from 1985-2007

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