

Obedience to the Unenforceable

by

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Defense Date: April 30, 2024

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Dissertation submitted in partial fulfillment of the requirements for the degree of  
Doctor of Philosophy in the Department of Political Science  
in the Graduate School of Duke University  
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ABSTRACT

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## **Abstract**

This essay is a study of norms, the social rules we follow out of our expectations of others. It investigates the intimate relationship between norms and law. That chapter argues each institution has its own domain, and conflict occurs when those domains are violated. The second chapter asks whether there existed a norm of balanced budgeting in the U.S. Congress. Investigating that question required building a theory of norm contestation, which provides a way to test if a norm existed and changed using text analysis. The final chapter addresses the conditions that best foster the spread of norms of volunteering. It demonstrates medium levels of social capital lead to the highest percentage of volunteers while too much social capital can hinder the spread of norms.

## **Dedication**

To my mom and dad. I owe you more than words can describe.

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# 1. Introduction

Every day people make the choices which they think are best under the constraints of scarcity, costs, and rules. Some of these rules are formally declared and enforced by a third-party such as the state. Most of the rules, call them institutions, emerge simply out of people's interactions with each other. These institutions aren't written down, are not formally enforced, but nonetheless allow groups of people to coordinate their actions, and expectations. This work is on these norms, manners, and customs of society sometimes substitute for, and sometimes buttress formal rules. The advantage of this approach is that I can explain when norms operate instead of the formal rules that are the usual subject of political science, while also examining conditions under which supporting norms secure and stabilize formal rules. My conjecture, which I sustain using both theory and empirical observations, is that norms are a vital part of governance broadly and the specific functions of government. This perspective once had an essential part of political theory and science. It is in the reuniting of those traditions that this piece most closely argues.

Norms emerge as people build expectations about what others will do and what others expect the "right" behavior to be. As people interact with each other, they converge on a set of mutual expectations, creating the institutions of norms. The throughline of this piece is the examination of the process, which generates mutual expectations. The emergent process of norms defines its proper domain of governance, which is distinct from the domain of law, which is created by secondary institutions laying out decision rules to establish mutual expectations. It is by empirically measuring changing expectations that allow for the testing for and examination of historical norms. The process of how expectations are formed and spread will be moderated by how people are connected by the bonds of social capital. This paper addresses each of these aspects.

The second chapter examines how norms and positive law conflict. Instead of conflict being when norms and laws express different rules for the same situation, conflict occurs when the domain of one enters into another. Laws and norms are created by different processes. Laws require the use of secondary institutions, such as voting, which determine

how laws are decided and enforced. Norms on the other hand, emerge out of social interactions and what people learn to expect from their fellow man. The different origin processes lead law and norms to have their own distinct domain of social situations that they should govern. A misapplication of institutions and domains leads to conflicts where the institutions are eroded. Norms are effective despite people not fully understanding the norm or agreeing on what it should be. When law invades the domain of norms, these underlying disagreements can surface leading to both law and norms becoming ineffective. Also, norms might enforce behavior that we think is enforced by law. If this is the case, we might falsely believe there is the rule-of-law. The law will then be weaker than expected if we have to appeal to it in order to deal with crimes.

In chapter three, I study how historical norms change by examining the case of deficit spending by the U.S. Congress. As argued by Buchanan and Wagner ([1977] 2000), the U.S. was able to maintain reasonably balanced federal budgets not because of formal rules but rather a norm that good governance requires balanced budgets. In fact, there was no legal limitation on federal spending, so Congress could run deficits and incur debt as it saw fit. When the norm broke, no law has since been able to rein in spending because Congress cannot enforce upon themselves a law without the force of norms. Conjecture this was, but with modern methods of text analysis, I was able to examine these claims empirically. The chapter presents a theory of norm contestation where increased violations of a norm lead to diverging empirical and normative expectations. In response to norm contestation, congressmen increase their discussion of the norm and sanctions of violators. Topic modeling and phrase counts are used to measure this discussion. The analysis shows a period of contestation from the 1950s to the late 1990s at which point expectations converge on accepting large and frequent federal deficits. The methods presented in this chapter open the door for future research on how to study historical norm change through text-analysis.

In the fourth chapter, I use game theory and network analysis to examine how norms of voluntary collective action are mediated by social capital. Building off Adam Smith's insight that people want to cooperate and respond to the actions of others, I add that

people do not want to be suckered in regard to volunteering. Applying a variant of the Stag Hunt game played on a network to capture social capital, I find it is societies with medium levels of social capital where social entrepreneurs can best spread cooperative behavior. This confirms the theory of James Buchanan's

Moral Community, Moral Order, Or Moral Anarchy where he distinguishes three types of societies based on their level of social capital. Different levels of social capital lead to different norms and require fostering different forms of government.

## **2. Norms versus Laws**

### **2.1 Abstract**

Because norms arise through an emergent process and formal laws through an explicit decision-making process, they have their own specific domains. Norms which are enforced by expectations of people's behavior can produce multiple efficient equilibria but require a dynamic social process. Formal law should foster this process while creating Schelling points of socially beneficial norms and away from socially harmful ones. However, these institutions can be misapplied. Law can hinder the social process needed for the emergence of norms, and certain norms can undermine the rule of law. The paper creates a framework for understanding the relationship between norms and law with respect to their domains. They conflict not only because law expresses one rule and norms another but also conflict because they arise from different processes.

### **2.2 Introduction**

Man is governed by multiple masters. Outside of one's own desires, a person is subject to both the formal institutions of law and the informal institutions of norms. Institutions have been a major focus of economics, political science, and other social sciences to varying degrees since their inception. The reason for the focus is a sense that institutions structure social interactions. With nearly any definition of institutions comes a distinction between formal and informal institutions, though not always with much care. Political science, particularly in the tradition of Douglass North, has focused on political institutions, especially law (Hodgson, 2006). Other traditions have focused on informal institutions and norms (Bicchieri, 2005; Ellickson, 1994; E. Ostrom, 1990).

North has had a massive influence on the way scholars have approached the study of institutions, yet his definition has been inconsistent. In *Institutions, Institutional Change and Economic Performance* (1990), North defines institutions as "the rules of the game." Rules, like rules in basketball, have a particular form. Rules outline acceptable behavior in a context and sometimes an explicit punishment (E. Ostrom, 2005). This causes confusion

in the literature, as pointed out by Hodgson (2006) because rules are sometimes defined as formal institutions and informal at other times even though norms have a similar linguistic form even if norms are tacit. To avoid confusion, rules should be defined as institutions based on their linguistic form of outlining proper behavior and possible enforcement mechanisms in a given social situation. This creates a clear distinction between formal and informal institutions. Formal institutions are legal rules while informal institutions are nonlegal rules such as norms. This distinction is made clear by the correspondence between North and Hodgson (Hodgson, 2006).

Institutions are rules that determine the cost and benefits of different strategies. The interaction of people with diverse preferences and endowments results in different outcomes. Institutions, therefore, can change the outcome independently of the players. As cited in Hinich and Munger (1994), Charles Plott argued, “Same players, different rules equals different outcomes.” As positive social scientists, our goal is to understand how institutions are created or emerge, how they structure interactions, and identify what outcomes are likely. As normative political theorists, our goal is to identify “good” institutions. These will be ones that lower the transaction cost of capturing the gains of trade while treating people justly. Second, our goal is to propose ways to achieve these “good” institutions.

There is another question at play and one which will be the concern of this paper. What institutions matter and why? This is particularly important in the distinction between formal and informal institutions. Formal institutions of law are the Belle of the political science ball. They are so because of their research salience. Formal institutions’ salience derives from their being easily identifiable and measurable. This means that formal institutions lend themselves nicely to theorizing and empirical testing. Formal institutions, therefore, appear as the most important type of institutions because they are more likely to be a part of a research agenda but not because they are a priori more important. They have research salience, which is not necessarily causally important.

Less studied are informal institutions again because of their research salience or, better put, lack thereof. Unlike explicit formal institutions, informal institutions exist between

people and *emerge* out of social interactions. They are the norms and mores of daily life which often go unnoticed. We are so often unaware of the institutional waters in which we swim. Informal institutions are particularly fuzzy because we only have a vague sense of what the rules are or, perhaps, only can see some pattern of behavior instead of the reason for the behavior. Informal institutions also do not respect formal jurisdictional boundaries. People of different countries may share the same norm. Alternatively, the same pattern of behavior may exist in multiple places, with each having a different norm (or lack of norm). Informal institutions are, therefore, extremely difficult for both theorizing and empirical research. Scholars dealing with this problem often resort to poor measures such as trust or entrepreneurship, but these lack strong theoretical foundations. This is even more true with regard to the study of mechanisms.

The two types of institutions are not completely separable but instead have an important relationship that has been important to the work of many scholars. In *The Spirit of the Laws*, Montesquieu wrote, “In governments, that is, in societies directed by laws, liberty can consist only in the power of doing what we ought to will, and in not being constrained to do what we ought not to will.” Montesquieu writes this in his examinations of laws or the formal institutions of government, but his purpose of government is to serve liberty which he justifies because liberty allows for and requires a set of moral norms. Rousseau also emphasizes the role of norms. In his discussion of the types of laws, Rousseau writes:

To these three sorts of law is added a fourth, the most important of all. It is not engraved on marble or bronze, but in the hearts of citizens. It is the true constitution of the State. Every day it takes on new forces. When other laws grow old and die away, it revives and replaces them, preserves a people in the spirit of its institutions, and imperceptibly substitutes the force of habit for that of authority. I am speaking of mores, customs, and especially of opinion, a part of the law unknown to our statesmen but one on which depends the success of all others. . . . (*On the Social Contract*, Book II, Chapter 12)

Indeed, for Rousseau, the mores and norms are the true constitution on which good gov-

ernance depends. Where Rousseau thinks the General Will expresses the proper norms, Adam Smith takes a different tack. His well-known defense of economic freedom in *The Wealth of Nations* should be properly placed in his broader moral system of *The Theory of Moral Sentiments*. For Smith, it is our responses to the praise and approbation that lead us to moral and cooperative norms in a similar way self-interest leads us to socially beneficial outcomes in the market. The man of the system, then, is the one who destroys this evolutionary process by the improper use of government. Later, Tocqueville also argues that proper norms are vital for good governance. It is rare for him to end a chapter in *Democracy in America* with anything other than claiming the success of America and democracies in general depends on the norms, morals, and culture of the people and politicians.

Modern political science has followed Rousseau's example of focusing on the formal institutions of government, and that should come as no surprise. Even from a classical liberal perspective, the laws of government are incredibly important. The modern world's freedom and prosperity likely came from having the right form of government, which allowed private property and markets. Further, formal institutions solve collective action problems that cannot be solved by voluntary action because they force people to cooperate when they would otherwise free-ride.

Yet there is pushback. Congleton (2020) reexamines the formation of formal institutions and concludes norms of reciprocity must have existed before people could make any formal agreements. One might think that simply punts on the problem with no explanations of where norms come from, but the work of Axelrod (1981) demonstrates how norms of reciprocity can emerge through repeated interaction. His analysis was done based on a strict model of *homo economicus*, but that need not be the case. Cooperative behavior would be even easier if we recognized man's ability to fellow-feel as Adam Smith did:

How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it, except the pleasure of seeing it. (1982a, 9)

The discussion so far has neglected one issue. What happens when norms and formal law conflict? Which one wins the day? There has been some work on when law and norms diverge. Elinor Ostrom (1990) examines this with her distinction of rules in action and rules in form in her study of common pool resources. Another example is Ellickson's (1994) work on cattle farming in Shasta County. These are, however, easy cases for norms and other informal institutions because the formal law is weak. Here weak means the law is insufficient, not known, or not strongly enforced<sup>1</sup>.

What does it mean for laws and norms to conflict? The naive answer is to say norms and laws conflict when they express different rules for the same situation. This naive conception of conflicts is, however, incomplete. It treats norms and laws as wholly interchangeable; therefore, the question is which institution will achieve the "desired" outcome or what the equilibrium will be. Instead, they differ in domain insofar as certain situations are rightfully in the domain of norms, and there are other situations that are rightfully (and perhaps exclusively) in the domain of positive law. Lord Moulton perhaps best defines these two domains along with the third of private action in a dinner speech in 1924 that he gave to the Authors' Club of London and later published in *The Atlantic*. His speech was titled *Laws and Manners*:

In order to explain my title I must ask you to follow me in examining the three great domains of human action. First comes the domain of positive law, where our actions are prescribed by laws which must be obeyed. Next comes the domain of free choice, which includes all those actions as to which we claim and enjoy complete freedom. But between these two there is a third large and important domain in which there rules neither positive law nor absolute freedom. In that domain there is no law which inexorably determines our course of action, and yet we feel that we are not free to choose as we would. The degree of this sense of a lack of complete freedom in this domain varies in every case. It grades from a consciousness of a duty nearly as strong as positive law to a feeling that the matter is all but a question of personal choice. Some might wish

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<sup>1</sup> It may be the case some of these conditions result from law failing to supplant a norm when they conflict.

to parcel out this domain into separate countries, calling one, for instance, the domain of duty, another the domain of public spirit, another the domain of good form; but I prefer to look at it as all one domain, for it has one and the same characteristic throughout — it is the domain of Obedience to the Unenforceable. The obedience is the obedience of a man to that which he cannot be forced to obey. He is the enforcer of the law upon himself.

Conflict, then, is the trespass of one domain into another. It is the study of the cultivation of these boundaries that is the purpose of this paper, and it will show that the characteristics, particularly the origins of laws and norms, lead to each having their own domain of situations that they should govern. Laws are explicit and created by other formal institutions. This leads the law to best govern situations where an emergent process would be too costly and discrepancies in the interpretations of the law would be intolerable. Norms being emergent rules are built on loose, vague, and indeterminate interpretations; thus, they handle situations with low transaction cost of converging expectations.

The paper deals with these by defining the domains and some of the conflicts that arise by preceding in the following way. Section 3 defines what law is by an appeal to secondary institutions. Section 4 defines norms. Section 5 outlines the key differences between norms and law. Section 6 presents the variables that determine if a situation is in the domain of law or norms. Sections 7 and 8 present two theoretical ways law and norms might conflict. Section 9 concludes.

### ***2.3 What is Law***

First, let us discuss what I mean by law. The term has, like norms, been used to mean many different things. One could take the ideal route and define law as what it should be. Frederic Bastiat makes such an account and writes, “The law is the organization of the natural right of lawful defense” (2012, 108). Yet, Bastiat also uses law to mean something else. He writes, “Unfortunately, law by no means confines itself to its proper functions. And when it has exceeded its proper functions, it has not done so merely in some inconsequential and debatable matters...The law has placed the collective force at the

disposal of the unscrupulous who wish, without risk, to exploit the person, liberty, and property of others” (109). Here law means both its proper purpose and the mechanisms used to enforce rules. Hayek, too, points to this difference but makes the distinction more clear. Hayek defines law as distinct from legislation. According to Hayek (1973), legislation is the set of rules passed by legislators. In other words, legislation is the set of rules passed by the state. Law is a set of rules of society that emerge spontaneously.

While Hayek’s definition still allows for the overlap of law and legislation, especially when it comes to courts, he highlights one of the key differences, that is the way the rules come about. A governing body or institution creates legislation. All other rules, what Hayek calls the law, emerge through the experience of individual persons. People discover successful rules, and those rules continue through an evolutionary process. Legislation requires additional institutions. Hayek’s distinction leaves some ambiguity, particularly when it comes to common law. As opposed to legislation, common law is the set of precedents from individual court cases. These can change the interpretation of statutes and establish new rules. The problem with Hayek’s definition is that common law and legislation produce rules that people are obligated to follow, or they will receive some sanction from a central authority. The average person would call both types of rules the law.

H.L.A Hart provides a much more accurate and useful definition of law in his book *The Concept of Law* by defining laws on the use of secondary rules. In doing so, Hart addresses several difficult issues in legal theory. One is if rules backed by threats constitute law. Decrees from a sovereign may force people to behave differently than they desire, but that should not constitute law. Adopting threat-backed rules as law opens the door to all threats being treated as law and misses the important features of modern legal systems where the rules apply equally to all persons in the jurisdiction, including the lawmakers. Hart argues laws have two types of rules. Primary rules define the obligation. Secondary rules determine how primary rules are adjudicated. “The minimal form of adjudication consists in such determinations, and we shall call the secondary rules which confer the power to make them ‘rules of adjudication’. Besides identifying the individuals who are to

adjudicate, such rules will also define the procedure to be followed” (Hart, 1997, 97).

Now, it is appropriate to fully define what I mean by law by appealing to how it originates. Law is a rule of obligation that must have an explicit set of secondary institutions that define who decides what the rules are, how those rules are decided, the extent of their authority, and grants legitimacy. This provides a way to distinguish institutions that are laws and those that are not. Rules originating from common law and legislation are both laws in the sense there is a clear set of rules for how they are decided. Social institutions such as manners are not. There may be a rule that you shake someone’s hand when greeting them, but it did not originate from secondary rules defining the decision process. Social rules originate through individual actions, which coordinate expectations and behavior. Laws also need not be created by the state. Organizations may create their own laws through the use of secondary institutions.

At first glance, it may appear that law should be an exclusive function of the state. The state, as Weber (2019) tells us, has a monopoly on the use of legitimate force, which gives it a particular advantage in third-party enforcement. Even when private organizations use third-party enforcement, it happens in the shadow of the state. Yet, private organizations have decision rules and secondary institutions. Those will function differently than rules which are not brought about via secondary institutions. To focus my analysis on the difference between the reliance on secondary institutions and emergent processes, I will extend the definition of law to rules made by private organizations. Though, at times, it may be important to distinguish between public and private law.

## ***2.4 What is a Norm***

Let us turn our attention to informal institutions, which are the unwritten rules of society. Informal institutions are “norms, conventions, self-imposed codes of conduct” (North, 1994), meaning they are non-legal rules. North’s definition implies these are presumably different types of institutions, but I will exclusively focus on norms in this paper.

Gibbs finds many issues in his 1965 review of the sociological treatments of norms.

There was a lack of a generic definition or any definition that distinguishes attributes of a specific norm from the general type. One of the problems is that many different things are called norms. Instead of being lumped together, they should be distinguished. Although, Gibbs finds some commonalities:

A norm in the generic sense (i.e., encompassing all the various types of norms) involves: (1) a collective evaluation of behavior in terms of what it ought to be; (2) a collective expectation as to what behavior will be; and/or (3) particular reactions to behavior, including attempts to apply sanctions or otherwise induce a particular kind of conduct. Virtually all conceptions of norms can be subsumed under this generic definition, and it further has the virtue of encompassing all of the attributes which distinguish types of norms (1965).

He then expands on these concepts to create a typology of norms with 19 different types, yet four of these are null types. These range from collective conventions to coercive laws. This typology is too cumbersome and does not provide a clear distinction between patterns, attributes, expectations, and laws not to mention the different mechanisms of each type.

The problem with categorizing norms to such an extent is that the definitions become so specific that they are not of any use. To do so is to miss the forest for the trees. Instead, the underlying commonality and mechanism should define norms. Thus, Gibbs emphasizes the key aspect of norms: shared beliefs or evaluations. This understanding of norms claims men follow the law or other social rules because they believe it is the right thing to do. Gibbs (1965) explains these collective evaluations:

Perhaps the most commonly recognized characteristic of a norm is a shared belief that persons ought or ought not to act in a certain way. An emphasis on such an evaluation as an attribute of norms is in some respects closely associated with a particular sociological perspective (Durkheim and Parsons in particular), because it implies the existence of shared values.

This understanding is also present in Brennan et al.'s (2016) definition of norms, which includes a shared attitude. That shared attitude makes people accountable to each other.

The issue with Gibbs's and other definitions based on collective evaluations or collective attitudes is that the role of the individual is underemphasized. If norms are shared values, then the question becomes, where do shared values come from? A methodological individualistic approach places individuals as the unit of analysis. Such a theory offers many advantages. Individual preferences can be weighed against norm-conforming preferences. It opens the door to discovering or theorizing mechanisms which coordinate behavior and perhaps preferences. Further, a methodological individualistic approach can explain how individual action leads to norm change. Therefore, I start with the individual.

What, then, are the commonalities of all the things we would like to call norms? There are personal preferences, expectations about others, and some feedback. The feedback can come in many forms, including praise, shame, or other punishments. From these arise a rule that we can call a norm. Norms have a common function in that they create coordination even if that is to the benefit of one party over another (Knight 1991). Norms are not necessarily created for the purpose of coordination, as we will see, but they are vital to coordination's spread and persistence.

First, preferences. Every person has some states of the world that they prefer and will pursue all things held equal. Yet, we are not creatures solely pursuing ourselves without regard to others. Man is by nature a social creature and is concerned with others. This desire for coordination, domination, and cooperation means preferences depend on another person's preferences. Even if men were purely selfish, cooperation would still be beneficial, as shown by the work of Axelrod (1981), where cooperative strategies proved most successful in computer tournaments of Prisoner's Dilemmas games. There are also gains from trade, where it is in one's own self-interest to cooperate. The Stag Hunt captures many of these situations, where one is fine on your own but you are better off together. But any cooperation requires coordination. When one enters into a cooperative situation, the action they chose will be conditional on the other person's choice.

If a choice is conditional on another's action, which is unknown until the choice is made, a person must act on expectations alone. The way these expectations form is of particular

importance, chiefly that individual interactions generate expectations of what others will do and expect. The evidence is well-founded. “Empirical examples of changing norms suggest that real people are more likely to use trial and error behavior than detailed calculations based on accurate beliefs about the future” (Axelrod, 1986). People take in the data of what others do, what garners approval, and what garners disapproval. They then form general rules of what to do in situations based on the expectations. One could say that these are simply trial-and-error best responses, meaning people are not actually using a rule. However, that would be mistaken since people apply rules to similar situations.

Norms are then social rules based on people’s expectations of what others do and/or expect from others. In this framework, people follow a norm because others are also doing so. One drives on the right side of the road because he expects others to do so, for example. There may be some moral dimension as well. One brings a bottle of wine to a party because he thinks others expect him to do so. Not bringing a bottle of wine would be rude. Note the individual’s preferences are not the determining factor. Perceived social expectations are.

People follow informal institutions to coordinate behavior with others. As Bicchieri puts it, norms change non-cooperative games into coordination games. A person adopts a norm when there is a sufficient number of other people following the norm and expects others to do as well (Bicchieri, 2005). However, informal institutions are fuzzy, and we often cannot express them or where they apply (Brennan 2013 ). People often follow norms without noticing like the fish do not notice the water in which we swim. Though this feature complicates the empirical study of norms, they still should be a focus of political science, for norms govern most behavior and interact with formal institutions.

Bicchieri (2005) is the prime example of this approach in the recent literature. She distinguishes descriptive norms based on the empirical expectations about others’ behavior from social norms based on expectations about others’ normative preferences. The importance of expectations about judgment harkens back to Adam Smith’s work in *The Theory of Moral Sentiments*, where he argues people learn the rules of society by experiencing the

approbation and disapprobation from others. Smith actually went further and outlined the different levels in which we form expectations from our judgments in Part 7 of Chapter 3, Sect. 16 of *The Theory of Moral Sentiments*:

When we approve of any character or action, the sentiments which we feel, are, according to the foregoing system, derived from four sources, which are in some respects different from one another. First, we sympathize with the motives of the agent; secondly, we enter into the gratitude of those who receive the benefit of his actions; thirdly, we observe that his conduct has been agreeable to the general rules by which those two sympathies generally act; and, last of all, when we consider such actions as making a part of a system of behaviour which tends to promote the happiness either of the individual or of the society, they appear to derive a beauty from this utility, not unlike that which we ascribe to any well-contrived machine.

Following the definition presented by Bicchieri, a norm is a behavioral rule where the payoff for one actor is contingent on a sufficient number of others following the rule. She distinguishes between two types of norms: descriptive and social. “A descriptive norm is a pattern of behavior such that individuals prefer to conform to in on the condition that they believe that most people in their reference network conform to it (empirical expectations)” (Bicchieri, 2005). If the rule is also contingent on what others think one should do, it is a social norm. Put more explicitly:

A social norm is a rule of behavior such that individuals prefer to conform to in on the condition that they believe that (a) most people in their reference network conform to it (empirical expectations), and (b) that most people in their reference network believe they ought to conform to it (normative expectations) (Bicchieri, 2005).

For a rule to be a norm, it must be known that it exists and applies in a particular situation. Knowledge alone is not, however, sufficient. A rule becomes a norm if there is an empirical expectation that a sufficiently large subset of the population will follow the rule in

said situation and a normative expectation that a sufficiently large subset of the population expects others to follow the rule. A punishment might or might not exist. Norms, then, can be conceived as transforming noncooperative games, such as a Prisoner’s Dilemma, into coordination games, such as a Stag Hunt (Bicchieri, 2005). The case is more complicated for social norms. The rule contains a normative dimension, meaning people’s behavior is contingent on what others *think* they *should* do. <sup>2</sup>

## 2.5 Differences Revisited

Norms and laws are both institutions that explicitly coordinate behavior; thus, they will function similarly. The differences, while at times subtle, are important and will lead to each having its own domain. Table 2.1 outlines the key differences, and this section will expand on their importance.

Table 2.1: Differences between Norms and Laws

<b>Norms</b>	<b>Law</b>
Expectations of others’ behavior and expectations	Expectations of others’ behavior and the cost of punishment
Social/personal enforcement	Third-party enforcement
Interactions generate expectations	The decision process generates expectations
Multiple Equilibria	Single equilibrium
Vague and discretionary	Concrete and non-discretionary

People follow or disregard both norms and laws because of their expectations, but the exact types of expectations differ. Returning to the definition provided by Bicchieri, descriptive norms require expectations of other people’s behavior, e.g., do I think people will walk on the right or left side of the aisle? Social norms require expectations about what others think should or should not be done. For example, one may expect others to view having premarital sex as making oneself “impure.” Law, too, requires expectations of what others will do. More precisely, there are expectations about whether people will follow the law and if the law will be enforced. This sets up the dichotomy of rules in action versus

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<sup>2</sup> For Brennan et.al (2016) this condition is sufficient for a norm to exist.

the rules in form so brilliantly highlighted in the work of Elinor Ostrom (1990). Take, for example, speeding. The speed limit is often clearly posted (outside of speed traps), and everyone knows cops do, in fact, pull people over for speeding. However, there is a norm in many places to drive a little over the speed limit. This norm results from the expectations that others will also speed and that cops will only enforce large violations.

The enforcement difference is crucial. Enforcement of any institution imposes a cost on the party who violates the rules. This can be done by the parties involved, such as shaming a person who is rude at dinner. A third party can be used to determine if the violation occurred and then punish the violator. Bilateral enforcement is sufficient for a social norm. I use sufficient here because norms can exist without any third-party enforcement or punishment mechanisms. Third-party enforcement is necessary and sufficient for law, almost by definition. In the case of speeding, enforcement only occurs through the police. These are not mutually exclusive strategies for enforcement, however. For example, hockey's formal and informal rules are enforced by the players and the referee. One player might slash his stick at the opposing team's star scorer in hopes of injuring him. The third-party of the referee will send the violating player to the penalty box. Along with that, it is some players' role to be enforcers. These enforcers will fight players who attack their teammates. This is how hockey maintains order with both the use of third-party and bilateral enforcement.

Where do these expectations come from? This is perhaps the most important difference between norms and laws. Let us start with the law since the case is simpler. Building on the work of H.L.A Hart (1997), the law requires secondary institutions. It is those secondary institutions that generate expectations. Assuming a democratic process, a law is passed by a voting procedure. Accompanying the vote will be some form of debate by those casting a vote or the entire public. It is in this discussion and the voting process that expectations are formed. People can reveal their preferences and have disagreements. Further, people will have a strong expectation of how many people support the law. For example, a law may be passed with 51%, which means everyone's expectation is also that 49% of people do not approve of the law. Since an actual law has to be passed and written down, people also

have a good expectation of what the content of the law is. Everyone will accurately state what the speed limit is, but they may differ about an acceptable speed. Let me reiterate that the open and centralized process of creating law reconciles different expectations into an explicit rule and percent approval. At the same time, people may learn that we disagree more than expected.

The expectations underpinning norms, on the other hand, emerge through diffuse interactions. As people interact with others, they experiment and/or adopt others' behavior. This trial-and-error process provides people with feedback guiding them to behavior and attitudes congruent with others. Two things need to be pointed out. First, the interactions are the very situation which the norm governs. As people start following a rule, they signal that it should be followed, creating a self-enforcing equilibrium. Second, while people are able to coordinate behavior, they may not be able to express the rule in words. Or at least people will express and justify the rule differently. How can these two things both be true? Well, people only have feedback on approval and disapproval or coordination and discoordination. The rule itself may never be explicitly expressed, or at least not to everyone at one time. Further, people only interact with a portion of the population or even their reference group. This means the rule transmission is susceptible to noise. Think of the telephone game. Everyone may exhibit the same behavior even if they have different interpretations of the norm.

The processes that create norms and laws have drastic effects on the kinds of institutions that form. For law, the centralized, secondary institutions can coordinate expectations particularly well in the sense that everyone will know exactly what the law is and what people think of it. This is one reason the law is likely to lead to one interpretation of the law in equilibrium. Another reason is the lack of discretion regarding the law, which will be addressed shortly. Norms emerge from individual interaction and assessment, and multiple rules might coexist in equilibrium. For example, you could pull two people from the same town and ask them about the norms of drug use. One could say people would look down upon you, while the other might think everyone is ok with drug use. Both operate

under a norm about drug use, but they disagree on what the norm is. This is because their expectations are formed from interactions with different reference networks. Because interactions in those networks create data that reinforces their expectations, multiple norms can exist in equilibrium in any given area. This process can also be aided by self-selection. If a person has a strong preference for one rule, they may move groups until finding the right one with tolerable norms. This is a form of Tiebout sorting, but the jurisdictions are not fixed. Rather, groups of all sizes may form and dissolve.

Institutions easily lend themselves to being modeled with game theory, with the institutions being the choices and payoffs leading to equilibrium outcomes. Some games have multiple equilibria, while others have one. The paradigmatic examples are the Prisoner's Dilemma and the Stag Hunt. In the Prisoner's Dilemma, there is a dominant strategy of defect for all players. In the Stag Hunt, there is no dominant strategy and two equilibria of all hunt hare and all hunt stag.

The creation of law is an attempt to create one rule with a single equilibrium game by creating incentives for compliance and punishments for violations. The assumption is that without a law, there would be one behavior; with a law, there would be a different behavior in equilibrium. With the addition of legal punishments such as fines and imprisonment, it becomes rational and utility-maximizing to follow the law (Becker, 1968). Essentially, one dominant strategy is established. Norms, however, transform noncooperative games such as the prisoner's dilemma into cooperative games such as the stag hunt (Bicchieri, 2005). The optimal behavior is then conditional on expectations of other's behaviors meaning there are at least two equilibria. Imagine here the case of lining up to buy tickets for a show. If a man goes to buy a ticket and sees a line of people waiting patiently, he will likely follow the norm by getting at the back of the line. Now, imagine some person or a few people start violating the norm by pushing or cutting in line. People will, seeing the violations of the norm, abandon waiting patiently. The line becomes a mob of people. While people are not following the norm of waiting patiently in line, it would be a mistake to say the norm ceases to exist. There still remains a social rule to line up, contingent on the expectation that

others will do so as well. What occurs in this case is that the expectations about behavior have changed, thus moving the equilibrium outcome to act individually, essentially all hunt hare. In a new situation, people will likely still follow the norm of waiting patiently in line.

The result from the following example comes from using simple, stylized games. While incredibly useful, modeling institutions this way may mislead scholars into thinking the choice is over a particular institution or no institution. It is more accurate to model the choice or creation of institutions as a metagame over a multitude of possible rules or possible equilibria.

What does it mean for multiple rules/behaviors to emerge? First, a rule may lead to a polymorphic outcome where the multiple equilibrium strategies are expressed (Skyrms, 2004). In the example of the Stag Hunt, there will be a stable percentage of stag and hare hunters. Second, multiple rules may emerge without conflicting or destroying each other. This ability of norms to handle multiple equilibria is key to how norms change and propagate new norms. Norms are, of course, emergent rules enforced by often imperfect interpretations, expectations, and social sanctions. This allows space for discretion, deviation, and experimentation among the possible equilibria of norms. Imagine there is a metagame with multiple possible cooperative equilibria (multiple norms.) Say a reference network has an established norm  $W$ . Other possible norms could have emerged,  $X$  and  $Y$ . There is also the possible equilibria of pure self-interest,  $Z$ , where no norm exists. Let us say that some subset would prefer norm  $Y$  if they expected a sufficient number to follow that norm. A trendsetter can signal to that subgroup to move to norm  $Y$ . There are now two groups where there was one: those who follow norm  $W$  and those who follow norm  $Y$ . In this case, one norm allowed for the emergence of a new parallel norm, and both can exist, leading to two sets of stable rules and behaviors. One norm will be split into two because of the existence of multiple equilibria and preferences being conditional on the expectations of others' behavior.

Norms and laws also differ in their ability to deal with discretion. The law, in its ideal form, is concrete and non-discretionary. The law is what it is because it was decided

through a secondary institution. Where there are disagreements about the application or interpretation, again secondary institutions are used to resolve the disagreement. Courts do this for example. Once a ruling is made, it becomes precedent to be used in future cases. In this sense, the law has a mechanism to remove discrepancies.

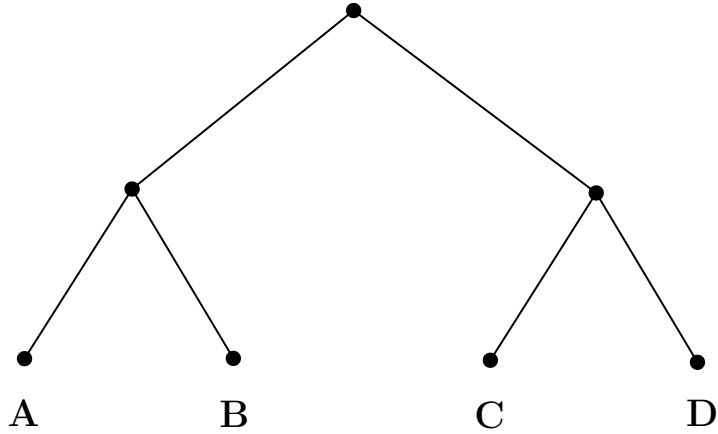


FIGURE 2.1: Institutional Decision Tree

Norms, on the other hand, are social institutions, so they are, as Adam Smith (1982a) describes, “loose, vague, and indeterminate.” This is a result of the data generation process of norms. People form expectations based on the behavior they observe. This gives them only a perception of what the norm actually is, and people are prone to misconceptions. Further, not all parts of a norm may be observed. Any rule has multiple parts. In the most simple form, a rule says to perform an action in a situation. That also means not performing certain actions in that situation. Real institutions are more complicated and can be modeled as a decision tree in Figure 2.1. The norm says to perform actions A, B, C, or D depending on the exact context of the situation. People may only have enough experience to form good expectations on a subset of the cases. They may agree on case A but not the others. Take, for example, a norm against shouting at one’s spouse in public. In equilibrium, you may never see anyone shouting at a spouse. Thus, you would have good expectations that it is unacceptable. But what does the norm obligate you to do if you do see a man yelling at his wife? There are many options, from ignoring it to having a physical confrontation. With such little experience, your expectations will be poor, and

people will have different expectations of what the norm requires. This further opens room for discretion insofar as these rare cases do not affect the expectations of the normal case.

## 2.6 Domains Of Laws and Norms

What, then, are the proper domain of norms and law? The question can be answered in two ways. First, what are the characteristics of the situations that are *likely* to be governed by norms and those that are governed by laws? Second, what situations *should* be governed by norms and those that should be governed by law? I will seek to answer seek to answer the first in this section. Norms will likely govern situations with high levels of personal interactions and social feedback. Laws will govern situations that have low personal interaction and social feedback. The transaction costs of converging expectations need to be sufficiently low for situations governed by norms and high for those governed by laws. Finally, norms will likely govern situations where different interpretations of a rule can coexist without conflict. This will lead to discretion in the application of the rule. The criteria for domains is summarized in Table 2.2.

Table 2.2: Domains of Law and Norms

	Law	Norms
Personal Interaction and Feedback	Low	High
Transaction Costs of Expectations	High	Low
Importance of Accurate Expectations	High	Low

Norms require expectations of others' behavior and beliefs about acceptable behavior. This requires both repeated interactions and feedback. Not all situations will have one or both of these requirements. Take, for example, a repeated action without social feedback, such as paying taxes. People pay taxes every year, but the action is private, meaning there is no social feedback. No one would probably pay if taxes were voluntary or governed by norms. Or at least this is what the literature on contribution to public goods tells us. Without repeated interaction and feedback from others, the expectations needed to establish a pay-your-taxes norm will not form. The paying of taxes, thus, belongs in the domain of law. Contrast this to other voluntary giving, such as donating to a church.

The offering plate is passed around every service. People's repeated interactions with each other provide two kinds of information. You see who gives, creating empirical expectations. People also react and judge one another, creating normative expectations. Donating to church and many other charitable organizations, thus, belongs in the domain of norms.

Transaction costs also play a vital role in situations that are governed by norms since there are costs associated with the process of converging mutually shared expectations. Whether to drive on the right or left side of the road is one such example of costly convergence. If it were left up to a norm, people would try driving on a side of the road and see how it goes. Mistakes are deadly, so the process of coordinating expectations has drastically high transaction costs. It should not be and will likely not be governed by a norm. Instead, expectations can be pre-coordinated through the process of law. Further, it should be noted that this is a situation where people do not have a vested interest in right or left. Either will suffice thus further lowering the cost of using the secondary institutions of law. A similar situation is whether to walk on the left or right side of an aisle. Mistakes are drastically less costly, so the transaction costs of coordinating expectations are also low. At worst, you may bump into people, but that provides good feedback. The side of the aisle will be governed by norms, and what side of the road to drive on will be governed by law. The key factor here is the transaction costs of coordinating expectations.

Key to the formation of any institution is knowledge, which comes in many forms. First, a person needs to know the different options available to them, along with the respective payoffs. Payoffs are, of course, dependent on the actions of others, so knowledge is required of that, too. Different types of institutions have different data-generating processes. Informal institutions of norms generate knowledge through individual interactions with trial and error. The law creates knowledge by revealing preferences through a decision-making process such as voting. The difference has a significant effect on the functioning of the institutions.

Norms are a type of institution which Adam Ferguson would say, "Human action but not human design" (1996). As people interact in different ways, they realize which behaviors

work and which do not. Noticing what other people do and what is successful and not, people converge on mutual expectations. While mutual expectations lead to coordinated behavior, there still may be and likely is a large degree of ignorance. Hayek notes, “That the fact of our irremutable ignorance of most of the particular facts which determine the process of society is, however, the reason why most social institutions have taken the form they actually do” (Hayek, 1973, p 13). Institutions alter behavior, often from the preferred behavior in the instance. Mutual expectations emerging through interactions may lead to inaccurate assumptions about people’s preferences. Hayek emphasizes that people may follow rules and thus coordinate while at the same time not being able to express the rules clearly and consistently in words.

Law changes via secondary institutions, and these secondary institutions generate different knowledge. Instead of knowledge being held by individuals learning from interactions, knowledge is collected through a central process. Knowledge of people’s preferences is collected in two ways. First, there is the debate where people deliberate, both expressing their views of what the proper rule should be and listening to the view of others. Second, there is the actual vote or decision process. A rule passed by 99% is less contested than 51%. Accompanying many issues are public debates. This includes news and polling. This process creates a more accurate picture for forming expectations. At times the revealing of preferences can help move to a more beneficial equilibrium. However, as we can see, that is not always the case.

## ***2.7 Law Invades Norms***

The case of invasion of law invading the domain of norms is complicated as it can corrupt the entire domain. The ability of law to corrupt norms comes from the difference in the origin of the institutions, not just the difference in mechanisms. Norms are followed because of the expectations of others’ behavior. Even if one accepts the pure utility maximization approach of the Chicago School, the existing cost and benefits of following a law or norm depend on the expectations that rewards or sanctions will be enforced. This leads Basu

(2018) and Brennan et al. (2016) to classify formal and informal institutions as a norm. For Basu, laws are mere Schelling points. Harkening back to Hart (Hart, 1997) Brennan et al. (2016) point out a key difference when it comes to the law, for the law has secondary institutions. These are the decision rules for changing laws, such as a legislative process. The process of change is explicit.

However, moving from an emergent process to an explicit decision-making process may, in fact, erode the norm. Further, the revelation of knowledge may prevent moving back to an institution of norms. For a norm to be effective, people have to expect  $\alpha$  percent of the population to follow and expect others to follow the norm as well. From personal experience, everyone would say more than  $\alpha$  are norm followers. Now, there is an attempt to enshrine the norm into law. If people enough people agree on what the norm is and that it should be followed, law can help strengthen the norm. Such is the case of the two-term limit on the U.S. Presidency. George Washington established a norm of serving at most two terms, and all presidents followed the norm until FDR was successfully elected for third and fourth terms. The old norm was successfully made into law after his death because people agreed on what the institution should be. Enshrining the norm in law, then, helps reinforce the norm. Yet this is not only an opportunity to enshrine the norm but to change it, so opponents raise concerns that were previously kept hidden. The vote is taken, and the norm passes with 51% far below  $\alpha$ . Now, what are people's expectations? The law says to follow the norm, but actual expectations are different. The act of collecting and revealing knowledge through a centralized mechanism prevents the norm from existing. Without the law, the norm will not return. As law steps into the domain of norms, many of those steps cannot be taken back because of the loss of ignorance. The emperor has no clothes.

So far, a few things need to be collected and restated. People follow rules based on their expectations of others. These expectations can be correct or incorrect. People can over or underestimate compliance. The process will affect these expectations. Expectations used to enforce norms are generated in the situation in which the norms govern. This means norm-conforming behavior is a signal which reinforces the norm. Law makes use of

secondary institutions to create mutual expectations. This lowers the cost of expressing dissatisfaction with the norm. The revelation might not be pure dissatisfaction. It may be revealed that people do support the norm, but that support is not as strongly held. Imagine people assume everyone thinks a proper greeting is critical for how people judge you. Pulling everyone together to vote may reveal that people barely use greetings to assess people. That means the normative expectation will be weakened, weakening the norm enforcement.

Can there be a return to norms once the law has entered the domain? Likely no. If the information revealed weakens the norm, expectations of conformity will not be regenerated. Or at least it will be difficult. Let us go through the process. People learn from the decision-making process of creating law. Even if the law enforces the old norm, people will enter into the situation with new expectations generated outside of the situation. If support for the norm is stronger than expected, more people will follow the norm. If support for the norm is revealed to be weaker than expected, fewer people will follow the norm. More violations will occur. As more violations occur, the people's expectations will continue to be updated, expecting more violations. This inevitably leads to the destruction of the norm. The coordination only existed because of inaccurate information about people's preferences. Those expectations are generated about actual interactions. They are deemed successful or unsuccessful if they lead to coordination or not. The secondary institutions that change law, are outside the interactions they govern. Therefore, the perspective looks at the whole game and may reveal disagreements that went unnoticed.

## ***2.8 Norms Corrupt the Rule of Law***

I know that prerogative is part of the law, but "Sovereign Power" is no parliamentary word. In my opinion it weakens Magna Charta, and all the statutes; for they are absolute, without any saving of "Sovereign Power"; and should we now add it, we shall weaken the foundation of law, and then the building must needs fall. Take we heed what we yield unto: Magna Charta is such a fellow, that he will have no "Sovereign." I wonder this "Sovereign" was not in Magna

Charta, or in the confirmations of it. If we grant this, by implication we give a “Sovereign Power” above all laws. (Debate in the House of Commons, May 17, 1628)

I have examined the issues that might arise when law enters the domain of norms. The chief problem is that mutually shared expectations dissolve under the scrutiny of secondary institutions. Norms, however, can also erode the effectiveness of the law, and again, it has to deal with a misperception, perhaps a more worrisome one. What we may observe as law-corresponding behavior might be perceived as a rule of law, but it might actually be a result of norms enforcing the same behavior. This would mean the rule of law is weaker than we think, or perhaps it does not exist.

The rule of law, in its most simple conception, is that laws need to be explicit, known, and applied to everyone equally. The quote from Sir Edward Coke that begins this section captures this quite well. The Magna Carta, a piece a paper, is the Sovereign not the King. The rule of law means that the written and legitimately passed rules sit above every person. This is particularly true when it comes to political leaders. This presents the fundamental problem of political economy, which is how to establish rules that bind those who make the rules. Those powerful enough to make laws are powerful enough to break them or apply law capriciously. This poses a particularly difficult problem when creating the rule of law, given the strong incentives and the capability to use the force of the state to enforce one’s will. Congleton (2020, 2022) suggests the initial bargains that lead to the rule of law are founded on norms and attitudes that one should follow the law. Put another way, norms are necessary to enforce the initial and all preceding social contracts. These meta norms of the rule of law pressure people to follow the law because laws are the outcome of secondary institutions even when personal interests run counter to enforcement and conformity.

There is, however, a problem of observational equivalence. As I have emphasized multiple times, we observe behavioral regularities, not behavior’s causes. There may be an unnoticed cause, such as norms, that leads to the same behavioral regularities as law. For

now, I will set aside the issue of empirically discovering the causes and instead examine the implications of “rule-conforming behavior” resulting from norms and laws. I use rule-conforming behavior here as opposed to law-abiding because the behavior is what the law dictates but may not be a result of it.

There are three types of worlds that can lead to the same behavior, as shown in Figure 2.2 where straight arrows represent a causal relationship, and squiggly lines represent only a corresponding relationship. Let us first look at the case where the rule of law exists in Worlds B and C. There is a meta norm that the law should be applied equally and fairly to all people, even those who govern. This means the creation of a law is binding. When someone is accused of violating the law, they should be subject to fair adjudication and possible punishment as prescribed by the law. This means the likelihood the law will be enforced is high. If one fails to apply the law to suspected violators, they are breaking the norm of the rule of law.

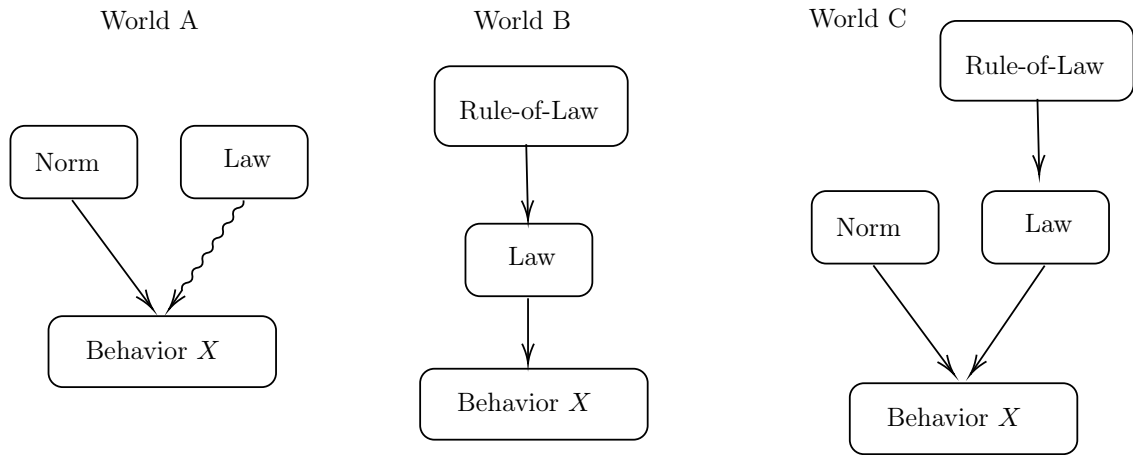


FIGURE 2.2: Rule of Norms versus the Rule of Law

There exists an alternative World A that is observational equivalent or at least is at first glance to the rule or law. In this world, a parallel norm exists that prescribes the same behavior as the law. In this case, it is the norm, not the law, which enforces behavior. The law is superfluous or may help establish a shelling point, but it does not do the bulk of the work of establishing equilibrium behavior. In this world, people’s conditional preferences

are based on empirical and normative expectations. People are not or at least less concerned by the repercussions of the law, such as fines or jail time. In equilibrium, the norm is strong enough to enforce the same behavior as the law prescribes.

Distinguishing between these two worlds can be difficult because you cannot look at violations alone. Both norms and law are able to enforce the same behavior in equilibrium. The key to determining which world exists will be examining how violations are dealt with, socially or legally. The difference is most clear with politicians, who should be subject to the law like anyone else. If the rule of law is well established, violations of crimes such as corruption will be dealt with through the legal process. This means there will be a willingness to prosecute and convict politicians even when they are members of their own party. While violations may be infrequent, they will be treated fairly when they do occur. Alternatively, a rule of norms will not lead to the frequent and fair use of legal prosecution. If a norm is well established, suspected violators will likely resign from office or be shunned from political life rather than face prosecution.

If there is the same behavior in equilibrium, why should it matter which world we exist in? The problem comes when a trendsetter puts the norm under contestation. Social norms can be strong, but they are also vulnerable to people who are willing to bear the cost of violations. Imagine a politician or public official who refuses to resign after being caught violating a norm. They could be shunned from political life, but that is not possible for every office. Supreme court justices, for example, hold their office for life. The only way to remove them is impeachment. If there is no norm to use the legal process of impeachment or other means, there is nothing that can be done to punish the violation. Even worse, the use of legal processes might become politicized and applied capriciously. The problem is that the law is not strong enough to enforce behavior without the norm of the rule of law, but since both worlds are observational equivalent, we will not know the law is weak until it has to be used where norms fail. It is in this case that the overreliance on norms hides the weakness of the law.

## ***2.9 Conclusion***

Norms and laws no doubt govern many of our choices and lead to some sense of order in society. While these institutions both encourage some behaviors while discouraging others, they are not interchangeable. They have their own domains. Norms emerge through trial and error in interpersonal interactions, while laws require the use of secondary interactions. Understanding how their origins lead to their distinct domains allows us to understand why the violations of these domains are so worrisome. Put plainly, the institutions themselves break down when violated.

### **3. The Miraculous Old-Time Fiscal Religion: How a Political Norm Discouraged Deficit Spending**

#### **3.1 Abstract**

Buchanan and Wagner ([1977] 2000) explain why democratic politicians have a strong incentive to run large deficits year after year. However, during much of the country's history, the U.S. federal budget was close to balanced. Why? Buchanan and Wagner claim prior to the Keynesian Revolution, American politicians believed in an old-time fiscal religion that favored balanced budgets and surpluses, justifying deficits only in times of crisis. While much research has been done on the effects of deficit spending, little has been done to identify a shift in a balanced budget norm empirically. This paper fills this gap by positing a theory of norm contestation where discussion of a norm increases when violations are frequent. It is in that response that a norm can be detected. This paper uses speeches from the 43rd to the 111th Congresses as data to discover if a balanced budget norm went through a phase of contestation. The empirical evidence shows a balanced budget norm did exist. It entered a period of norm contestation that started in the mid-19th century, and the balanced budget norm ultimately broke in the 1990s and early 2000s. The paper provides insight not only into the issue of deficits but also into the important role norms play in political institutions and decision-making, along with a way to identify historical norm shifts.

#### **3.2 Introduction**

In 2021, the United States deficit exceeded 2.7 trillion dollars, and the debt was almost 35 trillion dollars. Although the economic consequences have been debated extensively and rightfully studied, the explanation of the persistence of deficit spending is equally important. Why are deficits so common, and why are they so large? Good, benevolent rulers should be able to predict tax revenue and match the budget accordingly. Or at least they would be able to keep the debt to a manageable level, but the debt ceiling has been continually raised to allow for more deficit spending. Theories often employ political incentives (Buchanan and Wagner [1977] 2000, Alesina and Perotti, 1995; Alesina and Tabellini, 1990; Modigliani

and Modigliani, 1987) or game theory explanations (Alesina & Tabellini, 1988). Put briefly, voters prefer to receive government transfers, public goods, and services without having to pay the full price through taxes. They want to be net beneficiaries of government spending. Politicians can maximize voter support by funding programs through deficit spending. If payments on the debt can be delayed, politicians will run deficits year after year to win elections. However, the United States has not always faced massive and frequent deficits. Figure 3.1 shows United States Federal spending. Deficits were small and infrequent until the 1930s and became particularly large and frequent after the 1970s. Incentive-based theories struggle to explain this switch from infrequent to frequent deficits. Both periods and the change must be explained.

An added focus on institutions enhances the explanation. According to Douglas North (1990), institutions are the “rules of the game.” Institutions, therefore, change the incentives, constraints, and transaction costs of people’s behavior. From this perspective, an institutional change likely caused the change in politicians’ behavior. But which institutions? Formal or informal? Formal institutions are the obvious place to look. However, there is a problem with a formal institutional story. As documented by Calcagno and Lopez (2017), there have been many attempts to constrain deficit spending in the modern era through legislation, yet they have been ineffective, changed, or outright ignored. They simply did not stick. Perhaps the previous formal institutions were effective, but there were no formal constraints on deficit spending until the latter half of the 20th century. Calcagno and Lopez explain this by appealing to informal institutions, particularly norms that allow or even encourage deficit spending. Deficit spending has increased in size and frequency because politicians broke from the previous norm of fiscal responsibility, which Buchanan and Wagner ([1977] 2000) called the old-time fiscal religion. A norm is a social rule where one follows the rule if a sufficient number of others also follow the rule (Bicchieri, 2005, 2016). Balanced budgets and surpluses only make sense in a rational choice framework if a norm existed that provided a counter-incentive to deficit spending.

None of the previous attempts to explain the shift in spending behavior by empirically

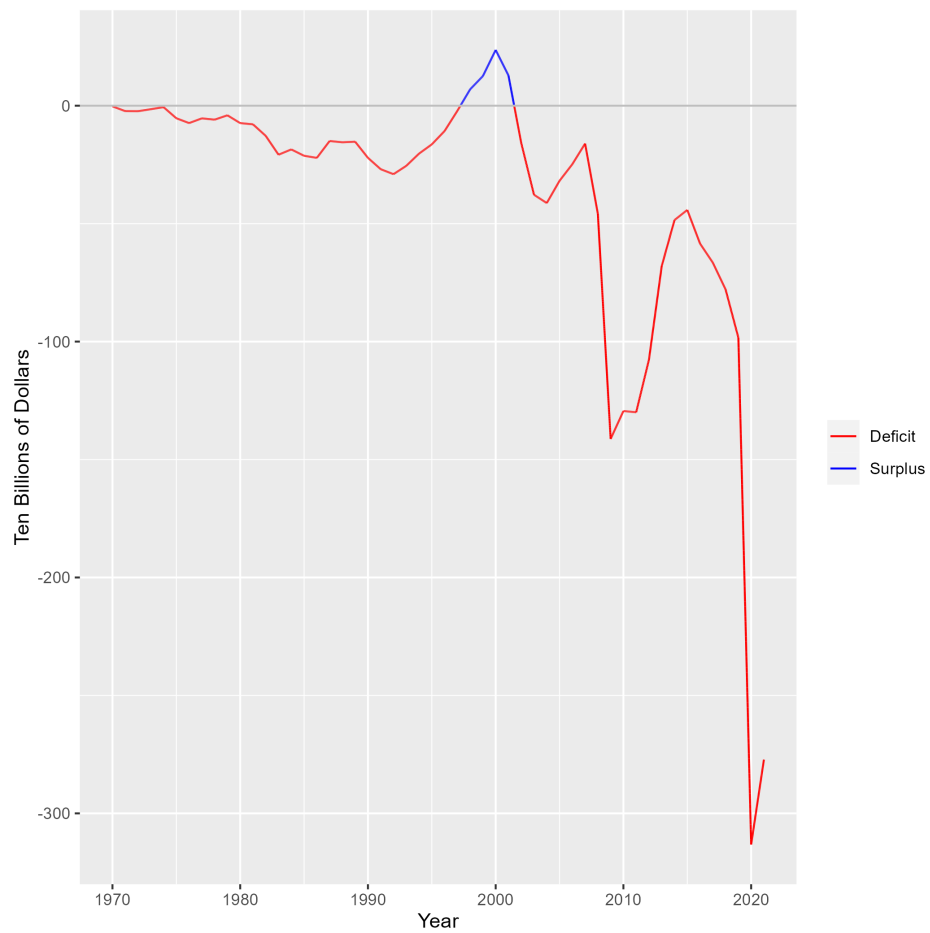
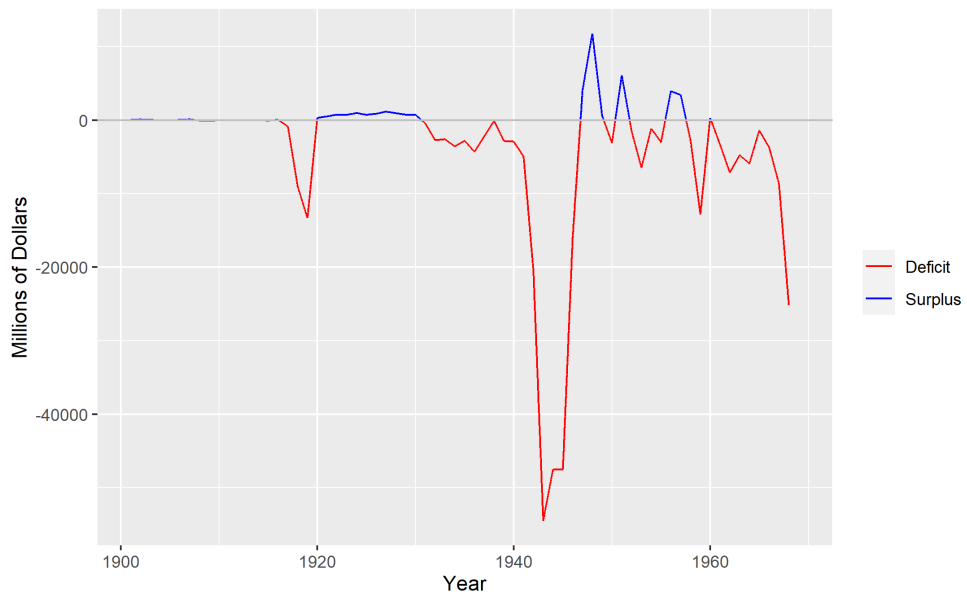


FIGURE 3.1: United States Deficit Spending

identifying a shift in a norm. This would require some measure of politicians' expectations of what the proper thing to do is. This paper seeks to fill that gap and contribute to two literatures: the congressional norms and the broader theory of norms. The modern literature on norms in Congress began with Matthew's (1959) study of folkways in the U.S. Senate. These norms have not been stable since Matthew first identified them (Asher, 1973; Foley, 1980; Rohde et al., 1985). The broad implication comes in two parts. First, politicians operate based on formal rules and social expectations. Second, formal rules alone are not enough to constrain political power (Fishkin & Pozen, 2018; Invernizzi & Ting, 2021; Tushnet, 2004).

Studies of norms and norm change have primarily relied on formal modeling, lab experiments, and surveys. None of these methods are sufficiently applicable to studying historical norms, so I build a theory of norm contestation and its application using text as data to contribute to the literature on norms. The theory posits that when a norm is effective, there should be little discussion of it or sanctioning. If violations of the norm vastly increase, there will be a deviation in empirical and normative expectations (Bicchieri, 2016). Discussion of the norm and sanctioning should increase. There may also be attempts to instill the norm in law. This period of contestation will continue until the norm breaks or is able to reestablish itself. Contestation can be measured through text analysis of structural topic modeling to capture the broad conversation and phrase counts to capture the more narrow discussion. The floor speeches from the 43rd to 111th Congresses will serve as the corpus. The Congressional Record is a particular data source because it captures congressmen talking to each other.

The paper continues as follows. Section 3 provides a review of the literature on norms in Congress. Section 4 defines norms and how they change, then provides a theory of norm contestation. Section 5 explains the political incentives to favor deficits. Section 6 reviews the history of the balanced budget norm. Section 7 discusses the text-as-data approach used in this paper. Section 8 presents the results from structural topic modeling and phrase counts on congressional speeches. Section 9 concludes.

### **3.3 The Study of Norms in Congress**

The serious study of norms in the U.S. Congress begins with Matthews (1959), where he examines folkways in the U.S. Senate. He writes, “These rules are normative, that is, they define how a senator ought to behave,” meaning congressmen follow norms or folkways because of their others’ expectations. Matthews identifies norms of apprenticeship, legislative work, specialization, reciprocity, and institutional patriotism. In *The Power of the Purse*, Fenno highlights how committees utilize norms to function. He writes:

The idea of control mechanisms completes the definition of an operative norm. Two such mechanisms are of special importance to the Committee on Appropriations. The first is the socialization process . . . the second is the sanctioning mechanisms applicable to all members of the Committee which operates to reward the observance of appropriate norms and punish deviations from them (Fenno, 1966, 208).

The use of committees also affects the debate on the floor. Weingast (1979) argues the norm of following committee decisions lowers the costs of debating bills on the floor. Later, Asher (1973) studied norms in the U.S. House of Representatives and how new members learn them. Surveying freshmen representatives, he concludes, “the traditional image of the freshman congressman as ignorant and bewildered had mistakenly led us to expect substantial learning of norms on the part of supposedly ill-informed newcomers” (Asher, 1973). The evidence suggests freshmen congressmen are aware of congressional norms before taking office. This is true even for congressmen who choose not to follow the norms. The study demonstrates two things. Norms play an important role in the function of legislatures, and expectations are widely shared if not always followed.<sup>1</sup>

The study of politics has benefited greatly from the rational choice assumption and a focus on institutions. Among the results is the theory of the minimal winning coalition (Riker, 1962; Riker & Ordeshook, 1973). But formal institutions alone fail to explain why many

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<sup>1</sup> Krikpatirck and McLemore (1977) conduct a similar study on the Oklahoma legislature and come to the same conclusion.

winning coalitions are much larger than needed to win. Weingast (1979) suggests these maximal winning coalitions exist because of what he calls a universality norm. Politicians find a universality norm beneficial because creating the largest possible winning coalition maximizes their chance of being in the winning coalition over the long-run. Even if social enforcement mechanisms punish deviations from a universality norm, a politician can win by forming a minimal winning coalition. This sets up a prisoner's dilemma situation, which might lead to the breaking of a universality norm. Weingast's (1979) analysis also supports Buchanan and Tullock's ([1962] 1999) conclusion that a universality norm will constrain pork barrel spending by reducing external costs<sup>2</sup>.

Weingast's observation that congressmen's attempt to win short-term gains may break the universality norm was not entirely new. Matthews (1959), in his early analysis of folkways, claims that changes in institutions and incentives might lead to more deviations from the norms as politicians attempt to maximize short-term gains. These changes include more competitive elections and the increased role of mass media. He writes, "All these are factors which presently encourage departure from the norms of Senate behavior. Thus, nonconformity to the folkways may increase in the future, if the folkways remain unchanged" (Matthews, 1959).

Indeed the norms in Congress have not been stable over time (Asher, 1973; Foley, 1980; Rohde et al., 1985). Schneier (1988) countered the consensus and empirically demonstrated few differences in congressional norms since the 1950s. For example, Schneier (1988) finds junior members of the Senate did not offer amendments more frequently than they did in the 1960s. However, Rohde (1988) argues norms have indeed changed, and Schneier was mistaken to take a purely behavioral approach. Rhode responds, "The important question, from the point of view of norms, is whether junior members refrain from offering amendments *because* they are expected not to do so, and whether they will be subject to negative sanctions if they do it anyway" (Rohde, 1988). Behavior alone neither proves nor

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<sup>2</sup> Per Buchanan and Tullock ([1962] 1999), external costs are born by those who lose a vote. The more people who support a policy, the lower the external cost. This also means larger support means greater social utility.

disproves the existence of a norm. Norms exist because of expectations, and the literature demonstrates changes in congressmen's expectations of norms.

### **3.4 A Theory of Norms, Decay, and Contestation**

Much of social science focuses on *institutions* and has done so for a long time, with the term being dated back to its first use in *Scienza Nuova* (Vico & Mazzotta, 2020). There is no universally accepted definition, but generally, institutions are rules that create an equilibrium behavior to do  $X$  in situation  $Y$ . Douglas North put it this way. "Institutions are the rules of the game in society or, more formally, are the humanly devised constraints that shape human interaction. In consequence, they structure incentives in human exchange, whether political, social, or economic," (North, 1990). Even if that definition was fully accepted, the function and nuances of different types of institutions would differ, requiring further study.

Norms are a special type of institution because they emerge from a shared understanding of proper behavior. Regularity in behavior alone is not sufficient for a norm to exist. Williams (1968, 204) emphasizes this point:

Social norms are rules for conduct. The norms are standards by reference to which behavior is judged and approved or disapproved. A norm in this sense is not a statistical average of actual behavior but rather a cultural (shared) definition of desirable behavior.

Two of the clearest definitions of norms are given by Bicchieri (2005) and Brennan et al. (2016) <sup>3</sup>. A norm exists if there is a rule to perform action  $\mathbf{Y}$  in situation  $\mathbf{S}$  contingent on the expectation a sufficient number of other people will also follow the rule. Norms are thus rules based on conditional preferences, allowing for coordination (Bicchieri, 2005) and social accountability (Brennan et al., 2016). In the context of the "old-time fiscal religion," we should see evidence that politicians expected other politicians to advocate balanced budgets and did so because of expectations.

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<sup>3</sup> Brennan adapts his definition from H.L.A Hart (1997).

Norms, however ubiquitous, are often difficult to identify and explain. Bicchieri (2016) outlines a way to discover if a norm exists and what type of norm it is. For her, a norm is a conditional behavior meaning a person follows a norm conditional on others doing so as well. To identify whether a norm exists, there must be a collective pattern of behavior. Second, people must have expectations about what others will do or expect others to do. If those expectations are purely empirical—based on observed behavior—the norm is a descriptive norm. If there are also normative expectations—what one should do—the norm is a social norm. If collective behavior is not conditional on expectations, there is no norm. Instead, the behavior is simply a custom, a moral rule, or a legal injunction. Not all people's behavior and opinions matter for expectations. Only the behavior of the relevant reference network matters, so the reference network needs to be identified for any study of a norm.

Changes in political behavior are complex, so disentangling the effect of norms from other causes is tedious. In addition, multiple changes may occur over a short period leading to a cumulative effect. Holding changes in public opinion constant, there are three sources of change in political behavior: preferences, institutions, and technology. The sources can be broken down further, as shown in Figure 3.2.

Preferences, unlike other sources of behavior, are entirely personal. They are not changed because of incentives or others' expectations. They are changed through persuasion. Preferences can be broken down into causal models and moral beliefs. Causal models are the way we think the world works and are changed through the advancement of scientific theory. This presents a possible reason for the increase in deficit spending. It could be politicians were convinced by the new economic theories of the 1930s, which claimed deficit spending could be beneficial as long as growth exceeds the interest rate on the debt. Preferences also include moral beliefs about what we should do. Changes in political philosophy lead to changes in political preferences, so it could be politicians began to believe intellectuals who argued for a more active government in social programs and economic regulation out of a moral duty to promote the general welfare. Achieving these

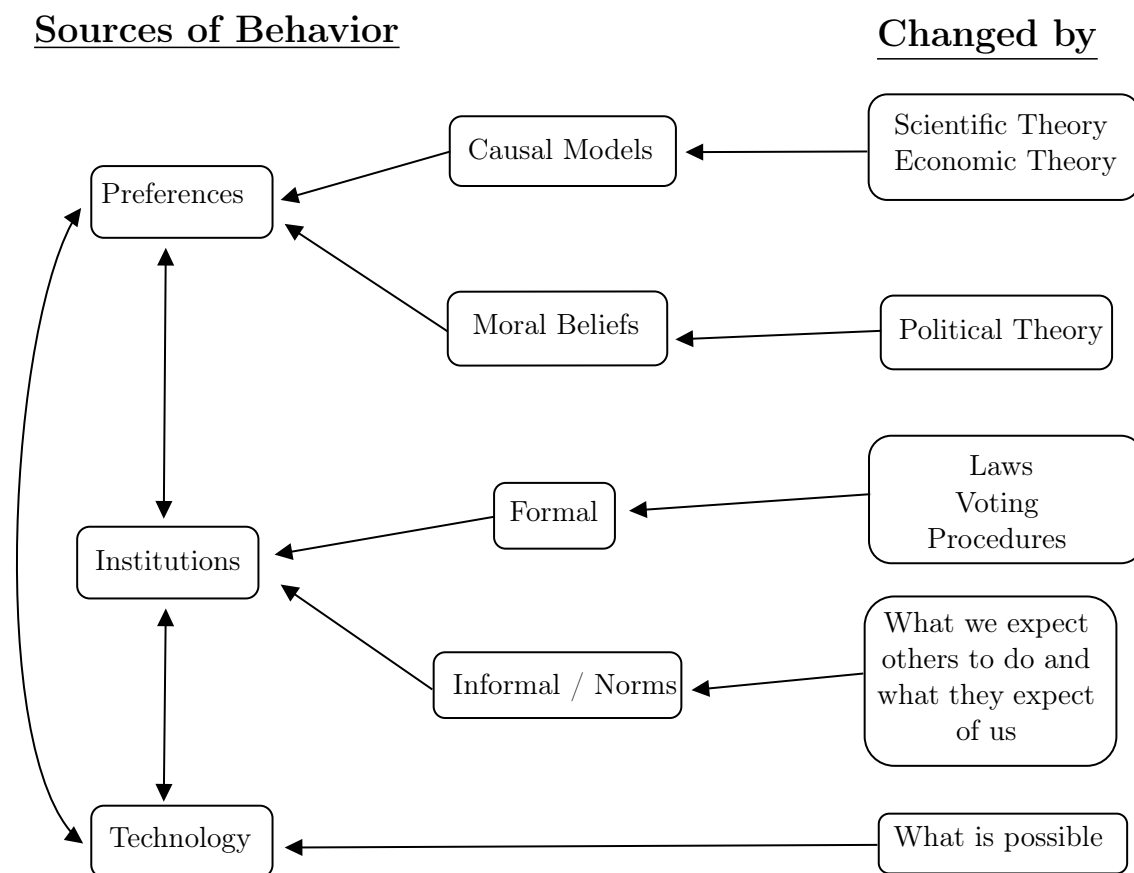


FIGURE 3.2: How Behavior Changes

goals would be expensive and raising taxes unpopular, so politicians chose to finance them through deficit spending.

Although preferences are entirely personal, institutional sources of behavior are responses to interpersonal rules and the expectations of others. Institutions are broken into formal and informal institutions. Formal institutions are things such as laws and voting procedures. Formal institutions structure not only what is allowed but also downstream incentives. If, for example, the federal government provides economic subsidies, there will be an incentive to keep them in place long after they are needed (Higgs, 1985; Tullock, 1975). Informal institutions, on the other hand, are not based on written rules with explicit procedures for change (Brennan et al., 2016; Hart, 1997). They exist in the interactions of individuals. In particular, norms are rules people follow because of the expectation that

others will also follow the rules. Social norms have a normative dimension in that we follow social norms because others expect that we should. Changes in norms come from changes in expectations. In the case of deficit spending, behavior could change because politicians seek to conform with other politicians even though there is not necessarily a change in underlying personal preferences.

Technological change is fairly simple: It changes the relative cost of actions. If, for example, new mechanisms emerge that lower the cost of borrowing, we might see more deficit financing. This may also lead to changes in institutions to take advantage of technological changes.

### **3.4.1 Detecting a Norm Through Contestation**

Detecting a norm is a difficult problem often because norms go unseen. David Foster Wallace perfectly captured this in a way only he could:

There are these two young fish swimming along and they happen to meet an older fish swimming the other way, who nods at them and says, “Morning, boys. How’s the water?” And the two young fish swim on for a bit, and then eventually one of them looks over at the other and goes “What the hell is water?” (2009)

When a norm is effective, people go along exhibiting a regularity in behavior, but the source of behavior may not be visible. We become the younger fish. How do we know why we act the same way as others? People could have similar preferences. For example, people do not want to get wet in the rain, so they use umbrellas and raincoats during thunderstorms. A norm, however, is a regularity of behavior and a mechanism of enforcement and coordination. Norms require a mechanism of mutual expectations.

Detecting a norm then requires examining what happens when expectations change. If people respond to changing empirical and/or normative expectations, a norm exists. The most effective way to do this is through experiments and surveys. Lab experiments allow treatments of changing expectations and have confirmed people’s adherence to norms (Bicchieri & Xiao, 2009). While more complicated, field experiments follow a similar ap-

proach, such as Fuller's (1996) examination of how familial expectations enforce marrying within one's caste.

Surveys will not be useful for the detection of historical norms. One approach to detecting a norm is to look at the period when the norm supposedly exists. One could search for statements expressing compliance due to expectations, but it is not likely to find enough statements clearly expressing this. In the case of deficit spending, there would be some deviation from the norm followed by statements sanctioning the action. However, a lack of sanctioning also fits the hypothesis of a norm. The key here is that social norms are not just enforced by actual sanctions but the *expectation* of sanctioning. If a woman violates a social norm, she is violating a rule of what others do and what she expects others to require of her. This shame deriving from expectations alone may enforce social norms even if sanctioning never occurs, so long as violations are sufficiently infrequent. A norm may, therefore, be effective while minor violations go unsanctioned. In the context of a balanced budget norm, deficits were frequently followed by surpluses. A lack of outrage against deficit spending may mean everyone expected the debt to be paid off swiftly.

It is, therefore, difficult to tell whether a collective behavior is a norm or just a cluster of personal preferences. While small violations may go unpunished, large violations are different because the norm comes under contestation. Frequent norm violations bring empirical expectations into question, causing them to deviate from normative expectations. Bicchieri and Xiao (2009) show that deviation weakens the strength of normative expectations. It follows that sanctions carry less weight as well. When a social norm is under this kind of contestation, the frequency of sanctions will increase in response to increased violations and the weakened strength of sanctions. Attempts to enforce the contested norm also might take the form of formal institutions (see Invernizzi and Ting, 2021).

A theory of norm contestation outlines a way to identify historical norms. First, a change in behavior needs to be observed. There has to be a period with a regularity in behavior followed by a period with increases in different behaviors. The first period is hypothesized as the old norm. The second period is hypothesized as a period of norm contestation, which

is identified by increased violations of the norm and increased discussion of the norm. There is a third period, which begins when the norm fully breaks or reestablishes.

Norms do not change without a reason, so for a norm change to be detected, there has to be a possible reason for increased deviation. There could be various causes. Other institutional changes could make deviations more beneficial or less costly. Trendsetters or social entrepreneurs might seek to change the norm. Some mechanisms, interventions, or events might reveal discrepancies in expectations. There might be other reasons, but there must be some plausible cause for increases in deviation.

If a social norm exists, increases in deviation cause empirical expectations to conflict with normative expectations<sup>4</sup>. The norm is now contested and possibly decaying. There will be an increase in discussion of the norm in the form of sanctions. There may also be an increased discussion of why the norm is right or wrong. Sensing the norm is under contestation, those supporting the old norm may use the law to enforce behavior. Some might argue the law will strengthen the norm; however, that is not always true. As demonstrated by Invernizzi and Ting (2021), strong norms are sufficient to constrain behavior, and laws may weaken the norm.

A social norm can, therefore, be detected when the following conditions are met. The norm comes under contestation from frequent violations. There is an increased sanctioning or discussion of the norm. There may also be attempts to establish formal institutions to enforce the norm. A norm can be said to break if sanctioning and discussion begin to drop while the violations continue. This is evidence that empirical and normative expectations have realigned on a new equilibrium. If discussion and violations decrease, the norm has reestablished itself. If these conditions are not met, one cannot say a norm existed. The regularity of behavior is likely from formal institutions, personal preferences, or something else.

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<sup>4</sup> If it is a descriptive norm, empirical expectations will be sufficient, and the norm can change rapidly in the form of a cascade. No discussion is needed. For an explanation of how this can happen, see Kuran, 1989.

### ***3.5 Why Deficits are Expected***

For the long period of surpluses to be of any interest, deficit and debt need to be the expected or equilibrium outcome of the democratic process without any formal constraints. This is the consensus in the Public Choice literature. These include the behavioral symmetry assumption of rational, utility-maximizing actors. Vote trading occurs to build a winning coalition which increases pork barrel spending. A lack of property rights in the budget process creates a fiscal commons issue, meaning politicians treat the budget as a communal good and overuse it.

The Public Choice understanding begins with Buchanan's article "Pure Theory of Public Finance: A Suggested Approach". Buchanan contrasts the organismic view and the individualistic view. He writes, "In the organismic theory, the state is considered as a single decision-making unit acting for society as a whole" (1949). The individualistic view places the individuals with their own utility functions at the center of analysis, meaning the budgets arise from a complex decision-making process. The results of public finance are subject to all the difficulties of any collective decision process, including suboptimal outcomes.

The type of individuals who engage in this process is important. Economics assumes people are rational-utility maximizers, and political science has adopted a symmetrical approach meaning politicians and government employees are modeled with the same behavioral assumptions. For bureaucrats who request federal funds, increasing budgets replace profits. The rational bureaucrat will spend all of the department's budget and request more, fearing leftover funds will lead to budget cuts, which would harm the department and hinder its ability to achieve any policy goal (Niskanen, 1971; Tullock, 1974). There may be many ends politicians want to achieve, but like profits are the primary goal of producers, winning elections is the primary end of politicians. In the weakest form of this assumption, winning is a signal of "profitability" or public approval. Gaining public support means, at least in part, providing public goods and services. Voters are also rational under this model, so they prefer a net benefit, meaning they prefer to be taxed less than the amount of

government services and public goods they consume. The political process allows this for at least some of the population by concentrating the tax burden on a subset of the population. Since no rational voter wants to be a net taxpayer, politicians can garner wider support by funding government programs through deficit spending and incurring public debt. The debt will have to be paid by future tax revenues. This could be done by decreasing spending or increasing taxes. However, fiscal responsibility might lose public support. Rational politicians worried about winning current elections will myopically use deficit financing and defer taxes to continually gain public support. This leads to an equilibrium outcome of debt and deficit unless there is a constraint on the politicians' myopic behavior (Buchanan and Wagner [1977] 2000, Wagner, 2011).

Another compounding issue is a principle-agent problem. Put simply, politicians spend money that is not theirs. This sets up the fiscal commons (Wagner, 2011), paralleling Hardin's (1968) example of public grazing land where ranchers allow their cows to graze freely, leading to overuse of the land. Similarly, the lack of property rights means the federal budget is a commons that can be overused without institutional constraints. Politicians want to have as much of the budget distributed to their constituents or go to their constituents' priorities. However, no one politician is a winning coalition, so they will have to make deals with others. This occurs through vote trading, where politicians trade votes to support others' projects for support of their own (Tullock & Brennan, 1981). If a budget was a binding constraint, this may lead to socially suboptimal outcomes but never deficit spending. The budget is, however, not a binding constraint, so vote trading to achieve a winning coalition likely leads to deficit spending and growing debt.

We are left with an important conclusion. In a democracy, we should expect frequent deficits and large debt. Politicians face large incentives and institutional factors to do so. Without any constraint, formal or informal, politicians will act rationally but myopically as massive spenders.

### **3.6 History of a Balanced Budget Norm**

Given the strong incentives to engage in deficit spending, long periods of surpluses and small deficits require investigation. That is the exact case of the United States for the majority of its history. Between 1900 and 1960, there were 26 years with surpluses. The largest stretch of surpluses was from 1920 to 1930. After 1960, there have only been five years of surpluses. Clearly had to be counter-incentives or constraints affecting politicians.

Buchanan and Wagner ([1977] 2000) claim politicians operated under a balanced budget norm or what they call the old-time fiscal religion which contained the incentive to run deficits year after year after year. They write:

Both for the family or firm and for the government, there exist norms for financial responsibility, for prudent fiscal conduct. Resort to borrowing, to debt issue, should be limited to those situations in which spending needs are “bunched” in time, owing either to such extraordinary circumstances as natural emergencies or disasters or to the lumpy requirements of a capital investment program.

(Buchanan and Wagner [1977] 2000, 18)

Calcagno and Lopez (2017) also find support for this norm and use it as the basis of their analysis of change in spending.

This old-time fiscal religion has essentially two parts. The first followed principles that are best captured by Knut Wicksell (1993), who claimed no one can rationally choose a policy proposal unless he is also presented with the cost. If you could always finance through deficit spending without the expectation of paying off the debt, all policies would appear beneficial. Second, deficit spending was viewed as future taxation, and there is an obligation not to burden future citizens unfairly<sup>5</sup>. This is similar to how people view their own finances. In essence, the government, like a person, should be cautious of debt and quickly pay it off. Surpluses or balanced budgets should be preferred so deficits can be afforded when they are needed such as an unexpected decrease in tax revenue, war, or some

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<sup>5</sup> Alternatively, debt could be paid by debasing the currency, but that would cause problems of inflation, a roundabout tax on citizens.

other emergency.

If a balanced-budget norm existed, meaning a social rule enforced by mutual expectations of fiscal conservatism, there has to be a reason the norm formed. While it is out of the scope of this paper to fully explain the rise of a balanced budget norm, the norm likely emerged out of the confluence of economic ideas and institutional needs when the U.S. Constitution was passed. The economic understanding began with Adam Smith's ([1776] 1982b, 909) four maxims for taxation. First, the tax system should be progressive. Second, the amount, time, and manner of paying taxes should be clear, not arbitrary. Third, taxes should be convenient to pay. Fourth, taxes should be as low as possible and not be used to enrich particular individuals. Financing through deficit violates the second through fourth maxim because it obscures the amount of taxes paid and means more taxes will have to be levied to cover the interest. Smith also worries about what the sovereign will do to the currency, citing many historical cases where coin money was debased to pay the state's debts. While Smith viewed debt from continual deficits as ruinous<sup>6</sup>, he did view deficits as necessary for emergencies such as war. He writes, "The want of parsimony in time of peace, imposes the necessity of contracting debt in time of war. When war comes, there is no money in the treasury but want is necessary for carrying on the ordinary expense of the peace establishment" (Smith 1982b). Other classical economists followed the Smithian line of reasoning and drew similar conclusions (see Burkhead, 1954).

Debt and deficit spending also played a major role in forming the Constitution. Under the Articles of Confederation, the federal government could not directly raise revenue through taxation. According to Article VII:

All charges of war, and all other expenses that shall be incurred for the common defence or general welfare, and allowed by the united states in congress assembled, shall be defrayed out of a common treasury, which shall be supplied by the several states, in proportion to the value of all land within each state, granted to or surveyed for any Person, as such land and the buildings and im-

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<sup>6</sup> "The progress of the enormous debts which at present oppress, and will in the long-run probably ruin, all the great nations of Europe, has been pretty uniform" (Smith [1776] 1982b, 911).

provements thereon shall be estimated, according to such mode as the united states, in congress assembled, shall, from time to time, direct and appoint. The taxes for paying that proportion shall be laid and levied by the authority and direction of the legislatures of the several states within the time agreed upon by the united states in congress assembled.

Essentially, states voluntarily contributed to the federal coffers. This resulted in a debt crisis that could only be solved through forming a stronger national government. The Constitution, therefore, established the federal power of taxation.

At the same time, there was concern about creating such a government with such a strong power to spend and tax. This fear was held even by the Constitution's most ardent supporters such as Alexander Hamilton, "[A]s the vicissitudes of Nations beget a perpetual tendency to the accumulation of debt, there ought to be in every government a perpetual, anxious and unceasing effort to reduce that, which at any time exists, as a fast as shall be practicable consistently with integrity and good faith" (1791). The conflict between the need to solve the debt problem, empower the government to tax, and desire for fiscal responsibility combined with the economic ideas of the time likely established expectations of a balanced budget norm.

The federal spending shows politicians followed this norm for over one hundred years, and the economic understanding remained stable as well. Economist John Williams (1941) emphasized at the fifty-third annual meeting of the American Economic Association that advocates of deficit spending were rare, and they even thought deficits caused by the Great Depression would not continue into 1940. Politicians and economists agreed that deficits were, at best, a temporary measure and should be followed by paying down the debt. If there had been contention between political factions over the issue of debt, we might conclude there was no collective behavior. However, there was a consensus and frequent application of something like an old-time fiscal religion.

Why did the norm begin to change? This old-time fiscal religion is said to have been broken by the rise of the Keynesian view of macroeconomics and public finance. The

influence of Lord Keynes should not be understated. In his textbook on public finance, Hugh Dalton (2013) writes:

The new approach to budgetary policy owes more to Keynes than to any other man. Thus it is just that we should speak of “the Keynesian revolution.”...We may now free ourselves from the old and narrow conception of balancing the budget, no matter over what period, and move toward the new and wider conception of balancing the whole economy (221).

The change between this and the classical view was massive. In essence, the post-Keynesian view breaks the tie between current spending and payment on the debt. As Buchanan and Wagner note, “This theory explicitly denies that debt finance places any burden on future taxpayers...There is no longer any reason for opposing deficit financing on basically moral grounds” ([1977] 2000, 16).<sup>7</sup>

There is the question of whether the 1930s is the proper time period for analysis of a norm shift. Modigliani (1987) notes the frequency of deficits is not different between pre and post-WWII until the 1970s when deficit spending occurred every year with only a few exceptions. Why not then begin the analysis in the 1970s instead of the 1930s? While Modigliani’s empirical response is a fair criticism, it misses the nuance of how the old-time fiscal religion norm might have dissolved. It began to change with the economic ideas of the 1930s and then moved into the political realm. Buchanan and Wagner ([1977] 2000) even note it was not until the 1960s that half the politicians were Keynesian. While they do not give empirical evidence for their claim, other economists share similar observations. In his review of the balance budget debate, Jesse Burkhead (1954) bemoans how the Keynesian argument had not yet conquered the classical understanding of budgets. However, that is further evidence of a shift starting in the 1930s and gaining strength in later decades.

The historical record also indicates that the change in views on deficit financing appears

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<sup>7</sup> It is important to note the use of “moral” which leads one to believe that old-time fiscal religion is a moral norm, meaning there is a normative aspect to the rule. A true norm might not exist if belief and/or the following of the norm is not contingent on others’ behavior. It might be true that simply all politicians believed and therefore acted based on the classical understanding of public finance itself and not conditional on the behavior of other politicians.

to start in politicians and advisers/experts, not the public. Keynes and his followers, for example, did not try to change public opinion but that of economists and politicians. Williams (1941) claims there was little public support for deficit spending to get the country out of the Great Depression. He points to a 1934 meeting between John Maynard Keynes and President Roosevelt, where Keynes advocated increasing spending to 400 million dollars a month to get a recovery through balancing the economy as the point where Roosevelt's policy platform changed. The administration then adopted a massive deficit spending approach to the depression prior to public support for the policy.

In several of his early speeches, FDR countered the argument to balance the budget by citing the harm it would do to American citizens. Here is an excerpt from a 1936 campaign speech given at Forbes Field, Pittsburgh, Pennsylvania:

To balance our budget in 1933 or 1934 or 1935 would have been a crime against the American people. To do so we should either have had to make a capital levy that would have been confiscatory, or we should have had to set our face against human suffering with callous indifference. When Americans suffered, we refused to pass by on the other side. Humanity came first.

No one lightly lays a burden on the income of a Nation. But this vicious tightening circle of our declining national income simply had to be broken. The bankers and the industrialists of the Nation cried aloud that private business was powerless to break it. They turned, as they had a right to turn, to the Government. We accepted the final responsibility of Government, after all else had failed, to spend money when no one else had money left to spend.

This is the opposite of what Roosevelt said in his 1932 campaign, where he promised to balance the budget. Roosevelt's promise followed orthodox economic beliefs, but his shift signaled a change in the norm. More importantly for this analysis, his justification included a moral dimension leading me to believe expectations of other politicians also had a normative component. Politicians supported balanced budgets not only because others did so but also because they thought it was the moral thing to do.

The brief historical review will not capture the increased discussion hypothesized by this paper's theory. Changes in law can, however, easily be identified. First, the Legislative Reorganization Act of 1946 established the modern committee system. More importantly, it professionalized Congress by establishing large staffs, which led to incentives to stay in office longer and allowed Congress to better handle complicated budgets (Calcagno & López, 2017). The same year, the Employment Act was passed, so Congress had the moral duty to spend money to prevent unemployment. This worsened the fiscal commons problem, meaning congressmen could more easily violate a balanced budget norm. However, Congressmen attempted to contain the more frequent deficits through legislation. These include the Congressional Budget and Impoundment Act of 1974, the Balanced Budget and Emergency Deficit Control Act of 1985, the Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987, the Balanced Enforcement Act of 1990, and the Balanced Budget Act of 1997. Clearly, at least a large part of Congress was concerned about deficits to pass these acts, yet these attempts to constrain deficit spending and pay off the debt were ineffective.<sup>8</sup> And it is likely, as it is with many laws, they were ineffective because there was not a sufficiently strong norm underpinning them.

What did occur is that there was more opportunity for politicians to engage in deficit spending and justify it with economics. Some politicians, such as FDR, did change their economic understanding. Others likely still believed in constraining spending but engaged in deficit spending because of the worse fiscal commons issue. The increased frequency of deficit spending put the norm under contestation because empirical and normative expectations diverged. As the 20th century ended, budget surpluses did return from 1998 to 2001 after 29 years of deficit spending. This was indeed a change from the previous trend, but it did not stick. A balanced budget norm was not able to reestablish itself. The U.S. is now running deficits far larger than even those during the Great Depression and WWII.

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<sup>8</sup> Possibly the problems could have been worse if these laws were not passed, but they did not prevent growing deficits and debt.

### **3.7 Text as Data Approach**

Modern-day norms are typically identified and analyzed through carefully crafted surveys or laboratory experiments. Surveys allow scholars to ask about why participants exhibit a behavior, particularly if the behavior is contingent on others. Lab experiments allow the manipulation of empirical and normative expectations to determine how they affect participants' behavior. With historical norms, neither of these approaches is feasible since the relevant population is no longer living. A different approach is needed. Following that format, the relationship between behavior and expectations need to be examined. Norm violating behavior will lead to changing expectations. Behavior is easy to measure because it is the existence of deficits or surpluses. Expectations and particularly changing expectations are trickier to measure because they are often internal but might be measurable in the form of discussion and sanctions in response to norm violations. Using text as data allows the measuring of expectations *if* the interactions between politicians can be captured. Luckily, the relevant population of politicians conveyed their opinions through political speeches. Congressional speeches are a particularly promising data source for three reasons. First, the speeches represent conversations between politicians, so they might give insight into how they justify their behavior to each other. Second, the congressional record is one of the longest-running and consistent political records. Third, the congressional record will contain speeches concerning deficit spending.

However, the congressional record is too vast to analyze by reading each speech on budgets, so automated text analysis is required. The field of natural language processing has many promising techniques that allow insight into the topics and sentiments of text. Yet, the techniques are still young, so they present many pitfalls along with advantages. In short, no matter how powerful the computer or advanced the algorithm, automated text analysis will never be able to capture the full complexity of human speech. That being said, there are a number of principles that maximize the inference that can be gathered by text analysis. Grimmer and Stewart (2013) present four. First, they remind scholars

all models of language are wrong. That does not mean they are not useful. A second related principle is that quantitative methods are not a replacement for humans. Given the complexity of human language, automated text analysis can, at best, identify topics based on clusters of words or sentiments by frequency of words. A human must review the texts to determine whether the results of the model make sense. Third, Grimmer and Stewart claim that there is no best method. Although this is true for any research method, it is particularly true for text analysis. While traditional quantitative methods have similar underlying approaches for finding correlations, natural language processing methods vary greatly. The best method(s) then depends on the research question being asked. The fourth principle of validation comes from this reality. Validation is more than simply explaining why a method applies to the topic. Other research from theory, empirical studies, surveys, lab experiments, and field experiments need to be used to validate the method and how the results are interpreted. In short, they should align with previous research while adding new insights.

This paper examines two ways to detect norm contestation signaled by an increased discussion of deficits, surpluses, and balanced budgets. The first is through structural topic modeling (STM), where the frequency of topics about deficit spending will be calculated. The second will hone in on particular key phrases. An increase in the use of these topics and phrases will indicate the norm of balanced budgets is under contestation. The goal of topic modeling is to gain insight into large corpora of text by estimating the underlying data-generating processes. Topic Modeling assumes documents are bags of words, meaning word order is ignored. While some aspects of the text are lost by using this assumption, it allows the estimation of topics through calculating the frequency of words. Topics are estimated probability distributions over all words in a corpus's vocabulary. If five topics are modeled, the algorithm will estimate five probability distributions. Each document is assumed to be generated by drawing from each topic's probability distribution. Structural topic modeling<sup>9</sup> takes into account metavariables that correlate with topics and documents.

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<sup>9</sup> For a vignette on structural topic modeling, see M. E. Roberts et al., 2019

For example, the sentence, “Our party needs to win the election,” is more likely to be from a topic about the Democratic party if the author is a Democratic candidate. In short, structural topic modeling estimates probability distributions over words (topics) and the distribution of topics over documents. While an imperfect measure, STM will estimate the broad trends in the level of discussion around deficit spending.

Being a fuzzy measure, STM might (and likely will) capture other aspects of the texts. For example, even if a topic appears to be about deficit spending, the expected proportion of the topic might increase over time because Congressmen are more concerned about deficit spending and/or spend more time working on the budget. Topic modeling might not be a fine-grained enough measure to distinguish these two clearly. The measure can be narrowed by counting the use of key phrases at the cost of broader context and nuance. If a set of key phrases is sufficiently specific to an issue, their use will measure the level of discussion of that issue. Neither STM nor phrase count alone are sufficient measures, but using them together allows a more accurate measure of the discussion of deficit spending.

### ***3.8 Methods and Results***

The universe of text used in this analysis is congressional speeches in the daily bound edition of the Congressional Record (Gentzkow et al., 2018) from the 43rd through 111th Congresses for both the House and Senate. The corpus contains metadata, including the year the speech was given, the chamber of origin, and the party of the speaker. Most of the speeches are irrelevant to this analysis as they do not address the country’s deficit. Even if the speeches do mention deficit spending, probably only a part of the full speech directly addresses deficit spending. Therefore, I filter the speeches in two ways. First, I select only speeches that contain the words deficit, debt, surplus, or fiscal along with their variations. Next, I break the speeches into sentences and again select sentences that contain deficit, debt, surplus, or fiscal. The sentences will provide context for the uses of the terms. Although the algorithm might not perfectly separate sentences, it will provide a word window around the key terms. Creating a word window directly will cause overlaps if

the key terms are used close together. This is the appropriate tradeoff to preserve distinct contexts. The resulting 692,246 sentences will be used as the texts for the analysis. Further, each word word will be stemmed using the standard procedure.

The analysis continues in three steps. First, the topics of the sentences will be estimated. This is important because the sentences might not be addressing deficit spending but rather something like trade deficit or a surplus of a good. To analyze the level of discussion about deficit spending, topics about deficit spending qua deficit spending need to be discovered. The topic modeling is likely to provide other insights as well.

The first task of topic modeling is to decide on the number of topics and is by no means obvious. Although there is no fail-proof way to choose the number of correct topics (Grimmer & Stewart, 2013), statistical methods can be useful (M. E. Roberts et al., 2019) as an initial guide. For the purposes of this analysis, it is important that topics reflect the norms about deficit spending, so the number of topics was chosen by maximizing semantic coherence while identifying topics that are relevant to the analysis. After examining different models and reading a selection of speeches, I have settled on estimating 12 topics with metadata for which congress, chamber, and political party the sentence came from. To preserve later causal inference and avoid overfitting, I follow the recommendation of Egami et al. (2022) and split the corpus into a training and test set, with 346,123 sentences in each data set.

Figure 3.3 contains the expected probability of the top ten stemmed words in each topic. Some initial observations can be made. First, topics 7 and 8 appear to be about trade deficits due to the high probability of words like agricultur, trade, and market. One should expect to find topics on trade deficits and surpluses, so their appearance in the model is a good sign, even if it is irrelevant to the issue of this paper. Topics 1, 4, 5, 6, 9, and 11 appear to be about deficit spending, but only limited understanding can be gained from these early results. The next step is to examine the proportion of topics in the corpus. Figure 3.4 displays the expected proportion of each topic in the training corpus and includes the top three stemmed words in each topic.

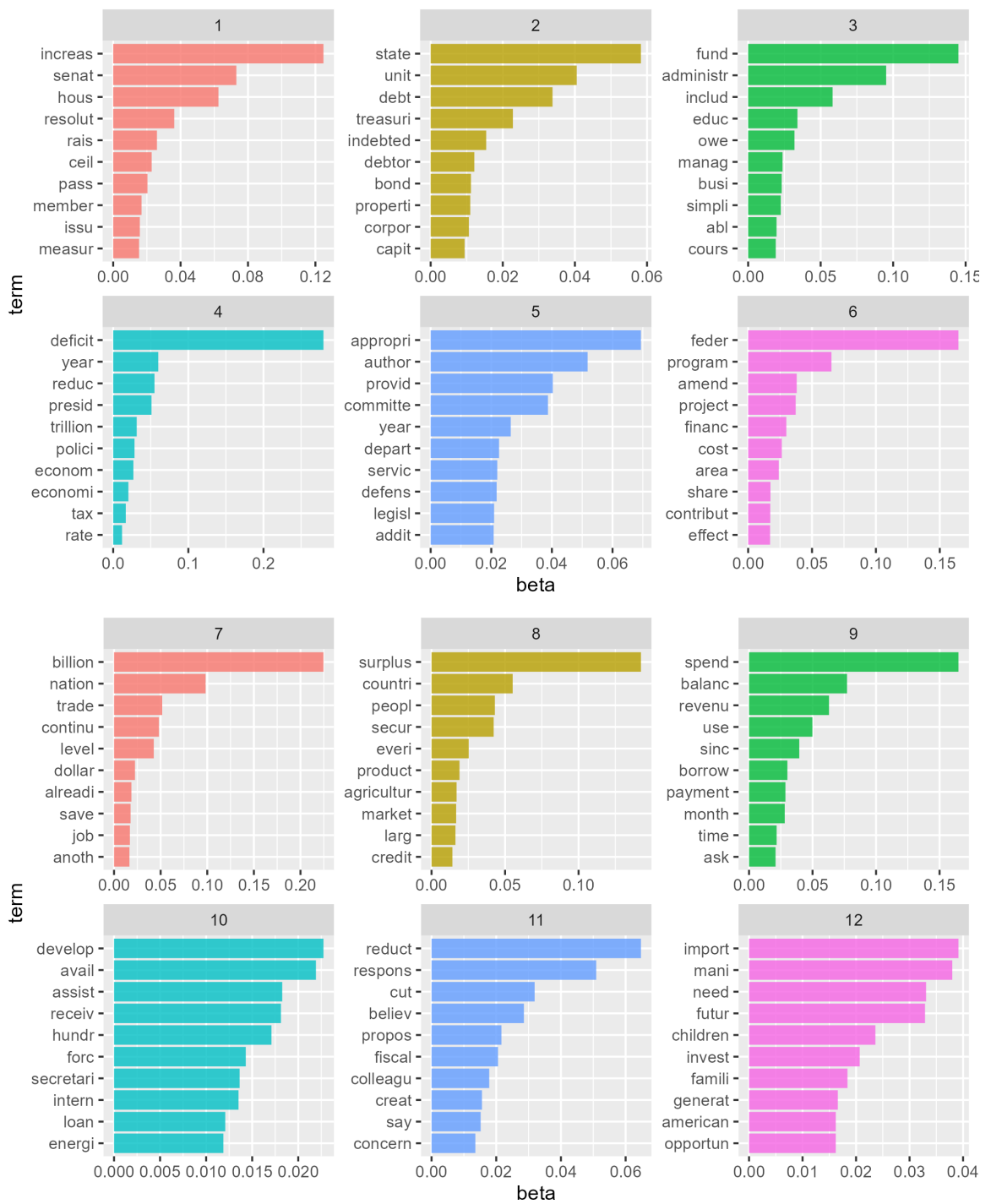


FIGURE 3.3: Distribution of Words in Topics

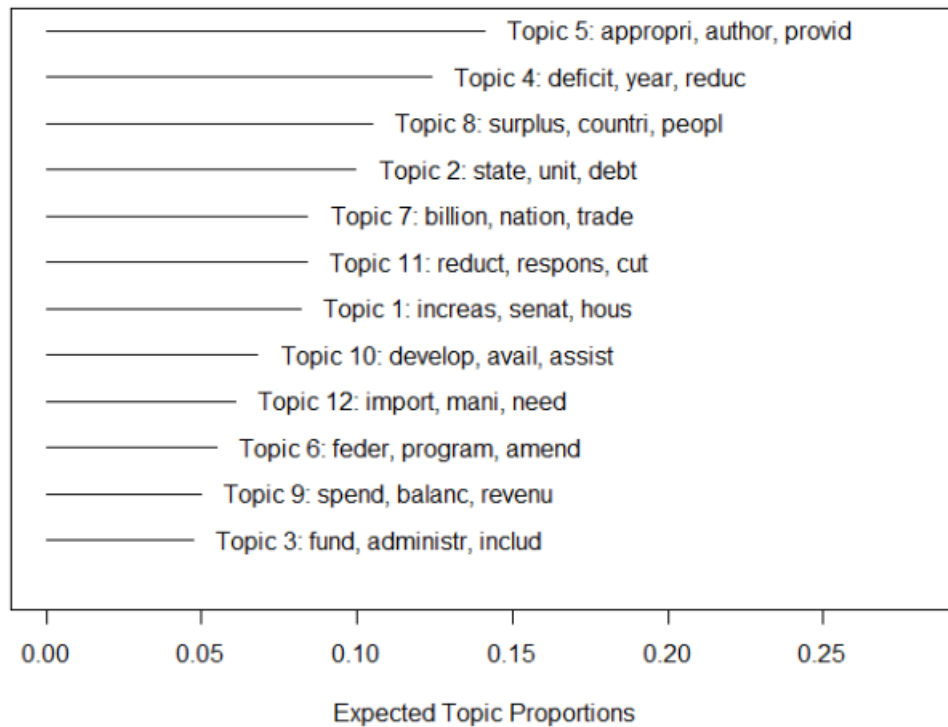


FIGURE 3.4: Expected Proportion of Topics in Congressional Speeches

The next stage of the analysis requires looking deeper into the topics by reading speeches through the lens of the topics to discover if the topics fit the data and if the speeches show evidence of a norm. Here are some of the best-fitting sentences (errors in original) from topics 1, 4, 5,6, 9, and 11:

Topic 1:

“We have gone from being the biggest creditor to being the biggest debtor and those lines cross in 1984 and we have gone not only to being a debtor nation but being the biggest debtor nation on the face of the globe.” Kent Conrad, S, D, 1987

“Let that situation take care of itself. while all the time we turn from the worlds biggest creditor to the worlds biggest debtor. ” Robert Byrd, S, D, 1995

Topic 4:

“Federal funding for the Corporation for Public Broadcasting would be increased

from 137.5 million last year to 240 million by fiscal year 1990. and Federal funding for the Public Telecommunications Facilities Program would be increased from 12 million last year to 20 million in fiscal year 1987. ” Michael Oxley, H, R, 1985

“In the same year when we declare we have balanced the budget. we will have to increase the debt limit because the debt is still increasing.” Barbra Mikulski, S, D, 1997

Topic 5:

“In my view. this is one instance where we can vote for fiscal restraint and a more conservative stewardship of the dollars supplied by hardworking taxpayers.” Jacob Javits, S, R, 1973

“President. our highest priority must be fiscal integrity.” Frank Moss, S, D, 1975

Topic 6:

“But the philosophical question is. do you want to reduce the deficit by controlling spending and reducing the level of spending. the rate of spending which would balance the budget. or do you want to continue to spend at the same level and raise taxes to offset it?” Alan Simpson, S, R, 1996

“The deficit is currently moving in the right direction. not for very long. but it currently is moving in the right direction.” Pete Domenici, S, R, 1994

Topic 9:

“Further. the prior rulings have indicated that a joint resolution containing continuing appropriations for diverse agencies are exempt from the rule. but this is quite obviously not a continuing appropriation. it is in fact an appropriation for the fiscal year 1980 for a new program under the guise of a supplemental appropriation bill supposedly merely adding more moneys to an existing program.” Robert Bauman, H, R, 1979

“The person out there making 30.000 a year. the middle income American that

has everything on their shoulders already. that has this huge national debt already.” John Ensign, H, R, 1997

Topic 11:

“It is irresponsible to then give money to run up this debt and give it to the wealthiest Americans in this Nation.” Xavier Becerra, H, D, 2005

“We have budget surplus tax cuts. budget deficit tax cuts. economic recession tax cuts.” Judd Gregg, S, R, 2003

These excerpts show there was concern about growing debt and deficits, and that sentiment has been expressed by members of both parties. The topics selected will, therefore, be useful to measure norm contestation. On the other hand, not all the sentences directly address the issue of deficit qua deficit. The topic model also extracts a discussion of the budgetary process and related issues. This means topic modeling is a useful yet imprecise measure.

With a sufficient understanding to justify the 12-topic model captures the broad conversation of deficit spending, that model can now be applied to the test dataset. This is done by using the trained model on the new data. The STM package requires the same vocabulary as the training data set since any new words are not included in the probability distributions (M. E. Roberts et al., 2019). As a result of the corpus alignment process, 343,400 sentences remained in the new corpus. The proportion of topics 1, 4, 5, 6, 9, and 11 were calculated for each year and are presented in Figure 3.5. The estimated proportions of topics 1, 5, 6, and 9 all peaked somewhere between 1970 and 2000. Topics 4 and 11 do not peak but continually grow over time.

This is not the trend predicted. We might see an increase because the level of discussion is proportional to the deficit with no norm. The concern expressed in the sentences makes this unlikely. It is more likely topic modeling is not precise enough and, therefore, captures other aspects of the discussion such as purely procedural matters. The issue of precision will be addressed with the more narrow approach of phrase counting. What can be inferred from the initial topic modeling results is that there was an increase in discussion around

deficits post the 1950s.

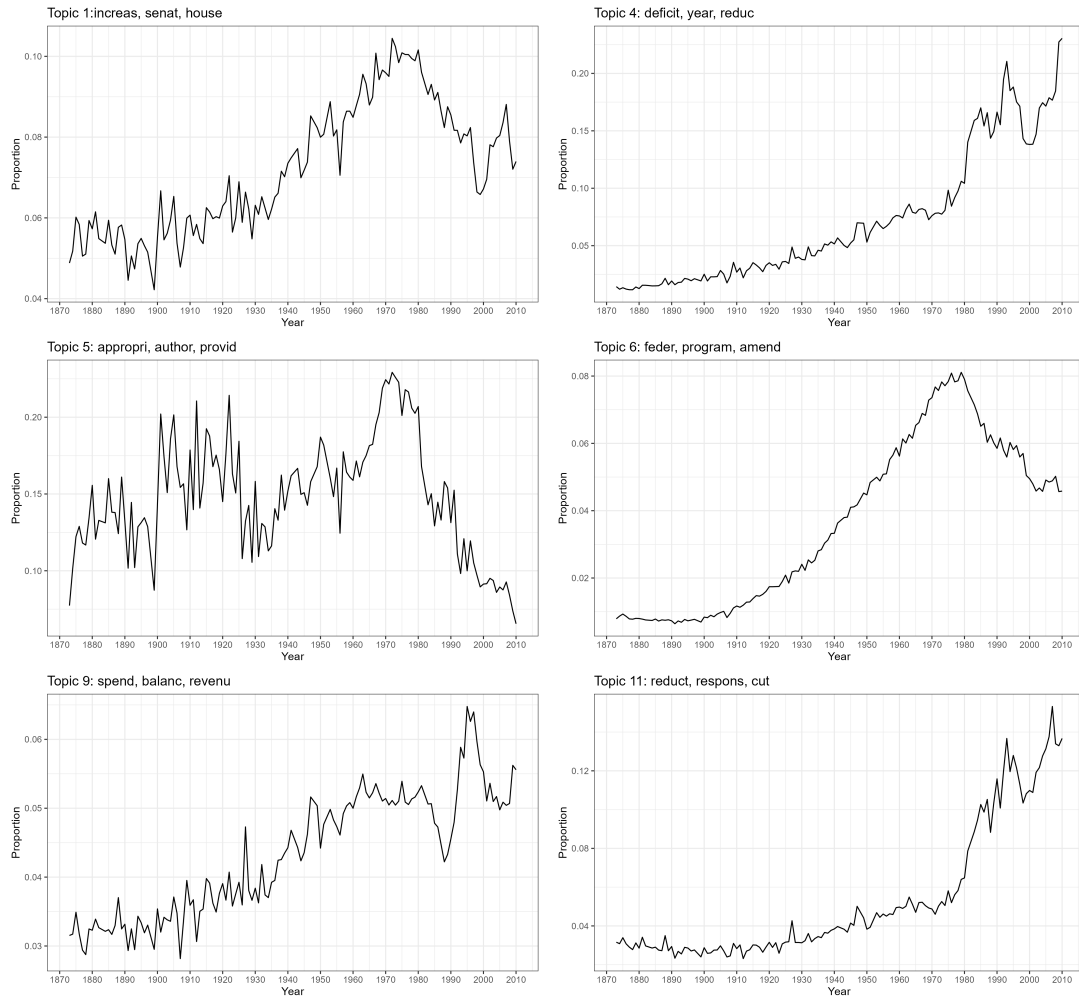


FIGURE 3.5: Change in Expected Proportion of Topics

Following the theory of norm contestation outlined earlier, defection from a balanced budget norm means large deficit spending. As deficits rise, discussion of the norm should increase. If the norm breaks, there will be a point where this relationship will decouple meaning discussion will decrease while deficits will continue to grow. The relationship between deficit spending and discussion should be a quadratic one with positive relationship while the norm is under contestation and a decreasing one after the norm breaks. To test if this occurs, the proportion of topics will be regressed on the deficit of the previous year

along with control variables. The linear regression will take the following form:

$$\begin{aligned} \textit{Proportion of topic} = & \alpha + \beta_1 \textit{ Lagged Deficit} + \beta_2 \textit{ Lagged Deficit}^2 + \beta_3 \textit{ After 1946} + \\ & \beta_4 \textit{ Rep House Majority} + \beta_5 \textit{ Election Year} + \beta_6 \textit{ Time Trend} + \varepsilon \quad (3.1) \end{aligned}$$

Dummy variables are included for post-1946 when the congress was restructured, a Republican majority in the house, and election years. A time trend variable is also included to deal with possible autocorrelation of the time series. The regression has a quadratic form with respect to lagged deficit, so I hypothesize a positive beta on lagged deficit and a negative beta on lagged deficit squared. Deficit is measured positively in the 10 billions and was collected from the United States Department of the Treasury via FRED. The first derivative will be the amount of deficit spending that breaks the norms and where congressmen update their expectations to the new equilibrium of acceptable and continual deficits.

The results are presented in Table 3.1. Topic 4: deficit, year, reduc and Topic 11: reduct, respons, cut exhibit the hypothesized results. The sign on deficit is positive and negative on deficit squared. The maximum of topic frequency with respect to deficit occurs at 840 billion dollars for Topic 4 and 940 billion dollars for Topic 11. That threshold was passed in 2009. The results of the other topics are not significant or do not have the hypothesized signs. These mixed results might occur for a couple of reasons. First, there is not a fixed relation between the discussion of deficit spending and the level of deficit spending. Such a conclusion might be too hasty because of the inaccuracy of the topic measure. Topics 1, 5, 6, and 9 appear to be broadly about the budgeting process, which might include the discussion of a balanced budget norm, but that might be a smaller part. Topic 4 and 11 appear to be more closely related to a balanced budget norm because of the high frequency of reduct, reduc, deficit, and cut. It would then make sense for those topics to support the hypothesis. Also, changes in the proportion of topics are relatively small from year to year compared to the change in deficit. The smaller variation can lead to insignificant results. Even with the concerns taken into account, there is some possible evidence the discussion of a balanced budget norm followed the hypothesized trend.

Table 3.1: Topic Regressions

	<i>Dependent variable:</i>					
	Topic 1	Topic 4	Topic 5	Topic Proportion		Topic 11
	(1)	(2)	(3)	Topic 6 (4)	Topic 9 (5)	(6)
lag Deficit	-0.0002 (0.010)	0.168*** (0.019)	-0.044 (0.036)	-0.022* (0.011)	-0.010* (0.005)	0.094*** (0.014)
lag Deficit Sq	-0.0001 (0.0001)	-0.001*** (0.0001)	-0.00002 (0.0003)	-0.00000 (0.0001)	0.0001 (0.00004)	-0.0005*** (0.0001)
After 1946	2.216*** (0.313)	-0.795 (0.603)	6.624*** (1.156)	2.528*** (0.351)	0.561*** (0.157)	-1.586*** (0.459)
Rep House Majority	-0.885*** (0.162)	1.003*** (0.311)	-2.689*** (0.596)	-1.275*** (0.181)	0.013 (0.081)	1.421*** (0.237)
Election Year	-0.003 (0.148)	-0.297 (0.285)	0.541 (0.547)	0.029 (0.166)	-0.070 (0.074)	-0.157 (0.217)
Time Trend	-0.001 (0.005)	0.149*** (0.010)	-0.132*** (0.019)	0.023*** (0.006)	0.015*** (0.003)	0.113*** (0.008)
Constant	6.777*** (0.190)	0.134 (0.366)	19.467*** (0.701)	2.312*** (0.213)	3.565*** (0.095)	0.073 (0.278)
Observations	105	105	105	105	105	105
R <sup>2</sup>	0.748	0.938	0.527	0.866	0.781	0.913
Adjusted R <sup>2</sup>	0.732	0.934	0.499	0.857	0.767	0.907
Residual Std. Error (df = 98)	0.756	1.454	2.787	0.846	0.378	1.106
F Statistic (df = 6; 98)	48.424***	247.472***	18.230***	105.284***	58.183***	170.631***

Note: Deficit measured in the 10 billions. Standard errors in parentheses. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

### 3.8.1 Narrow Discussion Through Phrase Count

Topic modeling while useful, only captures the broad discussion. A more focused measure of norm discussion can be achieved through the frequency of key phrases. A phrase can be used in many contexts, so selecting key phrases that are likely to only apply to the discussion of a balanced budget norm is critical. For this reason, the following key phrases were chosen: balanced budget, budget deficit, debt ceiling, and budget surplus. It is unlikely these will be used in any other context. The number of times these phrases were used is presented in Figure 3.6. Prior to 1950, these phrases were used infrequently or *not at all*. After 1950, there is a drastic increase in their frequency, especially in the case of balanced budget. With the exception of budget surplus, the use of each phrase peaks sometime between 1980 and 2000. The trend of no use followed by increased use which eventually peaks and falls matches this paper's theory of norm contestation. Let us assume the phrases do capture the discussion of the norm. Prior to 1950, there was no need to discuss it because the expectation surpluses followed deficits was met. Once deficits became more common, empirical expectations diverged from normative expectations, creating a contested norm of balanced budgets. The discussion then increased. As deficits became larger and more frequent, the disparity between empirical and normative expectations became untenable, so there had to be a reconciliation. The surpluses between 1998 and 2002 might have reestablished a balanced budget norm, but this did not occur. It appears politicians did not see any reason to continue fiscal responsibility. With this failed, last attempt at reestablishing the norm, politicians finally updated their normative expectations. There was no longer a norm of balanced budgets, so politicians could myopically run deficits to fund their policy goals without social sanctioning.

This theory has to be tested in a similar way to the topic model results with a quadratic relationship. The phrase count will then be regressed on lagged deficit and lagged deficit squared. To deal with the presence of true zeros, the dataset was truncated only to include 1947 onward. Otherwise, the same form as the topic model regressions was used. The

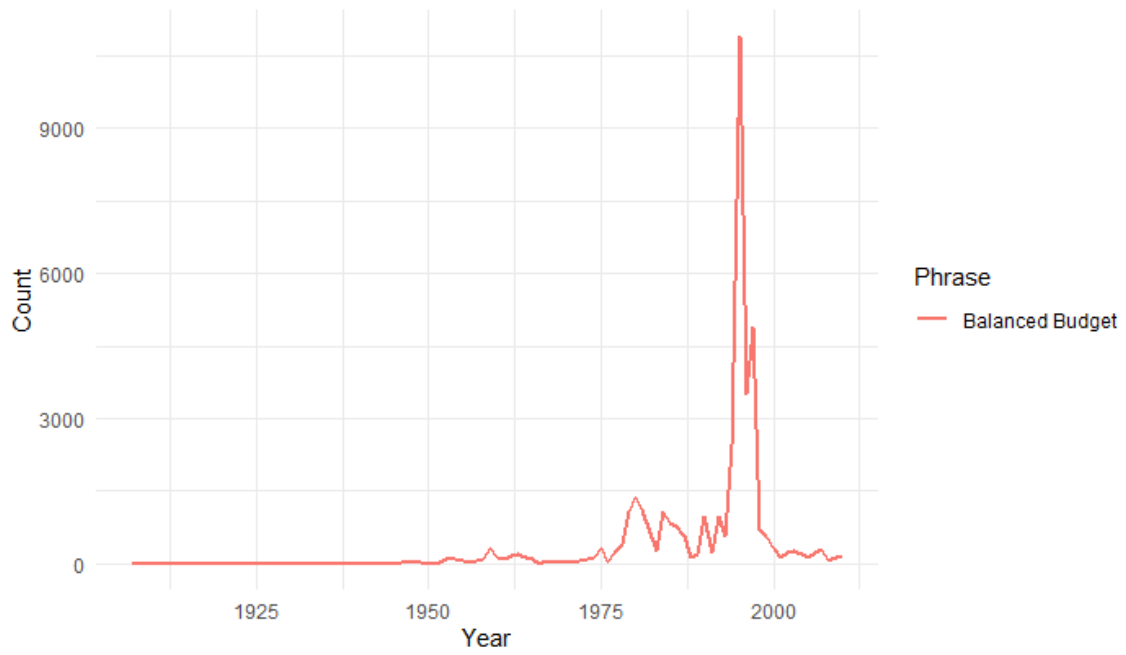
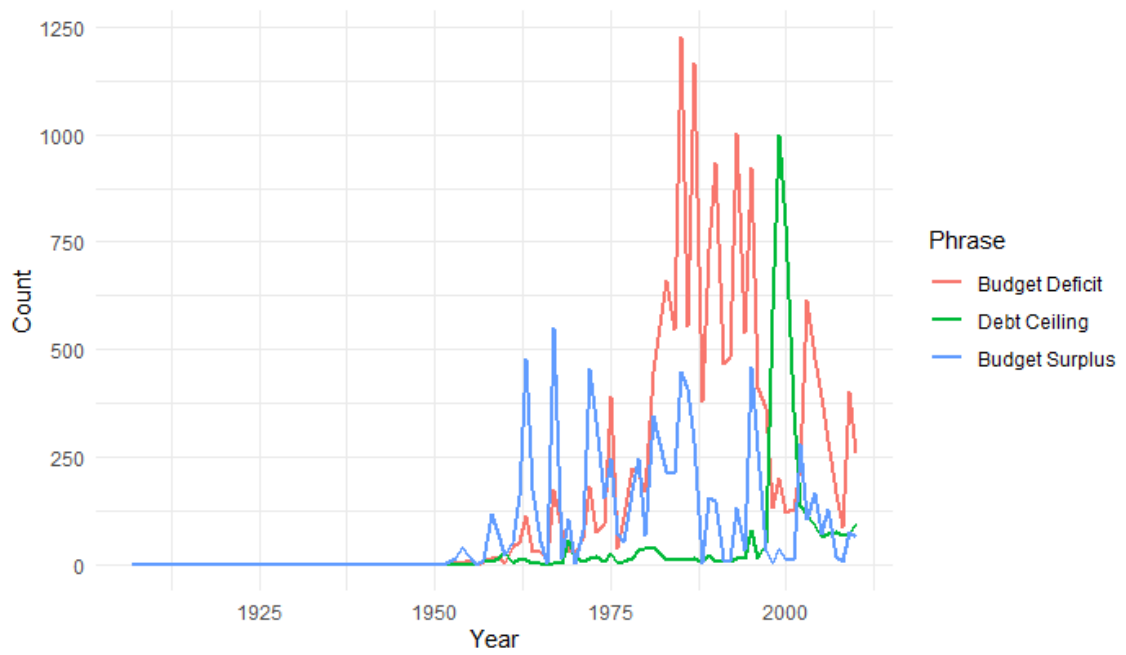


FIGURE 3.6: Use of Key Phrases

results are shown in Table 3.2 and demonstrate support for the hypothesis. The coefficients on lagged deficit and lagged deficit squared have the hypothesized signs and are significant for budget deficit. The coefficients of interest for a balanced budget are not significant at the 90% level, but the p-value on lagged deficit is 0.1223 and 0.1082 on lagged deficit squared. With p-values so close to the standard level of significance, we should take the results as weak evidence in support of the hypothesis. The coefficients on budget surplus are opposite from what is hypothesized. It appears politicians are more likely to use the term “budget surplus” when deficits are small or there is an actual surplus. That being said, discussion the use of budget surplus is more common when Republicans have a majority in the House of Representatives. As deficits become larger and more frequent, politicians have given up discussing and much less calling for budget surpluses. Deficits are the expectation.

Table 3.2: Phrase Count Regressions

	<i>Dependent variable:</i>				
	Phrase Count				
	All Phrases	Balanced Budget	Budget Deficit	Budget Surplus	Debt Ceiling
	(1)	(2)	(3)	(4)	(5)
lag Deficit	36.260 (22.817)	32.939 (20.991)	11.970*** (3.229)	-9.530*** (1.767)	0.881 (2.078)
lag Deficit Sq	-0.302* (0.170)	-0.256 (0.157)	-0.092*** (0.024)	0.058*** (0.013)	-0.012 (0.016)
Rep House Majority	1,090.461* (549.513)	1,100.501** (505.524)	-63.495 (77.760)	98.588** (42.559)	-45.133 (50.034)
Election Year	-385.583 (420.782)	-229.980 (387.099)	-108.260* (59.544)	-10.610 (32.589)	-36.732 (38.313)
Time Trend	19.314 (15.524)	5.513 (14.281)	6.720*** (2.197)	5.963*** (1.202)	1.119 (1.413)
Constant	-613.097 (1,019.291)	-138.029 (937.697)	-228.824 (144.237)	-319.832*** (78.942)	73.587 (92.808)
Observations	61	61	61	61	61
R <sup>2</sup>	0.238	0.173	0.492	0.544	0.054
Adjusted R <sup>2</sup>	0.168	0.098	0.446	0.502	-0.032
Residual Std. Error (df = 55)	1,623.208	1,493.270	229.696	125.714	147.796
F Statistic (df = 5; 55)	3.431***	2.308*	10.658***	13.117***	0.632

*Note:* Deficit measured in the 10 billions. Standard errors in parentheses. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

### **3.9 Conclusion**

The members of the U.S. Congress continually choose to finance government expenditures through deficit spending, leading to massive public debt. There was a time when this was not so. Until the mid-20th century, budget surpluses were frequent and the debt low. Buchanan and Wagner ([1977] 2000) claimed this was because of a shift away from a balanced budget norm. Politicians used to view fiscal restraint as what was expected for good governance. Further, they claimed, new economic ideas, especially those of John Maynard Keynes, gave moral licensure to run increasing deficits. Politicians responded by myopically following their incentive to spend more and more without increasing taxes to fund outlays. Calcagno and Lopez (2017) support this hypothesis while including other institutional changes that lifted constraints on deficit spending.

These theories, however, fail to identify the key feature of norms—social and normative expectations. The theory of norm contestation presented in this paper provides a way to analyze normative expectations empirically, thus detecting a norm shift. The results from the structural topic model demonstrate an increase in the prevalence of topics around deficit spending and budget issues since the mid-20th century. These do not show the characteristic peak associated with norm-breaking, but topic modeling might be too imprecise a measure to fully isolate the discussion of the norm itself. If topic modeling was used in another context, perhaps the could be separated from the noise of related issues. Text analysis does, however, aid in reading a large corpus. The examination of sentences about deficit spending reveals a high frequency of normative language. The more precise, although simple, analysis through counting key phrases: balanced budget, budget deficit, budget surplus, and the debt ceiling match the exact pattern hypothesized under a theory of norm contestation. There was little or no use of the key phrases until after WWII. The use of those phrases peaked between 1980-2000. Apparently, politicians stopped caring, and that is likely because normative expectations were updated to match empirical expectations.

The analysis does not capture the positive or negative sentiments of the discussions.

Getting an accurate and precise measure of sentiment is challenging with standard methods, but perhaps large language models could address this challenge. Even if the problem of measurement would be solved, it is not likely sentiments are particularly useful to identify a norm shift. Both increases in positive and negative sentiments could fit a theory of norm contestation. If there are more deviations from a norm, positive sentiments might increase as the remaining supporters of the norm discuss how beneficial the norm is. Conversely, trendsetters might begin to discuss how terrible the norm is. Other variations are possible, meaning a norm shift does not require speeches to show a particular shift in sentiment. Sentiment analysis might shed light on the exact mechanics of a norm shift once identified, but it is best treated as its own stage of research.

Issues of sentiment aside, evidence from structural topic modeling and phrase counting combined with the numerous failed legislative attempts to constrain deficit spending point to a consistent story of norm contestation and shift. Changes in economic ideas and congressional institutions in the first part of the 20th century opened the door for more deficit spending. The increased deviations from the balanced budget norm caused empirical and normative expectations to deviate, putting the norm under contestation. It remained under contestation until the late 1990s and early 2000s with the last budget surpluses. Politicians now face no norm constraining their spending. We will likely continue to see rising deficits and debt unless a new norm can be established.

## **4. What are My Neighbors Doing: the Effects of Social Capital on Voluntary Collective Action**

### **4.1 Abstract**

This paper investigates social capital's role in solving the collective action problem of volunteering. Social Capital will be treated as the network of connections in a community. The results of formal and agent-based modeling show voluntary behavior will spread from only a few social entrepreneurs in a population playing a Stag Hunt Variant game if the network is optimally dense. Both low and high levels of social capital hinder social entrepreneurs' ability to spread voluntary behavior. This parallels James Buchanan's (1981) conception of moral anarchy, moral order, and moral community.

### **4.2 Introduction**

From a rational choice perspective, collective action and voluntary provision of public goods are puzzling. Why not free-ride? In many situations, the utility-maximizer would be better off if he did nothing regardless of what others do. If others provide a public good, great. If not, he at least didn't waste his resources and be forced to settle for the chump's reward. Conceiving of collective action as the Prisoner's Dilemma led scholars to identify the important role of institutions enforcing cooperation since rational utility-maximizers acting on their own could not solve the problem.

But, this is not a verisimilous conception of human behavior, and it fundamentally misrepresents the collective action problems real people face. Humans, while self-interested, are highly social creatures who have the desire to cooperate if possible<sup>1</sup>. As Adam Smith put it in *The Theory of Moral Sentiments*, "How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it, except the pleasure of seeing it." The naive rational choice approach injects an inaccurate presumption against cooperation when, in reality, communities are made up of "Smithian" individuals

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<sup>1</sup> Other fields outside of economics and political science, particularly sociology, have pushed back against the hard rationality claim supporting people as cooperative creatures. For a review of this debate, see Udéhn (1993).

who are disposed toward cooperation.

The Public Choice approach is in part founded on the correct observation that cooperation and voluntary public goods provision will not by themselves be sufficient to solve problems of collective action (Olson, 1971), and this claim is correct, as far as it goes. But Public Choice has gone too far if theorists conclude that the cooperative, voluntary provision of public goods is zero. People clearly have found solutions to collective action problems whether that be through state action or voluntary institutions. However, it remains unclear why some societies are able to solve collective action problems voluntarily while others do not. The conditions which lead to different levels of cooperation need to be further explored. I propose an alternative conception of collective action, requiring neither efficient pure market processes nor coercive state action through which groups can achieve at least a partial level of cooperation and the voluntary provision of public goods or collective benefits. I suggest that the key intervening variable, which explains the difference in ability to solve collective action problems, is the kind of social capital that connects people through a network of social ties, and I will explore the capacity of community using simulated populations.

The results show three types of societies that parallel James Buchanan's (1981) conception of moral anarchy, moral order, and moral community. People who exist in moral anarchy have little social capital and no real sense of community, hindering the ability of social entrepreneurs to spark cooperative behavior. Moral orders have enough social capital to spread norms of cooperation, while the community identity is not oppressive enough to squash innovative of social entrepreneurs. Moral communities have the largest amounts of social capital, which allows them to use collective decision mechanisms and reputational enforcement, but they may stifle innovation. I contend that while decentralized moral communities may be important, the power and dynamism of moral orders have been under-regarded by Public Choice scholars.

To be fair, this avenue of reasoning has occasionally been a central focus for some Public Choice scholars, resting on the early work of both Vincent Ostrom (1984, 1997) and Elinor

Ostrom (1990, 2005, 2010), and the optimism of the Richard Cornuelle (1965) and those who worked on “the independent sector.” Alexis de Tocqueville, in 1832, put it this way:

The political associations that exist in the United States are only a single feature in the midst of the immense assemblage of associations in the country. Americans of all ages, all conditions, and all dispositions constantly form associations. They have not only commercial and manufacturing companies, in which all take part, but associations of a thousand other kinds, religious, moral, serious, futile, general or restricted, enormous or diminutive. The Americans make associations to give entertainments, to found seminaries, to build inns, to construct churches, to diffuse books, to send missionaries to the antipodes; in this manner they found hospitals, prisons, and schools. If it is proposed to inculcate some truth or to foster some feeling by the encouragement of a great example, they form a society. Wherever at the head of some new undertaking you see the government in France, or a man of rank in England, in the United States you will be sure to find an association. (*Democracy in America*, Chapter V)

Private associations are, as Tocqueville notes, a viable *alternative* to government provision of public goods. However, associations can only exist given an optimal amount of social capital. It is those underlying conditions that I identify and simulate in this paper.

Public goods exhibit non-excludability and non-rivalry (E. Ostrom, 2005), allowing for concentrated costs and dispersed benefits. The problem with voluntary provision is the strong incentive to free-ride, often captured by the Prisoner’s Dilemma game. The extreme incentive structure of the Prisoner’s Dilemma game and the resulting free-ride equilibrium set up the fundamental problem of public goods (Taylor & Ward, 1982).

The bulk of public goods literature has sought to find solutions from this starting point. According to the Folk Theorem, almost any outcome, including cooperation, is possible where there is repeated play and an unknown ending. In such repeated cases, cooperative behavior might be able to emerge (Axelrod & Dawkins, 2006). If there is a known endpoint or anonymous play, then cooperation breaks down. Communities in the real world are large,

so play is often anonymous. Further, projects have endpoints. Other solutions are needed.

Another approach has been to examine the effect of preferences, particularly altruism (Andreoni, 1988, 1990, 2006; Bergstrom et al., 1986; R. D. Roberts, 1984). Scholars define altruistic individuals as those who gain utility from others' well-being. Roberts (1984) proves a Nash Equilibrium of cooperative charity with two altruistic people. More plainly put, people find it easier to help others through cooperation than acting alone. However, there is a problem of scale. Even if every person was altruistic and had perfect information, they would still free-ride in a large society. Andreoni (1988, 1990, 2006) examines giving divided among a large population and concludes an individual's meaningful contribution to public goods becomes zero as the population becomes sufficiently large. In other words, the more people who participate, the less each individual's contribution is required to reach a particular goal. While altruism is a possible solution to the free-riding problem in small populations, even altruistic people will rationally choose to free-ride in a large population. Altruism alone does not work at scale. Altruistic people are caring but not suckers.

Clearly, the existence of widespread charity and volunteering in the U.S. and other countries means there must be something else at play. Andreoni (1990) posits a solution by again changing preferences from altruism to impure altruism or warm-glow<sup>2</sup>. He claims people derive utility purely from participation regardless of what others do. This change in the behavioral assumption leads to greater payoffs of participation. Some enjoy the act of giving and helping others plus the utility others derive, so large-scale giving/volunteering becomes possible if there are enough impure altruists. Work has been done to expand the self-interested motivations of volunteering. For example, Menchik and Weisbrod (1987) derive a model of volunteering as a personal investment.

Approaches that start from a Prisoner's Dilemma perspective underemphasize coordination. There is, however, another way to approach the problem. The problem people actually face is that volunteering or donating to charity is pointless unless others do so as well. So the question is not when will people quit. The question is when will people *join*

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<sup>2</sup> This is similar to how civic duty was added to solve the paradox of voting (see Downs, 1957).

*in.* People will join if there are sufficiently enough people to lower the transaction cost of joining and/or create enough social pressure<sup>3</sup>.

The previous game described is essentially the Stag Hunt game because the Nash equilibria are coordination whether that is to work together or both work alone (Skyrms, 2004, 2013). The name Stag Hunt comes from Rousseau's (2010) story where two men go hunting. Each could hunt hares by himself, but hunting a stag requires both men. There is no dominant strategy but there are two equilibria: both hunt hare or both hunt stag. The choice of optimal strategy is dependent on what the other person is doing. Working together is not always the best option, but it is indeed more likely than in a Prisoner's Dilemma game. Hunting hare will make you worse off in a world of stag hunters, but the opposite is also true.

From this perspective, volunteering and donating to charity are contingent behaviors, so they are norms. Two prevailing definitions of norms are provided by Bicchieri (2005) and Brennan et al. (2016).<sup>4</sup> While there are important differences between the two concepts, the similarities are most important for this paper. In essence, a norm exists if there is a rule to perform an action  $y$  in situation  $S$ . One does  $y$  in  $S$  because he expects others will also do so and/or expect him to do so. According to Bicchieri (2005, 2016), people form two types of expectations. Empirical expectations are solely about what a person expects others to do in a situation. Normative expectations are about what others expect a person to do in a situation. Norms aid coordination (Bicchieri, 2005) and create social accountability (Brennan et al., 2016). Norms can be used to solve collective action problems. One example is Siegel's (2009) formal analysis showing how political participation changes depending on how many others in one's network are also participating.

Another area focusing on contingent behavior is the literature on cascades. One lesson from the cascade literature is that people care about their reputation and will alter their

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<sup>3</sup> For example, Freeman (1997) finds people desire to work with others and are more likely to participate in charity when directly asked by another person.

<sup>4</sup> Brennan adapts his definition from H.L.A Hart (1997).

behavior to keep a good reputation (Kuran, 1989, 1997; Kuran & Sunstein, 1998). All people, to some degree, want a good reputation, so they will change their behavior to keep a good reputation. In the extreme case, a person will opt for an undesirable outcome to conform. This logic can be used to explain behavior in civil society, such as volunteering or donating because reputation plays a major role. Charitable people often receive praise, and miserly people are looked down upon.

The main takeaway is that an individual's decision of whether or not to volunteer is not just an internal calculation of the benefit of the public good being provided. Participation is, in part, a decision to join a particular group or conform to group behavior. It is about following a rule if enough people will also follow it. A person's threshold is determined by the combination of others lowering the transaction cost of joining and social pressure. As more people join, the cost will lower, and social pressure will increase, so people with higher and higher thresholds will join, creating a cascade of volunteering.

However, there still is an incentive to free-ride if the job is already done or the divided benefits become zero. Neither starting from a Stag Hunt nor a Prisoner's Dilemma is sufficient to understand how people solve the collective action problem of charity or volunteering. This paper will seek to combine these approaches and examine the results using agent-based modeling. The rest of the paper will continue as follows. Section 3 will present an alternative model of voluntary collective action. Section 4 will discuss the importance of social entrepreneurs. Section 5 presents the results of an agent-based model. Section 6 draws parallels to Buchanan's work on moral anarchy, order, and community. Section 7 concludes.

### ***4.3 Alternative Theory of Charity and Volunteering***

So far, it has been shown the Prisoner's Dilemma game captures the benefits of free-riding. Even attempts of pure and impure altruism are insufficient to explain the benefits of coordination. Stag Hunt games emphasize the benefits of coordination but do not capture the incentive to free-ride at high levels of participation. In the world of pure Stag Hunts,

participation should spread like cascades.

There needs to be an explanation of why some people volunteer while others do not. What, then, is the best way to capture this polymorphic nature of some public goods? Here, a variant of the Stag Hunt is applicable because it combines aspects of the Prisoner's Dilemma and Stag Hunt games. Imagine there are three men who need to get across the river using one boat and oars for only two rowers. If no one rows, you don't want to be the sucker who rows alone, but you would be willing to join if someone else rows too. The best case, though, would be to relax while the other two guys row. This is the same situation faced in the case of many public goods. It is cheaper to join than to start, so joining only makes sense if others are doing so. On the other hand, why participate if the job is already done?

The equilibria for the Stag Hunt Variant game serve the purpose we have been looking for. The game itself is polymorphic, for one set of the equilibria/basin of attraction has two men rowing and one free-riding. This holds for evolutionary games as well (Skyrms, 2004). This does not mean the problem of collective action is solved. Zero participation is a strong basis of attraction and thus must be overcome. Ward (1990) demonstrates that this can be solved in simple games with precommitment strategies. Skyrms (2013) shows demonstrates that, given an evolutionary process, cooperators can find each other overcoming zero participation in large populations, but this requires a large amount of knowledge and rapidly changing networks. The question remains how participation occurs and is maintained with large populations, limited knowledge, and fixed networks.

### **4.3.1 Social Capital and Networks**

If, as shown in previous sections, people's behavior is dependent on the behavior of others, the amount of knowledge matters. Traditional models (Andreoni, 1988, 1990, 2006; Bergstrom et al., 1986; R. D. Roberts, 1984) assume individuals have perfect knowledge about other actors, which makes the actions of any one person's actions insignificant. People do not, however, have perfect knowledge; instead, they have knowledge of family, friends,

neighbors, and acquaintances. Models of collective action must take into account how people are connected. They must account for social capital.

Social capital is the connections and shared values between people. It is what James Buchanan (1981) “calls ties that bind.” In his seminal work *Bowling Alone*, Putnam defines social capital:

Whereas physical capital refers to physical objects and human capital refers to properties of individuals, social capital refers to connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them (2000, 19).

One’s social capital extends beyond immediate connections. Connections of one’s friends or what Granovetter (1973) calls “weak” ties also play an important, perhaps even more important, role. Granovetter finds the number of weak ties is one of the strongest predictors for finding jobs or political allies. Claude Fisher (1977) writes, “Social networks are important in all our lives, often for finding jobs, more often for finding a helpful friend, companionship, or a shoulder to cry on.” In short, social capital connects people to the wider community and serves multiple functions for coordination. Social capital informs people about other’s behavior and expectations. The information of social capital combined with repeated interactions generates trustworthiness and norms, which lower the transaction cost of cooperation.

While people are connected and gain information through social capital, they could use other sources to learn about community behavior. As shown in the cascade and behavioral economic literature, people often use heuristics and have a bias for easily available information (Kuran & Sunstein, 1998). Social capital provides such easily available information. This means people learn from those with whom they interact. People do not have perfect knowledge about everyone’s behavior.

Let us say that a person is deciding whether to volunteer at a soup kitchen, depending on the number of other people already volunteering. If not enough people are participating, joining will not be worth it. On the other hand, if too many people are participating, joining

will not make a difference. The job is already done. The said person could spend the time looking up the volunteer rate or use the information that is easily available to him. Often, he will settle for the latter. In this case, it is the behavior of friends, neighbors, and others in the community. Given that people have a bias for available information, perceptions about community behavior are more likely to be based on those nearby rather than the actual statistics.

There is another aspect beyond the cost of gathering information. High social capital means people see themselves as a part of the community. Why go seek better information? You know what the community is doing because you are connected to it. If everyone was fully connected, like in a small village, you would actually know what everyone was doing. Social capital's ability to transmit information becomes greater the more social capital a society possesses.

If people only have information about those they know, the spread of behavior must be modeled as a network where each person is connected to only a subset of the population. Social capital is the network. A social norm such as the volunteering rate is, then, not an outcome of one large collective action game but rather the outcome of many small games.

### **4.3.2 Model**

Before simulating volunteering in a population, we must first understand the Stag Hunt Variant game, sometimes called a three-in-a-boat game. A group of people need to achieve some goal. No one person can achieve the goal, but rather, a minimum fraction of the group,  $\alpha$ , is required to achieve the goal. On the other hand, if too many people participate, participating is no longer beneficial. It might be the payoff is divided among participants, or it could be that above a certain point, people cannot meaningfully contribute. Or, it could be it becomes too crowded for participants to enjoy themselves. This fraction is denoted  $\beta$ . If any of these cases are true, we can say any person will participate up until  $\beta$  of the group also participates where  $\alpha < \beta \leq 1$ . Beyond that point, it is not beneficial to participate.

A simple analysis shows there are multiple Nash Equilibria. One set of equilibria exists where exactly  $\beta$  people participate. There is also an equilibrium where zero people participate. This sets up the problem of collective action. There exist equilibria where people work together to produce a public good; however, there is no incentive to be the first mover since it is beneficial to free-ride.

While a useful game to illustrate the collective action problem, there are assumptions that make it unrealistic in a large society. In the simple Stag Hunt Variant game, people have perfect knowledge of every person's behavior. In a large commercial society, people do not have this kind of perfect knowledge. Instead, people only have knowledge of those to whom they are connected. Society is, therefore, not one group making a decision but rather a network of people connected to a handful of family, friends, and acquaintances. A model of how people make decisions has to take this into account by taking a network approach<sup>5</sup>.

A quick digression on some definitions will be useful here. A *network graph* is a representation of a group of people and how they are related. Each person is represented as a *node*, and they are connected by a line to people to whom they have a relevant relation. If two nodes are connected, they are called *neighbors*. What constitutes a *connection* or *edge* depends on what network is being analyzed. The number of connections a node has is called its *degree*, so if a node has six neighbors, it would have degree 6. There are many types of graphs. The one used in this model is a *random graph*, which means the probability two nodes are neighbors is equal for any pair of nodes. A *subgraph* is part of a graph defined by characteristics such as specific nodes. Graphs have many properties, but the most relevant property for this paper is *density*, which is a ratio of the number of edges to the number of possible edges. The formula for density is  $D = \frac{m}{(n-1)/2}$  where  $D$  represents density,  $n$  is the number of nodes, and  $m$  is the number of edges.

Say society is modeled as a random graph,  $g$ , with density,  $D$ . Each person  $i$  has utility

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<sup>5</sup> The recent study of public goods provision on networks was started by Bramoullé and Kranton (2007). For a comprehensive survey of the use of networks to solve conflict in political science, see Larson (2021).

function  $u_i(x_i, N_i(g))$  where  $x_i$  equals 1 if person  $i$  participates and equals 0 if she does not.  $N_i(g)$  denotes the number of  $i$ 's neighbors who are participating. The utility of participating will be greater than not participating if the percentage of neighbors is between a person's lower and upper threshold for participation. The following equation captures this:

$$u_i(1, N_i(g)) \geq u_i(0, N_i(g)) \quad \text{if} \quad \alpha \leq \frac{N_i(g)}{d_i} \leq \beta \quad (4.1)$$

where  $d_i$  denotes the degree of  $i$ ,  $\alpha$  denotes  $i$ 's lower threshold for participation and  $\beta$  denotes  $i$ 's upper threshold for participation. Not participating is the utility-maximizing strategy if the percentage of participating neighbors is outside the thresholds. While it might look like  $i$  is only concerned about his neighbors' behavior, that is not true. In this model, the behavior of neighbors is used as a heuristic for the behavior of the whole network.

An immediate question is raised. Will the equilibrium be  $\beta$  just as in the simple game? In other words, will the percentage of people participating converge to the upper threshold? Not so because of the density of the network. Let us first look at the subgraph of one player and her neighbors. Assume the thresholds are  $0 < \alpha < \beta < 1$ . If  $d_i = 1$ , having one neighbor participate necessarily means  $\frac{N_i(g)}{d_i} > \beta$ , so  $i$  will not participate. If  $d_i = 2$  and one neighbor participates,  $\frac{N_i(g)}{d_i}$  might be less than  $\beta$  depending on the thresholds' actual values. In simple terms, a person will participate up until adding another person means the percentage of participants is less than or equal to  $\beta$ . Put formally,  $i$  will join in the volunteering effort as long as the following inequalities are true:

$$\frac{N_i(g)}{d_i} + \frac{1}{d_i} \leq \beta \quad (4.2)$$

Rearranging the inequality and solving for  $\frac{1}{d_i}$  gives you:

$$\frac{1}{d_i} \leq \beta - \frac{N_i(g)}{d_i} \quad (4.3)$$

Since  $\frac{N_i(g)}{d_i}$  is decreasing in  $d_i$ , having one neighbor participate means  $\frac{N_i(g)}{d_i}$  is more likely

to be less than  $\beta$  as  $d_i$  increases. Therefore, more neighbors can participate without  $\frac{N_i(g)}{d_i}$  without exceeding  $\beta$  as a person's degree increases. The equilibria of the game may not be  $\beta$  but rather  $\beta - \frac{1}{d_i}$  if  $\frac{1}{d_i} \geq \beta - \frac{N_i(g)}{d_i}$ . The equilibrium result will be  $\beta$  only in the special case where  $\beta = \frac{N_i(g)}{d_i} + \frac{1}{d_i}$ . There is, however, another equilibrium where 0 people participate. Why? When  $\frac{1}{d_i} < \alpha$ , even an altruistic neighbor is not enough for  $\frac{N_i(g)}{d_i}$  to exceed the threshold for participation. The results can be summarized by the following equations and graphically in Figure ?? where the viable range for volunteering is enclosed by the dotted lines. The equilibria are represented by the line  $\beta - \frac{1}{d_i}$ .

$$0 \quad \text{if} \quad \frac{1}{d_i} < \alpha \quad \text{or} \quad \frac{1}{d_i} > \beta \quad (4.4)$$

$$\beta - \frac{1}{d_i} \quad \text{if} \quad \alpha \leq \frac{1}{d_i} \leq \beta \quad (4.5)$$

What this means for the game is that there are not simply two sets of equilibria but numerous sets dependent on the density of the network. If the first mover problem can be solved, the behavior should spread to  $\beta - \frac{1}{d_i}$  percent of the population. Yet, if the network is too dense, the model predicts zero people will participate. Two questions remain. First, how will the first mover problem be solved? Second, will the predictions of this model be confirmed in a simulated population?

#### **4.4 Social Entrepreneurs**

Networks alone are not enough to solve the collective action problem. Zero participation is still a strong basin of attraction. There needs to be a first mover, a spark to start the spread of volunteering. The missing aspect is social entrepreneurship. Social entrepreneurs are the agents of change for institutions just like economic entrepreneurs are the agents of change in markets (Storr et al., 2015). In fact, they are vital for creating and maintaining a robust civil society (Cornuelle, 1965). Social entrepreneurs serve two functions in this model. First, they solve the first mover problem. Second, they respond to signals and spread behavior through their social capital.

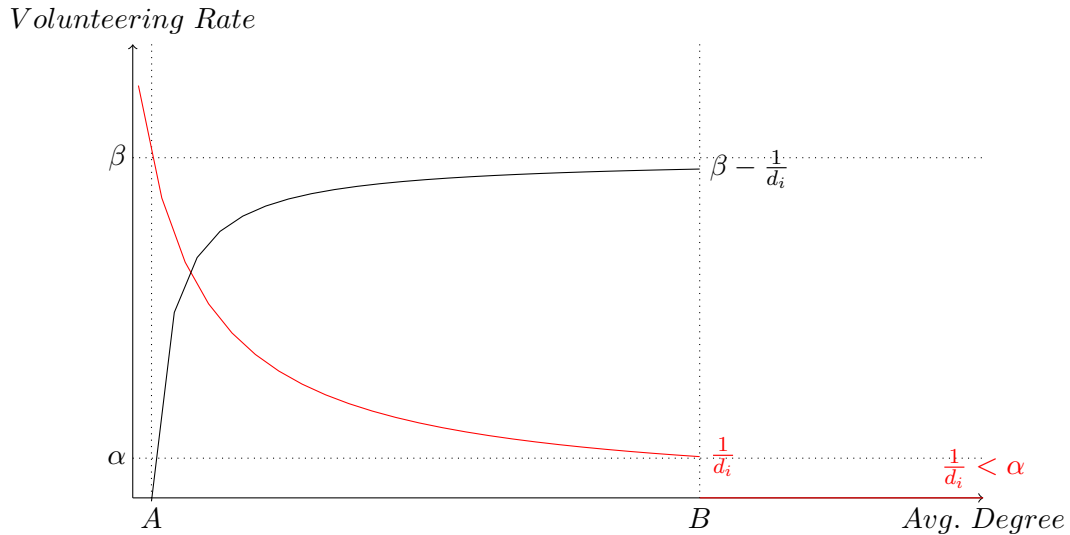


FIGURE 4.1: Modeled Volunteering Rate

The role of the social entrepreneur as the first mover makes him fit the definition of Joseph Schumpeter’s (1934) conception of the entrepreneur. The Schumpeterian entrepreneur is a disequilibrating force. His innovative creation destroys the old equilibrium for a new, better one. Instead of taking advantage of profit opportunities signaled by price, the Schumpeterian entrepreneur uses resources differently. He creates new goods. This means development is not a continuous process of moving toward an equilibrium point. Development is a discontinuous process driven by innovation. Schumpeter outlines types of development:

- (1) The introduction of a new good—that is one with which consumers are not yet familiar—or of a new quality of good.
- (2) The introduction of a new method of production, that is one not yet tested by experience in the branch of manufacture concerned, which need by no means be founded upon a discovery scientifically new, and can also exist in a new way of handling a commodity commercially.
- (3) The opening of a new market, that is a market into which the particular branch of manufacture of the country in question has not previously entered, whether or not this market has existed before.
- (4) The conquest of a new source of supply of raw materials or half-manufactured goods, again

irrespective of whether this source already exists or whether it has first to be created (Schumpeter, 1934), 66).

What does this mean for volunteering? Innovation has to play a central role from the Schumpeterian perspective. Instead of changes volunteering being rational responses to exogenous or endogenous conditions, it is a process of innovations away from the current state. Another way to explain the behavior of social entrepreneurs is that they value public goods inframarginally<sup>6</sup> meaning social entrepreneurs value a public good so much they will provide it on their own. This is the innovative spark needed to start the spread. From a modeling perspective, entrepreneurs should be treated as agents who act differently than expected. This also means the creation of new volunteering opportunities might not be fully predictable and are dependent on the observationally random behavior of social entrepreneurs.

With the “market” out of equilibrium, there has to be something to equilibrate it. The key insight of Kirzner (1979) is that we exist in a state of disequilibrium, and entrepreneurs are alert to and act on profit opportunities by marginally moving toward equilibrium. In the context of volunteering and charity, the price mechanism does not work the same way since people are not purchasing a good with money but rather choosing to volunteer or not. Instead of profit opportunities being signaled by changing prices, they are signaled through the behavior of others, and the knowledge of other people is limited by social capital. From the Kirznerian perspective, the entrepreneur responds to the behavior of others and then spreads that behavior through social capital by telling other people about volunteering. Without social capital connections, volunteering is limited to small groups and does not spread to society at large. Kirznerian entrepreneurs help solve the problem of scale.

Combining the concepts of Kirzner and Schumpeter gives us a process of the emergence and spread of volunteering. First, Schumpeterian entrepreneurs came up with the idea of volunteering. There may indeed be no signal that doing so will be profitable, but social entrepreneurs will experiment because they value public goods inframarginally. Social en-

<sup>6</sup> For an extensive discussion of inframarginality see Buchanan and Stubblebine (1962).

trepreneurs are altruistic. He will not volunteer forever, but he will continue if others join in or quit if they do not. Second, Kirznerian entrepreneurs who adapt to this opportunity will volunteer and spread it to new profitable markets through their social capital. This process of creation and spread helps provide the key link between individual action and societal behavior. Neither a dense network nor social entrepreneurs are sufficient for large-scale cooperation. Social entrepreneurs must be nested in sufficiently dense networks.

## **4.5 Simulation**

While volunteering could be examined by creating a formal model where each individual has thresholds for participation, certain aspects are left unexamined, especially the effect of social capital. Public good games have been studied from a network perspective (Allouch, 2015; Allouch & King, 2019; Bramoullé & Kranton, 2007), yet this approach has used game theoretic approaches on small networks to prove the existence of Nash Equilibria where some free-ride and others do not. The focus on small networks gives mathematical tractability but limits the examination of social capital represented by density since small networks only represent one subgraph of a larger web of connected sub-graphs. As a result, analytic game theory models are not able to explain how behavior can emerge and spread from the actions of a few social entrepreneurs. Agent-based modeling, on the other hand, allows researchers to analyze large populations of heterogeneous agents and the effects of more complicated networks of many connected sub-graphs (Axelrod, 2006; de Marchi & Page, 2014) thus questions of emergence. This approach is not new to modeling collective action (Siegel, 2009). Where this model will differ is in the agents' decision calculation. Instead of using one threshold, agents will participate if the local volunteering rate is between a lower and upper bound.

To capture mutual dependence and the effects of social capital, volunteering will be modeled by a simulated population. All agents will play the Stag Hunt Variant game, so they face the choice from Equation 4.1. During each period, each agent calculates the percentage of his neighbors who are participants,  $\frac{N_i(g)}{d_i}$ . If  $\alpha < \frac{N_i(g)}{d_i} < \beta$ , then the agent

becomes a volunteer in the next period; otherwise, he does not. For simplification and to focus the analysis on social capital measured by density, all agents will have the same  $\alpha$  and  $\beta$ . All observations and choices are made simultaneously. The total percentage of participants is collected at the end of each period. This section presents and discusses the results of different simulations of populations of 1000 and a starting volunteer percentage of 0.01. The length of a simulation is 30 periods, and the data points presented here are the averages of five simulations.

First, let us examine how changes in  $\alpha$  affect levels of participation. In Figure 4.2 the steady states of simulations are presented where  $\alpha$  ranges from 0.1 to 0.3,  $\beta$  is fixed at 0.4, and each point is a mean of 10 simulations run with the same parameters. The initial volunteering rate is approximately 1%. The following general trend is observed: the level of participation increases at a decreasing rate with respect to average connections. When the population becomes sufficiently dense, volunteering begins to fall rapidly, eventually becoming 0. The results differ from the simple model in two ways. First, the maximum level of participation may be greater than  $\beta$ . Second, volunteering does not fall as predicted. Take where  $\alpha = 0.1$ . The simple model predicts the volunteering rate should be 0 after average connections equals 10. However, volunteering remains near its maximum until the average number of connections equals 15. Only then does it rapidly fall and reach 0 when average connections equal 22. These two different results demonstrate how social capital helps maintain high levels of volunteering. The overall trend is quite similar and supports findings by Bramoulle' and Kranton (2007), Larson (2016), and Cantoni et al.(2019).

For low values of  $\alpha$ , the maximum level of volunteering is maintained over a range of average connections. Such groups can be thought of as highly altruistic societies because it only takes a small percentage of social entrepreneurs to get others to join in. It is, then, altruistic societies that achieve the highest levels of volunteering and where volunteering is more resilient to changes in social capital. On the other hand, high values of  $\alpha$  cause the maximum level of volunteering to be lower than  $\beta$ . Put another way, the signals of entrepreneurs are not strong enough to encourage others to join.

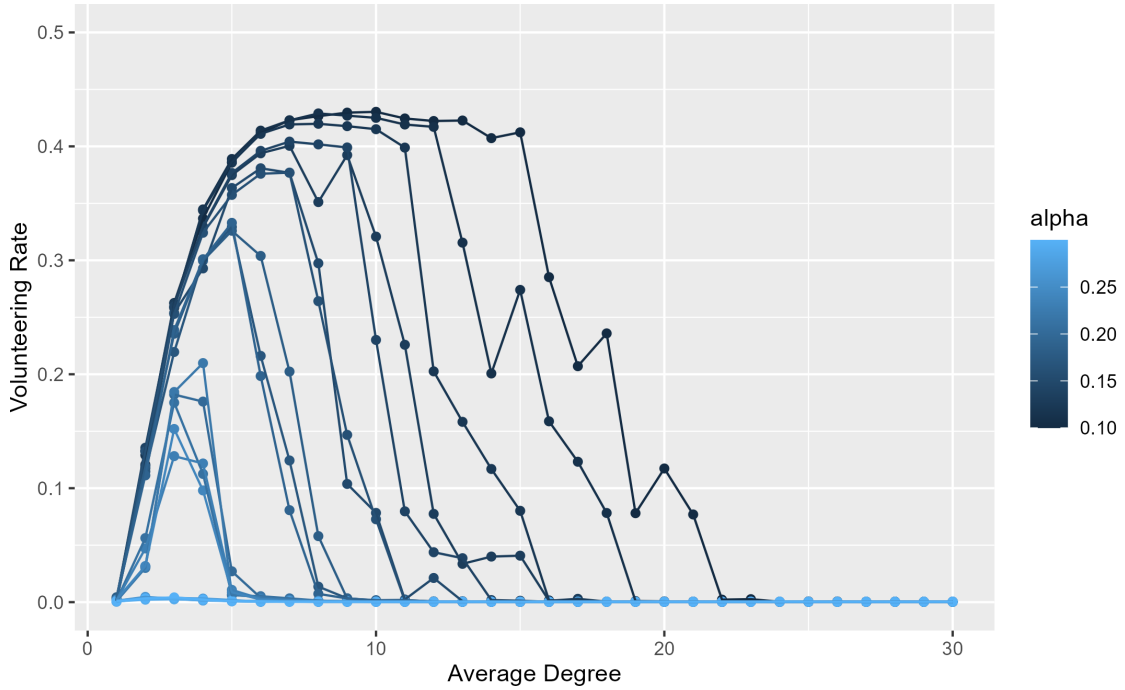


FIGURE 4.2: Simulated Volunteering Rate for Changes in Alpha

Let us now examine the effects of changes in  $\beta$ . Figure 4.3 shows the results of simulations where  $\beta$  ranges from 0.3 to 0.5 and  $\alpha$  is fixed to 0.1. The initial volunteering rate is approximately 1%. Again, there is the same general trend of volunteering increasing at a decreasing rate with respect to average connections. Where  $\alpha$  governs both the maximum level of volunteering and the point where volunteering falls off,  $\beta$  only governs the maximum level of volunteering. From a traditional game theory perspective, the maximum level of volunteering should be exactly  $\beta$ , but as shown in Figure 4.3, volunteering can exceed  $\beta$ . Under certain conditions, people's information from social capital causes them to underestimate the level of volunteering, so the group's level is higher than it would be if people had more accurate information.

One of the more surprising results is what happens in dense networks. The voluntary behavior does not spread through the network. That is not to say volunteering or any other collective action is impossible. In fact, communities with lots of social capital may have high rates of volunteering. The model, however, shows what happens when social entrepreneurs

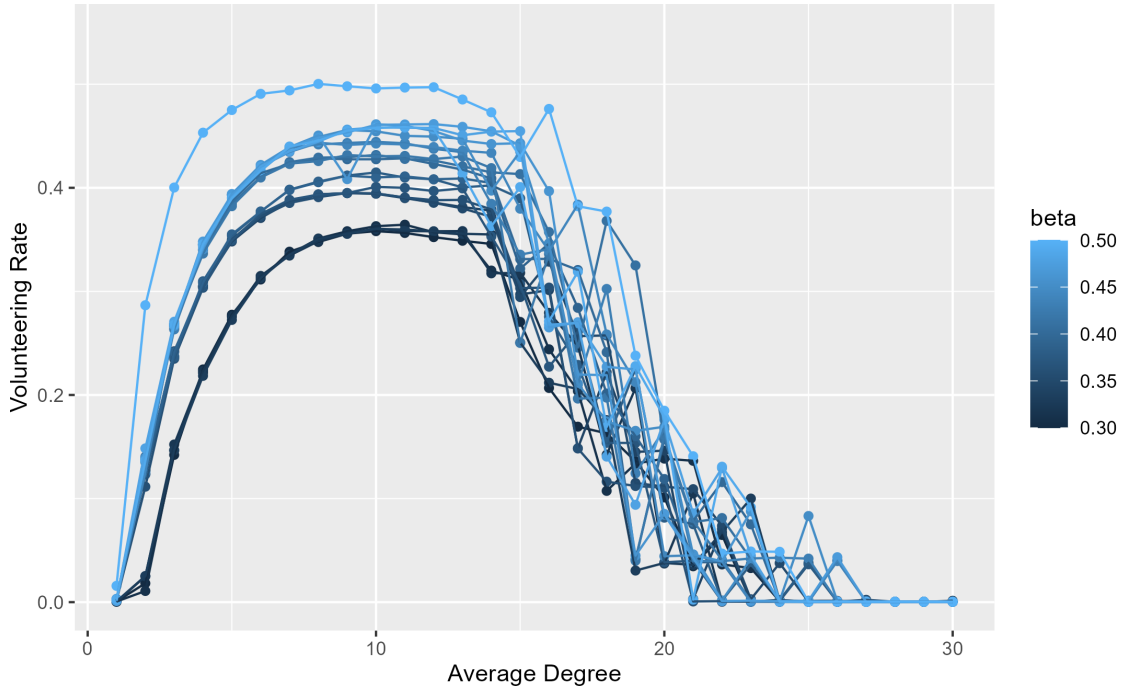


FIGURE 4.3: Simulated Volunteering Rate for Changes in Beta

start a *new* venture. In a dense network, like a small town where everyone knows everyone, people have essentially perfect knowledge, so any entrepreneur will appear to be a random outlier—a weirdo. In that case, it will not seem to be worth it to join the new volunteering effort. However, if a town has a little less social capital (less dense networks) a social entrepreneur will appear to be a signal of lots of other people participating because the entrepreneur is a larger part of any one person’s network. This means behavior can spread more in networks of medium density.

#### 4.6 Anarchy, Order, Community

The outcome of the simulation has a general trend consistent with the predictions of the simple model, even though the exact equilibria differ. The volunteering rate increases at a decreasing rate until groups become sufficiently dense. Beyond that point, the volunteering rate quickly drops and then remains zero. What is not obvious are the three different regions that represent different effects of social capital, measured by density. The first are sparsely connected groups that exhibit below-optimal levels of volunteering and positive returns to

social capital. The second is medium-connected communities, which exhibit high rates of volunteering and no returns to social capital. The third is highly connected communities that exhibit zero low levels of volunteering and negative returns to social capital.

Another way to understand these regions is as what Buchanan calls moral anarchy, moral order, and moral community<sup>7</sup>. Buchanan's goal in this important but lesser-known work was to extend Adam Smith's framework in *The Theory of Moral Sentiments* (Munger, 2020). Smith talks about two kinds of order, one ruled by close-knit ties of sentiments. Buchanan calls this a moral community. The other is ruled by a minimal sense of reciprocity, which Buchanan calls moral order because it can be scaled beyond small communities. He adds a third category, moral anarchy, where people have essentially no ties to each other. Buchanan's placement of moral in front of anarchy, community, and order should not be overlooked. Its use emphasizes how people feel about each other (Munger, 2020). An important conjecture of Buchanan's work is shown in the simulation results. Different kinds of groups exhibit different kinds of collective behaviors. In moral anarchy, people are not connected enough to spread behavior, while in moral communities, dense connections are stifling to entrepreneurs. It is in the middle that moral order exists, and you see the most dynamic groups.

#### **4.6.1 Sparsely Connected Groups**

In such a group, people are connected to only a few people. As Putnam would say, people are "bowling alone." People see themselves as isolated or only working with a few people but not as part of a community. Even if they did, there is not enough social capital to transfer the information needed for high levels of volunteering. Low social capital limits the spread of behavior, so the Pareto optimal points will not be achieved.

Groups with low social capital are not really communities, so they exist in what Buchanan (1981) calls *moral anarchy*.

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Moral anarchy exists in a society (if in can remain a society) when individuals

<sup>7</sup> It is important to note the model only captures participation that emerges from social entrepreneurs and not from a collective decision.

do not consider other persons to be within their moral communities and when they do not accept the minimal requirements for behavior in a moral order. In a moral anarchy, each person treats other persons exclusively as means to further his own ends or objectives. He does not consider other persons to be his fellows (brothers) in some community of shared purpose (as would be the case in moral community), or to be deserving of reciprocal mutual respect and trust as autonomous individuals (as would be the case in moral order).

In essence, people in moral anarchies are not connected enough to build communal relationships, and social capital is not strong enough to serve as an accurate heuristic of the group's behavior. While individuals may be free from any pressure of societal norms, they are not able to work together because there is no trust or respect that comes from social capital. Shumpeterian entrepreneurs may deviate on their own, but there is little spread among Kirznerian entrepreneurs. The group is too atomistic in both structure and norms for information to be efficiently carried through the groups.

The story is not necessarily bleak. For sparsely connected groups, volunteering is increasing in social capital, and social capital might indeed grow. Networks are not permanently fixed. If people make more connections, a group might become a community and achieve higher rates of volunteering. Losing social capital is, however, quite dangerous for sparsely connected groups. Participation will fall and fall fast. Some argue America might be facing this problem (Buchanan, 1981; Putnam, 2000; Sawhill, 2020).

That is not to say there is no way to achieve high rates of volunteering; it is just that high rates of volunteering will not spread from the actions of social entrepreneurs. There are two solutions. Government tax policies could incentivize volunteering. This might build social capital in the long term as people make more connections and form a stronger sense of community.<sup>8</sup> Or, the government could entirely take over the role of providing public goods. If government expands to capture this role, society might slip into tyranny (Buchanan, 1981) or possibly enfeeble civil society (Munger, 2015; Tocqueville, 1835), making the underlying

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<sup>8</sup> For more on the view that the government should support civil society in this manner, see Merrill (2019) and Munger (2015).

problem worse.<sup>9</sup>

## 4.6.2 Medium Connected Communities

Groups with medium levels of social capital exhibit the highest levels of volunteering because they are actual *communities*, not just loosely connected individuals. There is sufficient social capital for a person's network to become a good heuristic of the community's behavior. Social entrepreneur's actions can spread through community connections instead of dying off because there is one for the behavior to spread to.

Buchanan would classify such communities as having a *moral order* where people are able to interact by an appeal to general rules instead of relying on similarities from group membership. He writes, "A *moral order* exists when participants in social interactions treat each other as moral reciprocals, but do so without any sense of shared loyalties to a group or community," (Buchanan, 1981). Buchanan here uses community to represent a strong identity, while I use community more loosely to include the minimal requirement of mutual reciprocity. The key point is that people must be sufficiently connected through social capital to create mutual reciprocity.

These communities are the most dynamic and see the highest rates of volunteering. They are also resilient to small changes in social capital. Old activities and volunteers can easily be replaced with new ones. The social structure itself maintains volunteering without the need for other mechanisms, even though many mechanisms might exist. People receive the Goldilocks level of information, allowing them to overcome the collective action problem. At the same time, communal norms are not too strongly enforced, leaving room for the innovation of social entrepreneurs.

It is important to note that nothing in the model keeps communities in moral order. While the transaction costs of Kirznerian entrepreneurship are partially determined by social capital, participation in voluntary activities might change social capital. People might make new friends, increasing their social capital. If this continues, a community

<sup>9</sup> A different form of this argument comes from the crowding-out literature (see Abrams and Schitz, 1978 and de Wit, A. et al., 2017).

might be pushed out moral order and into moral community.

### 4.6.3 Highly Connected Communities

High levels of social capital not only connect people but provide them with a sense of community and shared purpose. These societies are what Buchanan calls *moral communities*. He writes, “A *moral community* exists among a set of persons to the extent that individual members of the group identify with a collective unit, a community rather than conceive themselves to be independent, isolated individuals,” (Buchanan, 1981). Moral communities are ruled by strong norms and traditions maintained over generations, so entrepreneurs have a hard time changing institutions. At the same time, a moral community’s shared purpose allows people to work together easily.

Highly connected communities exhibit two contradictory phenomena. (1) They are able to maintain preexisting high rates of volunteering when social capital increases. (2) They are resilient to social entrepreneurs and the spread of volunteering in new activities. These two phenomena exemplify the benefits and costs of high levels of social capital. How can it be that social capital both maintains and hinders widespread civil society participation? Let us first look at how high levels of social capital maintain high rates of volunteering by examining the simulation with different starting rates of volunteering. Figure 4.4 presents the result of a simulation where the starting volunteer rate ranges from 0.2–0.4,  $\alpha$  equals 0.1, and  $\beta$  equals 0.35. An interesting result occurs. Instead of volunteering dropping after the community becomes sufficiently dense, the maximum level of volunteering is maintained regardless of increases in social capital. Communities maintain high rates of volunteering through the heuristic role of social capital. People use this heuristic to determine what is socially acceptable as well as what is obligated. Therefore, social capital becomes a more accurate heuristic as society becomes more dense. In a dense society, people are better able to estimate society’s volunteering rate. Put mathematically,  $\frac{N_i(g)}{d_i}$  converges to the actual volunteering rate, and volunteering will reach  $\beta$ . In this case, we are back to the situation of the Stag Hunt Variant game.

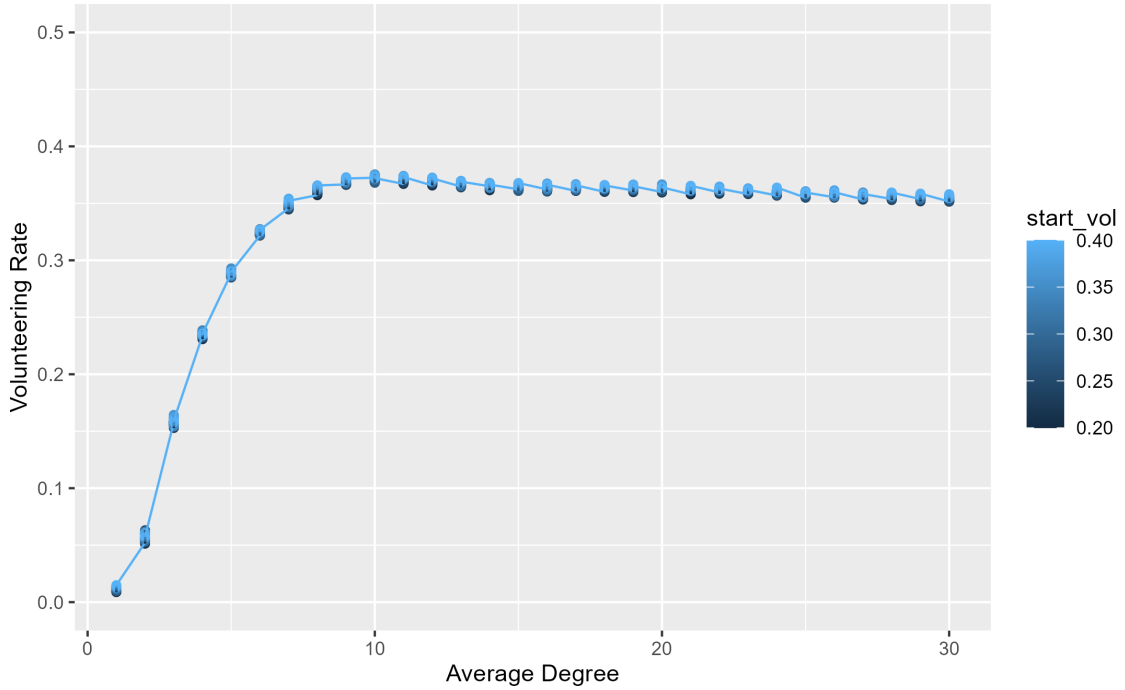


FIGURE 4.4: Simulated Volunteering Rate for Changes in Starting Rate

How can this occur if no social entrepreneur can introduce new behavior? This is possible in two ways. (1) Volunteering existed before the growth in social capital. If a society achieves a volunteering rate greater than  $\alpha$ , the increase in social capital will increase participation up to  $\beta$  for reasons previously stated. (2) Social capital lowers the transaction cost of certain types of collective action. The society can choose to enforce participation through voting or some other social choice mechanism. Enforcement need not be a third party because social capital allows for effective reputational enforcement (Ellickson, 1994; E. Ostrom, 1990).

Though high social capital societies have access to strong social choice mechanisms, it comes at a cost. Deviation by any person, such as a social entrepreneur, will be punished by the enforcement mechanism. Buchanan (Buchanan, 1981) notes this restrictive nature created by moral communities. Changing institutions has to be done through costly social choice instead of social entrepreneurs and emergence. Opening the door to one closes the door to the other. In this case, the weakening of social capital makes society more dynamic.

Villages are in such a state where there is little change until exposure to the wider world.

Anyone with a deep understanding of the division of labor should not be surprised. As Adam Smith (1982b) so brilliantly argued, the division of labor is limited by the extent of the market. Weakening social capital can be caused by exposure to the market. Emile Durkheim, who expanded the role of division of labor to the creation of modern society, further emphasizes the point in references to the individual. “Finally, as society spreads out and becomes denser, it envelops the individual less tightly, and in consequence can restrain less efficiently the diverging tendencies that appear” (Durkheim, 2014, 233). As society moves from high to medium social capital through market exposure, there is more room for individuals. There is more room for entrepreneurs.

## **4.7 Conclusion**

The relationship between social capital and volunteering demonstrates the importance of social capital in solving collective action problems and explaining the variation in the ability to solve collective action problems. As is explicitly shown in the formal model and simulation results, cooperative behavior spreads from only *a few* inframarginal entrepreneurs if there is the right amount of social capital. Unlike previous theories, the relationship between cooperation and social capital is not strictly positive. If a group is sparsely connected, behavior will not be able to spread. If a group becomes sufficiently connected, they achieve the status of community, meaning they are connected through a dense network of social ties. These communities exhibit moral order where there is enough room for social entrepreneurs to innovate and social capital to spread their behavior. If community becomes too strong, however, it can crush social entrepreneurs because they are easily identifiable as deviants. This insight may explain why cities with historically high social capital exhibit the greatest decline in volunteering rates (Grimm & Dietz, 2018).

This complex relationship can only be examined with the correct conception of behavior and the collective action problem. The rational choice perspective, with its focus on utility-maximizing, self-interested agents, makes collective action unfairly difficult. Cooperation

is much too common. Instead, we must understand that communities are geared toward cooperation. Even when they become too dense to allow innovation, they are able to maintain cooperation.

While much is explained, there is more to be done to understand the role of social capital. Future research could extend the model to include clustering. Another way forward will be to identify social networks more accurately. Data from social media is promising because it makes networks explicit. The question remains how online connections differ from other ties, though experimental evidence shows they might be good proxies (Bisbee & Larson, 2017).

Future avenues of research aside, this paper explains the puzzle of how people are able to cooperate and volunteer to help others despite the incentive to shirk or be selfish. People's cooperative behavior is incredible but also reliant on specific conditions. If we do not understand how people cooperate, policies and efforts to solve public problems will likely enfeeble rather than enable citizens.

## 5. Conclusion

People make choices under many constraints, but the calculation of what is best is determined largely by institutions. They are the rules that confine our choice set, determine costs/benefits, and provide information on what others are doing. While institutions do crystalize current distributions of power, they lower the transaction cost of interactions, allowing people to exchange in myriad ways beyond simply those of the market.

Institutions are more than the laws passed by some governing body. They include the norms that emerge from social interactions and converging expectations. This essay has been an attempt to illuminate their importance and present ways to study them. It would be wrong to say norms are the only important institution. Because of their emergent origins, norms have a specific domain of situations that they best govern. Law, with its origin in secondary institutions, has another domain. These domains rely on each other but can corrupt each other if ignored.

Norms, while important, are particularly difficult to measure. In investigating whether U.S. Congressmen had a norm of balanced budgets, this essay built a theory of norm contestations that allows for empirical testing with text analysis. Hopefully, this work will lead to more precise measures of detecting norms through text, allowing a richer study of historical norm change.

Finally, this essay examined the conditions that allow descriptive norms to spread from social entrepreneurs. Social capital, or the connections between people, mediate how information about behavior spreads. Thus, expectations are mediated through the networks of social capital.

Formal institutions have received the largest focus in political science. That is perhaps unsurprising since politics is so closely associated with government. But governance is a much larger concept. We are governed by all kinds of rules. A true study of governance will include the most common institution: norms.

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## **Biography**

Cameron Tilley was born and raised in Raleigh, North Carolina. After graduating from Sanderson High School, he attended Hampden-Sydney College. He graduated with Honors, earning a Bachelor's of Arts in Mathematical Economics. After working for three years including two years as Assistant Dean of Admissions, Cameron returned to North Carolina to pursue a Ph.D. in Political Science at Duke University. His research focuses on political institutions with an emphasis on studying social norms.