

# THE POWER OF TRANSATLANTIC TIES

## A Game-Theoretical Analysis of Viceregal Social Networks in Colonial Mexico, 1700–1755

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*Abstract: This article analyzes the power of select political actors in the social networks of New Spain (colonial Mexico), from 1700–1755. Examining the participation of these actors in successful political and economic coalitions allows for assessment of the additional (or marginal) contribution of each politician. His or her chance of altering decisions of a coalition is called the power index, delivering a quantification of the idea of power. A second step then examines how the number of communicative links with other actors changes a politician's influence and modifies the power index. A large amount of contacts significantly increases the power of an actor. Drawing on this model, I argue that the viceroy's sway increased somewhat in this period because of his improving social connections. In addition, historians who have pointed out that the Bourbon dynasty reduced the role of the Council of the Indies to that of an appellate court have underestimated the council's lasting informal influence. This interdisciplinary article introduces game theory to Latin American historical scholarship by analyzing a period that scholars have largely neglected.*

### INTRODUCTION

Clientelism has an important, if not overarching, impact on politics, economics, justice—essentially on all spheres of life in Latin America and probably the world. Historians have long recognized that clientage drove decisions in premodern societies.<sup>1</sup> John F. Padgett and Christopher K. Ansell (1993), for example, demonstrate in their network analysis that the position of the Medici family, which linked Florentine oligarchy and new families (the *novi cives*), explains the family's rise to preeminence in

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1. Armando Razo (2003) uses social network analysis to argue that ties to powerful state and federal congressmen during the Porfiriato (1876–1910) guaranteed selective protection of businesspeople and encouraged their investments, thereby contributing to growth under a dictatorship. Some actors were powerful enough to prevent predatory government behavior.

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city politics. In regards to the Spanish Empire, historians such as John Leddy Phelan (1967) have been aware of the power of social networks, but the systematic analysis of clientelism is relatively recent. Michel Bertrand (1999) has painstakingly reconstructed the dense social ties of colonial Mexico's financial officials. He argues that strong incentives nudged these officials to build ties with society. These connections then encouraged and enabled the royal officials to withstand attempts of the Crown to improve the yield of the treasury.<sup>2</sup>

Notwithstanding Bertrand's work and some other recent studies, historians have largely bypassed the analysis of colonial Mexico within its transatlantic context after about 1600 and before the 1760s (see, e.g., Álvarez de Toledo 2004). The phase before the inspection (*visita*) of José de Gálvez (1765–1773) remains largely shrouded in historiographical darkness (for an overview of the eighteenth century with an emphasis on the second half, see MacLachlan 1988). For this reason, I am particularly interested in comparing the networks that two Mexican viceroys built during this period. This analysis will reveal how the social and political power of the viceroys and other transatlantic actors shifted. The Duke of Albuquerque served as viceroy of New Spain, as Mexico was then known, from 1702 to 1710. Two years before he assumed office, the Hapsburg dynasty on the Spanish throne expired, and a new dynasty, the Bourbons, acceded to the throne. Albuquerque, however, appointed by King Philip V, continued a style of governance in close collaboration with colonial elites, while the Bourbon ruler and his advisers demanded a more compliant administration. In the period after Albuquerque's return to Spain, energetic ministers in Madrid attempted to reform the empire in part as a response to the growing British threat. The Count of Revillagigedo, viceroy from 1746 to 1755, epitomized a new style of effective governance with the aim of increasing tax yields for the monarchy, curbing the immunity of the church, and strengthening defense. He also built social affiliations with different elite groups during his time at the helm. His policy was likely to provoke the ire of locals (Lynch 1989, 157–164; Navarro García 1975, 133–154; Valle Menéndez 1998, 531–570).

In this article I examine the power of viceroys and other political actors as well as the impact of networks by introducing a game-theoretical cooperative approach to Latin American historical scholarship. The model uses Lloyd Shapley's (1958) idea of quantifying the power of actors in coalitional negotiations. The economist Roger Myerson, recent recipient of the Nobel Memorial Prize in Economic Sciences, computed the influence that social connections give these actors. Together, these cooperative approaches demonstrate that colonial networks could drastically reduce or heighten

2. Renate Pieper (2000) traces the spread of news through the empire by means of a network analysis.

the influence of actors. The model therefore casts analytical light on social structures that would otherwise remain unnoticed. On the basis of these results, I argue that the Council of the Indies was exceptionally well connected within the empire. The corporation lost influence in 1714 when the new position of the secretary of state for the Indies stripped the council of most of its political function. Nonetheless, the council could defend much of its sway through its social ties. Viceregal power expanded somewhat. Although the Count of Revillagigedo enacted a more controversial agenda to tighten Spanish rule over Mexico, he successfully built numerous connections with society and the Spanish court. This accomplishment accorded him a slight edge in influence over his predecessor, the Duke of Albuquerque, who exacerbated divisions in colonial society. Meanwhile, scholars have overrated the power of the Princess des Ursins and other French advisers in the first decade of the eighteenth century, and of the first minister under Philip V and Ferdinand VI, the Marquis of la Ensenada (1743–1754). These politicians could only draw on a relatively restricted social network in Mexico, which weakened their power in this region.

#### THE POWER INDEX

Power, of course, is a difficult thing to measure. For Michel Foucault (1994, 120–121), power is diffuse, extending through the entire society in myriad ways. It is not only repression or a “law that says no” but also an instrument that “induces pleasure and forms knowledge.” For the purposes of this article, Max Weber’s (1980, 28) definition seems more useful: Weber defined power as the “chance to impose one’s will within a social relationship even against resistance.” Along these lines, the analytical interest in this article is the chance of one actor in a social setting to change the decision making of a group, alone or through a network. One way to approach the subject is by assigning power indices to actors in bargaining situations. Economists and many political scientists use this method from cooperative game theory to analyze negotiations in a parliament or the United Nations Security Council. The power index reveals how much influence one member has under the rules of that body.<sup>3</sup>

For example, in a game simulating these institutions, five actors (or players, in the language of economists) try to build a majority. Under the distribution of votes and the rules of this game, player 1 and any one of players 2, 3, 4, or 5 can build a “winning” coalition. Alternatively, players 2, 3, 4, or 5 may conjoin to form such a coalition.<sup>4</sup> This game is known

3. Many political scientists and sociologists currently favor noncooperative approaches analyzing the power of particular players to stall political projects (see, e.g., Tsebelis 2002).

4. In the formal definition of the game, every winning coalition receives a unit and the losing coalition a 0. We have the following:

as the apex game. In this situation player 1 is strong and needs to persuade only one of the lesser players to join him in forming a successful coalition. Meanwhile, the four lesser players can also unite and keep the strong player out. One way to describe the individual power of each actor is by establishing the additional (or, in the language of economists, marginal) contribution of each to the preexisting coalition. By recognizing how much one player adds to a coalition, the marginal contribution of this player becomes apparent. Player 1 (the strong player) is very important to the coalition 1 and 4 {1, 4}. This coalition gains one unit, but when player 1 leaves, the remaining coalition, consisting only of player 4, fails to win. The marginal contribution of player 1 to this coalition is therefore 1. In the coalition of all players {1, 2, 3, 4, 5}, however, removing player 1 does not turn the remaining alliance into a losing one. The marginal contribution of player 1 to this coalition is then 0.<sup>5</sup>

In general, actors will not know beforehand in what coalition they will end up. They form expectations. Economists think of the outcome of this negotiating as random. These scholars have computed the expectation of the marginal contribution in such a random constellation. This concept is known as the Shapley value, the expected marginal contribution of a player in a random coalition.<sup>6</sup> For example, the apex game yields a Shapley value, which is  $\Phi(v) = (0.6, 0.1, 0.1, 0.1, 0.1)$ .<sup>7</sup>

According to the Shapley value, the strong player has six times the strength of one of the small players, and, as all small players are symmetric, they are of equal power. The Shapley value computes the power of an individual actor under the rules of the situation. It quantifies and illustrates the expected influence of each player, when otherwise we would be left to a guess.

One way to set up the apex game is by assigning weights to actors. For example, the strong player obtains the weight 3 and the small players each carry 1. Any coalition that musters a total weight of 4 is winning. This arrangement yields exactly the winning coalitions listed previously. We can also imagine these weights as seats of a party in a parliament. The parliament consists of five parties, one having three seats and the four other parties having one seat each. The number of a party's seats is not identical

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1.  $v(\{1, 2\}) = 1$ ,  $v(\{1, 3\}) = 1$ ,  $v(\{1, 4\}) = 1$ ,  $v(\{1, 5\}) = 1$

2.  $v(\{2, 3, 4, 5\}) = 1$

3.  $v(S) = 1$  whenever  $S$  contains one of the coalitions items 1, 2.

4.  $v(S) = 0$  otherwise.

5. Formally  $v(\{1, 4\}) - v(\{4\}) = 1 - 0 = 1$ . The marginal contribution of player 1 to a coalition of all players {1, 2, 3, 4, 5} is  $v(\{1, 2, 3, 4, 5\}) - v(\{2, 3, 4, 5\}) = 1 - 1 = 0$ .

6. The closed formula of the Shapley value is provided in the appendix and explained in Shapley (1958, 307–318).

7. Typically,  $\Phi$  denotes the Shapley value;  $v$  is the argument that refers to the particular game;  $G$  refers to the graph.

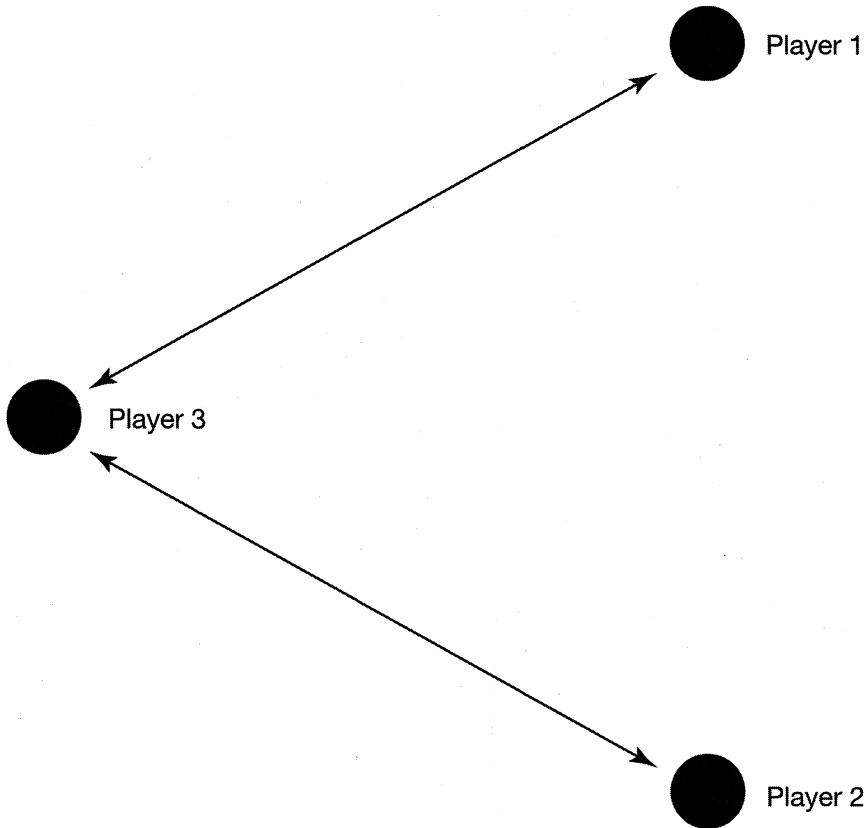


Figure 1 Graph  $G$  in Myerson's Game

to its power, which depends on the coalitions it can form. The strong party has 43 percent (0.43) and the small parties each have 14 percent (0.14) of the total seats, but the Shapley value attributes 60 percent of the power to the great party and only 10 percent to the minor parties, revealing their different bargaining power.

The economist Roger Myerson describes another game for just three players. The rules are as follows: A coalition of players 1 and 2 gains 12 units. A coalition of players 1, 2, and 3 also gains 12 units. Players 1 and 3 can join to obtain 6 units, or players 2 and 3 can join to obtain the same amount. How should the players divide their gains if they agree to form an alliance? Or, in other words, what is each player's individual power? In this situation the marginal contribution of player 3 to coalition  $\{2, 3\}$  is 6, whereas the marginal contribution of the same players to the coalition  $\{1, 2, 3\}$  is 0. In Myerson's game the Shapley value is  $\Phi(v) = (5, 5, 2)$ .

The Shapley value suggests that players can expect gains of 5 for players 1 and 2, and 2 for player 3. Player 3 is weaker than players 1 and 2 and players 1 and 2 are symmetric (Myerson 1977, 225–229).

So far, all players have freely communicated with one another. In many situations, however, this does not happen. Some players cannot form alliances for ideological or personal reasons. Myerson includes this insight in his game. He adapts the Shapley value to games restricted by networks. Actors can build a coalition only if the graph connects them. The graph  $G$  in Figure 1 illustrates this, with the nodes representing actors and the double arrows (or undirected edges) representing communication flowing in both directions. In Myerson's game the graph shows that player 3 has direct ties to players 1 and 2, but there is no immediate connection between players 1 and 2.

The network illustrated by the graph dramatically changes the outcome of negotiation. The new worth of the coalition of players 1 and 2 is 0, as they cannot communicate. The coalition  $\{1, 3\} = 6$  and the coalition  $\{2, 3\} = 6$ .<sup>8</sup> The Shapley value of the game  $v/G$  determined by game  $v$  and the network  $G$  is  $\Phi(v/G) = (3, 3, 6)$ .

Player 3 now has a decisive role in this game, because all communication passes through him. He obtains the worth 6, whereas he received only 2 in the original game with no graph. Players 1 and 2 meanwhile each receive only 3 out of 12. The total worth of a coalition of all players is  $v/G(\{1, 2, 3\}) = 12$ , as full communication is possible within this constellation.

#### THE POWER INDEX IN LATIN AMERICAN HISTORY

The point of this endeavor is to focus analytical attention on a select feature of the past by constructing an abstract model. The primary sources reveal the relevant factors, which are fitted together for the model. The simulation should be a valid representation of a historical process, because repeating the model with a greater number of factors should render the same conclusions. In any case, the abstraction uncovers and quantifies the power of actors, when otherwise the historian would merely have a vague idea of an actor's influence within or outside a network (for more on game theory in the social sciences, see Shubik 1983).

For the first step of this simulation, I scoured the sources for conflicts and reconstructed those political alliances of actors in New Spain and Spain that successfully imposed a decision. Not all actors had to communicate with one another in this coalition. The viceroy could rally local officials and clergy to stymie an imperial regulation, although some of them may not have corresponded with one another. The scholarship has

8. Formally,  $v/G(\{1, 2\}) = 0$ ;  $v/G(\{1, 3\}) = 6$ ; and  $v/G(\{2, 3\}) = 6$ .

abundantly demonstrated these struggles and pointed out that often royal officials did not labor in the interests of the Crown. Significant struggles revolved around the expansion of state power, particularly attempts to make the colonial bureaucracy more effective, to improve tax yields, to enforce the laws on trade, and to supervise the church more closely.

As a second step, I reconstructed the network of those actors that communicated with one another. The aim here was not to analyze a kinship or economic web or to test the strength of ties. Rather, when one source demonstrated contact between two actors, they obtained an arrow in the model. For example, as the viceroy corresponded with the first minister through official channels, they both received a double arrow (or undirected edge) in the graph. The viceroy also exchanged information with merchants or clergy in New Spain with whom he did not have an institutional link. However, when the record did not show any contact between two actors, they did not receive an arrow. One cannot entirely exclude the possibility that a communicative link was missed in the research phase, but the hidden nature of any such missing link is indicative of its restrictions. Furthermore, explained subsequently is an additional method to verify the robustness of the conclusions that takes into account some variance of this kind.

To reconstruct the network, I have therefore searched for sources that reveal both exchange of correspondence and ties of patronage, friendship, or *compadrazgo*.<sup>9</sup> Some colonials, for example, supported the viceroy as favorable witnesses in the *juicio de residencia*, an inquiry into the outgoing official's tenure. Many trial records that list supporters and enemies of a cause are located in the section "Escribanía de Cámara" of the Archivo General de Indias (Archive of the Indies, Seville; AGI). Meanwhile, the Archivo General de la Nación (National Archive; AGN) in Mexico City houses abundant documentation in the sections "Civil" on litigation and "bienes de estado" on the church. Additional sources include the proceedings of the civil and the ecclesiastical cabildos (the municipal council and cathedral chapter, respectively), and several entries in the Notarial Archive of Mexico City. Diaries, such as that of Joaquín de Castro Santa-Anna covering parts of Revillagigedo's tenure, add data (Castro Santa-Anna 1854). These documents all contain references to social connections but offer only scant information on the political culture.

The records of royal communications and, to a lesser degree, viceregal decrees in the sections "Reales Cédulas Originales" (RCO) and "Reales

9. The appendix lists the sources for the network. Patronage is a dyadic asymmetric interpersonal contact, where the patron protects the client in exchange for the client's services. Early-modern friendship usually included the mutual exchange of goods or favors. *Compadrazgo*, the relationship between godparents and parents, extended families not related by blood or marriage (Blank 1974, 260–263; Reinhard 1979, 35–39; Weingrod 1968, 379).



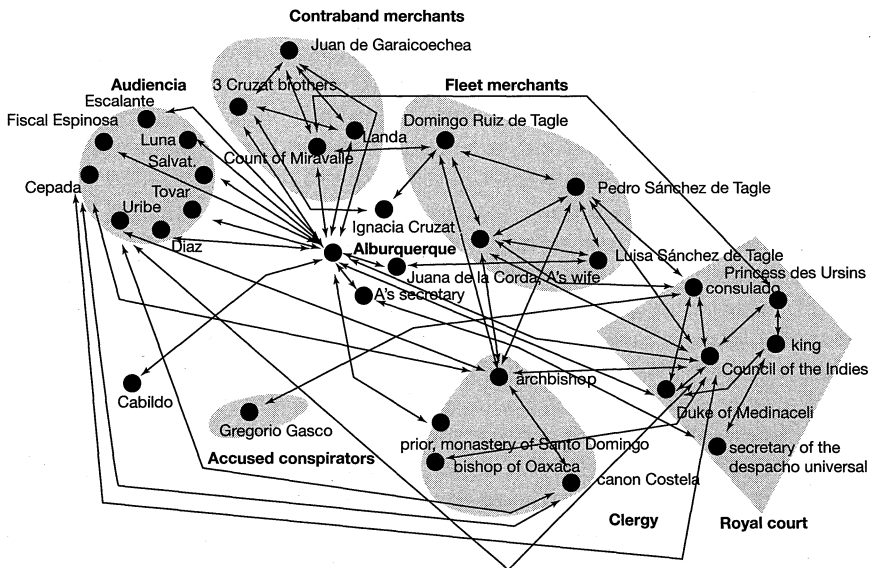


Figure 2 Social Networks in Atlantic Mexico, ca. 1702–1710

Cédulas Duplicadas” (RCD) in the AGN provided more insight into political alliances. However, the Mexican authorities began archiving their correspondence systematically in 1755, the last year of Revillagigedo’s tenure. Thus, historians of the early eighteenth century must seek most exchanges of the viceroy and other officials in the section “audiencia de México” in the AGI. Together, these documents permitted a reconstruction of communicative networks and the political alliances of the two viceroys. An even more in-depth analysis of kinship networks by systematically drawing on other sources, such as notarial and baptismal records, would go beyond the scope of this article. Rather, the aim is to bridge the divide between political and social history without focusing exclusively on one or the other. About eighteen months of research in Mexican and Spanish archives provided a sufficient basis to draw solid conclusions.

The sources revealed that Viceroy Alburquerque forged a close alliance with a network of contraband merchants. This union had a significant impact on his agenda and brought him into conflict with the *consulado* of Seville, the guild representing the fleet merchants. Figure 2 illustrates the social and economic camps in Mexico and Spain during Alburquerque’s tenure. The larger fields show that actors belonged to a social or institutional group, such as the fleet merchants or the *audiencia* (the high court) in New Spain (for an in-depth discussion of the alliances, see my book: Rosenmüller 2008).



It would be difficult to calculate the totality of all possible coalitions. Instead, I reduced the amount of actors to a manageable quantity. Admittedly, this is problematic, because the analysis will not render the entire historical "reality." Yet, even with only fifteen actors in the model, there are still  $2^{15}$  (32,768) possible coalitions. Despite having powerful computers, calculating such a quantity of coalitions remains difficult. Anything beyond twelve would occupy excessive workspace and significantly slow down the program. For that reason, I limited the number of actors imposing a political decision to eleven, a number that a computer can still handle with relative ease. However, a smaller group of actors has rendered unsatisfactory results in preliminary simulations. The selection for meaningful results is to a degree a judgment matter akin to models used in economics. The sources show that the actors selected played significant roles in the major transatlantic conflicts of their time.

Actors in the simulation can be individuals or institutions. The Council of the Indies appears as a single player just like the viceroy or a merchant. The institutional setting and the manifold informal ties of its members give a body greater leverage than an individual. The index includes these different roles, revealing the actors' power, which is the purpose of this analysis. Often, the historical people or corporations also have the support of a larger group. For example, the Princess des Ursins drew on several French counselors at court, among them Ambassador Michel-Jean Amelot (in Spain from 1705 to 1709). The kings, meanwhile, are not included in this reductionist approach, because Philip V (1700–1746) often shunned politics, and Ferdinand VI (1746–1759) was equally inattentive. Usually, both monarchs relied on their chief advisers and the pressure groups at court to formulate policy.<sup>10</sup>

#### THE POWER OF VICEROY ALBURQUERQUE

The following paragraphs outline the political alliances of the selected actors. The participants' numbers clarify their role in the computation below. When Viceroy Alburquerque (5) arrived in New Spain in 1700, he built a coalition with contraband traders such as the general of the Philippine galleon, Juan de Garaicoechea (10). Together, they united with the audiencia (high court) Judges Baltasar Tovar (6) and Joaquín Uribe (7) against the representative of the official Spanish oligopoly trade, Luis Sánchez

10. Henry Kamen (2001) considers Philip V a reasonably capable king who increasingly suffered from depression that made it harder for him to serve as king. José Luis Gómez Urdáñez (2002, 68) describes Ferdinand VI as an "insecure king, given to melancholy and extraordinarily susceptible, suspecting that everyone betrayed him." The French ambassador quipped that "it was rather Barbara [de Braganza, Ferdinand's wife] who succeeded Isabella [Philip's wife] than Ferdinand succeeding Philip (*era más bien Bárbara quien sucedía a Isabela que Fernando a Felipe*)."

de Tagle. Sánchez de Tagle dealt with the annual fleet that traveled from Spain to Mexico, as the laws stipulated. In 1702 Luis Sánchez de Tagle's nephew proposed marriage to the daughter of the former governor of the Philippines. However, the sons of the governor, who operated contraband traffic, objected. The viceroy and his allies joined the fray, trying to derail the wedding. The viceroy's alliance failed in the attempt, but they were able to imprison Sánchez de Tagle, and they ousted the fleet merchants from the Mexican merchant guild (*consulado*) in 1706. The viceroy also undermined Sánchez de Tagle's standing in the profitable mint of Mexico City. Therefore, the primary sources reveal a successful coalition consisting of Albuquerque (5), Tovar (6), Uribe (7), and Garaicoechea (10). This first coalition will be labeled "the wedding of Tagle."

However, in 1703, when the archbishop of Mexico, Juan de Ortega y Montañés (8), and the Spanish *consulado* (3) intervened on behalf of Sánchez de Tagle (9), the Council of the Indies (2) ordered the immediate release of the merchant, restoring Don Luis to his privileges (coalition 2: "the wedding of Tagle, second part": council [2], *consulado* [3], archbishop [8], Tagle [9]). (The *legajo*, or "folder," 642 in the section "audiencia de México" of the AGI contains the communication on this conflict.)

The new Spanish king, Philip V, grandson of French King Louis XIV, brought with him a retinue of influential French counselors. These advisers, among them the powerful *camarera mayor* (head of the queen's household), Princess des Ursins (1), considered opening America to French trade among their primary goals. In New Spain, Viceroy Albuquerque tolerated and profited from trade with French ships and even hostile countries. The contraband traders Count of Miravalle (11) and Garaicoechea (10) collaborated, often by breaking the unsustainable commercial laws (coalition 3: "contraband in America": Ursins [1], Albuquerque [5], Garaicoechea [10], Miravalle [11]).<sup>11</sup>

In the course of his viceroyship, the relationship between Albuquerque and Judge Uribe deteriorated. In 1707 the viceroy accused the *oidor* (judge of the high court) of treason. The Council of the Indies recalled Uribe. Albuquerque had support from his powerful brother-in-law, the Duke of Medinaceli, who opposed the Bourbon regime at the Spanish court (coalition 4: "conspiracy": council [2], Medinaceli [4], Albuquerque [5], Tovar [6]).<sup>12</sup>

11. On the mission of Philip's advisers, see Klaveren (1960, 172–174). The Crown sentenced Albuquerque for participation in contraband; see note with title "Que le Roy," s.n., 1715, AGI, México 1252. On Miravalle's contraband activities, see verdict of the Council of the Indies, Madrid, January 27, 1728, AGI, Escribanía 340 A, ff. 48–52. In 1706 Miravalle favored price caps on fleet import goods, Albuquerque to king, Mexico City (hereinafter, if not otherwise noted, the location is always Mexico City), December 3, 1706, AGI, México 477, exp. 45, ff. 540–544; Junta General, June 29, 1706, AGI, México 477, exp. 45, ff. 656–658.

12. Consulta, Council of the Indies, Madrid, May 18, 1708, AGI, México 403; Royal order to the Duke of Atrisco, Madrid, April 16, 1708, AGI, México 377; Albuquerque to

The brother of Uribe's colleague and the archbishop intervened on the judge's behalf. The Council of the Indies reversed its decision, suspending the return of Uribe in 1709 (coalition 5: "conspiracy, second part": council [2], Uribe [7], archbishop [8]).<sup>13</sup>

The archbishop desired to sequester parishes administered by Dominican friars for his fellow secular priests. The king, coaxed by his French adviser Ursins, acceded, bypassing the Council of the Indies. In 1706 the monarch issued an order to secularize ten parishes in the province of Oaxaca. A member of the *audiencia* (historically, the crown attorney for civil matters or *fiscal de lo civil* José Antonio Espinosa) demanded the speedy execution of the royal order from the viceroy (coalition 6: "secularization of Indian parishes": Ursins [1], Tovar [6], archbishop [8]).<sup>14</sup>

Meanwhile, the Council of the Indies demurred from the decision. With the help of the viceroy as well as Judges Tovar and Uribe, the council blocked the archbishop's call for further sequestrations and the breakup of Dominican parishes into smaller ones after 1706 (coalition 7: "secularization of Indian parishes, second part": council [2], Alburquerque [5], Tovar [6], and Uribe [7]).<sup>15</sup>

The viceroy excessively flouted the trade laws by allowing contraband. Alburquerque also belonged to the anti-Bourbon faction of the Spanish aristocracy around the Duke of Medinaceli. When this grandee came under suspicion of collaborating with the Austrian pretender Charles, King Philip arrested Medinaceli. Alburquerque lost much of his support in Spain. The Princess des Ursins allied with the consulado and the Council of the Indies to punish Alburquerque for his transgressions at the end of his viceroyship. Philip V banned Alburquerque from the court, and the former viceroy paid an unheard-of indemnity of seven hundred thousand pesos to return to the king's favor (coalition 8: "the fall of a viceroy": Ursins [1], council [2], consulado [3]).<sup>16</sup>

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king, February 22, 1709, AGI, México 1326; Cathedral chapter to king, February 18, 1709, AGI, México 1326; real cédula to the Duke of Linares, Madrid, July 21, 1710, AGI, México 646.

13. Cathedral chapter to king, February 18, 1709, AGI, México 1326; Real cédula to the Duke of Linares, Madrid, July 21, 1710, AGI, México 646.

14. In the historical case, the bishop of Oaxaca pursued the secularization. The French advisers bypassed the Council of the Indies in ordering the secularization, real cédula to Alburquerque, Madrid, November 4, 1705, AGN, RCO 32, exp. 202, ff. 463–465r. Parecer of the Council fiscal, Madrid, September 25, 1707, AGI, México 881, ff. 77–77v; parecer of the *audiencia fiscal*, November 19, 1706, AGI, México 879; Alburquerque to *audiencia*, December 22, 1706, AGI, México 879. On the two *oidores*, parecer of the Council fiscal, Madrid, May 9, 1709, AGI, México 880.

15. *Ibid.*

16. Alburquerque's trial followed complaints by the admiral of the Spanish fleet and others about contraband in Veracruz. On the consulado's resurgence after the political onslaught of the French advisers, see Klaveren (1960, 172–174) and Pérez-Mallaina Bueno (1982,

Table 1 *Minimally Winning Coalitions in New Spain under Alburquerque*

1				5	6	7		10	The wedding of Tagle
2	2	3					8	9	The wedding of Tagle, second part
3	1			5				10 11	Contraband trade
4	2		4	5	6				Conspiracy
5	2					7	8		Conspiracy, second part
6	1					6	8		Secularization of Indian parishes
7	2			5	6	7			Secularization of Indian parishes, second part
8	1	2	3						Fall of a viceroy
9	2	3	4	5					Hypothetical coalition

To these constellations I add one coalition that did not actually form but that was theoretically possible and highly influential. Adding this coalition sharpens the available data for calculating the power index. Two of the actors of this hypothetical coalition were stronger than those of an existing alliance, and for that reason the coalition would have been winning too (a so-called monotonicity property). In particular, the alliance “the wedding of Tagle, second part,” containing the Council of the Indies, the consulado, Judge Uribe, and the archbishop, was inferior to a group with the two corporations but including the Duke of Medinaceli and Viceroy Alburquerque instead of the judge and the archbishop. This coalition would have been able to stymie or significantly delay measures (coalition 9: council [2], consulado [3], Duke of Medinaceli [4], Alburquerque [5]). Table 1 shows numerical expressions of the coalitions that then existed or would have been winning.

Table 1 shows the smallest or minimally winning coalitions. Beyond that, any coalition composed of a minimal coalition and any other actor also would have succeeded. The participation of an actor in winning coalitions, either minimally or other, compared to all other possible coalitions of all actors informs us about the marginal value of this particular actor. The coalitional information was fed into an appropriate program based on the Shapley value. Computing all winning coalitions and entering them into the Shapley formula resulted in the power index. According to this index, the Council of the Indies is the strongest political figure in Mexican affairs, with more than a fifth of all power. The Princess des Ursins follows with 15.16 percent. Archbishop Ortega y Montañés holds the third position, and the audiencia’s Judge Tovar the fourth, because these actors participated in several winning coalitions. The viceroy occupies

202–228). On Medinaceli, see Kamen (2001, 75). On Alburquerque’s indemnity, see Count of Moriana to José Grimaldo, Madrid, June 27, 1714, AGI, México 1252; consulta of the junta to adjudicate Alburquerque, Madrid, June 24, 1715, AGI, México 1252. Junta de Azogues, Madrid, March 28, 1711, AGI 377.

Table 2 Power in New Spain during Alburquerque's Tenure (percentage)

Number	Actor	Shapley value of $v$ (Alburquerque)	Myerson value of $v/G$ (Alburquerque)
1	Princess des Ursins	15.16	11.39
2	Council of the Indies	21.11	31.47
3	Consulado	8.06	8.33
4	Duke of Medinaceli	2.38	2.66
5	Viceroy Alburquerque	10.40	12.02
6	Judge Tovar	11.83	5.12
7	Judge Uribe	8.06	6.71
8	Archbishop	14.01	9.92
9	Luis de Tagle	1.07	2.34
10	General Garaicoechea	5.28	4.52
11	Count of Miravalle	2.66	5.52

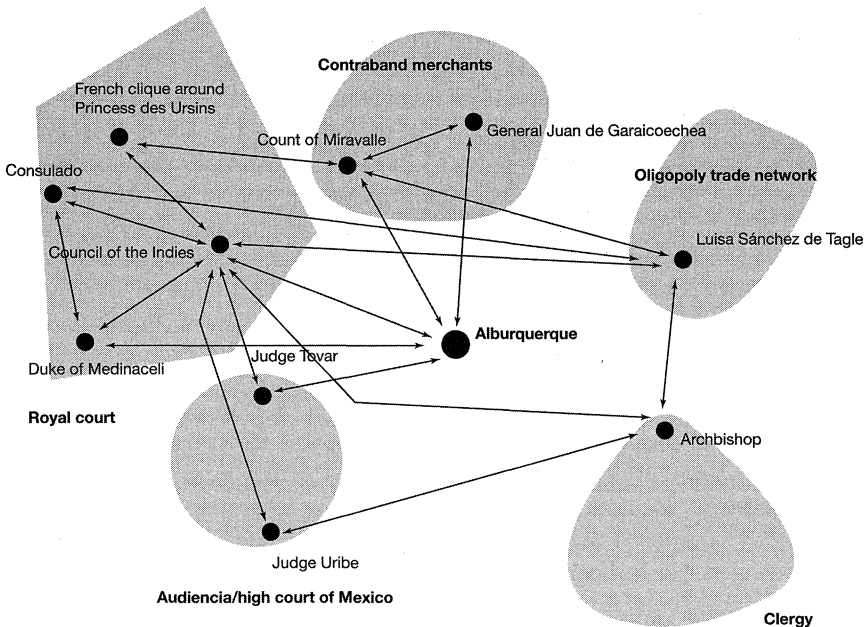


Figure 3 Graph of Alburquerque's Network

Note: See the appendix for sources.

only the fifth post. In contrast, Luis Sánchez de Tagle and the Count of Miravalle have little sway.

Applying the power index (the Myerson variant of the Shapley value) to the game  $v/G$  modified by the graph of Alburquerque's court (the communicative network depicted in Figure 3) dramatically alters the power of

colonial actors. The Council of the Indies surges to first place, commanding almost a third of all power, while the viceroy advances to the second position. The Count of Miravalle, previously unimportant, more than doubles his influence. Their good social connections explain their rise. In contrast, the Princess des Ursins, who was among the foremost actors individually, declines and occupies the third position. The archbishop drops to the fourth place. Along with Judge Tovar, they suffer from their relative lack of connections.

#### *Power in Viceroy Revillagigedo's Network*

The alliances during Viceroy Revillagigedo's tenure differed in many ways from Alburquerque's. The significant actors here include the following:

1. Prime Minister Marquis of la Ensenada
2. The Council of the Indies
3. The consulado
4. The Duke of Huéscar, Ensenada's opposition
5. The Count of Revillagigedo, viceroy of New Spain
6. Audiencia Judge Francisco de Echávarri
7. Audiencia Judge Domingo de Valcárcel
8. Archbishop Manuel Rubio y Salinas
9. The merchant Count of Jala
10. The regent of the tribunal of accounts, Crisóstomo de Barroeta
11. The friars

The sources reveal the following coalitions. In 1746 the Count of Revillagigedo was appointed viceroy of New Spain. He supported the conquest and colonization of the Indians of the northeastern region of present-day Mexico, known as the Sierra Gorda. The Marquis of la Ensenada, the effective prime minister (he served as secretary of state, the treasury, the navy, and the Indies) to King Philip V and King Ferdinand VI, supported the territorial expansion. Oidor Domingo de Valcárcel also backed the campaign, but several clergy and the Crown's attorney for civil cases (*fiscal de lo civil*) called for a halt (coalition 1: "the colonization of the Sierra Gorda": Ensenada [1], Revillagigedo [5], and Valcárcel [7]).<sup>17</sup>

The Marquis of la Ensenada ordered another campaign to end the administration of Indian parishes by religious orders such as the Fran-

17. Ferdinand ruled from 1746 to 1759 (Valle Menéndez 1998, 400–401). Consulta of the Council of the Indies, Madrid, September 22, 1749, AGI, México 384; testimonies, junta, May 8–13, 1748, AGI, México 1346, N. 1.



ciscans. The viceroy executed the mandate. Archbishop Manuel Rubio y Salinas arranged for the transfer of the parishes to the secular church. Ensenada expected significant opposition from the friars, the Council of the Indies, and the American audiencias as well as town halls (*cabildos*) (coalition 2: “the secularization of Indian parishes”: Ensenada [1], Revillagigedo [5], and the archbishop [8]).<sup>18</sup>

Ensenada also aimed to reform the royal treasury in Mexico, usually by better enforcing the laws, improving the capability and loyalty of the personnel, and deprivatizing taxes that had been farmed out to individuals. Revillagigedo needed the support of the regent of the tribunal of accounts, Crisóstomo de Barroeta, to take over the sales tax (*alcabala*) from the powerful consulado of Mexico (coalition 3: “reform of the royal treasury”: Ensenada [1], Revillagigedo [5], and the regent [10]).<sup>19</sup>

Near the end of Revillagigedo’s viceroyship, the opposition at the Spanish court gained the upper hand against Ensenada. In 1754 the lord high steward Duke of Huéscar convinced the king to dismiss the marquis for his alleged disloyalty during the negotiation leading to the Treaty of Madrid (1750). Huéscar received the support of the consulado in Spain and parts of the Council of the Indies (coalition 4: “the disgrace of Ensenada”: council [2], consulado [3], and Duke of Huéscar [4]).<sup>20</sup>

Viceroy Revillagigedo obtained firm backing from the first minister. Opponents had fewer opportunities to litigate against the viceroy than they had with Albuquerque, who lost his support at the Spanish court. The sources on Revillagigedo are therefore more opaque about political alliances. For that reason, the model calls for adding potential winning coalitions to calculate the power index. These constellations did not actually impose a decision but would have been sufficient. Adding these coalitions takes into account the full possibilities of the actors, similar to Albuquerque’s model. Without these alliances the power index would be less reliable. I concede here, however, that the primary sources do not support the analysis of Revillagigedo’s term to the same extent as Albuquerque’s. Nonetheless, I am convinced that the postulated coalitions still accurately reflect historical reality.

18. Ensenada to Revillagigedo, Buen Retiro, October 4, 1749, AGN, RCO 69, exp. 104; Real orden, Buen Retiro, 1753, AGI, México 2712; archbishop to king, April 12, 1752, AGI, México 2712.

19. Real cédula, Ensenada to Revillagigedo, Aranjuez, June 20, 1746, AGN, RCO 66, exp. 40; Ensenada to Revillagigedo, Madrid, October 2, 1752, AGI, México 2093; Revillagigedo to king, October 22, 1753, AGI, México 2093; consulado to king, March 1, 1754, AGI, México 2093.

20. Téllez Alarcia (2001, 124–128). Alan Kueth (1999) considers the participation of the consulado, by then located in Cádiz, Andalusia, probable in the coup against Ensenada, as the prime minister attempted to open up the oligopoly trade and break the power of the institution. The Duke of Huéscar, as a major landowner in Andalusia, opposed Ensenada’s policy. Lynch (1989, 173–174, 182–183).

The “Mexican coalition” consisted of Audiencia Judges Francisco Antonio de Echávarri (6) and Domingo de Valcárcel (7), the archbishop of Mexico (8), the Count of Jala (9), the regent (10), and the friars (11). Ensenada and Revillagigedo would have encountered stiff resistance had they tried to impose an agenda against all Mexican factions. Had this coalition set its mind on one goal, it would have been able to achieve it. Therefore, all Mexican actors save the viceroy formed a winning coalition (coalition 5: the “Mexican coalition”: Judge Echávarri [6], Judge Valcárcel [7], archbishop [8], Jala [9], regent [10], friars [11]).

In addition, an alliance of the two major Spanish corporations dealing with America and the prime minister would have been very influential (coalition 6: “the Spanish corporations and the prime minister”: Ensenada [1], council [2], consulado [3]). Furthermore, a coalition formed by Ensenada (1), the Council of the Indies (2), and the Duke of Huéscar (4) would also have been a powerful union (coalition 7). The same is true for joining Ensenada (1) with the Spanish consulado (3) and the Duke of Huéscar (4) (coalition 8).

The sources convey approximately the following ranking of actors, helping to identify further winning coalitions:

Prime Minister Ensenada

Council, consulado, Viceroy Revillagigedo

Duke of Huéscar, Judge Echávarri, Judge Valcárcel

Archbishop

Jala, regent

Friars

The viceroy ranked higher than the Duke of Huéscar. The council, the consulado, and Huéscar formed the winning coalition 4; replacing Huéscar with the viceroy (5) reveals the winning coalition 9. Supplanting Huéscar with an equally influential audiencia minister unveils coalition 10, composed of the council (2), the consulado (3), and Audiencia Judge Echávarri (6). Finally, coalition 11 consisting of the council (2), the consulado (3), and Judge Valcárcel (7) would have been victorious, too (see Table 3).

The Shapley value of the game  $v$  (Revillagigedo) shows that the prime minister is by far the strongest politician, followed by the Council of the Indies and the consulado. The consulado surges in the power index compared to the Albuquerque period. Viceroy Revillagigedo comes out somewhat stronger than his predecessor, Albuquerque. Meanwhile, the opposition at the Spanish court does not matter too much. The archbishop and the friars play only a minor role (see Table 4).

The next step analyzes the power of each actor in the network. During Revillagigedo’s viceroyalty, three sociopolitical camps predominated, although affiliations crisscrossed alliances. The viceroy, the archbishop,

Table 3 *Minimally Winning Coalitions in New Spain under Revillagigedo*

1	1			5		7						Colonization of the Sierra Gorda
2	1			5			8					Secularization of Indian parishes
3	1			5					10			Reform of the royal treasury
4		2	3	4								The disgrace of Ensenada
5						6	7	8	9	10	11	Mexican coalition
6	1	2	3									Spanish corporations and Ensenada
7	1	2		4								Ensenada, council, Huéscar
8	1		3	4								Ensenada, consulado, Huéscar
9		2	3		5							Council, consulado, Revillagigedo
10		2	3			6						Council, consulado, Judge Echávarri
11		2	3				7					Council, consulado, Judge Valcárcel

Table 4 *Power in New Spain during Revillagigedo's Tenure (percentage)*

Number	Actor	Shapley value of $v$ (Revillagigedo)	Myerson value of $v/G$ (Revillagigedo)
1	Ensenada	26.14	23.17
2	Council	19.87	23.53
3	Consulado	19.87	15.59
4	Duke of Huéscar	7.93	4.96
5	Viceroy Revillagigedo	11.70	14.64
6	Echávarri	2.22	2.93
7	Valcárcel	3.88	4.96
8	Archbishop	3.93	3.49
9	Jala	1.26	1.62
10	Regent	2.93	3.49
11	Friars	1.26	1.62

and the regent belonged to the reformers around Ensenada. The audiencia was more skeptical of change and had ties to the friars, who opposed secularization. Meanwhile in Spain the consulado and the Duke of Huéscar resisted Ensenada. The Council of the Indies communicated with both the opposition and the prime minister. The graph of Revillagigedo's network in Figure 4 shows these transatlantic connections. Applying the graph modifies the simulation under Myerson's approach.

With 23.17 percent, the prime minister remains very powerful in the network, while the Council of the Indies barely overtakes him because of its better connections (23.53 percent). The consulado and the Duke of Huéscar communicate little. These two parties at court lose because of

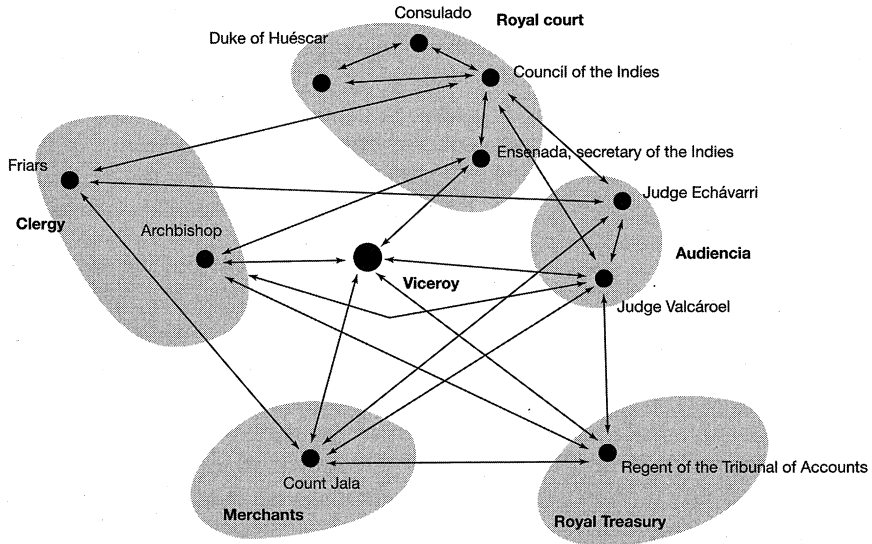


Figure 4 *Graph of Revillaigedo's Network*

Note: See the appendix for the reconstruction of the network.

their poor connections, more striking in the case of Huéscar than in the consulado's. The Duke of Huéscar shares the fifth post in the ranking with Judge Valcárcel, while the consulado manages to defend its third position. The friars gain a bit.

**VERIFYING THE ROBUSTNESS OF THE RESULTS: ASSIGNING WEIGHTS TO ACTORS**

A second approach to individual and network power corroborates the findings. It shows that minor changes in the setup do not alter the outcome significantly, emphasizing that the approach is correct. For this method, every actor obtains a numerical weight. Stronger actors receive greater weights. These weights then produce a ranking. A coalition wins if the combined weights of the actors add up to at least the majority level. As previously, the Council of the Indies wielded more power than the audiencia in Mexico, and the viceroy counted for more than a fleet merchant. Actors on the same level have the same weight. The ranking is as follows:

- Princess des Ursins
- Duke of Alburquerque
- Princess des Ursins, Council of the Indies
- Duke of Medinaceli, Judge Tovar, Judge Uribe, archbishop
- Consulado

Luis Sánchez de Tagle, General Garaicoechea  
Count of Miravalle

Several options for assigning weights exist. The following preserves the ranking and all historical alliances outlined previously.

Princess des Ursins 9  
Council of the Indies 8  
Consulado 4  
Duke of Medinaceli 6  
Duke of Albuquerque 8  
Judge Tovar 6  
Judge Uribe 6  
Archbishop 6  
Luis de Tagle 2  
General Garaicoechea 2  
Count of Miravalle 1

The total amount of weights is 58. The majority level is 20, meaning that any alliance gathering a total weight of 20 wins. Coalitions in a parliament normally must assemble one-half of all votes plus one to clear the majority level. Transatlantic politics, however, functioned differently than a modern parliament, and therefore actors did not need to muster one-half plus one of all available weights, which would be 29. Instead, coalitions could win at a lower threshold. In this case, a weight of 20 is sufficient. This number reflects the empirical evidence. For example, Albuquerque's first coalition, "the wedding of Tagle," consisted of the viceroy (8 weights), Judge Tovar (6), Judge Uribe (6), and Garaicoechea (2). This coalition obtained 22 weights and passed the threshold (20).

The Shapley value preserves the ordering so that players with a higher weight obtain a higher power index. The value reflects the number of coalitions to which a particular actor would have contributed to achieve the majority level. In comparison with the empirical situation, the Princess des Ursins surpasses the influence of the Council of the Indies, having a larger weight. Historians would agree that, individually, Ursins held more sway in Madrid than did the Council of the Indies. Furthermore, some winning coalitions that historically never appeared but were possible now factor into the model. This approach therefore allows for more effective distinguishing between the individual power of an actor and his or her influence through the network (see Table 5).

The network in the robustness verification of Myerson  $v/G$  (Albuquerque) again gives the council the first position, distancing the viceroy as the second most influential figure. Curiously, the Duke of Medinaceli

Table 5 *Empirical and Weighted Majority Game Values for Albuquerque's Viceroyship (all in percentage, except weights)*

Actor	Weights	Robustness of Shapley <i>v</i> (Albur- querque)	Robustness of Myerson <i>v</i> / <i>G</i> (Albur- querque)	Shapley value of <i>v</i> (Albur- querque)	Myerson value of <i>v</i> / <i>G</i> (Albur- querque)
Princess des Ursins	9	15.42	8.01	15.16	11.39
Council of the Indies	8	14.39	32.38	21.11	31.47
Viceroy Albuquerque	8	14.39	14.60	10.40	12.02
Duke of Medinaceli	6	10.78	10.47	2.38	2.66
Judge Tovar	6	10.78	6.86	11.83	5.12
Judge Uribe	6	10.78	4.32	8.06	6.71
Archbishop	6	10.78	5.71	14.01	9.92
Consulado	4	6.26	4.64	8.06	8.33
Luis de Tagle	2	2.80	5.31	1.07	2.34
General Garaicoechea	2	2.80	1.39	5.28	4.52
Count of Miravalle	1	0.78	6.31	2.66	5.52

also wields more power than the Princess des Ursins because of his better social ties. Judge Tovar, originally only of medium size, drops further. The Count of Miravalle significantly improves his standing, although originally he is rather weak by weights.

Ranking is currently common practice. Colleges, merchandise, even history professors, undergo rankings. In this case, the sources provide the foundation for the ranking of actors and the assigning of weights. The comparison of the results of these two approaches reveals mostly similarities. For example, Albuquerque obtains 12.02 percent in the historical and 14.60 percent in the weighted network analysis. The Council of the Indies achieves a strong 31.47 percent and 32.38 percent, respectively, while the Count of Miravalle holds 5.52 percent of power versus 6.31 percent. These results coincide neatly. They differ in the case of the Duke of Medinaceli. The Spanish grandee garners only 2.66 percent in the historical network, but he rises to 10.47 percent in the weighted majority network analysis. Nevertheless, the differences here matter less than they appear. The weighted majority method factors in the great number of possible winning coalitions. The approach therefore describes the power of the individual actors in some ways more accurately. The network impact on the historical and weighted analysis, however, coincides strikingly.



Table 6 Empirical and Weighted Majority Game Values for Revillagigedo's Viceroyship (all in percentage, except weights)

Actor	Weights	Robustness of Shapley $v$ (Revillagi- gedo)	Robustness, Myerson $v/G$ (Revillagi- gedo)	Shapley value of $v$ (Revillagi- gedo)	Myerson value of $v/G$ Revillagi- gedo)
Ensenada	12	19.78	18.53	26.14	23.17
Council of the Indies	8	12.72	24.76	19.87	23.53
Consulado	8	12.72	4.48	19.87	15.59
Viceroy Revillagigedo	8	12.72	14.01	11.70	14.64
Duke of Huéscar	6	9.07	3.18	7.93	4.96
Oidor Echávarri	6	9.07	6.63	2.22	2.93
Oidor Valcárcel	6	9.07	11.75	3.88	4.96
Archbishop	4	5.50	7.10	3.93	3.49
Count of Jala	2	3.12	4.48	1.26	1.62
Regent	2	3.12	2.65	2.93	3.49
Friars	2	3.12	2.42	1.26	1.62

The politicians during Viceroy Revillagigedo's watch obtain the weights outlined in Table 6. In this scenario the actors need 22 units to clear the bar for the majority level. Ensenada receives 12 units, reflecting his unique standing as the king's prime minister. The viceroy equals the Council of the Indies, as does the consulado. The assigned weights again match the historical constellations and the ranking outlined earlier. For example, the coalition "colonization of the Sierra Gorda" consisted of Ensenada, Revillagigedo, and Valcárcel. In the weighted approach the actors obtain 12, 8, and 6 units. Altogether, they reach 26 units, exceeding the majority level of 22.

The robustness verification of the Shapley value  $v/G$  (Revillagigedo) demonstrates that the prime minister wields about one-fifth of the total power. The council, the consulado, and the viceroy are on par with 12.72 percent. Meanwhile, the archbishop trails behind with 5.5 percent, whereas the Count of Jala, the regent, and the friars each still garner about 3 percent. In the robustness verification of network power (the Myerson  $v/G$  [Revillagigedo]) the Council of the Indies again comes out as the clear leader with one-fourth of the possible influence. The corporation eclipses Ensenada, who loses slightly, by more than six percentage points. The viceroy expands his role to a respectable 14.01 percent, while the archbishop and Judge Valcárcel also gain. Meanwhile, both the consulado and the Duke of Huéscar drop dramatically as a result of their lack of connec-

tions outside of Spain, each losing about two-thirds of their sway. The weak Count of Jala gains, while the friars lose.

#### THE CHANGING POWER OF TRANSATLANTIC NETWORKS, 1702–1755

The power of the viceroy rose slightly in the first half of the eighteenth century. While Philip V's counselors restrained Albuquerque because of his excessive collaboration with parts of the Mexican establishment, Prime Minister Ensenada expanded viceregal jurisdiction by giving the official complete oversight over the royal treasury in Mexico. The power index corroborates this argument. In the empirical model analyzing power alone, Albuquerque had a somewhat lower index (10.4 percent) than Revillagigedo (11.7 percent). Therefore, the model suggests that when Revillagigedo strengthened royal might in Mexico, he also increased his office's power. Despite his potentially divisive program, Revillagigedo built more ties with society than did the polarizing Duke of Albuquerque. Consequently, the network analysis demonstrates that Revillagigedo extended his edge (14.64 percent) over his predecessor (12.02 percent). The historiography has argued that José de Gálvez, secretary of the Indies (1776–1787) under King Charles III (1759–1788), tried to restrict the power of viceroys by introducing regional intendants and powerful *audiencia* regents (Pietschmann 1991, 198–199). On the informal level of politics at least, one cannot extend this argument to the pre-Gálvez era.

Historians have also debated the trajectory of the Council of the Indies. The French scholar Gildas Bernard (1972, 2003–2004) maintains that the Bourbon rulers broke the council's influence after most ministers collaborated with pretender Archduke Charles during the occupation of Madrid in 1706. Philip V purged disloyal counselors and delivered the coup de grâce to the institution by establishing the secretary of state for the Indies in 1714. The secretary took charge of almost all political and economic affairs of Spanish America, reducing the corporation's role to that of an appellate court. Mark Burkholder (1976, 405–407, 420–421) has challenged this view, stating that the council was in decay since the seventeenth century. However, beginning in the 1750s judges from the American *audiencias* began moving up to the council, thus improving the quality of the personnel. A royal decree from 1773 declared the equality of the Council of the Indies with the Council of Castile, up to then the apex of conciliar administration. Councilors obtained the same salary, and promotion into the Council of Castile ceased. Burkholder (1976, 421) sees this as a "renaissance in importance" of the Council of the Indies.

I agree with Burkholder's social and institutional interpretation, but historians have underestimated the informal power of the Council of the Indies. During Albuquerque's years the council held 21.11 percent of

power on its own and 31.47 percent through networking. During Revillagigedo's viceroyship, the body declined to 19.87 percent of influence alone and 23.53 percent through the network. Despite the slide, the corporation still wielded about one-fourth of the influence on Mexican matters. The weighted simulation underscores this view. Through networking, the early-eighteenth-century council soared from 14.39 percent to 32.38 percent. During Revillagigedo's tenure meanwhile, the institution had dropped overall, but it defended 24.76 percent of power through its connections, whereas individually it only held 12.72 percent.

Consequently, historians have overrated the influence of the Princess des Ursins and the Marquis of la Ensenada on Mexican affairs.<sup>21</sup> Ursins exercised 15.16 percent of power on her own, surpassed by only the Council of the Indies. Ensenada achieved a respectable 26.14 percent. However, the transatlantic networks counterbalanced the standing of these politicians, which declined to 11.39 percent for Ursins and 23.17 percent for Ensenada. Although the prime minister still held sway with about one-fourth of power, this number is lower than expected for someone who his contemporaries called the "secretary of everything" (Father José Francisco de Isla, cited in Gómez Urdáñez 2002, 80). The weighted majority index supports this view. Ursins captured 15.42 percent alone and declined to 8.01 percent in the network. In comparison, Ensenada achieved 19.78 percent in the individual analysis but fell to 18.53 percent in the network because of his relative scarcity of ties.

The consulado's trajectory in the indices follows roughly the path outlined by historians. Philip V's advisers tried to limit the mercantile guild's role and open America to French commerce. In 1706 the monarch had the chief representatives of the venerable institution thrown into prison. In 1715, after the fall of the stridently anticonsulado secretary of the navy and the Indies, Bernardo de Tinajero, the corporation rebounded and stalled further liberalization of the commercial system with some success (Kuethe 1999, 35–66). In the abstraction, the consulado exercised 8.06 percent of power individually and 8.33 percent in the network during Alburquerque's tenure. In the 1750s, the consulado enjoyed 19.87 percent of influence individually, while sinking through the lack of connections to 15.59 percent in the network analysis. The weighted simulation assigned 6.26 percent and 4.64 percent to the body in the network under Alburquerque and revealed a more precipitous drop for Revillagigedo's time from 12.72 percent to 4.48 percent.

21. Henry Kamen (2001, 42) argues that Ursins "took decision of general politics" in Spain. John Lynch (1989, 73) holds that Ursins dominated government, while her confidants established a French-style system of rule. Gómez Urdáñez (1996, 30–31) labels Ensenada a "despot."

The role of the clergy is more difficult to assess. Archbishop Juan de Ortega y Montañés belonged to the network of the merchant Luis Sánchez de Tagle and helped stymie Alburquerque's attack on the Tagle wedding. However, the bishop of Oaxaca drove the secularization in his see. In the reductionist model he is included in the persona of the archbishop, although the historical archbishop merely endorsed sequestering regular parishes while not participating actively. With this in mind, Archbishop Ortega y Montañés achieved 9.92 percent in the network analysis (14.01 percent alone). Meanwhile, his successor, Archbishop Manuel Rubio y Salinas, collaborated with Revillagigedo in the renewed drive for secularization. This archbishop otherwise remained in the background, obtaining 3.49 percent in the network power index (3.93 percent individually), less than half the power of his predecessor. Finally, the Count of Miravalle, an oligopoly merchant, who nonetheless maintained contacts to fleet merchants, was much stronger than the Count of Jala. Jala, although a crony of Viceroy Revillagigedo, remained more isolated socially.

#### CONCLUSION

In this article I have analyzed the power of selected political actors in the transatlantic Spanish Empire and the impact of networks of communication within a formal analytical model. The model quantifies and delivers a clear concept of power and introduces a game-theoretical network analysis to Latin American historical scholarship. The approach draws on the idea of the Shapley value and Myerson's resulting computation of the influence of social connections. Networks at times dramatically enhanced the role of actors in the empire. From the vantage point of this model, historians obtain new insights into the power of actors and their networks that would otherwise remain hidden. Scholars will be able to corroborate these results by adding actors and coalitional information to the model to achieve the same outcome.

Historians have argued that the Council of the Indies declined in power in this period. However, they have underrated the informal influence of this institution, which was exceptionally well connected in the Atlantic empire. The institution still exercised almost one-fourth of total power on Mexican affairs by the mid-eighteenth century. Conversely, scholars have overrated the role of the French counselors in the first decade of the eighteenth century, prominent among them the Princess des Ursins, and that of the prime minister under Philip V and Ferdinand VI, the Marquis of la Ensenada. Meanwhile, viceregal power increased slightly. Although Revillagigedo pursued a policy to enhance monarchical control in Mexico, his broader connections with society and the Spanish court gave him an edge in informal influence over his controversial predecessor Alburquerque.

The weighted majority approach largely verified the robustness of these findings.

The ancien régime poses particular problems to a game-theoretical approach. The sources often obscure social networks and political actions, because officially the Spanish state frowned on the influence of client networks on politics. Theoretically, the king, advised by the corresponding institutions or statesmen, made decisions and loyal bureaucrats and other vassals executed them. Analyzing how much things differed from this rhetoric has been one of the aims of this article.

The model would also be well suited for historical parliaments or deliberative bodies in which such discussions and networking occurred more in the open and members or groups could build majorities according to rules of order to advance their political will. The English Parliament, or to a degree the German Imperial Diet, come to mind. The interdisciplinary approach serves here to measure the sway of historical actors in the Atlantic Spanish Empire from 1700 to 1755, a largely neglected period. By doing so, this model also provides a better understanding of the precursors of the so-called Bourbon reforms after 1765 and the independence of Mexico in 1821.

#### APPENDIX

The appendix references the sources that reveal communication between actors. This information served to draw the graphs in Figures 3 and 4. Viceroy Alburquerque had good contacts with the Council of the Indies. In 1706 the king ordered a purge of the councilors after many had collaborated with the pretender Archduke Charles. The newly appointed councilors followed more closely the king's advisers, such as Ursins. However, Juan de Otalora, a kinsman of Alburquerque's secretary, joined the council in 1708 (Bernard 1972, 3–6, 83n43–44, 215n46). Medinaceli presided over the council from 1702 to 1703 but lost sway (Bernard 1972, 213–234). The consulado slowly recovered its influence on politics (Klaveren 1969, 172–174).

Both audiencia judges, Tovar and Uribe, communicated with the council. Uribe achieved backing against Alburquerque (real cédula to the Duke of Linares, Madrid, July 21, 1710, AGI, México 646; see also real cédula, Madrid, November 25, 1719, AGN, RCO 40, exp. 139, ff. 316–330; consulta, Madrid, November 22, 1712, AGI, México 377). Additionally, Uribe fought with the archbishop against the viceroy (consulta, Madrid, August 10, 1708, AGI, México 403). Tovar served as the council's *agente fiscal* before his advancement to oidor (Burkholder and Chandler 1982, 330). Alburquerque had good relations with Tovar, who participated in the general junta on *presidios*, Mexico City (July 28, 1706, Biblioteca Nacional de México,

Archivo Franciscano, 479, no. 12/209.3). Tovar also lauded the viceroy for capping prices of the fleet merchants' goods (March 14, 1706, AGN, Civil 1743, exp. 38). Luis Sánchez de Tagle called Tovar the "hidden general advisor" of the duke (Tagle to king, October 13, 1704, AGI, México 642, f. 936). The council approved of the archbishop's complaints against Albuquerque (December 14 and 16, 1703, both in AGI, México 642, ff. 567–570 and 627–629; consulta, June 19, 1704, AGI, México f. 882). The viceroy discusses the relationship between Sánchez de Tagle and the archbishop (November 29, 1703, AGI, México 642).

General Garaicoechea supported Albuquerque's coalition (archbishop to king, May 4, 1703, AGI, México 642, f. 548). Garaicoechea also supported the prosecution of Albuquerque's enemies (declaración, November 24, 1706, AGI, Escribanía 263 A). In addition, Garaicoechea praised Albuquerque's conduct in the viceroy's *residencia* (AGI, México 657, cuad. 1, f. 253). Both Garaicoechea and Miravalle belonged to the military order of Santiago. As prior of the Mexican consulado in 1706, Miravalle opposed the fleet merchants, so did Garaicoechea as the consulado's deputy (*parecer* of the Mexican consulado, March 20, 1706, AGI, México 660). Miravalle meanwhile became compadre of Sánchez de Tagle's nephew (testimony, July 11, 1703, AGI, México 642, ff. 39–42).

Viceroy Revillagigedo had good connections with the Count of Jala (his full name is Count of San Bartolomé de Jala), whose daughter married the viceroy's secretary. The viceroy's son became the couple's compadre. Revillagigedo also promoted Jala's son to the captaincy of the consulado's battalion (Ladd 1976, 199; Castro Santa-Anna 1854, 35, 59). The viceroy repeatedly criticized Oidor Francisco de Echávarri (Revillagigedo to Ensenada, January 23, 1752, AGI, México 1506, no. 109). The fiscal of the council supported Echávarri. The same was originally true for Echávarri's fellow *colegial* (member of an exclusive residence hall associated with a university) at Alcalá de Henares, Oidor Domingo de Valcárcel. Valcárcel married the Count of Santiago's daughter. In the 1770s the Counts of Santiago also mediated in the inheritance quarrel among the Count of Jala's descendants (Tutino 1976, 72–75, 100). Revillagigedo came to consider Valcárcel indispensable (Valcárcel to Revillagigedo, January 22, 1752, AGN, Civil 2214, exp. 4, ff. 1–82; Revillagigedo to Ensenada, March 22, 1748, and January 23, 1752, AGI, México 1506, No. 40, 109; Burkholder and Chandler 1982, 105, 339–340). The oidores appealed to the Council of the Indies in their quarrel over seniority in AGI, Escribanía 1060 B. Echávarri also communicated with the council while taking the fiscal Aranda's *residencia* (Archivo Histórico Nacional (Madrid) 21460, exp. 7, cuad. 1–3).

The regent of the tribunal of accounts continued his close relationship with Revillagigedo even after the viceroy's departure (Barroeta to Revillagigedo, June 23, 1761, and July 1, 1761; Archivo de los Condes de



Revillagigedo, University of Florida, microfilm reel No. 404 [hereinafter ACR 404]). Barroeta's friend, the cathedral treasurer Ignacio de Cevallos, baptized the daughter of Revillagigedo's secretary (Castro Santa-Anna 1854). Barroeta also had close ties to the Mexican archbishop through Cevallos (AGI, México 1506, No. 109). For the relationship of Barroeta to the *audiencia*, it is known that Oidor Domingo Valcárcel belonged to a network that had foiled the 1729 inspection of the tribunal of accounts (Bertrand 1992, 147–148). Barroeta had contacts with several of the *audiencia* judges.

Revillagigedo and the archbishop worked together well during secularization (see, e.g., Revillagigedo's *ruego y encargo* to the archbishop, May 20, 1751, AGN, Bienes Nacionales 396, exp. 16, and the prelate's reply from May 22, 1751, AGN, Bienes Nacionales 396, exp. 16). The king had presented Rubio y Salinas for the archdiocese of Mexico in 1747 during Ensenada's term (see king to pope, Buen Retiro, December 21, 1747, AGI, México 439). The archbishop favored secularization (see, e.g., Rubio y Salinas report to Ensenada, July 8, 1753, AGI, México 2712). The link between the archbishop and the *audiencia* is a bit tenuous. In 1755 the archbishop recommended to the Crown his archdeacon, Luis Hoyos y Mier, who later also mediated in the family quarrel of the Counts of Jala, thus building a tie to Judge Valcárcel as well (Archbishop Rubio y Salinas to king, August 2, 1755, AGI, México 807; Tutino 1976, 72).

The friars, meanwhile, were less connected. The royal order to exclude the Council of the Indies and the American tribunals from jurisdiction shows the significant gap between Ensenada's alliance and the friars (real cédula, Buen Retiro, October 4, 1749; AGN, RCO 69, exp. 103). There is tenuous proof as to the communication between magistrates and the friars; I therefore assign only one arc to Oidor Echávarri. The Count of Jala had ties through his *compadre*, the *síndico* of the Franciscan college in Zacatecas (*certificación*, March 9, 1757, AGI, Escribanía 246 A, cuad. 6, ff. 9v–12; Castro Santa-Anna 1854).

For the conflict between Ensenada and the Duke of Huéscar, see Téllez Alarcia (2001, 124–128). For the link of Huéscar to the consulado, see Kuethe (1999, 52–54). Ensenada's associate, José de Carvajal y Lancaster, served as secretary of state and governor of the Council of the Indies, where he influenced appointments until his death in 1754. Tensions, however, between Carvajal and Ensenada heightened, and when the secretary of state died in 1754, his clientage joined the Huéscar camp (Lynch 1989, 160–163, 182–183). Meanwhile, Ensenada communicated with the council. Ensenada also tried to break the consulado's privileges. Little suggests that Mexicans supported the consulado, and the corporation does not have any links to American groups (see also Kuethe 1999, 52–54).

## SOFTWARE

The Shapley value for player  $i$  with respect to a CF  $v$ :

$$(7.1) \quad \Phi_i(v) = \sum_{\{S|i \in S\}} \frac{(s-1)!(n-s)!}{n!} (v(S) - v(S \setminus \{i\}))$$

## AN APL PROGRAM FOR THE SHAPLEY VALUE:

```
*****
SH< SHA V;L;S;T;COEF;I;Q;N
· COMPUTES THE SHAPLEY VALUE
· Input: A coalitional function v listed as an 2*N vector V.
· If the CF is given by an ARRAY V, apply on ,V (catenation).
· Output : SHAPLEY VALUE as an N vector.
·
*****
N<2*pV
SH<NpO
L<2*N
T<~1+S+ADDITIV Np1
T[1]<0
COEF<((!T)×!N-S)÷!N
I<0
UP:→(N<I<I+1)/O
Q<2*N-I
S<Lp(QpO),Qp1
SH[I]<+/COEF×(SxV)-(QpO),(-Q)∨V×1-S
>UP
```

Figure 5 *The Shapley Value and Its Calculation*

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