

**Previous commitments & future promises:
The relationship between military capacity, alliance reliability
& future alliance potential, 1950-2005[•]**

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Abstract

In a recent article, Gibler examines how previous alliance violations affect future alliance potential during a leader's tenure among dyads (2008). Gibler shows reputation plays a role, however his models do not consider how power and democracy serve as mediating influences on alliance formation. Though he controls for major power dyads, joint democracy, and polity difference in the empirical treatment of the question, we argue his theoretical argument fails to address the effects constraints on involuntary defection. Constrained states may be more likely to involuntarily defect from security commitments. Involuntary defection arises from two different but endogenous sources: 1) a lack of tangible military resources and 2) a lack of sufficient domestic support among the principal veto players to fulfill the commitment. Though both sources of defection are endogenous, only the second source directly affects a leader's political tenure and can be addressed by the leader in the short term. Rationalists argue the effects involuntary defection on reputation should be treated differently when considering future cooperation (Chayes & Chayes 1995; Langlois & Langlois 2004). Thus, we pose the following question: What effects do democracy, military capacity, and previous alliance violation have on future alliance potential for states? Though a crisp set analysis (Ragin 1989, 2000), we examine the effects of reputation, power, and democracy on future alliance commitments on a sample of 60 states in the modern era.

Introduction

The commitment problem is central to a vast majority of research in international relations seeking to answer questions relating to cooperation, conflict resolution, and state-building. Despite the variety of research programs that address credible commitment, few scholars have examined how failing to honour commitments can affect future commitment potential. Most examinations of commitment reliability have focused on international alliances, specifically if states honour their commitments when called upon (Sabrosky 1980; Leeds 2003; Leeds & Savun 2007). Early research (Sabrosky 1980) presented a pessimist picture of interstate cooperation. However, recent research finds that most states honour their commitments when called upon, for example by war, (Leeds 2003); however states may abrogate alliances by violating the terms of the agreement without the agreement itself being called into force (Leeds & Savun 2007; Leeds, Mattes & Vogel 2008). Recent research by Gibler (2008) has highlighted the role of reputation in alliance behaviour. Based on an empirical analysis of dyadic alliance formation, Gibler finds that leader's who violated earlier agreements should be less likely to form future alliances (2008) during their tenure. But, whether cheater states can ally in the future at all continues to be an empirical question. This paper intends to examine that research question using a qualitative comparative analysis of a crisp set (Ragin 1989, 2000). Briefly, we suggest that states that violate alliance agreements due to involuntary constraints are not punished by others by being unable to ally in the future. Based on an analysis of 60 states with terminated alliances before 1950, our results suggest cheaters are forgiven when they cheat under particular conditions.

Credible commitment and alliance termination

The capacity to credibly commit is central to understanding cooperation among sovereign states in an anarchic world. In fact, since cooperation is costly for states rationalists suggest states should only cooperate when they believe the expected benefits to be greater than the expected costs (that may be measured in absolute or relative terms depending upon the theoretical approach one favours). It follows that alliances should be terminated when states calculate their benefits received from the alliance are less than anticipated because either the costs of cooperation are higher than anticipated or because their internal situation is changed so that the original distribution of benefits as negotiated by the agreement are not sufficient given their revised expectations (Barkin 2004; Langlois & Langlois 2001). Over the last decade, Brett Ashley Leeds has made a substantial contribution to understanding the alliance process via the Alliance Treaties Obligations and Provisions Project (ATOP) (Leeds et al. 2002).

In an anarchic world order where national leaders retain the authority, relying on promises could be risky. With no international authority managing and enforcing relations among states, agreements are threatened by opportunistic behaviour (Leeds 2003). Some scholars have argued that promises without enforcement have no independent force. Treaties are, therefore, just "*scrap on paper*" that could be easily violated once state interests change (Leeds 2003). In fact, in the world of military security "where honouring past commitments involves significant costs and risks, treaties should be particularly vulnerable to violations" (Leeds 2003, 802). Recent scholars, however, have questioned this view, based on the fact state leaders are continuing to invest time and effort in international agreements. In addition, they are still making military alliances an integral part of their security policy. This called upon scholars to reinvestigate the value of formal international agreements in security cooperation (Leeds 2003).

Contemporary alliance theory suggests that leaders conduct written cooperative agreements in the form of alliances for two primary reasons (Leeds & Savun 2007) and may help leaders to meet other distributional needs (Levy & Barnett 1992; Kimball 2010). First, leaders may use formal agreements in order to manage cooperation among them. Military cooperation among independent states allows greater specialization and for states to take advantage of economies for the sake of defense (Lake 1999, cited in Leeds & Savun 2007). In addition, states may use formal alliances in order to signal their intentions to other states during international conflicts. When forming alliances, states signal both to their partners and potential enemies, their value for cooperation and the costs they are willing to pay to ensure cooperation. When informing potential adversaries of the costs they are willing to assume in support of a partner, leaders could deter the initiation of a conflict or encourage quick capitulation (Fearon 1997; Morrow 1994; Smith 1995, 1998, cited in Leeds & Savun 2007). Moreover, alliance formation makes allies more likely to intervene in support of their partners when conflict occurs (Leeds & Savun 2007). Engaging in policy coordination through alliances improves the allies' ability to work together and increases the chances of success when allying against a common adversary (Morrow 1994; Smith 1998, cited in Leeds & Savun 2007). At the same time, breaking formal commitment is often viewed as undesirable because it could lead to both international and domestic audiences questioning the leaders' credibility and competence (Fearon 1997; Smith 1995; 1998, cited in Leeds & Savun 2007).

While forming alliances could have the advantage of realizing the national security and foreign policy objectives of states in an effective and efficient manner, it involves paying a certain cost (Leeds & Savun 2007). When leaders negotiate and form alliances, they implicitly calculate two types of costs, those of alliance formation and those of alliance maintenance. While the costs of formation reveal themselves throughout the alliance negotiation process, states can only estimate the costs of maintenance based on beliefs about current capabilities. This includes managing the alliance (maintaining official organizations and coordinative entities, engaging in joint planning, etc.), in addition to lost autonomy and greater foreign policy consultation and coordination that are essential to maintain their credibility in the alliance (Leeds 2003). Regardless of the advantages and the costs involved in forming alliances, theories predict that state leaders are likely to fulfill their alliance commitments most the time (Leeds 2003). In fact, Leeds, Long and Mitchell affirm that state leaders fulfill their commitment in 74.5 percent of the cases, when conditions invoking alliance commitments arise (Leeds 2003). However, states abrogate 25 percent of their alliance commitments in the event of conflict. This leads us to wonder about the conditions that provoke state leaders to violate their alliance commitments.

Leeds (2003) investigates the conditions under which leaders are most likely to violate their alliance commitments in the event of conflict.¹ She argues that alliance commitments become vulnerable to violation when either the costs a leader expects to incur from formation and violation are comparatively low. These conditions are those that encourage bluffing and risk taking. In addition, states are most likely to violate alliance commitments

¹ Most studies of alliance reliability only consider the cases where the commitment is called upon to be fulfilled, however states may violate alliances without having them called into action by conflict. Of the 66 alliances in our time period that are violated, only 15 were violated during war.

when significant factors change from the time the alliance was formed until it was invoked, causing leaders to re-evaluate their interests.

When analyzing the population of alliances and wars from the period of 1816 to 1944, Leeds (2003) finds statistical support linking non democracies and major powers to alliance violation. In fact, non-democracies and major powers are likely find the costs of renegeing on agreements comparatively low since sanctioning those states is more difficult. On the other hand, democracies are found less likely to violate commitments due to electoral cycles providing regular sanctioning opportunities. In addition, empirical evidence suggests that major powers are likely to break their commitments to minor powers, whereas minor powers are likely to honour their commitments with major powers (Leeds 2003). In other words, in asymmetric commitments, the cost of renegeing is not equal for major and minor powers. However, symmetric promises among major states and minor states tend to be honored (Leeds 2003). Thus, while military capacity may play a role in whether an individual state violates an alliance agreement, it could also be the case that military capacity affects whether states are forgiven for cheating. Since alliance violations among states with different military capacities are likely.

Moreover, Leeds' analysis (2003) suggests that variables indicating changes that have occurred since that alliance was formed, mainly with respect to the power of a state and the domestic policymaking processes, predict the reliability of alliance partners. In fact, she claims that those factors are used by challengers or initiators of conflict in order to determine the reliability of alliances of their targets. As a result, they are likely to initiate a conflict when they know that the allies of their targets are unreliable. Changes that occur from the time the alliance was formed represent signs about the fragility of alliance commitments for challengers. In other words, weak and unreliable alliance partners could become easy targets for challengers.

Leeds and Savun (2007) are interested in finding whether biding international agreements are only valuable as matters stand (*rebus sic stantibus*) or if they constitute pacts respected in good faith, regardless of the changes of circumstances that may take place in the future (*pacta sunt servanda*). After analyzing bilateral alliances formed between 1816 and 1989, they find that alliances become more likely to be broken opportunistically when one or more members experience changes that affect the value of the alliance (Leeds & Savun 2007). For instance, changes in military power, changes in domestic political institutions and formation of alliance with outside states make termination of alliance in violation of the terms of the agreements more probable (Leeds & Savun 2007). Changes in one of the members' military capabilities increase the hazard rate of opportunistic abrogation by 152%. Changes in domestic political institutions of either member increase hazard rate by 77%. If an alliance member forms an alliance with a new outside partner then, hazard rate of opportunistic abrogation increases by 128%. The empirical evidence of Leeds and Savun (2007) also reveals that the inclusion of democratic states increase alliance reliability as opportunistic abrogation is less likely when democracies are included in the alliance. Finally, they authors find that alliances tend to last longer also when linked to non-military cooperation (Leeds and Savun 2007).

Leeds, Mattes and Vogel (2008) study the effect of changes in domestic leadership on the decision to maintain military alliances. Their analysis of bilateral alliances between 1919 and

2001 lead them to find that the likelihood of opportunistic abrogation of an existing alliance is nearly four times greater following a change in leadership with a different societal base of support in non-democracies. In democratic states, however, there is no observable effect of similar domestic changes (Leeds, Mattes & Vogel 2008). In other words, commitments to international agreements are not at risk of violation in case of leadership turnover in democratic states, even when the party in power changes along with the leader. Consistent with the previous mentioned results of Leeds (2003) and Leeds and Savun (2007), democratic states remain to be reliable alliance partners even when they experience domestic political changes. In fact, leadership changes do not prevent them from remaining both accountable and consistent in their foreign policy commitments.

Instead of studying the conditions that encourage alliance reliability, Gibler (2008) uses the variable as an indicator of state's reputation. He examines the effects that opportunities to uphold previous commitments could have on future alliance commitments and conflicts. His empirical results lead him to conclude that "previous alliance violations decrease the likelihood of future alliance formation" Gibler (2008, 25). This is true because "leaders pay attention to the past actions of other states when considering their alliance partners; leaders seek other leaders who honour their commitments and avoid those leaders who do not" (Gibler 2008, 21).

Reputation has been analyzed in crisis diplomacy by a number of authors. In fact, Sartori (2002, 2005) and Guisinger and Smith (2002) argue that building reputation is valuable to avoid uncertainty in crisis diplomacy (Gibler 2008). Sartori (2002, 2005) suggests that demonstrating an honest reputation for deterrence against challengers in the past could not be dismissed in future crises as bluffing. Likewise, states that have been caught as previous bluffers should have difficulty making others believe their future threats to be credible. Since their intentions of resolve could no longer be taken seriously, their intentions of resolve can no longer be credibly conveyed to potential challengers (Gibler 2008). This is why decision makers use reputation at some point when forming their acts and arguments (Gibler 2008). In fact, traditional deterrence theory considers reputations as important indicators to use in future crises. Theorists agree that reputations offer valuable information when the costs of signaling are low. In fact, reputations could sometimes be the only "factor capable of fostering interstate cooperation on the most difficult issues of peace and conflict". (Gibler 2008,430). Nevertheless, empirical tests of individual crises have provided mixed results about the value of reputation. Huth and Russett' analysis (1984) of fifty-four cases of extended deterrence showed that past behaviour had no effect on future deterrence crises (Gibler 2008). Moreover, Fearon (1997) and Smith (1996, 1998) argue that studies who study reputation through crises behaviour often suffer from selection effect (Gibler 2008).

In fact, Gibler (2008) finds that using alliance reliability, instead of crisis behaviour, to test an intangible concept such as reputation is far more advantageous. This is because "alliances are public signals of intentions in the event of conflict" (Gibler 2008, 433). State's reputation could be known when comparing future action of signatory alliance members against their initial promises, committed to at the time of forming the alliance (Gibler 2008). In addition, pledges of defence, neutrality, and non-aggression are free from the ambiguity found in diplomatic languages that hide threats at the time of crises (Gibler 2008). Moreover, given that alliances are considered less costly than prewar signals (Fearon 1994) made during crises, state leaders find it necessarily to observe the commitments of potential allies. They become

more attentive to signals reinforcing initial promises of other states, especially signals sent to honour similar commitments to previous alliances made with different alliance members (Gibler 2008). Stated differently, the “cheap talk” (Mercer 1996) that characterizes alliance agreements becomes a valuable indication to test the credibility of other states, signalling thereby the resolution intentions in the future (Gibler 2008).

Together, these authors identify several factors that make alliance violation more likely including non-democratic regime types, asymmetric powers among alliance members and changes affecting the value of the alliance after committing to an alliance. Opportunistic violation become possible, therefore, when one or more alliance partners experience one of the followings: changes in military capabilities of alliance members, changes in domestic political institutions or even finding new alliance partners outside the existing alliance. Whereas leadership turnovers in non-democratic states increase the likelihood of alliance violation, similar changes do not affect alliance commitments for democratic regimes. Perception and beliefs about alliance reliability and the costs of maintenance matter at alliance formation but non-major powers are less capable to absorb changes in the costs. In other words, for constrained states, the alliance cost calculation is more sensitive or fragile and thus more prone to miscalculation that could lead to involuntary defection.

In order to illustrate the relationship between alliance reputability and future alliance potential one might characterize the relationship using a 2x2 matrix as indicated below by Figure 1.

Figure 1: Reputability and Future Alliance Behaviour

	Future Alliance Formation	~ Future Alliance Formation
Reputable	<u>Box A</u> Reliable state allies	<u>Box B</u> Reliable state does NOT ally
~ Reputable (state violation caused alliance termination)	<u>Box C</u> Unreliable state allies	<u>Box D</u> Unreliable state does NOT ally

If Gibler is correct, then there should be almost no examples of states that form alliances after having violated previous agreements since future alliance partners should doubt the credibility of the commitment and choose not to ally with them. In other words, the empirical evidence should indicate that there are no cases in Box C since alliance violation should decrease future alliance potential.

Hypothesis 1: If the given state was responsible for violating an alliance, then future alliance potential should be negatively affected.

In order to examine the verity of Gibler’s claim, a dataset is constructed of states that were members of alliances that terminated before 1950 using the ATOP data. Among the states identified as terminating alliances after 1840² and before 1950, we determine whether the state member in question was responsible for the violation of the alliance. In most cases, the member who was responsible for violating the alliance was indicated in the ATOP codesheet.³ The sample consists of 60 states.⁴ Finally, we examined among the states in the sample which states formed alliances in the future. Figure 2 below indicates where these 60 states can be placed on the 2x2 matrix of alliance reputability and future alliance behavior.

Figure 2: Alliance Reputability and Future Alliance Potential of the states in the sample

N = 60	Future Alliance Formation (after 1949)	~ Future Alliance Formation
Reputable N = 42	<u>Box A</u> N = 31	<u>Box B</u> N = 11
~ Reputable N = 18	<u>Box C</u> N = 17	<u>Box D</u> N = 1

As is clear from the table, the evidence drawn from the sample fails to support Gibler’s claims as 30% of the states in the sample were responsible for alliance violations. Moreover, among violators 94% are able to form alliances in the future suggesting that alliance violation is not a hurdle to future cooperation. The presence of so many cases of alliance violation followed by future alliance formation suggests that researchers need to more completely theorize about the causes of alliance violation and, in fact, based on the substantial evidence one might believe that not all alliance violations are equal.

Arguments and Hypotheses about Involuntary Defection

In fact, the managerial approach (Chayes & Chayes 1995, Langlois & Langlois 2004) argues that not all defections should be treated equally. In fact, Putnam (1988) first introduced the argument that defection from commitments could be the results of domestic constraints. Putnam uses the example of Senate ratification of international treaties to support his argument. He suggests that when national and international winsets fail to overlap an

² In an effort to create the largest sample possible, we code alliances that ended in the 19th century. However, only two cases ended in the 19th century thus the majority of our cases are from the 20th century.

³ In the few cases where an alliance terminated because of mutual policy differences, neither state was coded as violating the agreement. The two cases where violation occurred but the member committing the violation was not identified were dropped from the analysis (ATOP# 1700 & 3467).

⁴ This sample includes states that were sovereign members of the state system for at least 75% of years included in this time period and that had alliances which terminated before 1950.

executive may find his internationally negotiated agreement unable to be ratified by his national legislature. Putnam suggests this case represents one of involuntary defection since the leader violated his promise, not of his own volition, but because internal constraints at home prevented following through on the commitment. As a result, Putnam argues democratic executives should take the references of veto actors into consideration during the negotiation phase and only conclude agreements they *know* to be ratifiable at home. However, due to the regular rotation of leaders in democracies, domestic veto players can change much more frequently than the players at the international table. For example, though the NAFTA agreement was negotiated under George Bush, Sr. it was ratified under the first Clinton administration. Since the domestic veto players had changed between the end of the international negotiation phase and the start of the ratification phase, Clinton used a variety of side-payments to secure the necessary Senate votes for ratification (Box-Steffensmeier, Arnold & Zorn 1997). One could more broadly indicate that systems with ratification procedures or other veto points (Tsebelis 1999) in the international cooperation process are constrained in such a way that leaders may unintentionally be unable to fulfill their promises. The political systems which have the highest level of constraints are democracies (Buono de Mesquita et al 2003, Doyle 1986, Tsebelis 1999). Based on these arguments, democratic violators should be more likely to be forgiven since other players could infer that domestic constraints were the source of the violation as opposed to intentional actions by the leader.

*Hypothesis 2: If, at the moment of alliance violation, the offending state was **a democracy**, then future alliance potential should not be negatively affected.*

While institutional constraints can be one source of involuntary defection from commitments, there is also good reason to believe that resource constraints can have a similar effect. When states have insufficient military capacities to fulfill a commitment, they may be forced to abrogate the agreement. Though the search for resources is among the major reasons for alliance formation,⁵ Leeds (2003) identifies changes in resource attribution as a cause of violation as well. As much as changes in resource endowment could be one possible reason for alliance termination, another possible reason for alliance violation could be updated beliefs about actual resource endowment post-alliance formation. In fact, a lack of resource capacity is another likely cause of involuntary alliance violation since states may have bluffed about their actual level of capacities to join the alliance and, then, find themselves unable to fulfill their commitment when called upon. Moreover, it is possible that weaker partners misjudged the possibility the alliance itself might be challenged as Smith (1995, 1996) suggests credible alliances will not be challenged so if an alliance is challenged then its deterrent capacity was questionable from the start. Even if the deterrent capacity of an alliance is questionable, weak states may still be motivated to join because of their desire to have access to greater military resources.

*Hypotheses 3: If, at the moment of alliance violation, the offending state was **not a major power**, then future alliance potential should not be negatively affected.*

⁵ See the capability aggregation model of alliance formation, Morrow (1993). Other distinct models of alliance formation are presented by Altfeld (1984), Levy & Barnett (1992) and Kimball (2010).

The hypotheses specified above will be tested on a sample of 60 states that were identified based on the following two characteristics: a) they were members of alliances that terminated before 1950 and b) they maintained their sovereignty for more than 75% of the time period.⁶ The next section will detail the data as well as the methodology used to test the hypotheses.

Data & Methodology

This project uses data drawn from several sources in order to examine the hypotheses. Alliance data was taken from the ATOP dataset (Leeds et al. 2002). Using this data, the sample was created to include all states with alliances that terminated before 1950. These data were also used to identify which alliance member was responsible for violating the alliance agreement. Finally, these data were also used to code the dependant variable, the formation of a new alliance in the post-1949 time period. Major power status was determined based on the Correlates of War major power list (v. 2008.1, Correlates of War Project)⁷. Democracy data was coded dichotomously based on the Polity IV data (Marshall & Jaggers 2007).⁸ If a state was scored as 6 or above on the polity scale during the year in which the alliance was terminated or violated, it was coded as a 1 indicating the country was a democracy.

This paper uses a Qualitative Comparative (or Boolean) Analysis using a crisp-set (Ragin 1987, 2000). “Boolean analysis, unlike standard regression, is not handicapped by a small number of cases...it provides a way of testing all relevant causal combination, and by way of logical deduction, eliminates irrelevant factors...perhaps the most important advantage of the Boolean approach is that it addresses explicitly the idea that there can be multiple causes producing the same outcome” (Chan 2003, 58). When one uses crisp-set, the data are coded in a binary manner indicating the presence or absence of the causal condition as it relates to the presence or absence of the outcome of interest. Here our outcome of interest is the formation of an alliance in the post 1950 era. “The hypothetical causes then become the columns of a table (labeled A, B, C, etc.) with the supposed outcome usually as the last column, while the various cases under study, lets say nations, become the rows, known as a truth table. Each case is then assigned a 1 (one) if the condition is present, and a 0 (zero) if the condition is absent” (Wickham-Crowley 1991, 87). Then the number of cases that coincide with the various causal combinations are tabulated. The table is then systematically analyzed so as to reduce the causal combinations to only those for which the cases in the data conform. In determining the number of cases that fit each causal combination, the researcher can select a threshold for the analysis so causal combinations that fail to meet the threshold are excluded from the analysis. Table 1 presents summary results with causal combinations that exceeded the exclusion threshold. Finally, by use of Ragin’s (2000) fs/QCA program⁹ one determines which causal pathways are systematically related to the outcome of interest.

⁶ As a result of these restrictions, the sample excludes states that democratized after 1970 and newly emerged states after the end of the Cold War, by necessity since those states had no alliance reputations. Appendix 1 lists the states in the sample as well as the data.

⁷ Drawn from the state system list, available at <http://www.correlatesofwar.org/>.

⁸ Available from <http://www.systemicpeace.org/polity/polity4.htm>.

⁹ Program can be found at www.fsqca.com.

Table 1: Summary truth table for the sample

Combo	A	B	C	Outcome	N of cases
	Violator (X1)	Democracy (X2)	Non-Major Power Status(X3)	Success (Y = Alliance Formation after 1950)	
Abc1	1	0	0	1	1
ABc1	1	1	0	1	2
AbC1	1	0	1	1	12
ABC1	1	1	1	1	2
abC1	0	0	1	1	34
AbC0	1	0	1	0	1
abC0	0	0	1	0	8
abc0	0	0	0	0	0
Total cases					60

In the first column of Table 1, the causal combination is indicated where upper case letters indicate the presence of the causal factor and lower case letters indicate the absence of the causal factor, thus Abc1 is interpreted the number of non-democratic, non-major power alliance violators that form alliances in the future; there is only 1 example in the data. The explicit interest here is in the cases where there was a successful alliance formation or where $Y = 1$. According to Table 1, there are two general causal combinations that are likely to lead to future alliance behaviour: 1) if a state is a violator & non-major power (AbC) and 2) if a state is a non-violator & non-major power (abC). Both of those causal combinations highlight non-major power status indicating that the resource constraint argument is supported by the prime facie evidence. Almost 80% of the cases in the sample are observed in one of those causal paths. In order to understand the significance of the causal combinations, the relationships must be tested using the crisp-set analysis algorithm in the fs/QCA program (Ragin 2000).

Results of the crisp-set algorithm analysis, confirm the hypotheses presented. According to the Crisp-set analysis, there are two pathways to future alliance formation: 1) Violator & 2) non-democracy and non-major power status. Of particular interest are both the consistency and the coverage of these two causal pathways to future alliance formation. Consistency is the proportion of cases with the causal combination that also display the outcome and when this value is greater than .75, one can determine a subset relation does exist. Coverage is the number of cases following THIS causal path to the outcome divided by the total instances of

the outcome; it is a measure of empirical, not theoretical, importance. Table 2 presents the program results using the fs/QCA program (Ragin 2000).¹⁰

Table 2: TRUTH TABLE ANALYSIS of Future Alliance Behavior

Model: AFPOST1949 = f(VIOLATOR, DEMOCRACY, NONMAJPWR)

Algorithm: Quine-McCluskey (True: 1)

	Raw Coverage	Unique Coverage	Consistency
VIOLATOR+	0.354167	0.125000	0.944444
democracy*NONMAJPWR	0.729167	0.500000	0.760870

Solution coverage: 0.854167

Solution consistency: 0.788462

These two paths combine cover 85% (i.e. solution coverage = .8542) of the cases that form alliances and these two solution paths account for (or are consistent with) 79% of the alliance formation cases in the data (i.e. solution consistency = .7885). The proportion of violators that also form alliances is 94% while the proportion of nondemocratic non-major powers that form alliances is 76%. Of the 85% of the alliance formations that are explained by these causal paths 35% are explained by being violators alone (by calculating total coverage - raw coverage by violators) and 73% are explained by being nondemocratic non-major powers alone (total coverage - raw coverage by nondemocratic non-major powers) and, thus, 13% are explained by being both (total coverage - sum of unique coverage by violators + nondemocratic non-major powers).

Considered globally those results doubt upon Gibler (2008) since cheaters can find future friends according to this analysis. In fact, 94% of the cheaters found future allies and cheaters account for 35% of future alliance formations and 13% of nondemocratic non-major power cheaters form future alliances, thus weak nondemocratic states are forgiven for cheating.

Conclusions

The results of these analyses confirm that cheaters can play the alliance game in the future. In fact of the 85% of future alliance formations explained by the two causal pathways we identify, more than 1 out of every 3 states in the sample has a history of cheating and more than 1 out of every 10 states cheated while under involuntary constraints. Thus, Gibler's claim that leaders who do not honour previous alliance commitments are avoided in future rounds of alliance game play (2008, 21) does not receive empirical support based on this analysis. In fact, of the 18 cheaters identified in the data only one state is punished for violation (AbC0) and this state was a non-democratic non-major power (Ecuador). So

¹⁰ The complex, parsimonious, and intermediate solutions are exactly the same in this model since this is a crisp-set analysis, however those results may differ in fuzzy-set analysis.

cheating is most likely to be forgiven when states are non-democracies and non-major powers indicating that the resource constraint argument is better supported than the institutional constraint argument.

Despite some interesting conclusions, there are some limits to this study which should be noted. For example, the democracy score is recorded at the time of the alliance violation/termination and since these alliances all terminated before 1950 as a result there are few democracies in the sample. Another limit is that the causal conditions are coded using a dichotomous approach, though democracy is certainly a concept that can have varying degrees indicating that a fuzzy coding of democracy and fuzzy-set approach would be a natural future extension of this project.¹¹ Finally, this project examines only state reputations and it could be the case that individual leader's are more likely to be held accountable than states during their tenure.

Previous studies of alliance commitments have focused on the factors that increase the likelihood of alliance violation. A few studies (Gibler 2008) have attempted to analyze the relationship between the instances of honouring previous commitments and the potential of forming future alliances. Gibler's analyses (2008) lead him to believe that reputable alliance partners who have honoured previous alliance commitments are more likely to find future alliance partners. When accounting for regime type and military capacity, our empirical analysis demonstrated that alliance reputation does not necessarily determine future alliance opportunities, since non democracies and non major powers are forgiven for cheating, regardless of the fact that democracies are known to be reliable alliance partners as previous studies have shown (Leeds 2003, Leeds Mattes & Vogel 2008). The empirical evidence provides support for the claim that violations committed by states that are constrained militarily but not institutionally suggests that resource constraints may be more consequential than non-democracy when it comes to forgiving cheaters during the time period we analyze.

Cheating may not prevent future cooperative endeavours between states according to the analysis presented here. The reputational effects of cheating appear to be minimal if future cooperation potential is used to examine whether cheaters are sanctioned. Moreover, the results herein also add further fuel to the debate over the effects of asymmetric power on cooperation. As weaker states may be less likely to ally (Kimball 2006) but more likely to cheat and be forgiven, taken together these two findings suggest that limited capacity allows weaker states a mobility of action which major powers do not have. In conclusion, limited power gives actors less flexibility when making long-run calculations with respect to security cooperation and, as such, non-major power states may not be punished for involuntarily defecting from cooperation commitments since miscalculation is the source of the defection not dishonesty.

¹¹ See Chan (2003) for more on the limits of Boolean analysis.

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Appendix 1: States in the Sample and Data

COW ccode	Country name	Yr. Alliance Ends	Violator A	Democracy B	Non-major Power C	Alliance Formation Y
2	US	1947	0	1	1	1
20	Canada	1945	0	1	1	1
40	Cuba	1947	0	0	1	1
41	Haiti	1947	0	0	1	0
42	Dominican Republic	1947	0	0	1	0
70	Mexico	1947	0	0	1	0
90	Guatemala	1947	0	0	1	1
91	Honduras	1947	0	0	1	1
92	El Salvador	1947	0	0	1	1
93	Nicaragua	1947	0	0	1	1
94	Costa Rica	1947	0	1	1	0
95	Panama	1947	0	0	1	1
100	Columbia	1947	0	0	1	0
101	Venezuela	1947	0	0	1	0
130	Ecuador	1947	1	0	1	0
135	Peru	1947	0	0	1	0
140	Brazil	1947	0	0	1	0
145	Bolivia	1947	0	0	1	0
150	Paraguay	1947	0	0	1	0
155	Chile	1947	0	0	1	1
160	Argentina	1947	0	0	1	1
165	Uruguay	1947	0	0	1	0
200	UK	1949	1	1	0	1
210	Netherlands	1945	0	1	1	1
211	Belgium	1945	1	1	1	1
212	Luxembourg	1945	0	1	1	1
220	France	1945	1	1	0	1
230	Spain	1940	1	0	1	1
235	Portugal	1949	0	0	1	1
255	Germany	1945	1	0	1	1
290	Poland	1949	1	0	1	1
305	Austria	1938	0	0	1	1
310	Hungary	1949	1	0	1	1
315	Czechoslovakia	1949	0	0	1	1
325	Italy	1943	1	0	1	1
339	Albania	1848	1	0	1	1
345	Yugoslavia	1949	1	0	1	1
350	Greece	1945	1	1	1	1
355	Bulgaria	1949	1	0	1	1
360	Romania	1949	1	0	1	1
365	Russia	1949	1	0	0	1
375	Finland	1941	0	0	1	1
380	Sweden	1856	0	0	1	1
385	Norway	1945	0	1	1	1
390	Denmark	1940	0	0	1	1

450	Liberia	1945	0	0	1	1
530	Ethiopia	1945	0	0	1	1
560	South Africa	1945	0	0	1	1
630	Iran	1945	0	0	1	1
640	Turkey	1948	1	1	1	1
645	Iraq	1945	0	0	1	1
651	Egypt	1945	0	0	1	1
670	Saudi Arabia	1945	0	0	1	1
700	Afghanistan	1948	0	0	1	1
710	China	1945	0	0	1	1
712	Mongolia	1946	0	0	1	1
740	Japan	1945	1	0	1	1
800	Thailand	1945	1	0	1	1
900	Australia	1945	0	1	1	1
920	New Zealand	1945	0	1	1	1