Autocracies and the international sources of cooperation

Soumyajit Mazumder

Department of Political Science, Harvard University

Abstract

Under what conditions do autocracies peacefully settle disputes? Existing studies tend to focus on the domestic factors that shape conflict initiation. In this article, I show how domestic institutions interact with international institutions to produce more cooperative outcomes. Particularly, this study argues that as autocracies become more central in the network of liberal institutions such as preferential trade agreements (PTAs), they are less likely to initiate a militarized interstate dispute (MID). As a state becomes more democratic, the effect of centrality within the PTA network on the peaceful dispute settlement dissipates. This is because greater embeddedness in the PTA regime is associated with enhanced transparency for autocracies, which allows autocracies to mitigate ex ante informational problems in dispute resolution. Using a dataset of MID initiation from 1965 to 1999, this study finds robust empirical support for the aforementioned hypothesis. Moreover, the results are substantively significant. Further analysis into the causal mechanisms at work provides evidence in favor of the information mechanism. Autocrats who are more embedded in the PTA network tend to have higher levels of economic transparency and economic transparency itself is associated with lower rates of conflict initiation. The results suggest that an autocrat's structural position within the international system can help to peacefully settle its disputes.

Keywords

international conflict, international institutions, networks, PTA, transparency

Under what conditions do autocratic polities peacefully settle international disputes? The evidence accumulated under the Democratic Peace literature would suggest that the conditions are slim (Maoz & Russett, 1993; Oneal et al., 1996; Russett & Oneal, 2001). Recent work, however, shows that the relationship between domestic institutions and international conflict is much more nuanced (Weeks, 2008, 2012; Colgan & Weeks, 2015; Mattes & Rodriguez, 2014). Domestic institutional variation *within* autocracies can explain how some autocracies are no more conflict-prone than democracies. In addition to domestic institutional variation, autocracies also vary in their involvement with international institutions. I argue that this component – which has been overlooked by most scholars – can help to explain why some autocracies are less war-prone than others.

How does the embeddedness of a state within liberal international institutions interact with domestic regime type to pacify foreign relations? I argue that as autocracies become more central or embedded within the network of liberal institutions such as preferential trade agreements (PTAs), they are less likely to initiate militarized interstate disputes (MIDs). For democracies, the effect of centrality within the PTA network on the propensity of a state to initiate a MID is relatively smaller. Moreover, I argue that these results can be explained via an Information Revelation mechanism. Given uncertainty over capabilities, enhanced transparency resultant from greater embeddedness in the PTA regime allows states to settle on a peaceful bargain equilibrium rather than the less efficient militarized dispute equilibrium. Since the scope of transparency improvements is higher in autocracies than in democracies, the benefits of PTA centrality for international cooperation should be greater for autocracies than democracies.

Corresponding author:
smazumder@g.harvard.edu

Empirical analysis of a dataset of directed-dyads and MID initiation from 1965 to 1999 supports my hypothesis. Moreover, the results are substantively significant. Moving from one standard deviation below the mean PTA centrality to one standard deviation above the mean PTA centrality for autocracies decreases the risk of MID initiation by 70% for dyads that have a particularly acute predilection toward international conflict, and this effect decreases as the state becomes more democratic. In my models, the magnitude of this substantive effect is on par with the main effect of democracy as well as the effect of oil wealth on conflict propensities. My results remain robust to a battery of control variables, sampling choices, and econometric modeling techniques. Furthermore, my analysis provides evidence in favor of the hypothesized causal mechanism: (1) PTA centrality is associated with enhanced transparency and the magnitude of this effect is declining with increased levels of democracy, and (2) greater transparency is associated with lower probabilities of dispute initiation.

My findings suggest that system-level variables interact with domestic-level variables in theoretically interesting and empirically significant ways. The results of this article support the contention made by Chaudoin, Milner & Pang (2015) that complex interactions between the international system and domestic politics should be taken seriously. Complementing the work of several scholars who unpack variation within autocratic regimes, I show that variation in an autocrat's involvement with international institutions can also help us to understand conflict initiation in autocracies (Weeks, 2012; Colgan & Weeks, 2015; Mattes & Rodriguez, 2014).

Why do states fight?

Recently, many scholars have highlighted the ways in which domestic institutions pacify interstate relations. This literature, commonly known as the Democratic Peace literature, argues that democracies tend not to fight (Maoz & Russett, 1993; Oneal et al., 1996; Bueno de Mesquita et al., 1999; Russett & Oneal, 2001). As one scholar puts it, 'the absence of war between democracies comes as close as anything we have to an empirical law in international relations' (Levy, 1989). This finding, having survived multiple operationalizations, empirical specifications, and econometric models, is now a standard control variable in the literature.[1]

How does democratic regime type operate to pacify international relations? One of the main mechanisms that scholars point to when explaining the democratic peace focuses on the role of audience costs in constraining leaders and helping them to signal their resolve (Fearon, 1994). Importantly, this audience cost mechanism relies on the assumption that there is uncertainty over each leader's willingness to go to war. Proponents of the audience cost theory suggest that the greater ability that a leader's relevant domestic audience has to punish leaders who lose disputes or escalate crises, the more one learns about the leader's resolve (Fearon, 1995). Thus, the potential for domestic audiences to punish leaders for losing disputes or escalating crises reveals information that helps states to settle their disputes without going to war. Several scholars have tested and found evidence for this audience costs explanation (Gelpi, 2001; Tomz, 2007).[2]

This audience cost mechanism is not without significant debate. Several studies do not find significant evidence for this audience cost mechanism (Rosato, 2003; Downes & Sechser, 2012; Gartzke & Lupu, 2012). Even more concerning for those theorists who argue that the democratic advantage lies in the audience cost mechanism is the recent work that further unpacks variation in regime type. This strand of the literature argues that certain types of autocrats are also able to generate audience costs. Moreover, these types of autocratic regimes that can generate audience costs are just as peaceful and able to signal their resolve as their democratic counterparts (Weeks, 2008, 2012). The upshot is that autocracies may not actually be disadvantaged at signaling their resolve. In short, the literature on regime type and audience costs demonstrates that domestic institutions play an important role in shaping the propensity of states to engage in conflict. Using this as a basic starting point, this article builds on existing theory to show how

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[1] There is also a monadic version of this explanation that argues that democracy generates differential institutional incentives that facilitate peace. For example, Bueno de Mesquita et al. (1999) argues that

democrats have greater incentives to invest in military capabilities than autocrats since democrats can immediately be punished through electoral mechanisms. Moreover, the literature on the effects of democracy on openness to international trade suggests that there could be a monadic effect of democracy through a trade pacification channel (Mansfield, Milner & Rosendorff, 2000, 2002). To ensure that my results are not driven by this potential confounding explanation, I perform a series of tests presented in the Online appendix demonstrating that democracy does not have a statistically significant effect on PTA centrality at the monadic level.
[2] There are some important caveats to audience cost theory as well. Slantchev (2006) and Potter & Baum (2014) argue that the ability for leaders to make credible commitments through this audience cost mechanism is moderated through the effect of the media.

domestic institutions can also condition the ways in which the network of international economic institutions can promote cooperation.

Another set of explanations – the Commercial Peace argument – focuses on the economic mechanisms driving the absence of conflict. Important to this article, these explanations tend to highlight the ways in which international economic institutions can pacify relations between states. The commercial peace set of explanations argues that liberal economic systems complement the pacifying effects of democracy (i.e. 'the Kantian Peace'). Scholars contend that states that trade more with each other are less likely to go to war because the opportunity cost of war (in terms of forgone trade) makes war less likely to become an equilibrium outcome (Oneal et al., 1996). In a detailed case study of the Gulf Cooperation Council and the Economic Community of West African States, Bearce (2003) shows how trade institutions can pacify relations between states through a sequential logic of opportunity costs, information revelation, and commitment facilitation. In examining the relationship between economic interdependence more broadly, several scholars point out how a rationalist logic related to those discussed by Bearce (2003) can help to explain why states that are more exposed to economic interdependence tend not to fight (Fearon, 1995; Gartzke, 2003; Gelpi & Grieco, 2003; Levy, 2003; Morrow, 2003; Stein, 2003). Furthermore, many scholars provide evidence that trade institutions and economic IOs have the significant explanatory power in explaining conflict through large-N statistical analysis of disputes (Mansfield & Pevehouse, 2000; Bearce & Omori, 2005; Haftel, 2007). This aspect of the literature demonstrates that international economic institutions have a crucial role in pacifying interstate relations.

A new set of explanations looks at how the network structure of international relations and interdependence can account for the presence or absence of peace (Maoz et al., 2007; Hafner-Burton, Kahler & Montgomery, 2009; Maoz, 2009; Dorussen, Gartzke & Westerwinter, 2016). Network theorists argue that the structure of political and economic relations among states shapes the propensity of states to engage in violent disputes. In general, network theorists argue that as states become more ensconced in alliance, trade, and institutional networks, the less likely they are to use military force for dispute resolution (Dorussen & Ward, 2008; Maoz, 2009; Kinne, 2012; Dorussen & Ward, 2010; Lupu & Traag, 2013; Kinne, 2014; Gallop, 2016). Other scholars find, however, that states that maintain certain prestigious positions or that have large disparities in

network status are more likely to initiate MIDs (Hafner-Burton & Montgomery, 2006, 2008, 2012). These results are consistent with the status inconsistency hypothesis argued by Maoz et al. (2007) where states engage in conflict at the monadic, dyadic, and systemic level in order to resolve inconsistencies between military status and other elements of international prestige such as trade and alliance networks.

Recent research highlights the relationship between network structure more broadly speaking and international cooperation. While many studies focus on the effect of network-level variables on international conflict, Maoz & Joyce (2016) show how international conflict itself can also reshape alliance networks by making them more dense and connected. Haim (2016) shows how the network structure of military alliances can increase trade among those states that share the same alliance community, but reduce trade across communities suggesting that alliances can have significant indirect effects on cooperation. Gartzke & Westerwinter (2016) argue that economic interdependence can either pacify or militarize relations between states depending on the underlying attributes of the network. While an increasing body of research demonstrates that networks matter for the study of international conflict and cooperation, I show in the next section how the pacifying effects of network position might vary across regime types.

This overall discussion as it relates to the literature demonstrates that three factors seem to be quite important in explaining the prevalence of interstate conflict: domestic institutions, international economic institutions, and network structure. In the following section, I integrate these three sets of explanations to build a theory of how a state's position in the network of international trade institutions can help to pacify interstate relations and show that the peaceful effects of network position are conditioned by domestic institutions.

International institutions, information, and disputes

I argue that elements of the liberal peace such as international institutions and regime type can interact to pacify autocratic states. As such, I focus my attention on one such liberal international institution that has proliferated since the end of World War II: PTAs. Particularly, I argue that greater embeddedness in the PTA network helps autocratic states to mitigate their cooperation problems and that this effect diminishes as a state becomes more democratic. I focus on embeddedness instead of a simple count of PTAs because I am

interested in the way in which one state's PTA memberships relative to other states' PTA memberships generate empirical predictions. In particular, I argue that the enhancements in the informational environment as a result of greater PTA centrality allows autocrats to be better able to resolve their disputes with other states. While alternative mechanisms such as Liberal Ideology and Capitalist Peace might also explain the effect of PTA centrality on conflict, I demonstrate that the theoretical links are tenuous.

Borrowing from the bargaining theory of war, I argue that the Information Revelation mechanism implies that embeddedness within PTA networks helps autocrats to reveal vital economic information that might help to resolve disputes before they break out into actual armed conflict. My argument rests on several assumptions. First, I assume that when states have imperfect information over each others' capabilities and resolve, armed conflict might become an equilibrium outcome (Fearon, 1994). Second, I assume that the use of military force is relatively inefficient to peaceful bargaining in deciding the allocation of a disputed prize such as territory, economic resources, and foreign policy outcomes (Powell, 2004; Debs & Monteiro, 2014). Third, I assume that economic transparency reduces the imperfect information problem and helps states to better infer military capabilities (Fearon, 1995; Morrow, 2003; Gartzke, 2003; Levy, 2003; Stein, 2003).

The final assumption is that greater embeddedness in the PTA regime is associated with greater transparency and that this effect is contingent on the state's regime type. While it is true that most PTAs themselves do not directly deal with matters related to economic capabilities, military capabilities, or resolve, I argue that greater embeddedness in the PTA regime leads states to release economic data that will allow states to reap the benefits of being ensconced in a given PTA regime. Such policy-relevant economic data include GDP levels, access to finance, manufacturing capabilities, and technology.[3] As argued earlier, the information environment operates differently depending on regime type (Weeks, 2012). Since democracies already have a predisposition toward releasing policy-relevant economic data, there is a reduced scope for the Information Revelation mechanism to be in operation for democracies (Hollyer, Rosendorff & Vreeland, 2011). Autocracies, however, might become more willing to reveal vital policy-relevant data

in order to gain the benefits of the PTA regime (Rodrik, 1992; Baccini & Urpelainen, 2012, 2014). Results presented in Table III provide suggestive evidence consistent with this assumption.

Greater embeddedness in the PTA regime could also provide alternate rationalist benefits other than information such as increasing the opportunity costs of conflict (Aydin, 2010; Polachek & Xiang, 2010). While this certainly could be the case, I argue that an argument rooted in changing opportunity costs is consistent with an informational mechanism. Specifically to the degree that shifts in trade from PTA embeddedness are associated with greater degrees of certainty, then we should expect changes in the information environment brought on by greater PTA embeddedness to also operate through an opportunity cost mechanism. Thus, I argue that while information is one important component in the relationship between PTA centrality and conflict across regime type, it is also complementary to other rationalist mechanisms.

Putting these assumptions together, the theory can be laid out as follows. Given uncertainty over the capabilities of a potential conflict initiator, we might observe an inefficient equilibrium where the initiator uses force rather than striking a peaceful bargain. This is because for bargaining to work between the potential initiator and the target state, the target state must be able to distinguish whether the initiator has a credible capability to forcibly take the disputed prize. When information over the initiator's capabilities are uncertain, the target state may fail to reach a peaceful bargain when the disputed prize is of sufficiently high value to the target state and it is difficult to infer the initiator's capability to carry out a military campaign. This logic would suggest that uncertainty over capabilities should lead to greater use of military force by the initiator state in equilibrium because the target state fails to agree to a peaceful bargain.

As the information environment improves, the target state becomes better able to infer capabilities. This is not to say that economic information dominates military information; rather, the argument is that greater information about economic capabilities indirectly reveals information about military capabilities given that military capabilities positively correlate with economic capabilities. Thus, we should see peaceful bargains occurring more often in equilibrium as transparency of policy-relevant economic data increases (Bearce, 2003). If embeddedness in the PTA regime is indeed associated with greater transparency and the effect is larger in autocracies than democracies, then we should expect that

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[3] See Hollyer, Rosendorff & Vreeland (2011) for more details on the relationship between policy-relevant data and transparency.

greater PTA centrality should reduce the likelihood of the initiator state resorting to arms to resolve disputes.

Several scholars point to alternate ways in which economic interdependence may produce conflict dampening dynamics such as opportunity costs and commitment mechanisms (Fearon, 1995; Gartzke, 2003; Gelpi & Grieco, 2003; Levy, 2003; Morrow, 2003; Stein, 2003; Polachek & Xiang, 2010). While I do not disagree that these elements of the bargaining theory of war are likely in operation with respect to the relationship among PTA centrality, regime type, and conflict, I take the view that the informational component is consistent with a broader rationalist mechanism through which PTA centrality and regime type interact to produce conflict dampening effects, especially among autocracies. In the following section as well as the empirical section, I argue and show how alternative frameworks for understanding the relationship between PTA centrality and conflict across regime types are unsatisfactory. This theory leads me to the following hypothesis:

> *Hypothesis:* Greater centrality in the PTA network should be associated with lower propensities to initiate conflict and this effect decreases as a state becomes more democratic.

Alternative mechanisms

PTA centrality might also differentially impact the probability of peaceful dispute settlement conditional on domestic regime type through a Liberal Ideological mechanism. Greater centrality within the network of liberal international institutions might also show an increasing willingness to buy into liberal ideologies that emphasize peaceful dispute settlement. Since democracies are more likely to have liberal norms that emphasize peaceful rather than violent solutions to settle domestic disputes, being brought into a liberal international community adds little added-value (Doyle, 1986, 2005). For autocracies, however, being ensconced into liberal communities might help them to settle disputes – at least internationally – in a matter consistent with liberal values such as diplomacy and international law. Thus, we might expect autocracies to initiate fewer MIDs as they become more embedded in liberal international institutions such as PTAs. In order for this mechanism to be in operation, PTAs must have the capacity to actively facilitate socialization. Many PTAs, however, do not hold regular meetings among their members, nor do they have a functioning secretariat to facilitate socialization (Gray, 2015). Thus, the scope for this Liberal Ideology mechanism to be at work is slim.

The Capitalist Peace explanation as articulated by Gartzke (2007) suggests that PTA network position and regime type might pacify autocracies. The story goes as follows. Countries that are more open and market-oriented on average (generally democracies) tend to use aggressive military action less often because it sends an adverse signal to domestic economic actors. Because democracies tend to be open-market economies relative to autocracies, there is reduced scope for PTA centrality to move democracies toward more internal market liberalization (Mansfield, Milner & Rosendorff, 2002). Autocracies, however, have more domestic economic institutions to reform and thus they stand to gain more when becoming more embedded in PTA networks, which are designed to liberalize a state's economy. But Dafoe & Kelsey (2014) provide evidence that there are narrow scope conditions under which this mechanism is active. Thus, it is unlikely that this mechanism explains the majority of the effect of PTA embeddedness on conflict propensity.

Empirical strategy

The empirical goal is to ascertain the network conditions needed for autocrats to peacefully resolve international disputes. In sum, I find results that are consistent with the theory presented earlier. First, I find that the pacifying effects of PTA centrality on conflict are *decreasing* with a potential initiator's level of democracy. Second, I find evidence that links this effect to changes in the informational environment that a potential initiator faces. Third and finally, I show how the information environment subsequently shapes the propensity of states to fight.

While much of the previous discussion on domestic institutions and PTA network positions was monadic in nature, a simple country-year analysis would be inappropriate in capturing dyad-level effects such as alliance relationships, trade relations, and geography that might also be correlated with network positions. Thus, I employ a directed-dyad setup to model monadic, dyadic, and system-level effects on MID initiation.

For the crux of the analysis, I employ Maoz's (2005) recoding of the dyadic Militarized Interstate Disputes (MIDs) dataset which indicates whether State A (the challenger) either threatened, displayed, or used military force against the official government of State B (the target). The final dataset used for the statistical analysis in this article consists of a dichotomous indicator of whether a challenger state initiated a MID against a target state and spans the years 1965–99.

To assess the interaction between regime type and PTA network centrality, I estimate a logit model with heteroskedastic robust and standard errors clustered by directed-dyad since the dependent variable is dichotomous. In the robustness section, I also include the lagged value of MID initiation to account for other dependencies that might arise from the data. Moreover, I account for temporal dependence by including the number of years since the challenging state initiated a MID against the target state, as well as its cubic splines (Beck, Katz & Tucker, 1998). My results remain unchanged if splines are replace with time, time squared, and time cubed as suggested by Carter & Signorino (2010). In the robustness checks, I use a number of different estimators including rare events logit and a bootstrapped logit to assess if my results are driven by my econometric modeling choice. Importantly, my results remain unchanged when using these different estimating approaches.

Explanatory variables

My main hypothesis is that the effect of embeddedness in the PTA network on the probability of MID initiation is conditional on the domestic regime type of the challenging state. I operationalize these concepts in the following ways.

I operationalize a country's regime type using the Cheibub, Gandhi & Vreeland (2010) democracy indicator (henceforth referred to as CGV), which is a dichotomous indicator of a country's domestic regime type. The CGV indicator classifies democracies as regimes where 'governmental offices are filled as a consequence of contested elections' and non-democratic as the residual category (Cheibub, Gandhi & Vreeland, 2010: 69). Following the conventional wisdom, I expect this variable to be negatively associated with MID initiation. Additionally, my results remain unchanged when substituting the CGV indicator with the continuous Polity scale.

To capture centrality within the PTA network, I use Hafner-Burton & Montgomery's (2008) measure of a state's degree centrality within the PTA network, which is a simple measure of the count of shared PTA memberships with other states in year t standardized by the total number of PTAs in year t. Several points deserve to be emphasized with regard to this measure. First, the specific measure of PTAs in this article is with reference to trade institutions such as the North American Free Trade Agreement (NAFTA), Association of Southeast Asian Nations (ASEAN), and the European Union (EU). Second, while many of these PTAs do have many features generally associated with IOs such as dispute settlement, regular meetings, and a secretariat, Gray (2015) demonstrates that many states never actually use these features in practice. Third, the measurement of PTAs in this article is distinct from regional security organizations (RSOs) (Haftel, 2007; Donno, 2010; Dorussen & Kirchner, 2014). While some of the PTAs mentioned before also have an RSO component to them (ASEAN and the EU), the vast majority of the trade agreements in the dataset do not simultaneously function as RSOs.

I expect the main effect of this variable to be negatively associated with MID initiation. The interaction, however, between PTA centrality and domestic regime type should be positively associated MID initiation. That is, the negative effect of PTA centrality on MID initiation should be small for democracies relative to autocracies.

Control variables

The literature on international conflict suggests a number of control variables. Moreover, these control variables might also correlate with either regime type or centrality within the PTA network.

Scholars point out that a state's military capabilities are a significant determinant of its willingness to use military force to settle disputes. This is largely shaped by the amount of resources available to that state, which I proxy with the lagged value of real GDP of the challenger and target states in trillions of 1996 US dollars. The data are taken from Hafner-Burton & Montgomery (2008). Importantly, economic size might also correlate with regime type as well as a state's position within the PTA network. The results do not change if I use each side's raw military capabilities instead. Because military disputes can also be shaped by balance of power dynamics, I include the challenger's share of dyadic military capabilities as well. Finally, I account for major and minor power dyads by including an indicator variable for each combination of dyads with minor-minor dyads as the base category.

Geographic proximity also shapes international conflict. States adjacent to each other have lower costs to project power and might also have more disputes over territory or resources. Thus, I include an indicator variable if the challenger and target states are contiguous. I also include a variable that measures the natural log of the distance between the capitals of the states (Stinnett et al., 2002).

In addition to geographic proximity, geopolitical proximity is also a significant determinant of MID initiation. Gowa (1999) provides evidence that the effect of

Table I. Directed-dyad analysis of MID initiation, 1965–99

	(1)	(2)	(3)	(4)
	Model 1: Baseline	*Model 2: Kantian tripod*	*Model 3: Network*	*Model 4: Full specification*
PTA centrality (Side A)	−3.542*	−8.154***	−5.473**	−7.533***
	(1.583)	(1.598)	(2.080)	(1.696)
Democracy (Side A)	−0.557***	−0.818***	−0.538***	−0.583***
	(0.140)	(0.138)	(0.150)	(0.142)
PTA centrality*Democracy (Side A)	3.581*	7.313***	5.294**	7.040***
	(1.708)	(1.731)	(2.019)	(1.779)
Democracy (Side B)	−0.129	−0.323*	−0.095	−0.192
	(0.124)	(0.130)	(0.119)	(0.127)
Number of shared IGO memberships		0.045***		0.026***
		(0.005)		(0.006)
Dyadic trade dependency (lower)		−57.860***		−45.200**
		(15.250)		(15.260)
Network convergence over five years			−1.873***	−2.042***
			(0.405)	(0.431)
Overlapping PTA membership			0.434***	0.316**
			(0.119)	(0.118)
Same hierarchical PTA cluster			−0.091	
			(0.104)	
PTA cluster size (Side A)			0.002	
			(0.002)	
Oil exporter (Side A)			0.511***	
			(0.108)	
Geographic controls	YES	YES	YES	YES
Economic controls	YES	YES	YES	YES
Military controls	YES	YES	YES	YES
Observations	539,472	536,652	452,415	452,415

Standard errors in parentheses. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$. Models estimated using logit with heteroskedastic robust standard errors and errors clustered by directed dyad. Geographic, economic, and military controls as well as the constant have been suppressed for ease of presentation.

regime type on international conflict might be shaped by shared strategic interests rather than factors intrinsic to democracies. To account for this potential confounder, I include the similarity of the challenger's and target's global alliance portfolios as a proxy for shared strategic interests.

Though this study focuses on the challenger's regime type, one must also take into account the target's regime type. Scholars have found significant evidence of democratic clustering, which might bias my results (Gleditsch & Ward, 2006; Gibler & Tir, 2014). Thus, I include the CGV indicator for whether the target state is democratic. The inclusion of the target state's regime type does not change my results.

Alternative explanations
One of the major theories posited by the literature is that shared intergovernmental organization (IGO) membership and liberal commercial ties in addition to a state's

regime type help to explain the liberal peace. If a state's centrality within liberal international institutions is an artifact of joint IGO membership and trade dependence, then my results would be biased upwards when excluding these variables from my statistical models. To test my hypothesis against this competing explanation, I include the number of shared IGO memberships as well as Gleditsch's (2002) measure of dyadic trade dependence in Model 2 of Table I. The results remain robust to using the weak-link operationalization as suggested by Russett & Oneal (2001) or individually including each side's trade dependence on the other.

Another alternative explanation might be that PTA centrality and regime type are shaped by other features of the PTA or IGO network that simultaneously influence a state's propensity to initiate a MID. Following the work of Hafner-Burton and Montgomery, I include a measure of whether the challenger and target states share a PTA membership, a measure of whether they inhabit the same PTA cluster, and a measure of the size of the

challenger state's PTA cluster (Hafner-Burton & Montgomery, 2006, 2012). Moreover, Kinne (2013) shows that convergence in the structural similarity of each state's IGO network reduces the likelihood that a challenging state initiates a MID. I account for this relationship by including the five-year lag of the dyad's structural IGO network similarity as it might account for a state's embeddedness within the PTA network – a subset of the larger IGO network.

In the final model (Model 4), I include all significant regressors from the Kantian Tripod and Network Structure explanations. Additionally, I include a binary indicator variable if the challenger state is a primary fuel exporter. I define primary fuel exporters as states where fuel exports are more than one-third of their net exports. My results remain unchanged if I use a continuous measure of fuel exports as well. Since Ross & Voeten (2016) find evidence that petro-states are associated with greater levels of economic integration and that their centrality in the IGO network is non-linear in oil income, it might be the case that petro-state status is a confounder whose exclusion biases my results toward my hypothesis. It might also be the case, however, that petro-states are actually more aggressive (Colgan, 2010). Thus, my results might be biased away from my hypothesis if I were to exclude petro-state status.

Results

I argue that the effect of PTA centrality on reducing MID initiations should be greater for autocracies than for democracies. The results across all models bear out this prediction at significance levels of $p < 0.05$ or greater. Model 1 of Table I begins by estimating a parsimonious model that includes regime type, PTA centrality, and their interaction in addition to the baseline control variables that capture factors such as military power, geography, alliances, and democratic clustering. In this model, the coefficient on the main effects of regime type and PTA centrality are both negative and statistically significant at the $p < 0.001$ and $p < 0.05$ levels respectively. The interaction term, as hypothesized, is also positive and statistically significant at the $p < 0.001$ level as well. One concern is that PTA centrality might be confounded by regime type. I show in the Online appendix that the effect of regime type as measured by Polity II scores is substantively small and statistically insignificant at conventional levels once accounting for country and year fixed effects. All control variables generally perform as expected and consistent with the literature.

Model 2 of Table I takes into account the Kantian variables that might also explain my results. Importantly, my results remain statistically significant at the $p < 0.001$ level. Moreover, the coefficients on all of the terms significantly increase in magnitude, which indicates that the exclusion of the Kantian explanation actually introduces a downward bias on the coefficients of interest. While the term on trade dependence is negatively and statistically significant, which is consistent with conventional explanations of the liberal peace, the coefficient on the number of shared IGO memberships is actually positive and statistically significant – a finding that a number of other studies have unexpectedly found as well. Boehmer, Gartzke & Nordstrom (2004) find similar anomalous results. This may be because states that are politically engaged in the international system have more disputes and might simultaneously join more IGOs. Future work might be fruitful in unpacking this anomalous finding.

Model 3 of Table I goes on to test how other aspects of PTA and IGO networks might account for my findings. Again, the signs and directions on the variables of interest remain the same and statistically significant at the $p < 0.001$ level. Consistent with Hafner-Burton & Montgomery (2006), the coefficients on joint PTA cluster membership and the challenger's PTA cluster size are respectively negative and positive, but they do not reach conventional levels of statistical significance. Like Hafner-Burton & Montgomery (2012), I also find that joint PTA membership is positively associated with MID initiation, but this is also likely due to omitted factors such as international political engagement since the statistical significance and point estimate reduces when subsetting to 'politically relevant' dyads.[4] The coefficient on the structural equivalence of IGO networks is negative and statistically significant, consistent with Kinne (2013), indicating that greater similarity in the structure of each state's IGO network is associated with a reduction in MID initiation.

Finally, Model 4 of Table I estimates the MID initiation by only including variables from each alternate explanation that are statistically significant. Importantly, my main results hold with the correct signs and maintain statistical significance at the $p < 0.01$ level or greater. In line with the literature, petro-states seem to be more aggressive in their foreign policy as indicated by the positive and statistically significant coefficient on oil-exporter status (Colgan, 2010). Empirical analysis seems to indicate support for my hypothesis.

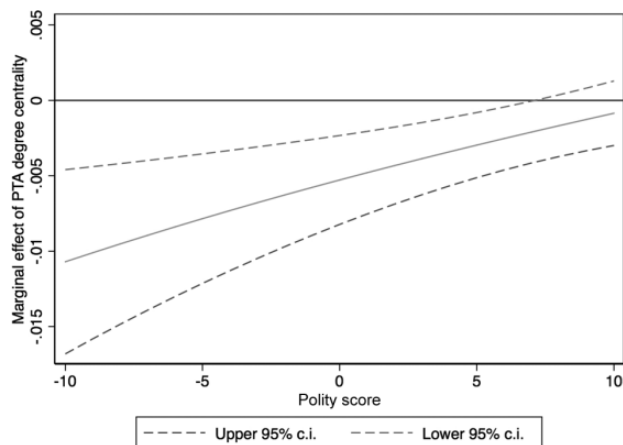[4] Results are shown in the Online appendix.

Figure 1. Marginal effect of PTA centrality conditional on democracy level

I plot the marginal effect of PTA centrality while varying the level of democracy in Figure 1. For ease of interpretation, I replace the CGV democracy indicator and estimate Model 4 of Table I with the continuous Polity scale from –10 to 10 instead. On the vertical axis is the marginal effect of PTA centrality. On the horizontal axis is the Polity scale. Figure 1 provides evidence that the effect of PTA centrality on the propensity to initiate militarized conflicts is indeed conditional on a state's level of democracy. Figure 1 shows that as a state becomes more democratic, the pacifying effect of PTA centrality on conflict initiation reduces.

Furthermore, I use CLARIFY to simulate the substantive impact of the hypothesized interaction effect between regime type and PTA centrality (King, Tomz & Wittenberg, 2000). Using a dyad that might be particularly conflict prone, I use the estimates from Model 4 of Table I to simulate the impact of a change in PTA centrality from one standard deviation below the mean to one standard deviation above the mean value for PTA centrality conditional on regime type. I model a conflict prone dyad as being one with contiguous borders and where the challenger is a minor power and the target is a major power with all other variables set to their means because this is the most policy-relevant and theoretically interesting case to investigate. The results indicate that for autocratic regimes, this effect reduces the likelihood that it initiates a MID by 70%. For democracies this reduction is statistically indistinguishable from zero. The magnitude of this effect is similar to the main effect of regime type as well as petrostate status. Thus, the evidence indicates that the effect of a state's position in the PTA network on its willingness to violently settle disputes depends on its domestic regime type and that this effect is substantively meaningful.

Robustness checks

I also carry out an extensive battery of robustness checks with the results available in the Online appendix. Importantly, none of these tests substantively change my results:

- Using a rare events logit estimator (King & Zeng, 2001)
- Accounting for region fixed-effects
- Recoding the dependent variable to be only fatal MIDs
- Replacing the CGV indicator with the continuous Polity scale
- Restricting the sample to dyads deemed to be politically relevant
- Limiting the sample to only minor-power challengers
- Controlling for other system-level variables such as Cold War status and system size
- Dropping all allied dyads from the sample
- Dropping Warsaw Pact countries from the sample since their foreign policies are not independent
- Replacing splines of the dependent variable with time fixed effects
- Including the lagged dependent variable

Causal mechanisms

While the above analysis gives us a high-level overview of the data, it does not help us to identify which causal pathways are at work. In this section, I test the hypothesized mechanisms that might be driving my results. My analysis provides correlational evidence that the main results are likely to be driven by the informational mechanism rather than the ideological or market-based channels. Moreover, I test the second implication of my theory – that greater transparency should lead to a lower likelihood of MID initiation – and find support for that as well.

To test the posited mechanisms, I sequentially estimate the effect of my main interaction variable as well as its constituent components on each dependent variable using a dynamic error correction model (De Boef & Keele, 2008). This model estimates the short- and long-run impacts of an independent variable on each dependent variable. Specifically, this model estimates the impact of the first difference (short-run) and lagged value (long-run) of each independent variable on the first differenced transformation of the dependent variable. By taking this approach, one controls for the impact of country-specific and year-specific effects through taking the first difference. The advantage of this model is that it

Table II. Potential causal mechanisms

	(1) Model 1: DV = HRV transparency	(2) Model 2: DV = Ideal point	(3) Model 3: DV = Chinn-Ito capital account index
HRV index (lagged)	−0.057*** (0.007)	−0.003 (0.016)	0.012 (0.038)
HRV index (FD)		0.072 (0.070)	0.073 (0.075)
Ideal point (FD)	0.010 (0.009)		0.086 (0.046)
Ideal point (lagged)	0.004* (0.001)	−0.033*** (0.004)	0.004 (0.012)
Chinn-Ito index (lagged)			−0.043*** (0.006)
PTA centrality (FD)	0.011 (0.027)	−0.006 (0.104)	0.121 (0.207)
PTA centrality (lagged)	0.102* (0.040)	−0.315** (0.097)	−0.420 (0.250)
Democracy (FD)	−0.001 (0.008)	0.011 (0.037)	−0.182 (0.108)
Democracy (lagged)	0.006 (0.003)	0.0124 (0.009)	0.005 (0.024)
PTA centrality*Democracy (FD)	−0.122 (0.064)	0.418** (0.146)	0.885* (0.366)
PTA centrality*Democracy (lagged)	−0.132** (0.040)	0.377*** (0.098)	0.716** (0.264)
Oil exporter (FD)	0.001 (0.004)	−0.015 (0.021)	0.034 (0.057)
Oil exporter (lagged)	0.003 (0.003)	−0.030 *** (0.007)	0.014 (0.020)
Economic IOs (FD)	0.003*** (0.001)	0.005 (0.003)	0.013* (0.006)
Economic IOs (lagged)	−0.000 (0.000)	0.000 (0.000)	0.001 (0.001)
Observations	3,682	3,682	2,823

Standard errors in parentheses. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$. Models estimated using a dynamic error correction model. Standard errors adjust for hetereoskedasticity and are clustered by country. Alliance Similarity with the US, Civil War, Real GDP, and the constant term have been suppressed for ease of presentation.

helps to appropriately specify the impacts of variables on equilibrium outcomes in addition to limiting the bias that may result from weakly endogenous regressors (De Boef & Keele, 2008).

First, the empirical implication of the Informational Mechanism suggests that as autocrats become more embedded in PTA networks, they should also become more transparent as well. To test this mechanism, I use data from Hollyer, Rosendorff & Vreeland (2011) which measure how willing a government is to release policy-relevant economic information. Higher values suggest greater transparency. Broadly speaking, greater willingness to reveal such information suggests that governments should be better able to mitigate any

uncertainty issues that may hinder cooperation. If this mechanism is at work, it should be the case that autocrats become increasingly transparent as they become more central in the PTA network. Thus, the coefficient on PTA centrality should be positive while the interaction term of democracy and PTA centrality should be negative for Model 1 of Table II.

Second, the Liberal Ideology mechanism suggests that as autocrats become more central in the PTA network, they also become more liberal in their ideologies. I use data taken from Bailey, Strezhnev & Voeten (2017), which measures how much a state buys into the concept of a liberal world order, to test the liberal ideology mechanism. More positive values suggest greater liberal

Table III. The relationship between transparency and MID initiation

	(1) Model 1: Baseline	(2) Model 2: Kantian tripod	(3) Model 3: Network	(4) Model 4: Full specification
HRV transparency index (Side A)	−0.504** (0.190)	−0.988 *** (0.188)	−0.706*** (0.193)	−0.875 *** (0.201)
Democracy (Side A)	−0.402 ** (0.126)	−0.529*** (0.130)	−0.273* (0.130)	−0.270* (0.130)
Democracy (Side B)	−0.100 (0.126)	−0.239 (0.133)	−0.053 (0.124)	−0.124 (0.134)
Number of shared IGO memberships		0.044*** (0.005)		0.026*** (0.006)
Dyadic trade dependency (lower)		−63.940*** (15.960)		−47.330** (15.990)
Network convergence over 5 years			−1.852*** (0.404)	−2.026*** (0.425)
Overlapping PTA membership			0.397*** (0.118)	0.172 (0.114)
Same hierarchical PTA cluster			−0.093 (0.105)	
PTA cluster size (Side A)			0.004* (0.002)	
Oil exporter (Side A)				0.504 *** (0.111)
Geographic controls	YES	YES	YES	YES
Economic controls	YES	YES	YES	YES
Military controls	YES	YES	YES	YES
Observations	539,472	536,652	452,415	452,415

Standard errors in parentheses. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$. Models estimated using logit with heteroskedastic robust standard errors and errors clustered by directed dyad. Geographic, military, and economic controls as well as the constant are suppressed for ease of presentation.

foreign policy preferences. If greater acceptance of a liberal world order implies that such states should also be less likely to use military force to settle disputes, then it might be the case that autocrats that are highly embedded in the PTA network become more likely to accept the concept of a liberal world order. This mechanism implies that the coefficient on PTA centrality should be positive and that the interaction term of democracy and PTA centrality should be negative for Model 2 of Table II.

Third and finally, the Capitalist Peace mechanism suggests that autocrats that are more central in the PTA network should also be more economically liberalized. While this mechanism would suggest that one look at trade openness as a measure of economic liberalization, this variable is likely endogenous with PTA centrality as well as its interaction. Thus, I look to a slightly more indirect measure of liberalization – financial liberalization – because it is potentially less likely that endogeneity would be a problem. I use data taken from Chinn & Ito (2008) which measure how restricted a country's

international financial policies are, to test this mechanism. Moreover, Gartzke (2007) uses the number of financial restrictions as identified by the IMF, which is actually a component of the Chinn-Ito index. For this variable, greater values are associated with more financial liberalization. As a result, the coefficient on PTA centrality should be positive and the interaction term should be negative for Model 3 of Table II.

Table II provides evidence that my hypothesis is driven by the informational pathway rather than the liberal preferences or market liberalization channels. Model 1 of Table II shows that PTA centrality is associated with enhanced transparency for autocrats in the long run and that this effect diminishes for democracies as predicted by the Informational Mechanism. For the Liberal Ideology mechanism, Model 2 of Table II shows that PTA centrality seems to actually be negatively associated with liberal ideology. For democracies, however, greater PTA centrality has a slight positive effect on liberal ideology. Finally, Model 3 of Table II does not seem to provide

evidence in favor of the Capitalist Peace mechanism. PTA centrality does not seem to be associated with greater levels of financial openness for autocrats while centrality is associated with more financial openness for democracies. Thus, the evidence presented here seems to suggest that my hypothesis works through the informational channel rather than the ideological or liberalization channels.

If the Information Revelation mechanism really is at work, then the observable implication should be that more transparent states should be less likely to initiate MIDs. Is this really the case? To test this implication of my hypothesized mechanism, I re-estimate my statistical model of conflict initiation from Table I and replace PTA centrality and its interaction with regime type with Hollyer, Rosendorff & Vreeland's (2011) transparency index because transparency is post-treatment to PTA centrality. Additionally, if it is the case that the transparency index also correlates with the transparency of domestic political debate, then the index should actually be correlated with increased MID initiation because of the reputational incentives. Furthermore, my analysis controls for the primary determinant of transparency – democracy – reducing concerns of selection bias. Table III presents my results.

Results from Table III validate the second implication of my theory. Across all models, the coefficient on the transparency index is negative and statistically significant at least at the $p < 0.01$ level. Moreover, these results are substantively significant. Using the results of Model 4 of Table III, the effect of moving from one standard deviation below the mean transparency level to one standard deviation above is nearly twice the magnitude of democracy and on par with the effect of oil exporter status. This suggests that in spite of the potentially perverse effects that transparency might have on conflict initiation, the benefits of greater certainty over capabilities outweighs any reputational effect.

Conclusion

How does a state's embeddedness in liberal international institutions shape the likelihood that it uses military force to settle disputes? In this article, I provide evidence that the probability of MID initiation reduces as a state becomes more embedded in liberal international institutions such as PTAs. This effect depends, however, on a country's domestic political institutions. While embeddedness in international institutions helps autocracies to peacefully resolve disputes, the effect of centrality within the PTA network decreases as states become more democratic.

Further analysis of the causal mechanisms at work provide evidence that the beneficial effect of PTAs on MID initiation is likely to be a product of the Information Revelation channel. I show that PTA centrality is associated with enhanced transparency, the magnitude of the effect decreases with higher levels of democracy, and higher levels of transparency are associated with lower MID initiation probabilities. I do not find evidence that alternate channels such as Liberal Ideology and Capitalist Peace mechanisms explain my results.

This study shows that international institutions can have spillover effects outside of that institution's specific functional area. In the case of the trade agreement network, greater embeddedness in this regime can generate positive security externalities even though these pieces of paper only concern themselves with trade. It would seem that investigating the conditions under which international institutions generate positive and negative externalities could be a fruitful path for future research.

My results help inform the broader debate about the sources of the 'democratic advantage' in international cooperation. Many scholars argue that democracies are better able to cooperate because of certain domestic institutional advantages that help them to reveal information. Though this point is still debated, my results suggest that autocrats need not have audience cost or electoral mechanisms to engender cooperative outcomes. International institutions can help fill in such gaps as well. In addition to investigating the role that certain domestic factors play in helping or hindering international cooperation, my results suggest that scholars should also look to how international factors can substitute for domestic institutions to engender peaceful dispute resolution.

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SOUMYAJIT MAZUMDER, b. 1993, BSc in Foreign Service (Georgetown University, 2015); PhD candidate in Government (Harvard University, 2015–); current interests: conflict and identity.