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To cite this article: Peter Gries, Andrew Fox, Yiming Jing, Matthias Mader, Thomas J. Scotto & Jason Reifler (2020) A new measure of the 'democratic peace': what country feeling thermometer data can teach us about the drivers of American and Western European foreign policy, Political Research Exchange, 2:1, 1716630, DOI: [10.1080/2474736X.2020.1716630](https://doi.org/10.1080/2474736X.2020.1716630)

To link to this article: <https://doi.org/10.1080/2474736X.2020.1716630>



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Published online: 20 Feb 2020.



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RESEARCH NOTE



## A new measure of the ‘democratic peace’: what country feeling thermometer data can teach us about the drivers of American and Western European foreign policy

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### ABSTRACT

While the existence of a ‘Democratic Peace’ (DP) is widely accepted, the various DP theories that seek to explain why democracies rarely fight one another are highly contested. A ‘commercial/capitalist peace’ counterargument maintains that the relationship between democratic politics and peace is spurious: the actual driver is greater *trade* among democracies. Meanwhile, Realists counter that it is *alliances* among democratic states, not their democratic nature, that causes peace among them. This research note utilizes novel country feeling thermometer data to explore the debate’s micro-foundations: the underlying drivers of international amity and enmity among democratic citizens in the US, UK, France, and Germany. Utilizing Freedom House and other quantitative measures of freedom, trade, military strength, and racial and cultural difference, it pits the micro-foundations of the DP against its rivals to explain attitude formation among a group of Western democratic publics. Given the resurgence of authoritarianism around the world today, a better understanding of the role of regime type in shaping public opinion – and subsequently war and peace – is urgently needed.

### ARTICLE HISTORY

Received 20 June 2019  
Accepted 9 January 2020

### KEYWORDS

Democratic peace; capitalist peace; public opinion; realism; liberalism

## Introduction

In *Perpetual Peace*, Immanuel Kant (1795) argued that citizens of democracies do not view each other as threatening, so rarely go to war. The flip-side of democratic amity, David Hume (1742) had pointed out earlier, was that democratic publics exhibit an ‘imprudent vehemence’ or enmity towards dictatorships. Both men were suggesting that perceived regime type (a macro, state-level issue) shaped how democratic citizens felt towards other countries (a micro, individual-level issue). Individual-level feelings of amity/enmity among democratic publics, they implied, would then promote cooperation/conflict at

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the inter-state level. For instance, democratic citizens would be more likely to feel enmity towards dictatorships, increasing the odds of war with them.

Today, while the empirical existence of a 'democratic peace' (DP) is widely accepted, the various theories used to explain it (e.g. Doyle 1983; Maoz and Russett 1993; Moravcsik 1997) remain highly contested – and their micro-foundations in public opinion remain largely unexplored. Rather than supplant existing DP approaches, in this research note we explore an implication of DP theory that has to date not received much attention: namely that if DP theory (or its rivals) holds true, we should observe a particular pattern of enmity/amity among democratic publics toward different countries. Importantly, war/peace is *not* our dependent measure. Instead, we seek to explain how democratic publics feel/think about foreign countries, which Kant, Hume and others in the DP literature generally assume to be a vital antecedent of cooperation or conflict.

In 1972, Dean Babst (1972) first reported a correlation between democracy and peace, and researchers in the late 1970s and 1980s debated whether the correlation was spurious or not (e.g. Chan 1984; Ray 1995; Vasquez 2000). Scholarship in the 1990s then began to theorize about structural and normative causes of the democratic peace (Russett 1993). Structural approaches focused on macro drivers like the political accountability built into democracies with their voting systems (e.g. Huth and Allee 2002), how the enhanced signaling of resolve by democracies decreases the likelihood of miscommunication and conflict ('audience costs'; e.g. Fearon 1994; Gelpi and Griesdorf 2001), and the role of the separation of powers in allowing democratic opposition to the use of force to inhibit the initiation or escalation of conflict (Maoz and Russett 1993).

Normative DP theorists focused on norm externalization: how democratic norms of compromise and non-violent conflict resolution are projected from the domestic to the international arena (Gaubatz 1996; Russett 1993). Democracies cooperate because they share a willingness to compromise and similar values (Oren 1995). The structural and normative drivers of the DP, furthermore, work together, as democratic institutions like the freedoms of speech and the press, and regular elections, translate the public's Liberal preferences into foreign policy (Owen 1994).

When they interact with non-democracies, however, such norms no longer apply. Democracies and authoritarian regimes engage in more militarized disputes (Braumoeller 1997; Risse-Kappen 1995). Following Kant and Hume, DP theorists argue that democracies tend to project the assumptions of compromise and non-violence onto the motives of other democracies – but not onto authoritarian states, which are viewed with suspicion. Realist assumptions of anarchy, relative gains, and defection, therefore, predominate in relations between democracies and dictatorships (Goldsmith 2007; Risse-Kappen 1995). The tendency of democracies to fight non-democracies appears, furthermore, to be particularly true between neighbouring states (Vasquez 2011).

DP theory has not gone without challenge, however. These take two broad forms: (1) friendly counterarguments that fall under the 'Kantian tripod' of international institutions, economic interdependence, and democratic politics and (2) hostile counterarguments from outside of Liberal Theory. The primary friendly counterargument is that of a 'commercial or capitalist peace' (e.g. Gartzke 2007; Polachek 1980). It argues that the relationship between democratic politics and peace is spurious: the actual driver is greater trade among democracies, which contributes to increased economic interdependence (McDonald 2009). The interests of democratic states become intertwined through contract-

intensive development and liberal economic institutions. The costs of war become too high and cooperation prevails (McDonald 2009; Mousseau 2009).

A major hostile counterargument comes from IR Realists who argue that it is alliances among democratic states (e.g. Farber and Gowa 1995; Rosato 2003), trust built through repeated interactions and cooperative behaviour (Daase 2006; Kydd 2005), self-enforcing bargains (Lipson 2003), and/or their shared perceptions of the balance of power (Layne 1994), that causes peace among democracies. The democratic nature of their political systems, in this view, is irrelevant. The emergence of an era of peaceful relations between democratic states after the end of World War II was the result of tensions between East and West during the Cold War and the necessity for collective security – not the domestic or normative constraints of a democratic form of government (Gowa 2011; Levy 2008). In this Realist view, it is the balance of power among states in a system that determines war and peace; regime type has little to do with it.

These rival explanations for the DP all operate at the macro, state-level. They tend, however, to assume individual-level drivers of public attitude formation that are then depicted as drivers of war/peace. Democratic publics are assumed to dis/like foreign countries based on whether they are non/democratic, un/profitable trade partners, or create in/security. These different assumptions about the drivers of public attitude formation do not appear to have been empirically tested, however.

This Research Note utilizes a three-country feeling thermometer measure from a 2014 YouGov dataset the first author designed, and a 2014 Chicago Council on Global Affairs (CCGA) survey as four dependent measures to explore the underlying drivers of patterns of amity and enmity among a subset of democratic citizens. It shifts attention from the state and the macro-level nature of most DP theory to the micro, individual-level issue of attitude formation. Specifically, it asks why the American, British, French, and German publics consistently like some countries, like Japan, more than others, like China. Utilizing Freedom House and other quantitative measures of political freedom, economic interdependence and trade, military strength, and latent power, it utilizes multivariate regression analysis to pit the Democratic Peace against its major rival explanations like the commercial/capitalist peace and Realist power balancing to explain patterns of enmity/amity attitude formation among these democratic publics.

Why use cross-national feeling thermometer data? First, the people and their perceptions matter. ‘The role of the public requires far more attention’, Jarrod Hayes (2012, 783) rightly argues in a review of the DP literature. Much recent work in the DP has focused on the views of democratic leaders, such as how Roosevelt viewed Hitler (Farnham 2003), or how Tony Blair and Bill Clinton viewed Serbia in the context of the Kosovo conflict (Schafer and Walker 2006). In such work, what matters is elite judgments about friends and foes. But in democracies, the ‘electoral connection’ ensures that politicians pay careful attention to public opinion when they make their foreign policies (Aldrich et al. 2006). For instance, an early longitudinal analysis of US survey data revealed that changes in public opinion on international events regularly *preceded* eventual changes in US foreign policy (Page and Shapiro 1983). Given that a basic requirement of a causal argument is that a cause precedes an effect, this finding strongly suggests that public opinion is a major driver of elite foreign policy decision-making in democracies like the US. American elites, furthermore, are Americans too. Politicians do not just *respond* to their constituents in a self-interested

manner; they also *represent* them in the sense of sharing their feelings, attitudes, and policy preferences (Knecht 2010, 5).

Second, measurement matters. While feeling thermometer data are more indirect than existing dependent measures in the DP literature like the Militarized Interstate Dispute (MID) data from the correlates of war (COW) project, it does not suffer from the coding issues that embroil the MID in controversy (e.g. Downes and Sechser 2012; Reiter, Stam, and Horowitz 2016). Furthermore, unlike a binary dependent ‘variable’ of war or no war that barely varies, the 2014 feeling thermometer data used here is a dependent measure that truly varies, on 11- and 101-point scales. Greater variation reduces measurement error, decreasing the possibility of type II error, or false-negatives.

Third, replication with novel data sources matters. To our knowledge, feeling thermometer data has not yet been used in studies of the DP. A primary critique of the DP has been that the effect of democracy on peace is spurious (e.g. Farber and Gowa 1995). Previous research (e.g. Bremer 1993; Moaz and Russett 1992) has largely used MIDS data as the dependent measure to counter that the DP is not the product of some other covariate, like trade or power politics. By contrast, we seek to extend the work of Jakobsen, Jakobsen, and Ekevoid (2016), who used a binary yes/no bellicosity measure from the World Values Survey (WVS; ‘... would you be willing to fight for your country?’) to argue that the citizens of democracies are more pacifistic than the citizens of non-democracies. That research powerfully demonstrated the utility of survey data in elucidating the micro-foundations of normative DP theories that suggest that domestic norms of peaceful conflict resolution are externalized. It did not, however, address whether survey data can also show that the citizens of democracies restrict such pacifist norm externalization to fellow democracies and not to non-democracies – the other central leg of normative DP theories. Feeling thermometer data provides a new way to retest rival explanations for why democracies go to war more often with non-democracies than with democracies.

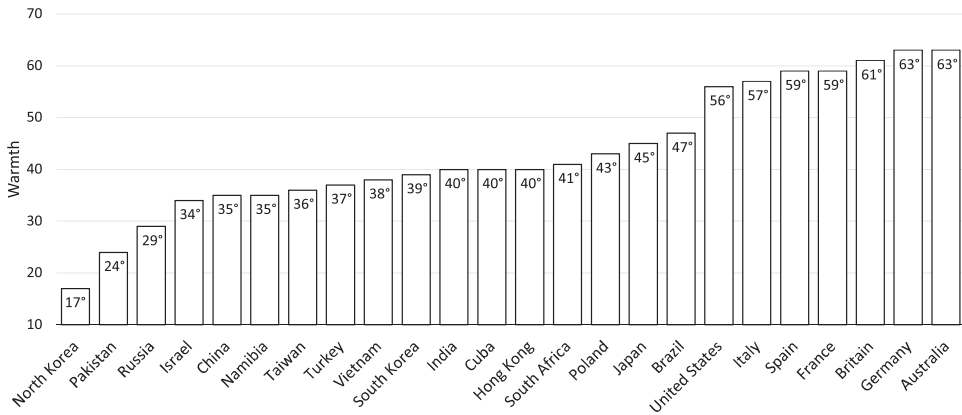
In short, we propose putting both Kant *and* Hume to the test against their rivals: do democratic publics dis/like foreign countries based more on whether they are non/democratic, sources of in/security, or un/profitable trade partners? Given the resurgence of authoritarianism in the twenty-first century, a better understanding of the role of regime type in driving patterns of enmity/amity among democratic publics – and thus potentially war and peace – is urgently needed.

## Measures

### *Dependent variables*

Feeling thermometer scores for the United States (CCGA 2014) and three major Western European countries (the United Kingdom, France, and Germany, YouGov 2014) were used to measure feelings towards foreign countries. The response anchors for all surveys were ‘very cold, unfavorable’ and ‘very warm, favorable’ (French: ‘très froid, défavorable’ and ‘très chaleureux, favorable’; German: ‘sehr kalt, negativ’ and ‘sehr warm, positiv’) on 11- and 101-point scales respectively. Both were converted to 0° to 100° scales to allow for comparison.

The Chicago Council for Global Affairs (CCGA) US survey was conducted online by GfK Custom Research in Palo Alto, California from May 6 to 29, 2014. It consists of a representative national sample of 2108 US adult citizens. The margin of sampling error for the full

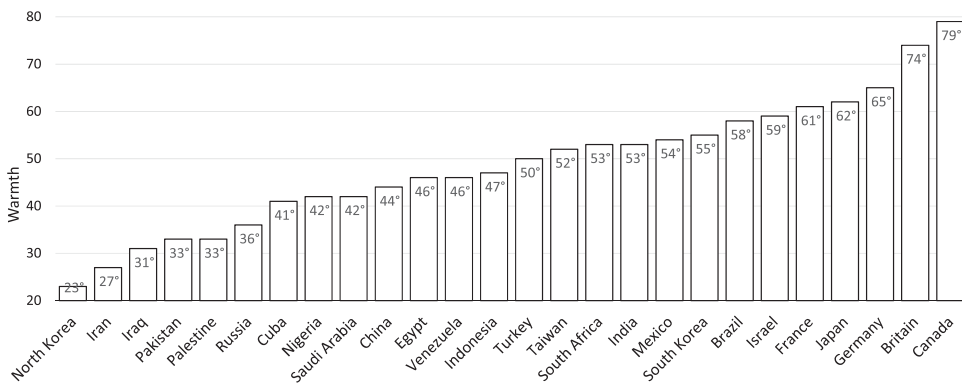


**Figure 1.** Western European Feelings towards Foreign Countries, 2014. Note: In ascending order. 'Western Europe' averages the 3,000 respondents from the UK, France, and Germany. Data source: YouGov 2014.

US sample is  $\pm 2.5$ . The Western European survey was conducted online by YouGov, also based in Palo Alto, California, from April 16 to May 5, 2014. It consists of parallel nationally representative samples of 3000 British, French, and German (1000 each) adult citizens. The margin of error for the YouGov sample is  $\pm 3.8\%$ .

Figures 1 and 2 are bar charts presenting the mean scores for each foreign country included in the feeling thermometers, for the Western European and American samples respectively (Cf. Gries 2014: Fig. 0.3). They are presented in a left to right ascending cold to warm sequence that captures our central empirical puzzle: Why do the democratic citizens of Western Europe and the United States feel cooler towards some countries (e.g. North Korea, Pakistan, Russia) and warmer towards others (e.g. Germany, Britain, France)?

The mean feelings displayed in Figures 1 and 2 are remarkably consistent across time. The Chicago Council has been using a feeling thermometer in its US surveys for decades, and individual country means do not vary much. For instance, in eleven surveys between



**Figure 2.** American Feelings towards Foreign Countries, 2014. Note: In ascending order. Data Source: Chicago Council on Global Affairs, 2014.

1978 and 2010, mean American feelings towards Japan hovered between 52° and 61°, while in ten surveys over the same period American feelings towards Israel hovered between 53° and 59°. The cool to warm sequence of enmity to amity is also remarkably stable. Given how little Americans (and Western Europeans) know about the world, what best explains this remarkable consistency in mean national feelings of un/favourability towards specific foreign countries, and their sequence?

### ***Independent: democratic variables***

2014 Freedom House scores were used to measure how politically free or democratic each country was in 2014. Because many countries claim to be democratic (e.g. the 'Democratic People's Republic of Korea') and perform that claim through sham elections, Freedom House evaluates each country on a lengthy list of political rights and civil liberties separately to ensure that their measure is multifaceted and robust. For Freedom House, 'political rights' captures electoral process, political pluralism and participation, and the functioning of government, while 'civil liberties' covers the freedoms of expression and belief (religion), associational and organizational rights, rule of law, and personal autonomy and individual rights.<sup>1</sup> We averaged their political rights and civil liberties scores together to create a single measure of the level of democracy in each country. Each were then reverse coded so that a higher score on the 1–7 scale is more democratic.

Although Freedom House scores are widely used and have been validated in multiple studies, we also looked at Polity4 and V-Dem scores as alternate measures of democracy. Polity 4, founded by Ted Gurr, captures a 'regime authority spectrum' from '–10 (hereditary monarchy) to +10 (consolidated democracy)'.<sup>2</sup> Varieties of Democracy (V-Dem), cohosted at the Universities of Gothenburg (Sweden) and Notre Dame (USA), 'aims to produce better Indicators of Democracy'.<sup>3</sup> Results reported below were robust to using these two other widely used measures of democracy, which is hardly surprising considering they each correlated with the Freedom House scores at  $\geq .90$ .<sup>4</sup>

### ***Independent: realist variables***

*Latent power index.* Following Lebow and Valentino (2009, 406), latent state power is operationalized by multiplying a state's *gross domestic product* (GDP) and *population* in 2014. In their view, the combination of the absolute size of a country's economy and its population is 'the most objective representation of latent material capabilities'. This is what matters for Realists, as both military personnel and spending can be rapidly increased in wartime. GDP is the total value in US dollars of all goods and services produced within a country for a given year.<sup>5</sup> The population measure used was also from the World Bank and represents the total number of persons living within a country, irrespective of citizenship or legal status.<sup>6</sup>

*Military spending* as a percentage of GDP includes all defense-related spending in 2014, including pay for active duty soldiers, reserves, and civilian employees.<sup>7</sup>

*Military personnel* is the total number of active duty personnel in the armed forces of a given state in 2014. This includes regular troops as well as those in training, such as reserves or paramilitary forces, who could replace regular troops in the line of duty.<sup>8</sup>

### ***Independent: capitalist/commercial variables***

*Total trade index.* The total trade index was operationalized as imports plus exports between a focal country (e.g. the US) and a target country (e.g. China).<sup>9</sup>

*Trade openness* was operationalized as the ratio of total trade to GDP (imports + exports/GDP). Gartzke and Li (2003) found trade openness to be negatively correlated with MID onset.

*Capital account openness.* From the Chinn-Ito Index based on IMF ratings of the level of financial openness for a given country. Operationalized by tabulating restrictions on cross-border financial transactions.

*FDI flows* are another measure of bilateral economic openness and interdependence (Gartzke 2007). They were operationalized as the net in and outflows of foreign direct investments as a percent of GDP (investments + divestments/GDP).

### ***Control variable (covariate)***

*Distance.* ‘Distance may not make the heart grow fonder’, writes Eric Gartzke (2007, 176), ‘but it does appear to discourage interstate disputes’. It is therefore included as a control variable. We did not test for contiguity, however, because very few target countries in our dataset share a border with our four focal countries.

## **Results**

We performed country-level analyses of aggregate national data (e.g. the national mean rating of feelings towards foreign countries). Aggregate data may be more reliable than individual data because averaging individual responses smooths out the noise of individual idiosyncrasy (Fielding and Gilbert 2006, 13). Analyses of aggregate data thus do not require the large sample sizes that individual-level data do. Analysing national aggregate data can also reveal macro-level or collective phenomena that are not reducible to individual-level characteristics (Na et al. 2010).

### ***Zero-order correlations***

As illustrated in Table 1, the target country’s Freedom House (row 1) score was both *positively* and *massively* (all  $r > .66$ ) associated (all  $ps < .001$ ) with each national sample’s mean warmth towards that country. This provides strong initial support for the DP.

The target country’s military spending (row 3) was *negatively* associated ( $ps$  between .05 and .01) with each democracy’s warmth towards that country, but there were no zero-order associations between warmth and the size of its military personnel (row 4), or its latent power (row 2). This provides weak, mixed evidence for the Realist counterargument.

Capital account openness (row 7) was *positively* associated (all  $ps < .01$ ) with each democracy’s warmth towards that country, but there were no zero-order associations between warmth and total trade (row 5), trade openness (row 6), or FDI flows (row 8). This provides weak, mixed evidence for the Capitalist Peace counterargument.

**Table 1.** Zero-order correlations between country-level warmth and a target nation's political and socio-economic conditions, by country.

	UK feeling	France feeling	Germany feeling	US feeling
Freedom House scores	.66***	.67***	.67***	.85***
Latent power	-.01	-.02	-.11	-.03
Military spending	-.54**	-.54**	-.51*	-.48*
Military personnel	-.33	-.27	-.41	-.23
Total trade	.22	.25	.20	.27
Trade openness	-.06	.02	-.00	.26
Capital account openness	.59**	.61**	.55**	.67**
FDI flows	.00	-.11	-.17	.29
Distance	-.20	-.23	-.25	-.40*

Note: Latent power = GDP \* population.

Data Sources: UK, FR, DE: YouGov 2014; US: Chicago Council on Global Affairs, 2014.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 1 also reveals that distance was negatively associated with American feelings towards foreign countries, but not British, French, or German feelings. Distance is therefore safely dropped as a control from the 'Western European' regressions below that average across the three Western European countries.

### *Predicting warmth towards foreign countries*

Zero-order correlations cannot distinguish between true and spurious associations. To test our competing Democratic, Capitalist, and Realist hypotheses, we ran a series of hierarchical multiple regressions in which the predictive power of Freedom House scores was pit against that of the other country indexes. Initial country level regressions revealed similar patterns across the UK, France, and Germany samples. For the sake of parsimony, their data was therefore aggregated together and called 'Western Europe' for the analyses reported below. Because of this aggregation, distance is not included in the Western Europe regressions. Given that distance did not correlate with feelings in the UK, France, and Germany (Table 1, row 9), it is likely not necessary anyways.

We first explored the hostile Realist challenge to the Democratic Peace, pitting all three Realist variables – latent power, military spending, and military personnel – against Freedom House scores. As illustrated in Table 2, the target country's Freedom House score was a unique positive predictor of both Western European and American feelings towards that country, even after controlling for the three Realist indexes (Table 2, Model 2).

In the Western European data reported first, none of the three Realist variables was a statistically significant unique predictor of feeling thermometer scores. Together, they did account for 9% of variance in feelings towards foreign countries beyond the 50% predicted by the Freedom House score, but this represents over five times less explanatory power.

In the American data, none of the three Realist variables was a statistically significant unique predictor of feeling thermometer scores either.

We then tested the friendly Capitalist/Commercial Peace challenge to the DP, pitting our four capitalist measures against Freedom House scores. As illustrated in Table 3, only the Freedom House score was a unique and powerful predictor across both samples. None of the four capitalist indicators was significant in the Western European

**Table 2.** The realist challenge: Hierarchical regression pitting democracy vs. power-related indexes to predict warmth towards foreign countries.

Western European data (N = 23)						
Predictors	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
Freedom House scores	4.21	.92	.71***	3.35	1.14	.56**
Latent power				.00	.00	.30
Military spending				-.56	.51	-.20
Military personnel				.00	.00	-.29
$R^2$		.50			.59	
F for change in $R^2$		20.88***			1.43	
American data (N = 25)						
Predictors	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
Freedom House scores	5.39	.69	.85***	5.41	.64	.86***
Latent power				.00	.00	.27
Military spending				.04	.30	-.01
Military personnel				.00	.00	-.09
Distance				-.00	.00	-.31**
$R^2$		.73			.86	
F for change in $R^2$		61.14***			4.68**	

Note: Western European feeling ratings were averaged across UK, France, and Germany.

Data Sources: UK, FR, DE: YouGov 2014; US: Chicago Council on Global Affairs, 2014.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

regression. And in the American regression, only FDI flows uniquely predicted feelings, but at just  $p < .05$ . Neither total trade, trade openness, nor capital account openness were significant predictors. In the Western European and American data, furthermore, Freedom House scores accounted for a substantial 55% and 71% of the variance in country warmth scores respectively.

**Table 3.** The capitalist peace challenge: Hierarchical regression pitting democracy against trade balance to predict warmth towards foreign countries.

Western European data (N = 24)						
Predictors	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
Freedom house scores	5.33	1.20	.74***	5.38	1.67	.75**
Trade total				.00	.00	.36
Trade openness				-8,438,891.17	11,895,501	-.11
Capital account openness				1.14	1.83	.14
FDI flows				.76	1.67	.07
$R^2$		.55			.71	
F for change in $R^2$		19.61***			1.64	
American data (N = 25)						
Predictors	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
Freedom House scores	5.37	.81	.84***	3.94	.73	.62***
Trade total				.00	.00	.15
Trade openness				4,556,800.52	8,505,700.78	.05
Capital account openness				1.95	1.14	.22
FDI flows				2.99	1.16	.25*
Distance				-.00	.00	-.18
$R^2$		.71			.90	
F for change in $R^2$		43.40***			4.93**	

Note: For European data, trade balance was the average balance of a country's trade with UK, France, and Germany.

Data Sources: UK, FR, DE: YouGov 2014; US: Chicago Council on Global Affairs, 2014.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

## Conclusion

Students of the DP (e.g. Nye 1993; Owen 1994) have long called for a better understanding of the underlying processes that allow democracies to avoid war with each other. This paper utilizes nationally representative feeling thermometer data to explore the micro-foundations of attitude formation that underlie the DP debate. It finds that patterns of public opinion toward foreign countries support DP theory against Realist approaches that emphasize power (whether operationalized in latent economic and demographic terms, or with more proximate military measures) as the key driver of feelings of amity/enmity among democratic publics. It also supports DP theory against the friendly Liberal Capitalist/Commercial Peace counterargument: the effect of regime type on attitudes does not appear to be spurious; trade and economic self-interest do not trump politics in shaping American and Western European feelings towards foreign countries.

Feeling thermometer data, in short, empirically support both Kant and Hume: the citizens of democracies both like and trust one another – but can be quite bellicose and distrustful towards non-democracies. In a twenty-first century where authoritarian countries like China, Russia, and Turkey are thriving, this does not bode well for peace in the twenty-first century.

## *Future directions*

This research note only presents correlational evidence of the link between patterns of amity/enmity in democratic public opinion and regime type at the aggregate level. More research is needed at the individual level to delve deeper into the psychological microprocesses of international attitude formation. For instance, to explore how perceptions of just how democratic a country is shapes people's amity/enmity toward them, experimental work could vary how non/democratic a foreign country is across different treatment conditions, and then measure feelings/attitudes and foreign policy preferences towards it. To explicitly study the mechanism that establish this link, further experiments could then explore whether mis/trust and norms of compromise – variables emphasized in the DP literature – are the correct mechanisms for any effects found. In short, additional research should check whether the macro-level pattern reported here comes about via the individual-level processes assumed here and more broadly in the DP literature.

We only explored the underlying drivers of feelings of amity and enmity towards foreign countries among democratic citizens in the US, UK, France, and Germany. Are our conclusions specific only to 'democratic publics' or even 'Western European' citizens? Future research could explore whether feeling thermometer data from other democratic publics replicates these findings, and whether or not they replicate in less democratic settings. Moreover, are these supposedly fundamental mechanisms posited by Western philosophers truly fundamental to humanity, or are they simply Western?

As with all research into the international system, it is important to understand whether what we observe is time-bound. Given that our results are centred on four powerful western countries, how much of our findings are the result of strong alliances? Some fear that these alliances are currently fraying; will our conclusions hold across time and in different international environments?

Finally, how much variation is there within nations? Working with nationally representative but aggregated data, we have treated each national public as a whole. Might

subgroups differ? For instance, might members of far-right groups within democracies care less about whether a foreign country is democratic or not? And might different subgroups have systematically different views about whether a specific foreign country is more democratic or authoritarian? For instance, the Japanese far-right, threatened by South Korean criticisms of Japan's wartime conduct, often delegitimizes such critiques by depicting South Korea as a dictatorship rather than a democracy (Suzuki 2019). Future work could explore such moderators of the effect of regime type on public perceptions of amity/enmity.

## Notes

1. <https://freedomhouse.org/report/freedom-world-2015/methodology#.UuEq87Qo711>
2. <http://www.systemicpeace.org/polityproject.html>
3. <https://www.v-dem.net/en/>
4. 2014 Freedom House scores correlated highly with both Polity4 and V-Dem scores for 2014 (both  $r \geq .90$ ). We, therefore, tested collinearity in the context of predicting our US and European feeling thermometer scores. The VIF (variance inflation factor) for the Freedom House score was 13, above the conventional cutoff of 10, so we decided that we needed to choose one. All three democracy measures also correlated with our dependent measures, the 2014 US and European feeling thermometer scores. However, Polity4 correlated at just  $r = .65$  and  $.58$  respectively, while the others correlated at  $r > .70$  and  $.80$  respectively. We therefore decided to drop Polity4, leaving Freedom House and VDem, which are largely interchangeable. They correlated extremely highly at  $r = .95$ , and their predictive power was also similar. Here we use Freedom House. But similar results can be found using V-Dem.
5. <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>
6. <http://data.worldbank.org/indicator/SP.POP.TOTL>
7. <http://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS>
8. <http://data.worldbank.org/indicator/MS.MIL.TOTL.P1>
9. Bilateral trade balances were also explored, but correlated too highly ( $r = -.93$ ) with total trade with the US so were dropped. Regression results did not change if the trade balance variable was used instead of total trade.

## Disclosure statement

No potential conflict of interest was reported by the authors. Replication data is available on the first authors' Harvard dataverse page.

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## References

Aldrich, J. H., C. Gelpi, P. Feaver, J. Reifler, and K. Thompson Sharp. 2006. "Foreign Policy and the Electoral Connection." *Annual Review of Political Science* 9: 477–502.

- Babst, D. 1972. "A Force for Peace." *Industrial Research* 14: 55–58.
- Braumoeller, B. F. 1997. "Deadly Doves: Liberal Nationalism and the Democratic Peace in Soviet Successor States." *International Studies Quarterly* 41 (3): 375–402.
- Bremer, S. A. 1993. "Democracy and Militarized Interstate Conflict, 1816–1965." *International Interactions* 18 (3): 231–249.
- CCGA. 2014. Chicago Council of Global Affairs Survey of American Public Opinion and US Foreign Policy.
- Chan, S. 1984. "Mirror, Mirror on the Wall ... Are the Freer Countries More Pacific?" *Journal of Conflict Resolution* 28 (4): 617–648.
- Daase, C. 2006. "Democratic Peace–Democratic War: Three Reasons Why Democracies are War-Prone." In *Democratic Wars: Looking at the Dark Side of Democratic Peace*, edited by A. Geis, L. Brock, and H. Muller, 74–89. London: Palgrave Macmillian.
- Downes, A., and T. S. Sechser. 2012. "The Illusion of Democratic Credibility." *International Organization* 66 (3): 457–489.
- Doyle, M. 1983. "Kant, Liberal Legacies, and Foreign Affairs, Part I." *Philosophy and Public Affairs* 12 (3): 205–235.
- Farber, H. S., and J. Gowa. 1995. "Politics and Peace." *International Security* 20 (2): 123–146.
- Farnham, B. 2003. "The Theory of Democratic Peace and Threat Perception." *International Studies Quarterly* 47 (3): 395–415.
- Fearon, J. D. 1994. "Domestic Political Audiences and the Escalation of International Disputes." *American Political Science Review* 88 (3): 577–592.
- Fielding, J., and G. N. Gilbert. 2006. *Understanding Social Statistics*. Thousand Oaks, CA: Sage Publications.
- Gartzke, E. 2007. "The Capitalist Peace." *American Journal of Political Science* 51 (1): 166–191.
- Gartzke, E., and Q. Li. 2003. "Measure for Measure: Concept Operationalization and the Trade Interdependence–Conflict Debate." *Journal of Peace Research* 40 (5): 553–571.
- Gaubatz, K. T. 1996. "Democratic States and Commitment in International Relations." *International Organization* 50 (1): 109–139.
- Gelpi, C., and M. Griesdorf. 2001. "Winners or Losers? Democracies in International Crisis, 1918–1994." *American Political Science Review* 95 (3): 633–647.
- Goldsmith, B. E. 2007. "Defense Effort and Institutional Theories of Democratic Peace and Victory: Why Try Harder?" *Security Studies* 16 (3): 189–222.
- Gowa, J. 2011. "The Democratic Peace After the Cold War." *Economics & Politics* 23 (2): 153–171.
- Gries, P. 2014. *The Politics of American Foreign Policy: How Ideology Divides Liberals and Conservatives Over Foreign Affairs*. Stanford, CA: Stanford University Press.
- Hayes, J. 2012. "The Democratic Peace and the New Evolution of an Old Idea." *European Journal of International Relations* 18 (4): 767–791.
- Hume, D. 1742. *Essays, Moral, Political, And Literary*. Indianapolis: Liberty.
- Huth, P. K., and T. L. Allee. 2002. *The Democratic Peace and Territorial Conflict in the Twentieth Century*. Ann Arbor: University of Michigan Press.
- Jakobsen, J., T. G. Jakobsen, and E. R. Ekevoold. 2016. "Democratic Peace and the Norms of the Public: A Multilevel Analysis of the Relationship between Regime Type and Citizens' Bellicosity, 1981–2008." *Review of International Studies* 42 (5): 968–991.
- Kant, I. 1795. *Perpetual Peace: A Philosophical Sketch*. Königsberg: bey Friedrich Nicolovius.
- Knecht, T. 2010. *Paying Attention to Foreign Affairs. How Public Opinion Affects Presidential Decision Making*. College Park: Pennsylvania State University Press.
- Kydd, A. H. 2005. *Trust and Mistrust in International Relations*. Princeton: Princeton University Press.
- Layne, C. 1994. "Kant or Cant: The Myth of the Democratic Peace." *International Security* 19: 5–49.
- Lebow, T., and B. Valentino. 2009. "Lost in Translation: A Critical Analysis of Power Transition Theory." *International Relations* 23 (3): 389–410.
- Levy, J. S. 2008. "Preventive War and Democratic Peace." *International Studies Quarterly* 52 (1): 1–24.
- Lipson, C. 2003. *Reliable Partners: How Democracies Have Made a Separate Peace*. Princeton: Princeton University Press.

- Maoz, Z., and B. Russett. 1992. "Alliances, Wealth, Contiguity and Political Stability: Is the Lack of Conflict between Democracies a Statistical Artifact?" *International Interactions* 17: 245–267.
- Maoz, Z., and B. Russett. 1993. "Normative and Structural Causes of the Democratic Peace, 1946–1986." *American Political Science Review* 87 (3): 624–638.
- McDonald, P. J. 2009. *The Invisible Hand of Peace: Capitalism, the War Machine and International Relations Theory*. New York: Cambridge University Press.
- Moravcsik, A. 1997. "Taking Preferences Seriously: A Liberal Theory of International Politics." *International Organization* 51 (4): 513–553.
- Mousseau, M. 2009. "The Social Market Roots of Democratic Peace." *International Security* 33 (4): 52–86.
- Na, J., I. Grossmann, M. E. Varnum, S. Kitayama, R. Gonzalez, and R. E. Nisbett. 2010. "Cultural Differences are Not Always Reducible to Individual Differences." *Proceedings of the National Academy of Sciences* 107: 6192–6197.
- Nye Jr., J. S. 1993. *Understanding International Conflicts*. New York: HarperCollins.
- Oren, I. 1995. "The Subjectivity of the 'Democratic' Peace: Changing U.S. Perceptions of Imperial Germany." *International Security* 20 (2): 147–184.
- Owen, J. M. 1994. "How Liberalism Produces Democratic Peace." *International Security* 19 (2): 87–125.
- Page, B. I., and R. Y. Shapiro. 1983. "Effects of Public Opinion on Policy." *American Political Science Review* 77 (1): 175–190.
- Polachek, W. 1980. "Conflict and Trade." *Journal of Conflict Resolution* 24 (1): 55–78.
- Ray, J. L. 1995. *Democracy and International Conflict: An Evolution of the Democratic Peace Proposition*. Columbia: University of South Carolina Press.
- Reiter, D., A. C. Stam, and M. C. Horowitz. 2016. "A Revised Look at Interstate Wars, 1816–2007." *Journal of Conflict Resolution* 60 (5): 956–976.
- Risse-Kappen, T. 1995. "Democratic Peace-Warlike Democracies? A Social Constructivist Interpretation of the Liberal Argument." *European Journal of International Relations* 1 (4): 491–517.
- Rosato, S. 2003. "The Flawed Logic of Democratic Peace Theory." *American Political Science Review* 97 (4): 585–602.
- Russett, B. 1993. *Grasping the Democratic Peace: Principles of a Post-Cold War World*. Princeton: Princeton University Press.
- Schafer, M., and S. G. Walker. 2006. "Democratic Leaders and the Democratic Peace: The Operational Codes of Tony Blair and Bill Clinton." *International Studies Quarterly* 50 (3): 561–583.
- Suzuki, S. 2019. "Japanese Revisionists and the 'Korea Threat': Insights From Ontological Security." *Cambridge Review of International Affairs* 32 (3): 303–321.
- Vasquez, J. A., ed. 2000. *What Do We Know About War?* Oxford: Rowan & Littlefield Publishers.
- Vasquez, J. A. 2011. "Why do Neighbors Fight? Proximity, Interaction, or Territoriality." In *Territory, War and Peace*, edited by J. A. Vasquez and M. T. Henehan, 3–23. London: Routledge.
- YouGov. 2014. Three Nation (UK, FR, DE) Survey of Ideology and International Attitudes. Conducted for the University of Oklahoma Institute for US-China Issues (USA), and ESSCA School of Management, Angers (France).