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Media Openness, Democracy and Militarized Interstate Disputes

SEUNG-WHAN CHOI AND PATRICK JAMES*

Mass media play a central role in political life. Media not only transfer information; they also facilitate communication. These functions may ameliorate conflict, crisis and war in world politics. Accordingly, this study looks into the impact of media openness on international conflict. Based on a cross-sectional, time-series dataset for interstate dyads from 1950 to 1992, logistic regression analysis shows that an indicator of media openness has a strong dampening effect on Militarized Interstate Disputes (MIDs) and fatal MIDs. Moreover, this connection is significant even in the presence of a composite indicator of democracy (that measures its institutional attributes using the Polity data), economic interdependence and joint membership in international organizations. The results suggest that the successful neo-Kantian triad is complemented effectively by the presence of media openness.

If it were left to me to decide whether we should have a government without a free press or a free press without a government, I would prefer the latter.

Thomas Jefferson

Mass media play a central role in politics. In the context of checks and balances, mass media often are portrayed as the fourth branch of government in a federal system such as the United States. Newspapers, television in general, cable news in particular (for example, CNN) and the Internet are essential components of political life. Media not only transfer information; they also facilitate communication. These two functions may ameliorate conflict, crisis and war in world politics. But this plausible causal linkage has not been explored in the empirical literature of international conflict. In particular, the existing and highly prominent democratic peace scholarship needs to look into more compelling causal mechanisms between democracy and conflict.[1] This study responds by integrating media openness into the research programme on the democratic or neo-Kantian peace.[2]

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[1] Sebastian Rosato, 'The Flawed Logic of Democratic Peace Theory', *American Political Science Review*, 97 (2003), 585–602.

[2] For representative studies, see Harvey Starr, 'Why Don't Democracies Fight One Another? Evaluating the Theory–Findings Feedback Loop', *Jerusalem Journal of International Relations*, 14 (1992), 41–59; Harvey Starr, 'Democracy and Integration: Why Democracies Don't Fight Each Other', *Journal of Peace Research*, 34 (1997), 153–62; Steve Chan, 'In Search of Democratic Peace: Problems and Promise', *Mershon International Studies Review*, 41 (1997), 59–91; James Lee Ray, 'Does Democracy Cause Peace?' *Annual Review of Political Science*, 1 (1998), 27–46; John R. Oneal and Bruce Russett, 'The Kantian Peace: The Pacific Benefits of Democracy, Interdependence, and International Organizations, 1885–1992', *World Politics*, 52 (1999), 1–37; Bruce Russett and John R. Oneal, *Triangulating Peace: Democracy, Interdependence, and International Organizations* (New York: W.W. Norton, 2001); Brandon C. Prins, 'Institutional Instability and the Credibility of Audience Costs: Examining the Impact of Political Participation on Interstate Crisis Bargaining', *Journal of Peace Research*, 40 (2003), 67–84; Brandon C. Prins, 'Democratic Politics and Dispute Challenges: Examining the

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Based on a cross-sectional, time-series dataset for the period from 1950 to 1992, logistic regression analysis will show that a simple indicator of media openness has a strong dampening effect on Militarized Interstate Disputes (MIDs) and fatal MIDs.[3] Moreover, this connection is significant even in the presence of a composite indicator of democracy (that measures its other institutional attributes using the Polity data), economic interdependence and joint membership in international organizations. These results suggest that the successful neo-Kantian triad is complemented effectively by the presence of media openness.

MEDIA OPENNESS AND INTERSTATE DISPUTES

Students of international relations believe that uncertainty and misperception are major causes in determining whether states engage in interstate disputes.[4] In this sense, war is viewed as a product of uncertainty or misperception about the intentions of other states. Put differently, if states gain access to credible information on capability and resolve, they can 'look ahead and the side expecting to do worse in military conflict then backs down'.[5] In game-theoretic terms, it is reasoned that the probability of war should reach zero under complete and perfect information.[6] The audience costs research community has looked into this possibility in terms of the credibility of signalling.[7] Fearon, for example, argues that 'domestic political structure may powerfully influence a state's ability to signal its intentions and to make credible commitments regarding foreign policy'.[8] In doing so,

(F'note continued)

Effects of Regime Type on Conflict Reciprocation, 1816–1992', *International Journal of Peace Studies*, 8 (2003), 61–84; and Seung-Whan Choi and Patrick James, 'No Professional Soldiers, No Militarized Interstate Disputes? A New Question for Neo-Kantianism', *Journal of Conflict Resolution*, 47 (2003), 796–816.

[3] A MID is defined as 'a set of interactions between or among states involving threats to use military force, displays of military force, or actual uses of military force' (Charles S. Gochman and Zeev Maoz, 'Military Interstate Disputes, 1816–1976: Procedures, Patterns, and Insights', *Journal of Conflict Resolution*, 28 (1984), 585–615, p. 587). Although many disputes occur that are not brought on by crises (i.e., there are low-level MIDs), the focus here is on disputes linked to *crises*. Fatal MIDs are counted for cases with at least one soldier killed per dyad-year. On concept formation and data as related to MIDs and fatal MIDs, see Meredith Reid Sarkees, 'The Correlates of War Data on War: An Update to 1997', *Conflict Management and Peace Science*, 18 (2000), 123–44.

[4] For example, Robert Jervis, *Perception and Misperception in International Politics* (Princeton, N.J.: Princeton University Press, 1976); Geoffrey Blainey, *The Causes of War*, 3rd edn (New York: The Free Press, 1988); John G. Stoessinger, *Why Nations Go to War*, 8th edn (Boston and New York: Bedford/St. Martin's Press, 2001).

[5] James D. Fearon, 'Domestic Political Audiences and the Escalation of International Disputes', *American Political Science Review*, 88 (1994), 577–92, at p. 583.

[6] See Scott Gates and Brian D. Humes, *Games, Information, and Politics: Applying Game Theoretic Models to Political Science* (Ann Arbor: The University of Michigan Press, 1997). It should be noted that some studies disagree with the idea that war does not occur in full and perfect information environments. Further, although the orthodox rationalist explanation for conflict involves private information with an incentive to misrepresent, Fearon offers two other possible reasons for conflict that may or may not require uncertainty: issue indivisibility and credible commitment (see James D. Fearon, 'Rationalist Explanation for War', *International Organization*, 49 (1995), 379–414). Along the same lines, Slantchev claims that war is not necessarily ex-post inefficient (Branislav L. Slantchev, 'The Power of Hurt: Costly Conflict with Completely Informed States', *American Political Science Review*, 97 (2003), 123–33).

[7] See Fearon, 'Domestic Political Audiences and the Escalation of International Disputes'; Alastair Smith, 'International Crises and Domestic Politics', *American Political Science Review*, 92 (1998), 623–38; Kenneth A. Schultz, 'Domestic Opposition and Signaling in International Crises', *American Political Science Review*, 92 (1998), 829–44; Bruce Bueno de Mesquita, Alistair Smith, Randolph M. Siverson and James D. Morrow, *The Logic of Political Survival* (Cambridge, Mass.: The MIT Press, 2003).

[8] Fearon, 'Domestic Political Audiences and the Escalation of International Disputes', p. 587.

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Fearon highlights the role of domestic audiences or structure over that of the international setting.[9]

Information flow or communication between political leaders and the public becomes an important determinant in answering the audience cost puzzle.[10] However, audience costs fall short of a complete theoretical treatment of interstate disputes in two aspects.

First, existing studies do not specify *how* the audience receives its information. Rather, 'audience costs are simply assumed to exist'.[11] One does not know how electoral constituents learn about their leaders' war performance, which would seem essential information as related to the logic of audience costs. We argue that mass media are informative and communicative tools that allow opposition voices to be heard. Such features of media have not yet come to the forefront in prominent studies such as Fearon's and Smith's exegesis of audience costs, Schultz's analysis of political opposition, and Bueno de Mesquita *et al.*'s account of leadership survival.[12] Fearon, for example, observes that, 'since the mid-nineteenth-century, mass publics [have been] informed by *mass media* in many cases'.[13] While valuable in stimulating research in the area, Fearon's formal model does not theorize explicitly about how media work in practice. One can presume that, as depicted on the right-hand side in Figure 1, the mass media function as intervening variables between political leaders and electoral constituents at the domestic level, which is an implicit and underdeveloped assumption of the audience costs argument. We argue that, without the presence of media openness, audience costs cannot play such a role with respect to the leadership's concerns about political penalties associated with their use of military forces.[14] For example, government-controlled media can easily mislead the public so that no audience costs arise. It can be inferred that, without open media, authoritarian leaders may be able to stay in power after backing down or losing wars. A high degree of media openness, by contrast, makes it harder for political leaders to bluff and not get caught. Here, the media play a role in informing voters about the costs and outcome of wars, which makes it harder for leaders to escape accountability for bad military results. Citizens then serve as the sanctioning mechanism for bluffing *only* if they become properly informed by open media. In this respect, Graber properly points out that freedom of the press and other news media gives voice to public opinion and empowers the public's eyes and ears to detect governmental misconduct, most notably abuse of power.[15] The bottom line is that promoting open media is a crucial factor for peace because it makes political leaders face potentially significant audience costs.

[9] Fearon, 'Domestic Political Audiences and the Escalation of International Disputes', p. 581.

[10] Smith, 'International Crises and Domestic Politics', p. 623; Joe Eyerman and Robert A. Hart Jr, 'An Empirical Test of the Audience Cost Proposition: Democracy Speaks Louder Than Words', *Journal of Conflict Resolution*, 40 (1996), 597–616, p. 599.

[11] Smith, 'International Crises and Domestic Politics', p. 623.

[12] Fearon, 'Domestic Political Audiences and the Escalation of International Disputes'; Smith, 'International Crises and Domestic Politics'; Schultz, 'Domestic Opposition and Signaling in International Crises'; Bueno de Mesquita, Smith, Siverson and Morrow, *The Logic of Political Survival*.

[13] Fearon, 'Domestic Political Audiences and the Escalation of International Disputes', p. 581. The emphasis is ours.

[14] It should be noted that Chiozza and Goemans offer some preliminary evidence that leaders do not get punished for failure in foreign policy (Giacomo Chiozza and H. E. Goemans, 'Peace through Insecurity: Tenure and International Conflict', *Journal of Conflict Resolution*, 47 (2003), 443–67).

[15] Doris A. Graber, 'Press Freedom and the General Welfare', *Political Science Quarterly*, 101 (1986), 257–75, p. 258.

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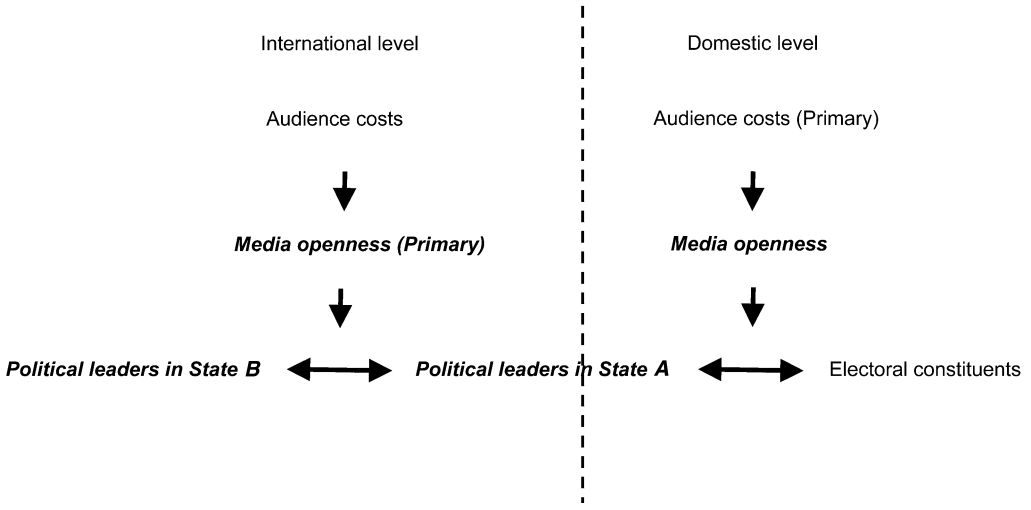


Fig. 1. Media openness, audience costs and interstate disputes

Secondly, students of audience costs do not shed light on a crucial role played by media openness at the international level. We argue that, as depicted on the left-hand side in Figure 1, media facilitate more open channels for information flow and communication between state leaders across borders. As discussed above, war does not arise without uncertainty or misperception.[16] Accordingly, the main solution to the occurrence of war may depend on decreasing the level of uncertainty or misperception between states. In this regard, Schultz properly points out that, with a free press, 'a condition of incomplete information, with all its inherent dangers, may never arise'.[17] Since a less restricted information flow or communication about preferences, capability, resolve and the like should reduce the chances of misinformation, miscalculation and uncertainty, greater media openness is more likely to inhibit interstate disputes.

Further, we argue that open media filter 'cheap talk' or bluffing by political leaders in democratic countries, so in turn they provide more complete or close to perfect information on capability and resolve. It is common in crises for leaders to send out mixed or even false signals. In this case, open media are more likely to analyse and report the 'true' intentions of leaders. By doing in-depth news analysis and comments as an independent third party, media tend to serve as a check on leaders' commitment and credibility as well as a filter for political noises. Thus, media can enforce or reinforce the credibility of signals being sent between democratic states. In other words, under a high degree of media openness, it becomes very unlikely that states' capability and resolve can be misrepresented or disguised. For example, leaders who misrepresent their foreign policy statements are carefully scrutinized by independent media. The open nature of media is such that leaders

[16] See also, Bruce Bueno de Mesquita and David Lalman, *War and Reason: Domestic and International Imperatives* (New Haven, Conn.: Yale University Press, 1992); Robert Powell, *In the Shadow of Power: States and Strategy in International Politics* (Princeton, N.J.: Princeton University Press, 1999).

[17] Kenneth A. Schultz, 'Do Democratic Institutions Constrain or Inform? Contrasting Two Institutional Perspectives on Democracy and War', *International Organization*, 53 (1999), 233–66, p. 238.

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find it harder to either manipulate or control media content than under state-run conditions. Open media are less likely to serve as political tools or messengers for leaders. Rather, independent media increase transparency between states, so they serve as the primary source of decision making in terms of capability and resolve about the other side in a potential conflict.[18] For example, in the 'Cod War' crisis of 1972–73 between Britain and Iceland, a little over 34 per cent of the coverage in *The Times* came from Icelandic sources, with 57 per cent from British sources. This would seem to be 'enough to prevent the British Prime Minister from thinking that s/he could dominate the coverage of an escalated conflict'.[19]

It is possible that non-democratic states gather information about a democratic opponent's level of resolve and fighting capacity. However, since the democratic state in a dyad does not trust the quality of closed media in the non-democratic state, it is likely that the democratic state resists and defends itself with counter-threats and the use of force. In other words, when the authoritarian leader gives out false signals and signs of commitment through controlled media, the democratic leader becomes fearful of being deceived or exploited, and then pursues an aggressive foreign policy. As Huth and Allee properly summarize, 'mixed dyads of democratic and non-democratic states have relatively high rates of military conflict'.[20] In this sense, if and only if two democratic states in a dyad maintain a high degree of media openness is mutual peace sustained. Mixed signals or information from closed media in non-democratic states do not reduce uncertainty or the likelihood of conflict, not only because they are discredited by democratic leaders, but also because they do not create mutual trust or credibility.

We argue that it is not only (democratic) leaders' signalling that mainly decreases war likelihood, but also the very existence of informative and communicative media openness that increase trust and credibility between two democratic states in a dyad, as depicted on the left-hand side in Figure 1. Without open media, leaders' signalling becomes much less credible and effective. When international conflict arises, foreign-policy decision makers, such as presidents or prime ministers, often turn to major newspapers or television as quickly as they can. That is, 'states survey each other' for a good deal of intelligence gathering.[21] In particular, when a variety of mass media are regarded as reliable and trustworthy sources or as representing political transparency, decision makers are more willing to use these sources for primary intelligence information. Along those lines, Balme

[18] It should be noted that some studies suggest that, even when institutionally free, the media are highly reliant on official sources and viewpoints in reporting on foreign affairs. In other words, political leaders in democracies are capable of manipulating media coverage or of promoting their future policies through mass media. In this sense, the media report the news content that decision makers want to be heard; see Robert M. Entman, 'Declarations of Independence: The Growth of Media Power after the Cold War', in Brigitte L. Nacos, Robert Y. Shapiro and Pierangelo Isernia, eds, *Decisonmaking in a Glass House: Mass Media, Public Opinion, and American and European Foreign Policy in the 21st Century* (Lanham, Md.: Rowman & Littlefield, 2000), pp. 11–26; John Zaller and Dennis Chiu, 'Government's Little Helper: U.S. Press Coverage of Foreign Policy Crises, 1946–1999', in Nacos, Shapiro and Isernia, eds, *Decisonmaking in a Glass House*, pp. 61–84). Bennett and Paletz's edited volume provides an excellent collection on the debates (W. Lance Bennett and David L. Paletz, *Taken by Storm: The Media, Public Opinion, and U.S. Foreign Policy in the Gulf War* (Chicago: The University of Chicago Press, 1994)).

[19] Douglas A. Van Belle, 'Press Freedom and the Democratic Peace', *Journal of Peace Research*, 34 (1997), 405–14, p. 410.

[20] See Paul K. Huth and Todd L. Allee, *The Democratic Peace and Territorial Conflict in the Twentieth Century* (Cambridge: Cambridge University Press, 2002), p. 2.

[21] Shaw, 'Media and Public Sphere without Borders?', p. 30.

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and Isernia's case studies of international conflict conclude that French and Italian decision makers relied heavily on mass media for information.[22]

So, whether the media are sufficiently open and reliable may contribute to the effective communication and free flow of information on foreign policy activities across borders and, in turn, enhance each government's credibility and validity. In the end, a high degree of media openness tends to ameliorate uncertainty and misperception between two democratic states, so it increases confidence and prospects for peaceful settlements. We argue that, in crises, before democratic leaders in a dyad are likely to have become concerned about their audience costs, they tend to back down if they have already gained access to more complete or even close-to-perfect information on capability and resolve provided by open media reporting factual analysis over political noises. Although Eyerman and Hart, and Shultz, do not introduce media into their empirical models, their findings suggest that information and communication (via audience costs, or open media) matters more than institutional constraints at the dyadic level.[23] Thus the hypothesis about media openness is as follows:

HYPOTHESIS: Dyads composed of states with (without) free or imperfectly free media openness are less (more) likely to become involved in Militarized Interstate Disputes.

This study expands upon the democratic or neo-Kantian peace debates, which so far have not articulated a role for open media as a force for peace. Indeed, its potential has been alluded to in relatively few studies. Classic studies by Babst point out, briefly, that freedom of speech in general and of the press in particular are crucial characteristics of freely elected governments in independent states.[24] Small and Singer's study of regime types and war-proneness acknowledges the benign impact of media by citing East and Gregg's findings that 'states with more authoritarian regimes – as reflected in their practice of press censorship – appeared to exhibit more foreign-conflict behavior than "freer" nations'.[25] In the context of presenting his composite index of political democracy, Bollen considers press freedom as one of three key indicators representing civil liberties in liberal

[22] Natalie La Balme, 'The French and the Use of Force: Public Perceptions and Their Impact on the Policy-Making Process', in Philip Everts and Pierangelo Isernia, eds, *Public Opinion and the International Use of Force* (London: Routledge, 2001), pp. 186–204; Pierangelo Isernia, 'Italian Public Opinion and the International Use of Force', in Everts and Isernia, eds, *Public Opinion and the International Use of Force*, pp. 86–115; Brigitte L. Nacos, Robert Y. Shapiro and Pierangelo Isernia, 'Old or New Ball Game? Mass Media, Public Opinion, and Foreign Policy in the Post-Cold War World', in Nacos, Shapiro and Isernia, eds, *Decisonmaking in a Glass House*, p. 5.

[23] Eyerman and Hart, 'An Empirical Test of the Audience Cost Proposition'; Schultz, 'Do Democratic Institutions Constrain or Inform?' It should be noted that, despite the theoretical reasoning on audience costs, no empirical studies directly test the argument. This is because no direct measure of the existence and magnitude of audience costs is available.

[24] Dean V. Babst, 'Elective Governments – A Force for Peace', *The Wisconsin Sociologist*, 3 (1964), 9–14, p. 10; Babst, 'A Force for Peace', *Industrial Research*, 14 (1972), 55–8, p. 55.

[25] Melvin Small and David J. Singer, 'The War-Proneness of Democratic Regimes, 1816–1965', *Jerusalem Journal of International Relations*, 1 (1976), 50–69, p. 51; Maurice A. East and Phillip M. Gregg, 'Factors Influencing Cooperation and Conflict in the International System', *International Studies Quarterly*, 11 (1967), 244–69.

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democracies.[26] Seeing the transparency of the flow of information as a key component of the democratic nature of a polity, Starr argues that freedom of speech and of the press are essential elements that inhibit liberal democracies from fighting each other.[27] Data analysis by Van Belle, and by Van Belle and Oneal, provides evidence in favour of the idea that there is a causal mechanism between press freedom and international conflict.[28] These studies suggest that enhancing media openness could be a neglected idea (and policy goal) in the quest for a more peaceful world. In other words, media openness emerges as very close to the essence of the neo-Kantian peace; namely, it represents the free exchange of ideas that provides the foundation for all other related traits – the basic implication of the epigraph from Jefferson.

Despite the potential importance of media openness, research on the democratic or neo-Kantian peace generally has paid closer and more sustained attention to other institutional and cultural elements of democracy.[29] Ironically, this relative neglect of media openness, to a large extent, is associated with the evolution of the otherwise remarkably comprehensive Polity datasets that have become a widely used source of cross-national, time-series data on the authority characteristics of modern polities since the 1970s.[30]

The centrality of the Polity datasets, however, has enabled democratic peace studies to measure democracy along some dimensions while not incorporating others. Put differently, while Polity clearly is the best dataset on national attributes, some aspects of politics may have been downplayed as a result of its common use in research on the democratic peace. The Polity datasets include five important attributes of democracy – competitiveness of participation, regulation of participation, competitiveness of executive recruitment, openness of executive recruitment and constraints on the executive – but do not incorporate media openness. According to Larry Diamond, Polity 'acknowledges civil liberties [such as media openness] as a major component of democracy but, because of the

[26] Kenneth A. Bollen, 'Issues in the Comparative Measurement of Political Democracy', *American Sociological Review*, 45 (1980), 370–90.

[27] Starr, 'Why Don't Democracies Fight One Another?' Starr, 'Democracy and Integration'.

[28] Van Belle, 'Press Freedom and the Democratic Peace'; Douglas A. Van Belle and John Oneal, 'Press Freedom and Militarized Disputes', in Douglas A. Van Belle, *Press Freedom and Global Politics* (Westport, Conn.: Praeger, 2000), pp. 47–75. These two studies should be considered as pioneering works on media and conflict. We attempt to go beyond their seminal contribution in three ways. First, utilizing the deductively derived theory of audience costs, this study further refines the causal mechanism. In doing so, we directly link the democratic features of media openness to what the audience costs literature has yet to explore. Thus we seek to avert the familiar criticism that '[democratic peace] theory building efforts have been too inductive and driven by attempts to develop explanations for already-known empirical findings' (Huth and Allee, *The Democratic Peace and Territorial Conflict in the Twentieth Century*, p. 5). Secondly, employing multivariate analysis with a more fully specified causal model, our study is the first to explore the impact of media on conflict rigorously. In fact, the results (reported later) that media openness enjoys success along with institutional features of democracy (as measured by the Polity dataset) break new ground in the democratic peace literature. Thirdly, our study reports a comparison of all MIDs and fatal MIDs. Despite burgeoning theoretical and empirical activity, the latter has not yet been fully explored by students of international conflict.

[29] See Starr, 'Why Don't Democracies Fight One Another?' Starr, 'Democracy and Integration'.

[30] See Ted Robert Gurr, Keith Jaggers and Will H. Moore, *Polity II Codebook*, 1989; Ted Robert Gurr, Keith Jaggers and Will H. Moore, 'The Transformation of the Western State: The Growth of Democracy, Autocracy, and State Power Since 1800', in Alex Inkeles, ed., *On Measuring Democracy: Its Consequences and Concomitants* (New Brunswick, N.J.: Transaction Publishers, 1991); Kristian S. Gleditsch and Michael D. Ward, 'Double Take: A Reexamination of Democracy and Autocracy in Modern Polities', *Journal of Conflict Resolution*, 41 (1997), 361–83.

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paucity of data, does not incorporate them'.[31] Furthermore, various composite indicators of democracy based on Polity have revealed some crucial drawbacks.[32] In their insightful review, Munck and Verkuilen observe that 'not only is virtually no theoretical justification [offered for generating the democracy, autocracy and aggregate Polity scores], but it also is open to criticism due to the index's problems of conceptual logic'.[33] In this sense, the development of a compelling indicator for democracy remains a great challenge.

One aspect of that challenge is especially salient for this project: have all of the attributes of liberal democracy that could plausibly contribute to decreasing the likelihood of international conflict, crisis and war been identified? The answer implicit within studies so far would seem to be 'yes', with an emphasis on synergy among the neo-Kantian peace attributes. Perhaps, however, some elements of liberal democracy have yet to be incorporated and it is worth trying to pinpoint a main, driving force. To paraphrase, what is the most defining attribute of democracy that stands out in reducing the dyadic tendency towards war? Based on the Polity datasets, democratic peace studies have emphasized various institutional factors, especially the degree of constraint imposed on the chief executive, in identifying the main determinants of democracy.[34] We argue that, as noted earlier, open media within democratic dyads are another important contributor to peace. In this study, we include the informative and communicative media, along with institutional factors, in a research design. In doing so, we will learn whether the operation of open media ranks among the significant factors in explaining (the absence of) interstate conflict.

MEASUREMENT, DATA AND BUILDING A LOGIT MODEL

We utilize Van Belle's global press freedom data collection to measure media openness for each state.[35] Van Belle provides a five-category coding scheme for the media openness of states included in the Polity III dataset: 0 for no news media to code (for example, Vanuatu); 1 for clearly free news media (as in the United States, United Kingdom and Australia); 2 for imperfectly but relatively free news media (such as in Finland and Mexico); 3 for news media restricted, though not directly controlled, by the government (for example, Jordan and El Salvador 1956–92); 4 for government controlled or strictly censored news media (as in China and North Korea). The media openness variable is dichotomous. The variable is coded as 1 if both states in each dyad-year have free or imperfectly free news media capable of functioning as an area of political competition or debate (i.e., categories 1 and 2); it is 0 otherwise (i.e., the news media are either restricted

[31] Larry Diamond, *Developing Democracy toward Consolidation* (Baltimore, Md.: Johns Hopkins University Press, 1999), p. 9.

[32] See Gleditsch and Ward, 'Double Take'.

[33] Gerardo Munck and Jay Verkuilen, 'Conceptualizing and Measuring Democracy: Evaluating Alternative Indices', *Comparative Political Studies*, 35 (2002), 5–34, p. 26.

[34] T. Clifton Morgan and Sally Howard Campbell, 'Domestic Structure, Decisional Constraints, and War: So Why Kant Democracies Fight?' *Journal of Conflict Resolution*, 35 (1991), 187–211; Gleditsch and Ward, 'Double Take'.

[35] Van Belle's global press freedom data collection relies on the annual International Press Institute (IPI), *World Press Freedom Review* and survey of historical documents. *World Press Freedom Review* currently examines the state of the media in over 184 countries, documenting press freedom violations and major media developments all over the world. For more details, see Van Belle, *Press Freedom and Global Politics*, pp. 137–48; the IPI website in http://www.freemedia.at/.

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or controlled by the government, or no news media, categories 0, 3 and 4).[36] To be more precise, the score is 0 if *either* state in a dyad scores other than 1 or 2. This operationalization precisely captures our theoretical reasoning that if, and only if, two democratic states in a dyad are able to exchange credible signals and information through open media, joint peace is more likely to be enforced.

We choose to test the media openness hypothesis by replicating a standard and prominent research design from the neo-Kantian or democratic peace literature. Use of Oneal and Russett's model and data as the foundation for this analysis should reduce bias that might inadvertently appear, not only because their research design provides the frame of reference for comparison, but also because it has emerged as one of the most frequently replicated in the field of international relations.[37]

Oneal and Russett's overall research design is familiar to students of international conflict, so we briefly summarize only the three neo-Kantian peace factors contained within it: democracy, economic interdependence and joint membership in international organizations.[38] Democracy assumes the weak link: the score for the less democratic state in a dyad is taken to be the stronger determinant of how interactions will proceed. Hence, the more democratic that state is, the more constrained it will be from engaging in MIDs and therefore the more peaceful the dyad. For the sake of theoretical and empirical differentiation, we hereafter use the term, *institutional democracy* to refer to Oneal and Russett's aggregate indicator of democracy based on the five institutional attributes from the Polity dataset, while *media openness* refers to our indicator of liberal democracy centring on media openness. Economic interdependence also assumes the weak link: the score for the less interdependent state in a dyad is taken to be the stronger determinant of interstate disputes. Hence, the more interdependent that state is, the more constrained it will be from engaging in MIDs and therefore the more peaceful the dyad. The variable corresponding to joint membership in international organizations is measured by the number shared in the dyad. Hence, the more joint memberships in intergovernmental organizations, the more constrained the two states will be from engaging in MIDs and therefore the more peaceful the dyad.

The other five control variables in the neo-Kantian or democratic peace model from Oneal and Russett are (1) national capability ratio (i.e., to control for power preponderance); (2) whether the members of each dyad are allied; (3) non-contiguity; (4) geographic distance; and (5) whether each member of the dyad is a minor power. These five variables are expected to decrease the likelihood of MIDs and generally have obtained statistical significance in previous studies.[39] The presence of these variables, more than

[36] It should be noted that the media openness hypothesis does not adopt the widely used 'weak link' assumption, which requires at least an ordinal level measurement (William J. Dixon, 'Democracy and the Management of International Conflict', *Journal of Conflict Resolution*, 37 (1993), 42–68; William J. Dixon, 'Democracy and the Peaceful Settlement of International Conflict', *American Political Science Review*, 88 (1994), 14–32). Although it is tempting to treat the media openness variable as a scale, Van Belle notes that 'categorical coding used for this analysis *does not* produce a five-point interval scale and the degree to which it can be used as an ordinal scale is unclear' (Van Belle, *Press Freedom and Global Politics*, p. 140).

[37] Oneal and Russett, 'The Kantian Peace'. Gartzke, in fact, made this observation about even earlier iterations of the Oneal and Russett research design (Erik Gartzke, 'The Logic of the Democratic Peace' (doctoral dissertation, University of Iowa, 1997) pp. 13 and 51; see also Erik Gartzke, 'Kant We All Just get Along? Opportunity, Willingness, and the Origins of the Democratic Peace', *American Journal of Political Science*, 42 (1998), 1–27).

[38] Oneal and Russett, 'The Kantian Peace'.

[39] Appendix 1 summarizes the hypotheses, operationalization and data sources. For more details, see Oneal and Russett, 'The Kantian Peace'.

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anything else, reflects a desire to maintain consistency with state-of-the-art studies from neo-Kantianism.[40]

With a special emphasis on media openness, this study purports to test the nine preceding hypotheses about MIDs during the period from 1950 to 1992 at the dyadic level.[41] The generalized estimating equation (GEE) logistic regression that adjusts for first-order autoregression (AR1) and clusters robust standard errors on the dyad is implemented. This preserves continuity with the general approach taken in the study of international conflict processes over the last few years.[42] Following Oneal and Russett, we choose MID involvement as our dependent variable for purposes of comparison.[43] For the GEE logistic regression model, all independent variables are lagged by one year, so they are not affected by a dispute to be explained. The extended model in Equation 1 is a combination of media openness and the eight variables from Oneal and Russett's democratic peace model:[44]

$$Y_t = \alpha + \beta_1 X_{1t-1} + \beta_2 X_{2t-1} + \beta_3 X_{3t-1} + \beta_4 X_{4t-1} + \beta_5 X_{5t-1} + \beta_6 X_{6t-1} + \beta_7 X_{7t-1} + \beta_8 X_{8t-1} + \beta_9 X_{9t-1} + \varepsilon \quad (1)$$

Here, Y_t: MID involvement; X_{1t-1}: media openness; X_{2t-1}: institutional democracy; X_{3t-1}: economic interdependence; X_{4t-1}: joint membership in international organizations; X_{5t-1}: national capability ratio; X_{6t-1}: allied states; X_{7t-1}: non-contiguous states; X_{8t-1}: geographic distance; X_{9t-1}: only minor powers; ε: error term

This research design is distinguished from Oneal and Russett and many other treatments by the presence of X_{1t-1}: media openness. In doing so, this study attempts to compare the performance of the media openness and neo-Kantian variables in the same regression model. This strategy is suggested in Starr's seminal work from a decade ago: 'There is varying empirical support for any of the possible explanations for peace in democratic-

[40] Two characteristics of the members of this list of variables should be acknowledged: first, the five variables, aside from a loose connection with political realism *vis-à-vis* capabilities and accessibility for the purposes of violent conflict, lack theoretical integration. Secondly, the presence of the closely related contiguity and distance variables might be questioned on various grounds. Taken together, the two preceding points might produce scepticism about the results obtained later in this study as a function of the possible distorting effects from the control variables. However, use of a technique from Achen, described in fn. 71, effectively addresses such concerns (Christopher H. Achen, 'Toward a New Political Methodology: Microfoundations and ART', in Nelson W. Polsby, ed., *Annual Review of Political Science*, 5 (2002), 423–50).

[41] The data availability on media openness limits the study period from 1950 to 1992, which mostly overlaps with the era following the Second World War. The study period may evoke realist (or other) criticism that mutual security interests between democratic dyads provide a better explanation for conflict as an artefact of Cold War stability. However, the analysis not only concurs with the standard choice in the conflict literature, but also focuses on the most recent decades of world politics for which data are available. This makes sense for at least one other reason as well, introduced by Van Belle in summing up the relevance of his own study for the same period: 'The limited temporal domain of the analysis necessitates caution when generalizing the conclusions to broader time periods. The technical ability of free presses to communicate transnationally is an important factor in looking at conflicts prior to 1948' (Van Belle, 'Press Freedom and the Democratic Peace', p. 412). In other words, the ability to generalize from the results obtained using Van Belle's data would appear to be *greater* in relation to the period after 1992. Transnational movement of information is trending upwards in terms of both basic ability and economy (for example, electronic exchange of files).

[42] *Stata Statistical Software* (version 8.0) is used for empirical tests.

[43] Oneal and Russett, 'The Kantian Peace'. The relevance of media openness to escalation across categories of MIDs, which could be tested through an ordered logit model, is a separate question that will not be pursued further here.

[44] Oneal and Russett, 'The Kantian Peace', p. 21.

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democratic dyads. Which of these would seem to be the most promising? One way to deal with alternative explanations would be to engage in empirical analysis of the possible alternatives'.[45] Maoz and Russett, for example, compare institutional and normative measures of democracy in the same model.[46]

Since how democracies – which now make up a significant percentage of the world polity – respond to military fatalities continues to stimulate scholarship,[47] we choose to report the effect of media openness on fatal MIDs as well. This will provide another test for the utility of media openness as an explanation for conflict processes. Media influence on military fatalities is theorized as a two-step flow of information or communication, first from the public to the mass media or vice versa, and then to foreign policy decision makers such as presidents and prime ministers.[48] We expect that a high degree of media openness is likely to decrease military fatalities. The so-called 'casualty hypothesis' or 'body-bag syndrome' holds that, with the possibility of military fatalities, the public will recoil or withdraw its support. This connection 'is often mentioned by politicians and in the media as if it were an evident and established fact of life'.[49] In the same vein, Luttwak argues that 'the prospect of high casualties, which can rapidly undermine domestic support for any military operation, is the key political constraint when decisions must be made on which forces to deploy in a crisis, and at what levels'.[50] For example, the decision of the North Atlantic Treaty Organization (NATO) allies to rely on air power alone in the conflict in Kosovo in 1999 illustrates the importance of media and public opinion about military fatalities.[51] Oneal, Russett and Berbaum suggest that, since democracies are more sensitive to public opinion than non-democracies, they are less likely to engage in disputes that become lethal.[52] In a sense, Oneal, Russett and Berbaum's statistical results, which show that democratic dyads are less disposed towards fatal MIDs, would seem to justify a continuing focus on democratization as the potential solution to international disharmonies and disputes.[53]

[45] Starr, 'Why Don't Democracies Fight One Another?' p. 46.

[46] Zeev Maoz and Bruce Russett, 'Normative and Structural Causes of Democratic Peace, 1946–1986', *American Political Science Review*, 87 (1993), 624–38.

[47] For example, Erik Gartzke, 'Democracy and the Preparation for War: Does Regime Type Affect States' Anticipation of Fatalities?' *International Studies Quarterly*, 45 (2001), 467–84.

[48] See Thomas Risse-Kappen, 'Public Opinion, Domestic Structure, and Foreign Policy in Liberal Democracies', *World Politics*, 43 (1991), 479–512.

[49] Everts, 'Introduction', in Everts and Isernia, *Public Opinion and the International Use of Force*, p. 18.

[50] Edward N. Luttwak, 'A Post-Heroic Military Policy', *Foreign Affairs*, 75 (1996), 33–44, p. 36.

[51] Everts, 'Introduction', p. 1; see also Philip Everts, *Democracy and Military Force* (New York: Palgrave, 2002), pp. 158–81.

[52] John R. Oneal, Bruce Russett and Michael Berbaum, '*Causes* of Peace: Democracy, Interdependence, and International Organizations, 1885–1992', *International Studies Quarterly*, 47 (2003), 371–93.

[53] It should be noted that, in opposition to the body-bag syndrome, Feaver and Gelpi argue that the public is not casualty-averse, despite what political and military leaders might believe (Peter D. Feaver and Christopher Gelpi, *Choosing Your Battles: American Civil–Military Relations and the Use of Force* (Princeton, N.J.: Princeton University Press, 2004).

A caveat is that research on fatal MIDs is not in the spotlight of neo-Kantian or democratic peace research, at least in comparison to the highest level of hostility in dyadic disputes. Oneal, Russett and Berbaum's article appears to be a first, provocative introduction of lethal dispute analysis into the democratic peace literature (Oneal, Russett and Berbaum, '*Causes* of Peace'). This relatively recent turn of interest may be because of missing observations; Maoz warns that, 'due to considerable missing information, this [fatality level] variable should be used with a great deal of caution' (Maoz, 'Dyadic Militarized Interstate Disputes (DYMID1.1) Dataset', p. 3).

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TABLE 1 *Cross-Tabulation Between Media Openness and Institutional Democracy*

Media openness		Institutional democracy: 0 MID Involvement	0 Fatal MID	1 MID Involvement	1 Fatal MID	Total MID Involvement	Total Fatal MID
0	Frequency	84,079	79,266	4,769	4,423	88,848	83,689
	Row percentage	95%	95%	5%	5%	100%	100%
	Column percentage	94%	94%	24%	25%	81%	82%
1	Frequency	5,524	5,123	15,369	13,474	20,893	18,597
	Row percentage	26%	28%	73%	72%	100%	100%
	Column percentage	6%	6%	76%	75%	19%	18%
Total	Frequency	89,603	84,389	20,138	17,897	109,741	102,286
	Row percentage	82%	82%	18%	18%	100%	100%
	Column percentage	100%	100%	100%	100%	100%	100%

Since Oneal and Russett rely on MID involvement rather than fatal MIDs as their dependent variable,[54] we use Maoz's dyadic MID dataset version 1.1 (updated January 2001) to identify the fatality level for each dyad in a given year.[55] 'Fatal MIDs' constitute a dichotomous dependent variable, i.e., 1 (with at least one soldier killed) versus 0 (no soldiers killed). This practice follows Oneal, Russett and Berbaum; the causal mechanism for MIDs is also applied to fatal MIDs in this study.[56]

It should be noted that, since institutional democracy measures the continuous democracy score of the less democratic state in the dyad,[57] it may not clearly distinguish jointly democratic dyads from everything else. Put differently, pitting a continuous variable for institutional democracy against our dichotomous media variable may blur the comparison, because they are constructed differently. To take account of this concern, we create a dummy variable for joint institutional democracy that equals 1 if and only if both states in the dyad score 6 or more on the institutional democracy scale.

The cross-tabulation between media openness and institutional democracy whose values are dichotomous is shown in Table 1. The cross-tabulation reveals significant variation between the simultaneous or individual presence of institutional democracy and media openness. In other words, there are some authoritarian regimes with open media and some democracies with closed media. For example, in the MID involvement dataset (in the shaded columns), 24 per cent of the dyads with institutional democracy show a low degree of media openness, compared with 94 per cent of the dyads where at least one state lacks institutional democracy. While the association is statistically significant ($p < 0.001$), note in particular that many dyads (i.e., 24 per cent) show a profile that includes institutional democracy but not media openness as a manifestation of liberal democracy.[58]

[54] Oneal and Russett, 'The Kantian Peace'.

[55] Maoz's dyadic MID dataset version 1.1 (updated January 2001) is found at ftp://spirit.tau.ac.il/zeevmaoz/dyadmid.html.

[56] Oneal, Russett, and Berbaum, '*Causes* of Peace'.

[57] Oneal and Russett, 'The Kantian Peace'.

[58] Van Belle, 'Press Freedom and the Democratic Peace', p. 409.

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Table 1 also reveals (this time focusing on the first shaded column) that 26 per cent of the dyads with media openness do *not* feature institutional democracy.[59] It is known that there are several 'fairly' free (although, at times, factually unreliable) media outlets in autocratic countries today – such as *Al-Jazeera*. Open media are often set up in newly-born democracies before the introduction of other democratic elements represented in Polity. Media openness in Iraq and Afghanistan, for example, preceded the establishment of democratically elected governments. The media data reveal that, while Nigeria, Uganda, Swaziland etc. fall below -6 on the conventional democracy minus autocracy score, their media openness is reported as free or imperfectly free and therefore capable of functioning as an area of political competition or debate. These somewhat surprising examples would seem consistent with the epigraph from Jefferson, 'If it were left to me to decide whether we should have a government without a free press or a free press without a government, I would prefer the latter.' In other words, in a sequence of events leading from dictatorship to freedom, media openness may be regarded as the foundation for positive change. In this sense, media openness and institutional democracy are expected to make either independent or perhaps complementary and reinforcing contributions along the path towards consolidating democracy.

It should be emphasized that this study does not intend to compare media with democracy *per se*, but introduces media openness as an aspect of liberal democracy that complements democracy as assessed in terms of institutions. In doing so, we hope to focus on an additional feature associated with liberal democracy that contributes significantly to a decrease in the likelihood of both MID involvement and fatal MIDs at the dyadic level during the period from 1950 to 1992.

EMPIRICAL RESULTS: THE POWER OF MEDIA OPENNESS

Multivariate data analysis will unfold in two stages.[60] The first stage presents the empirical results based on our extended model, with a focus on the impact of media openness on interstate disputes. The second stage deals with theoretical and statistical concerns raised by the fact that media openness and institutional democracy may be correlated with each other; i.e., the second stage addresses the possibility that the two should not be included in the same regression model.

Table 2 shows the empirical results based on the extended GEE logistic regression model from Equation 1.[61] Since the hypotheses are directional, this study employs a one-tailed test for each variable.[62] In Table 2 the four left-side columns report the results when the dependent variable is MID involvement and the four right-side columns do the same for fatal MIDs. The shaded columns show the empirical results for Equation 1 during the

[59] Van Belle, 'Press Freedom and the Democratic Peace', p. 409.

[60] Spearman's rho reports a correlation of -0.0279 between media openness and MID involvement and -0.0131 between media openness and fatal MIDs.

[61] The replicated results for MID involvement, in general, concur with the reported results of Oneal and Russett with respect to direction of signs and statistical significance (see Oneal and Russett, 'The Kantian Peace', p. 22). An exception is the economic interdependence variable for all dyads that barely misses statistical significance at the 0.05 level, with $p < 0.101$. The replicated results for fatal MIDs, however, are at some distance from our expectations. When the dependent variable is fatal MIDs, all of the three neo-Kantian variables, surprisingly enough, turn out to be statistically insignificant. All of the replications can be obtained upon request from the authors.

[62] This also follows Oneal and Russett, 'The Kantian Peace'.

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TABLE 2 *Media Openness and Neo-Kantian Peace, 1950–92*

	Militarized Interstate Dispute Involvement				Fatal Militarized Interstate Disputes			
Variable	All dyads		Politically relevant dyads		All dyads		Politically relevant dyads	
Media openness	−1.5579***	−1.5430***	−1.1794***	−1.1374***	−2.7337***	−2.2138***	−2.5898***	−2.0344***
	(0.3271)	(0.3317)	(0.3163)	(0.3295)	(0.5216)	(0.6692)	(0.4851)	(0.6533)
Institutional democracy	−0.0153	−0.3145	−0.0075	−0.2086	0.0550†	0.1744	0.0682‡	0.3610
	(0.0166)	(0.2424)	(0.0169)	(0.2530)	(0.0266)	(0.4801)	(0.0258)	(0.4976)
Trade/GDP	−31.5443	−31.4023	−26.9002	−26.4151	−207.1352	−196.4122	−211.4247	−200.1001
	(22.5118)	(21.8506)	(19.7082)	(18.9664)	(145.7483)	(142.1521)	(139.0917)	(137.3794)
International organizations	−0.0017	−0.0018	−0.0056	−0.0056	0.0072	0.0102	0.0073	0.0111
	(0.0060)	(0.0062)	(0.0060)	(0.0062)	(0.0159)	(0.0185)	(0.0147)	(0.0175)
Capability ratio	−0.1526*	−0.1517*	−0.2198**	−0.2187**	−0.0869	−0.0682	−0.1934*	−0.1652
	(0.0759)	(0.0763)	(0.0816)	(0.0819)	(0.1050)	(0.1138)	(0.1094)	(0.1176)
Alliances	−0.4066*	−0.4064*	−0.4460*	−0.4448*	−0.2387	−0.2646	−0.5873	−0.6115
	(0.2389)	(0.2377)	(0.2376)	(0.2368)	(0.5923)	(0.6266)	(0.5516)	(0.5880)
Non-contiguity	−2.4481***	−2.4458***	−1.4173***	−1.4160***	−3.3933***	−3.3798***	−1.8363***	−1.8287***
	(0.2641)	(0.2639)	(0.3125)	(0.3127)	(0.4732)	(0.4729)	(0.4712)	(0.4723)
Log distance	−0.5224***	−0.5247***	−0.2374*	−0.2377*	−0.4076***	−0.3837***	−0.1842	−0.1710
	(0.0957)	(0.0952)	(0.1051)	(0.1051)	(0.1304)	(0.1237)	(0.1375)	(0.1327)
Only minor powers	−1.9275***	−1.9243***	−0.5875	−0.5841	−1.0669*	−1.0341*	−0.1154	−0.1259
	(0.2689)	(0.2685)	(0.3648)	(0.3630)	(0.4926)	(0.5315)	(0.5776)	(0.6009)
Constant	−1.4888*	−1.3624*	−1.5829*	−1.5284*	−4.4845***	−5.0979***	−3.6940***	−4.3750***
	(0.7874)	(0.7783)	(0.8634)	(0.8512)	(1.1069)	(1.0616)	(1.2091)	(1.1016)
χ^2	869.66	875.32	101.84	106.44	514.16	501.78	96.63	104.44
P of χ^2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
N	109,710	109,710	20,666	20,666	102,228	102,228	19,594	19,594

Notes: Numbers in parentheses are standard errors.
*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$, one-tailed tests.
†$p < 0.05$; ‡$p < 0.01$, one-tailed tests but wrong sign.

period from 1950 to 1992 and the unshaded columns are the empirical results in which Oneal and Russett's institutional democracy takes on the dichotomous score.[63] The discussion that follows will focus mainly on the impact of media openness and the three neo-Kantian peace variables for present purposes.

The left-most shaded column presents the empirical results for all dyads when the dependent variable is MID involvement. As hypothesized, the coefficient for the media openness variable turns out to be statistically significant at the 0.001 level, indicating that dyads composed of states with free or imperfectly free media are less likely to become involved in MIDs.[64] None of the three neo-Kantian peace variables is statistically significant. Thus it might be inferred that media openness represents an essential element within neo-Kantianism, namely, the central role of free and open communication in preserving peace between states. The third, shaded column presents the empirical results for politically relevant dyads only. Once again, the media openness hypothesis is supported. It appears that media also matter in the case of politically relevant dyads, which students of conflict processes look into most commonly due to their relatively dispute-prone nature. None of the three neo-Kantian peace variables is statistically significant.[65]

Replacing the continuous score with the dichotomous score for institutional democracy does not change the sign and level of statistical significance of media openness. Media show a pacifying effect on MID involvement, significant at the 0.001 level, for both the runs with all dyads (the second, unshaded column) and politically relevant dyads (the fourth, unshaded column).

These findings create new, theoretically interesting implications for the democratic peace proposition. The empirical results indicate that an indicator of liberal democracy (understood in an inclusive sense beyond institutional structure) focusing on media openness directly captures effects on the process of foreign-policy decision making. Given the fact that the leader of a state initiates (or makes a decision about involvement in) war, a cause and effect relationship should be established on that basis.[66] In this sense, as theorized earlier, media openness that provides credible information on capability and

[63] Oneal and Russett, 'The Kantian Peace', p. 22.

[64] Van Belle, 'Press Freedom and the Democratic Peace', p. 409. (This result parallels Van Belle's bivariate findings that associate press freedom and (a) interstate wars and (b) uses of force.)

[65] Multicollinearity, especially between media openness and institutional democracy, might be suspected as the reason for statistical insignificance of the three neo-Kantian peace variables. The presence of multicollinearity causes greater standard errors which, in turn, encroach on statistical significance tests. We found that inflation of standard error is not a concern. For example, the standard error for institutional democracy in the column showing MID involvement for all dyads in Table 2 is slightly inflated from 0.0163 to 0.0166, while somewhat deflated for economic interdependence from 28.5656 to 22.5118 and slightly inflated for international organizations from 0.0059 to 0.0060. By contrast, the magnitude of each coefficient turns out to be much smaller than before the introduction of media openness into the model (from -0.0633 to -0.0153, from -46.7964 to -31.5443, and from -0.0052 to -0.0017). The statistical significance tests for the three neo-Kantian peace variables fail not because of multicollinearity, but due to their relative magnitude. Given the fact that multicollinearity has nothing to do with deflating coefficient magnitude, these results suggest that muliticollinearity poses no problem.

In passing, Spearman's rho reports a correlation of 0.60 between media openness and institutional democracy with the MID involvement dataset and 0.59 with the fatal MIDs dataset. We also have conducted three more rigorous diagnostic tests for the shaded columns: R^2 statistic, Variance Inflation Factor (VIF), eigenvalues and condition index (see D. A. Belsley, E. Kuh and R. E. Welsch, *Regression Diagnostics: Identifying Influential Data and Sources of Collinearity* (New York: Wiley, 1980); Damodar N. Gujarati, *Basic Econometrics*, 3rd edn (New York: McGraw-Hill, 1995); *SAS/STAT® User's Guide, Version 7–1*, 1999 (5); Stata Reference Manual Set 2001). The test results are found in Appendices II and III, and none suggests severe multicollinearity.

[66] Bruce Bueno de Mesquita, *The War Trap* (New Haven, Conn.: Yale University Press, 1981); Stoessinger, *Why Nations Go to War*.

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resolve is factored directly into the democratic decision makers' choice of peace versus war. In other words, while institutional democracy, economic interdependence and joint membership in international organizations could be expected to have significant effects on institutional constraints and norms faced by democratic decision makers, it appears that mass media directly influence their behaviour. Thus, our results imply that, to obtain a more peaceful world (at least at the dyadic level), we need to promote a higher degree of media openness – or, put differently, the free exchange of ideas emerges as a core element of neo-Kantianism.

The fifth, shaded column presents empirical results for all dyads when the dependent variable is fatal MIDs. As expected, the coefficient of the media openness variable turns out to be statistically significant at the 0.001 level. Thus, with greater media openness, fatal MIDs become less likely. Given the assumption that the media effectively work together with the public and exert pressure on policy makers regarding the most salient issue, military fatalities, our findings appear very plausible. Surprisingly, the coefficient for institutional democracy is statistically significant at the 0.05 level, but in the wrong direction.[67] It seems that states in a democratic dyad (as measured in the Polity dataset) are *more* likely to experience fatal MIDs. In addition, both economic interdependence and joint membership in international organizations are not statistically significant. The right-most, shaded column presents empirical results for politically relevant dyads only. The media openness hypothesis is supported.

Once again, replacing the continuous score with the dichotomous score for institutional democracy does not change the sign and statistical significance level of media openness. Open media show a dampening effect on fatal MIDs at the 0.001 level for the runs both with all dyads (the sixth, unshaded column) and with politically relevant dyads (the eighth, unshaded column).

This study has compared the performance of media openness and institutional democracy in the same model. It appears that media openness is an important complement to neo-Kantianism, at least from a surface inspection of the statistical analysis. These empirical findings direct our attention to another fundamental question: whether media provide a competing explanation (that subsumes other aspects of a liberal political and economic system) or a complementary explanation (that fits into a broader liberal model of foreign-policy decision making). Citing Blalock's work,[68] Ray argues that Z is a competing variable if Z is correlated with X as well as Y in the simple three-variable model, and if Z dampens the original effect of X on Y.[69] While Spearman's rho reports a correlation of -0.0186 between institutional democracy and MID involvement and -0.0022 with the fatal MIDs, the correlations between media openness and institutional democracy with

[67] We speculate that, since there are relatively few MIDs between institutional democracies and the fatality threshold we use is very low (i.e., one battle death), the results may be highly sensitive to a few cases in which joint-democratic disputes generated a very small number of fatalities. Thus the results may reflect an operationalization that makes no distinction between the few people who might be killed in a joint-democratic dispute and the hundreds or thousands who might die in a dispute involving either non-democratic states or a mixed dyad. Another possible explanation is that institutional democracies may not be negatively sensitive to fatalities. Although Feaver and Gelpi's survey-based study focuses on the United States alone, it makes a case that 'the belief, widely accepted by policymakers, civilian elites, and military officers, that the U.S. public is especially casualty phobic (meaning that public support for a mission will evaporate at the first sign of casualties) is a myth' (Feaver and Gelpi, *Choosing Your Battles*, p. 7).

[68] Hubert M. Blalock, *Causal Inferences in Nonexperimental Research* (Chapel Hill: University of North Carolina Press, 1964).

[69] James Lee Ray, 'Explaining Interstate Conflict and War: What Should be Controlled For?' *Conflict Management and Peace Science*, 20 (2003), 1–31.

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MID involvement and fatal MIDs are 0.60 and 0.59, respectively. Spearman's rho reports a correlation of -0.0279 between media openness and MID involvement and -0.0131 with the fatal MIDs. The partial correlation between institutional democracy and MID involvement, controlling for media and the other variables, is -0.0039 with no statistical significance. And the partial correlation for fatal MIDs is 0.0071 with $p < 0.023$, which wipes out entirely the original bivariate correlation between institutional democracy and fatal MIDs, shifting it from -0.0022 to 0.0071. This simple empirical analysis indicates that media openness provides a competing explanation. Put differently, media has an independent, significant impact on peace.

Since the preceding results are likely to be controversial, we institute two precautionary reassessments. First, one still might wonder whether that media openness is correlated with institutional democracy (i.e., the higher the institutional democracy, the higher the degree of the media openness), so we empirically separate the effects of media openness from those of institutional democracy. That is, to control for the media effects in the extended GEE logistic regression model in Equation 1 and to distinguish those two independent variables empirically, we adopt the orthogonal method by regressing Oneal and Russett's composite indicator of institutional democracy on our single indicator of media openness, and then use the residual (i.e., unexplained variation, $\hat{u} =$ institutional democracy $- \hat{s}_1 - \hat{s}_2 \times$ media openness) as the institutional democracy variable that is orthogonal to media openness and measures the sole effects of the attributes of institutional democracy other than those of media openness.[70] In doing so, we can detect exactly how media openness independently affects international conflict.

Secondly, we introduce a reduced form of the logistic regression model, in which institutional democracy is omitted from Equation 1 on grounds of some suspicions of a conceptual or definitional problem between media openness and institutional democracy.

Table 3 reports the empirical results. The numbers in the shaded columns represent the results from the orthogonal method as related to the unexplained variation as described above. Media openness consistently shows statistical significance at the 0.001 level, while institutional democracy does not. While controlling for some possible effects of the attributes of institutional democracy, media openness is likely to dampen MID involvement as well as fatal MIDs. Empirical results based on the reduced model without institutional democracy appear in the unshaded columns. The reduced model includes the media openness variable, two neo-Kantian peace variables (i.e., economic interdependence and international organizations only) and the other five realist-oriented variables (i.e., national capability ratio, alliance, non-contiguity, geographic distance and only minor powers). As conveyed by the unshaded columns in Table 3, media openness once again shows a strong dampening impact on the likelihood of both MID involvement and fatal MIDs, while the two neo-Kantian peace variables lack statistical significance. Given these results, it becomes even more likely that media openness is a key attribute of liberal democracy, understood in relatively encompassing terms, in enhancing the tendency towards peace.[71]

[70] For more details, see Christopher H. Achen, *Interpreting and Using Regression* (Thousand Oaks, Calif.: Sage, 1982); Gujarati, *Basic Econometrics*; Quan Li, 'Does Democracy Promote Transitional Terrorist Incidents?' (unpublished paper prepared for the Conference on the Political Economy of International Terrorism at University of Southern California, 2004).

[71] A statistical model with a large number of control variables may have results that are difficult to interpret (or even meaningless), so we follow Achen's 'Rule of Three' and run various combinations of three variables in a model (Achen, 'Toward a New Political Methodology: Microfoundations and ART', pp. 445–7). An additional consideration might even be the potentially confounding role of the control variables (e.g., contiguity, etc.) in relation to other variables in the model. All of the results concur with what we report in Tables 2 and 3 and thereby assuage the preceding concerns. The results can be obtained upon request from the authors.

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TABLE 3 *Is Media Openness Correlated with Institutional Democracy?*

	Militarized Interstate Dispute Involvement				Fatal Militarized Interstate Disputes			
Variable	All dyads		Politically relevant dyads		All dyads		Politically relevant dyads	
Media openness	−1.7437*** (0.2964)	−1.7327*** (0.2966)	−1.2704*** (0.2729)	−1.2623*** (0.2713)	−2.0690*** (0.6438)	−2.1024*** (0.6298)	−1.7648*** (0.5903)	−1.7885*** (0.5790)
Institutional democracy	−0.0153 (0.0166)		−0.0075 (0.0169)		0.0550† (0.0266)		0.0682‡ (0.0258)	
Trade/GDP	−31.5443 (22.5118)	−33.4850 (22.4630)	−26.9002 (19.7082)	−27.8355 (19.6302)	−207.1352 (145.7483)	−195.0053 (141.9202)	−211.4247 (139.0917)	−197.2614 (136.7134)
International organizations	−0.0017 (0.0060)	−0.0022 (0.0061)	−0.0056 (0.0060)	−0.0058 (0.0061)	0.0072 (0.0159)	0.0106 (0.0184)	0.0073 (0.0147)	0.0119 (0.0173)
Capability ratio	−0.1526* (0.0759)	−0.1551* (0.0760)	−0.2198** (0.0816)	−0.2210** (0.0816)	−0.0869 (0.1050)	−0.0650 (0.1139)	−0.1934* (0.1094)	−0.1563 (0.1183)
Alliances	−0.4066* (0.2389)	−0.4090* (0.2363)	−0.4460* (0.2376)	−0.4475* (0.2358)	−0.2387 (0.5923)	−0.2676 (0.6258)	−0.5873 (0.5516)	−0.6153 (0.5878)
Noncontiguity	−2.4481*** (0.2641)	−2.4477*** (0.2631)	−1.4173*** (0.3125)	−1.4176*** (0.3125)	−3.3933*** (0.4732)	−3.3779*** (0.4741)	−1.8363*** (0.4712)	−1.8307*** (0.4738)
Log distance	−0.5224*** (0.0957)	−0.5284*** (0.0949)	−0.2374* (0.1051)	−0.2388* (0.1049)	−0.4076*** (0.1304)	−0.3816*** (0.1240)	−0.1842 (0.1375)	−0.1687 (0.1333)
Only minor powers	−1.9275*** (0.2689)	−1.9302*** (0.2669)	−0.5875 (0.3648)	−0.5856 (0.3616)	−1.0669* (0.4926)	−1.0280* (0.5319)	−0.1154 (0.5776)	−0.1345 (0.6033)
Constant	−1.3994* (0.7777)	−1.3284* (0.7755)	−1.5391* (0.8516)	−1.5145* (0.8492)	−4.8100*** (1.0765)	−5.1212*** (1.0635)	−4.0981*** (1.1505)	−4.4210*** (0.1118)
χ^2	869.66	843.67	101.84	97.91	514.16	501.59	96.63	96.16
P of χ^2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
N	109,710	109,710	20,666	20,666	102,228	102,228	19,594	19,594

Notes: Numbers in parentheses are standard errors.
*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$, one-tailed tests.
†$p < 0.05$; ‡$p < 0.01$, one-tailed tests but wrong sign.

TABLE 4 *Substantive Effects of MID Involvement and Fatal MIDs, 1950–92**

	MID Involvement				Fatal MIDs			
Variable	All dyads		PRDs†		All dyads		PRDs†	
Media openness equals 1	− 79%	− 82%	− 68%	− 71%	− 93%	− 87%	− 93%	− 83%
Institutional democracy increased by 1 standard deviation	− 14%		− 7%		76%		91%	
Economic interdependence increased by 1 standard deviation	− 9%	− 10%	− 5%	− 5%	− 45%	− 44%	− 31%	− 29%
International organizations increased by 1 standard deviation	3%	3%	12%	12%	− 12%	− 16%	− 14%	− 22%

*The baseline values are as follows: 0 for no media openness, mean for continuous variables, 1 for contiguity, 0 for non-alliance, and 0 for only minor powers.
†Politically relevant dyads.

It is possible that, with large samples, even a small effect can be statistically significant. Thus, it becomes increasingly important to estimate the substantive effects of variables as the sample size increases. Table 4 shows the substantive significance of the four theoretically interesting variables in the extended GEE logistic regression model in Equation 1 as well as the reduced model: (1) media openness, (2) institutional democracy, (3) economic interdependence and (4) joint membership in international organizations. It is apparent that, while the three neo-Kantian variables reduce the likelihood of conflict one way or another (except for the international organizations variable for MID involvement and institutional democracy variable for fatal MIDs), media openness dramatically decreases it, regardless of different model specifications and samplings. As compared with a typical dyad, the risk that open media dyads will become involved in a dispute is decreased by 79 and 68 per cent for all dyads and politically relevant dyads respectively according to the extended model, and by 82 and 71 per cent respectively according to the reduced model. The likelihood the open media dyads will face fatal MIDs is decreased by 93 per cent each according to the logistic regression model in Equation 1, and by 87 per cent and 83 per cent respectively according to the reduced model. It should be noted that the substantive significance for fatal MIDs is higher than that for MID involvement. This implies that the body-bag syndrome does exist. In short, the empirical results in Table 4 confirm the significance of media openness in a neo-Kantian world.

CONCLUSIONS AND POLICY IMPLICATIONS

We have explored a potentially significant aspect of liberal-democratic governance, media openness, with respect to decreasing the likelihood of international conflict. Cross-sectional, time-series data analysis shows that media openness is a defining element of liberal democracy, understood in expansive terms, with respect to MID involvement and fatal MIDs for interstate dyads during the period from 1950 to 1992. Media openness clearly complements the three neo-Kantian peace factors – institutional democracy (measured by

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five institutional attributes from the Polity dataset), economic interdependence and joint membership in international organizations – in the context of making a more peaceful world, as understood in terms of interstate dyads. It should be noted that the effect of media openness holds for the empirical tests both *with* and *without* the presence of institutional democracy. Based on these findings, which show media to be a viable explanation, we speculate that, while the three neo-Kantian peace variables produce a noteworthy impact, media – by informational and communicative functions that ameliorate uncertainty and misperception – impact directly on foreign-policy decision making via effects from the public eye. In a word, the (independent) pen is more important than many other things in restraining the sword within democratic dyads.[72]

If our findings are on target, American foreign policy should focus on enhancing the degree of media openness in non-democracies for a more peaceful world at the millennium and beyond. Increased funding for Voice of America (VOA)-type broadcasts would be one implication as well. Put differently, institutional democratization, especially in isolation from other kinds of changes, may not be the best public (or foreign) policy for the United States to emphasize. Instead, the United States may need also to direct its attention towards supporting media openness, all other things being equal, with special attention to the most explosive dyads. While transforming regimes – the most straightforward goal that might be derived from the neo-Kantian or democratic peace – is a challenging task, promoting and utilizing media openness may turn out to be a more feasible, less expensive and more promising option. Perhaps the 'micro revolution' in international relations, manifested most directly through the internet and satellite-based television, will accelerate the growth of open media in response to demands from increasingly well-informed citizens.[73] Only time will tell.

This study started out by presenting a family of very simple and parsimonious theoretical connections between media and conflict. Given the fact that existing studies of the role of mass media at the international level have been underdeveloped,[74] our quest can be considered as a first attempt to theorize and perform the thorough and sophisticated empirical tests needed to bring the media openness argument into the larger debate about the factors related to international conflict over approximately the last half-century. The relationship of cause and effect can be complex; foreign-policy decision makers may not respond systematically to mass media. For example, as shown during the conflict in the former Yugoslavia, the media can act as a catalyst, but it does not, by itself, have the power to force decision makers to select war or peace.[75] Thus it becomes necessary to elaborate the theoretical linkage between media and conflict in future research at the dyadic level and beyond.

For example, it would be interesting to probe the *content* of communication as well as the inherent degree of openness in relation to MID involvement and fatal MIDs. During the time frame we study most closely, i.e., the Cold War, the media have been less likely

[72] We have also tested the media openness hypothesis with mixed pairs, i.e., one state's media openness scores a 1 or a 2 and the other state's does not. The mixed pairs hypothesis is not supported; results can be obtained upon request from the authors.

[73] James N. Rosenau, *Turbulence in World Politics: A Theory of Change and Continuity* (Princeton, N.J.: Princeton University Press, 1990).

[74] Martin Shaw, 'Media and Public Sphere without Borders?'

[75] Benjamin I. Page, 'Toward General Theories of the Media, Public Opinion, and Foreign Policy', in Nacos, Shapiro and Isernia, eds, *Decisonmaking in a Glass House*, pp. 85–91; Balme, 'The French and the Use of Force', in Everts and Isernia, eds, *Public Opinion and the International Use of Force*, pp. 195–200.

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to report on disputes regarding fellow democracies, given the primacy of the Soviet threat. Thus it is intriguing to consider future research that would divide the dependent variable into lower and higher levels of disputes, or democratic–autocratic dyads, and compare the results. Whether truly democratic states have a high degree of media openness is a subject that should stimulate future research. In addition, looking at events since 1992 (i.e., the last year of our study period) would be useful, in that we not only see more democratic states than ever before, but also a world that continues to suffer from ethnolinguistic conflicts, power struggles and challenges to system stability that call for the most creative thinking and best data analysis we can find.

It should be noted that the current media data fail to capture more nuanced qualities of media openness. For example, our indicator of media openness places the United States, where media ownership is very highly concentrated, ahead of Finland, where it is more plural. This might be regarded as a clarion call to collect additional data along dimensions of media that are not as yet represented, such as the concentration of ownership within the subset of 'open' cases.[76] In addition, we have noted that the institutional democracy is a composite indicator derived from five distinct factors from the Polity dataset. It would be interesting to disaggregate the Polity indicator to see if there are any individual institutional factors that matter disproportionately in pacifying interstate disputes. Additional research, perhaps with simultaneous equations focusing on media openness, democracy and interstate disputes, might be worthwhile in sorting through the viable set of causal connections that emerge from the present study.

In sum, one should be careful in interpreting our results. To paraphrase Winston Churchill, our findings may not necessarily point towards 'the beginning of the end' in a theoretical (i.e., whether the effect of the media variable is really due to the causal role of free media) or empirical (i.e., whether the media is simply a neglected indicator of liberal democracy) sense. Rather, this research design may be more like the 'end of the beginning'.

[76] On media bias, see Bennett and Paletz, *Taken by Storm*; Doris Graber, 'The Media and Democracy: Beyond Myths and Stereotypes', *Annual Review of Political Science*, 6 (2003), 139–60.

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APPENDIX I: HYPOTHESES AND OPERATIONALIZATION

Variable	Hypothesis	Operationalization (and data sources)
Media openness	Dyads composed of states with (without) free or imperfectly free media openness are less (more) likely to become involved in a dispute.	1 if both states have free or imperfectly free news media (data from Van Belle's (2000) collection).
Institutional democracy	The more democratic, a dispute is less likely.	(1) The smaller value of the democracy scores. (2) 1 if and only if both states' democracy score is equal or greater than 6 (data from Oneal and Russett's (1999) collection)
Economic interdependence	The more interdependent the less economically dependent state, the more constrained it will be from engaging in a dispute and the more peaceful the dyad.	The smaller value of the trade-to-GDP ratios (data from Oneal and Russett's (1999) collection).
International organizations	The more joint memberships in intergovernmental organizations, the more constrained dyadic states will be from engaging in a dispute and the more peaceful the dyad.	Number of international organization memberships shared (data from Oneal and Russett's (1999) collection).
National capability	The more preponderent the military capabilities, the more constrained dyadic states will be from engaging in a dispute and the more peaceful the dyad.	Logarithm of ratio of higher to lower power capability on population, industry and military forces (data from Oneal and Russett's (1999) collection).
Alliances	If dyadic states are militarily allied, they are less likely to be engaged in a dispute.	1 if both states are linked by defence treaty, neutrality pact or entente (data from Oneal and Russett's (1999) collection).
Noncontiguity	If dyadic states are not contiguous, they are less likely to be engaged in a dispute.	1 if both states are not contiguous by land border or less than 150 miles of water, 0 otherwise (data from Oneal and Russett's (1999) collection).
Geographic distance	The farther apart dyadic states are, the less likely they are to be involved in a dispute.	Logarithm of dyadic distance in miles between capitals or major ports (data from Oneal and Russett's (1999) collection).
Only minor powers	If there is no major power involvement, a dispute is less likely.	1 if only minor powers involved, 0 otherwise (data from Oneal and Russett's (1999) collection).

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APPENDIX II: MULITICOLLINEARITY DIAGNOSTICS ON MID INVOLVEMENT, 1950–92

	R^2		Variance Inflation Factors		Tolerance		Eigenvalue		Condition Index	
	All dyads	PRDs*	All dyads	PRDs	All dyads	PRDs	All dyads	PRDs	All dyads	PRDs
Media openness	0.5104	0.6453	2.04	2.82	0.4896	0.3547	2.4163	3.5868	1.0000	1.0000
Institutional democracy	0.5175	0.6536	2.07	2.89	0.4825	0.3464	1.7602	2.1211	1.1716	1.3004
Trade/GDP	0.1702	0.2359	1.21	1.31	0.8298	0.7641	1.3998	0.8602	1.3138	2.0419
International organizations	0.3299	0.4978	1.49	1.99	0.6701	0.5022	0.8656	0.6744	1.6708	2.3061
Capability ratio	0.2467	0.4143	1.33	1.71	0.7533	0.5857	0.7273	0.6524	1.8228	2.3447
Alliances	0.2357	0.3044	1.31	1.44	0.7643	0.6956	0.6226	0.3970	1.9700	3.0058
Noncontiguity	0.2298	0.6572	1.30	2.92	0.7702	0.3428	0.4877	0.3004	2.2259	3.4552
Log distance	0.3862	0.5813	1.63	2.39	0.6138	0.4187	0.4312	0.2162	2.3671	4.0735
Only minor powers	0.2213	0.6841	1.28	3.17	0.7787	0.3159	0.2892	0.1915	2.8905	4.3276

*Politically Relevant Dyads.

Note: A general rule of thumb: A serious multicollinearity problem is suspected if the R^2 exceeds 0.80, if the variance inflation factor is greater than 10, or if the condition index (that is derived from the eigenvalue) is greater than 30.

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APPENDIX III: MULITICOLLINEARITY DIAGNOSTICS ON FATAL MIDS, 1950–92

	R^2		Variance Inflation Factors		Tolerance		Eigenvalue		Condition Index	
	All dyads	PRDs*	All dyads	PRDs	All dyads	PRDs	All dyads	PRDs	All dyads	PRDs
Media openness	0.5022	0.6411	2.01	2.79	0.4978	0.3589	2.4471	3.6233	1.0000	1.0000
Institutional democracy	0.5122	0.6512	2.05	2.87	0.4878	0.3488	1.7429	2.1087	1.1849	1.3108
Trade/GDP	0.1738	0.2389	1.21	1.31	0.8262	0.7611	1.4298	0.8422	1.3082	2.0742
International organizations	0.3392	0.4998	1.51	2.00	0.6608	0.5002	0.8575	0.6640	1.6893	2.3360
Capability ratio	0.2594	0.4095	1.35	1.69	0.7406	0.5905	0.7184	0.6491	1.8456	2.3627
Alliances	0.2311	0.2984	1.30	1.43	0.7689	0.7016	0.5931	0.4058	2.0313	2.9880
Noncontiguity	0.2346	0.6641	1.31	2.98	0.7654	0.3358	0.4848	0.2991	2.2466	3.4808
Log distance	0.3905	0.5830	1.64	2.40	0.6095	0.4170	0.4313	0.2177	2.3820	4.0794
Only minor powers	0.2388	0.6857	1.31	3.18	0.7612	0.3143	0.2952	0.1902	2.8789	4.3646

*Politically Relevant Dyads.

Note: A general rule of thumb: A serious multicollinearity problem is suspected if the R^2 exceeds 0.80, if variance inflation factor is greater than 10, or if the condition index (that is derived from the eigenvalue) is greater than 30.