Abstract: The widely documented dyadic democratic peace observation has led to optimism that the spread of democracy might prove pacifying even outside of democratic dyads. Yet, tensions between the logic of liberal peace in dyads and systems suggest that economic development may be better suited than democracy as a determinant of systemic liberal peace. In particular, regime-type heterogeneity (difference) stands to increase conflict at the system level. We argue that there exists a systemic developmental peace, in which increased wealth encourages powerful developed nations to discourage other countries from fighting, even as these same developed states continue to use force in service of their own private objectives. We also separate out the effects of aggregate democracy from regime type difference in our analysis. Systemic and cross-level statistical tests support the following propositions: greater systemic development encourages peace, difference propagates war, and increased systemic democracy has no consistent impact on interstate conflict.
Introduction

Students of international politics have begun to look for, and to find, a systemic liberal peace. Confidence in the dyadic democratic peace observation, and controversy about its theoretical underpinnings, encourage exploration of new empirical territory (Huth and Allee 2003). Constructivist interpretations of the democratic peace (Risse-Kappen 1995, 1997; Wendt 1999) and other norms-based arguments (Kant 1957[1795]; Huntley 1996; Harrison 2004) anticipate virtuous system level dynamics. “A dyadic approach to the democratic peace predicts peaceful dispute resolution only between democracies, while a systemic approach recognizes the potential for democratic interactions to influence the behavior of nondemocratic states” (Mitchell 2002, page 749, italics in the original). Existing studies appear to corroborate the claim that democracies are changing behavior, not just in dyads, but systemically. Consensus opinion among researchers clearly mirrors this view. As one set of authors puts it “[w]ith little exception, scholars support an optimistic long term prognosis: global levels of democracy ameliorate worldwide levels of conflict” (Crescenzi et al. 2005, page 1).

Yet, the very appeal of such a conclusion suggests that additional caution may be warranted. There are important reasons why democratic peace should fail to translate to the system level. Peace cannot “spillover” from democracies to non-democracies without also appearing to affect conflict monadically, something that researchers generally do not observe (c.f., Rousseau, et al. 1996). Also, at least initially, the rise of a democratic community creates more pairings with non-democracies that tend to counteract, or even overwhelm, any pacific systemic consequences of democratic peace. To the degree that regime type heterogeneity (difference) increases conflict, researchers must distinguish difference from democracy to better understand these relationships.

In the pages that follow, we first review existing arguments for systemic liberal peace. We then present a theory based on economic development and regime type heterogeneity. The
challenge for arguments about a systemic democratic peace --- the proposition that the increasing prevalence of democracy will have a general pacifying effect on the level of world conflict --- is that democracy cannot simultaneously be associated with peace at both the dyadic and systemic levels, and yet remain unobserved at the monadic level, at least not unless democracies are engaged in a surprising amount of hypocrisy. The obvious problem for potential arguments about a systemic developmental peace, by contrast, is that evidence that development promotes peace between countries is weaker or absent (Richardson 1960; East and Gregg 1967; Rummel 1967; Thompson 1982; Maoz and Russett 1992).² Ironically, however, just as the existence of strong monadic and dyadic findings place important logical constraints on a systemic democratic peace, the lack of strong lower-level effects for development open up the possibility that system-level development could condition system-level peace. Indeed, there are good reasons to expect that such a relationship exists. The effect of economic development on interstate conflict can be “hiding” at the system level if development affects the conflict behavior of developing countries, as opposed to the direct recipients and beneficiaries of development. Powerful developed states have unambiguous incentives to discourage conflict by other countries, while continuing to exercise force themselves in pursuing foreign policy objectives. The tremendous disparity in power then makes it possible for developed countries to impose a form of international hypocrisy on developing states. Other scholarship identifies a robust norm against aggression in the post-war world, but fails to consider hypocrisy in the application of the norm (Zacher 2001; Fazal 2007). In short, as we demonstrate here, a richer world is also more peaceful, but the logic of that peace is grounded fundamentally in the hypocrisy of the richest countries.

Literature: What We (Think We) Know About Liberal Peace

Students of international relations have long sought to identify a set of processes that are causally related to peace. The apparent success of the democratic peace research agenda has
propelled efforts to unearth a variant of the democratic peace at the system level (Harrison 2010). The weakness of economic development as a dyadic determinant of conflict has done the opposite, with relatively light attention paid to the possibility that systemic development might promote peace.

How (Much) Does Democracy Change World Politics?

As confidence in the dyadic democratic peace grew, researchers began to wonder what effect democracy might have at the system level. Early studies viewed systemic analysis as attractive primarily as an alternate forum for testing dyadic democratic peace arguments. The increasing prevalence of democracies was expected simply to change the mix of jointly autocratic, mixed, and jointly democratic dyads, which would in turn affect the prevalence of conflict in the system as a whole. Hypotheses about systemic conflict trends then depend largely on one’s conception of the relative dispute propensity of different types of dyads. If democracies are seen as monadically more peaceful (Benoit 1996; Ray 1995; Rummel 1996; Rousseau et al. 1996), or mixed dyads are viewed as effectively identical to jointly non-democratic dyads (Maoz and Abdoladi 1989; Bremer 1992; Morgan and Campbell 1991; Maoz and Russett 1993; Oneal and Russett 1997), then increasing the proportion of democracies in the system should result in a monotonic decrease in system-wide conflict. If instead one views mixed dyads as particularly warlike, then systemic conflict will be non-monotonic: the initial introduction of democracies creates more warlike mixed dyads than peaceful democratic dyads. At some point, the effect “tips” when enough democracies exist that new democracies create enough jointly democratic dyads to counteract the impact of additional mixed dyads, incrementally decreasing systemic conflict (Gleditsch and Hegre 1997; Kadera et al. 2003). The non-monotonicity argument generated scholarly interest, but empirical support for the hypothesis is mixed (Gleditsch and Hegre 1997; Crescenzi and Enterline 1999; Mitchell et al. 1999).
While the search for systemic peace was inspired by the dyadic observation, a number of contemporary researchers have increasingly adopted theoretical perspectives that are less derivative of, and indeed in some ways in tension with, dyadic democratic peace arguments. Huntley (1996) fired the first salvo, arguing that Kant’s conception of perpetual peace was fundamentally systemic; the anarchic environment in which states interact plays an important role in conditioning republics to learn to coexist peacefully (Harrison and Mitchell 2007; Harrison 2010). While initial studies found that increased systemic democracy was associated with increased conflict (Maoz and Abdoladi 1989; Senese 1997; Maoz 2001), a growing list of researchers have predicted, and in several cases found, that the spread of democracy reduces systemic conflict (Huntley 1996; Mitchell et al. 1999; Russett and Oneal 2001; Oneal et al. 2003; Rasler and Thompson 2005; Gortzak et al. 2005; Ray and Tucker 2005; Harrison and Mitchell 2007). Encouraged by these findings, systemic democratic peace scholars have begun to look at novel dependent variables. A key component of this approach involves positive externality effects of democratization. Several studies find that increasing systemic democracy raises the probability that non-democracies resolve their disputes short of force (Mitchell 2002; Crescenzi et al. 2011; Mitchell et al. 2009). More widespread democracy is also said to enhance the survival of democratic regimes (Crescenzi and Enterline 1999; Kadera et al. 2003). An academic community has developed around this social/normative approach to the democratic peace. The basic claim of this community—that the benefits of the spread of democracy “spillover” to non-democracies, so that they can be felt worldwide and are not merely confined to a separate, “special” peace among liberal states—has tremendous normative appeal.

At the same time, however, important questions remain about how democracy causes peace at the system level, particularly in non-democracies. The spread of democracy is far from the only major change to the international system over the past two centuries, yet existing studies typically have not seriously considered the possibility that other variables, such as economic development or even just the number of independent states in the system, might
better account for broad changes in conflict behavior. Similarly, some studies suggest that, rather than democracy specifically promoting peace, difference may be a generic source of tensions (Huntington 1993, 1996; Kacowicz 1995; Henderson 2002). Indeed, it may be appropriate to reserve judgment as to whether democracy promotes peace beyond the dyad until these potential confounding variables are better understood.

*The System Made Me Do It: Social Construction and Extra-Dyadic Peace*

Research on the systemic democratic peace is particularly relevant for, and partially inspired by, constructivist theories of world affairs. While there are plausible constructivist interpretations of the dyadic democratic peace observation (Risse-Kappen 1997; Wendt 1999), heavy competition exists from liberal and rationalist/informational explanations. A systemic democratic peace has the potential to provide important empirical support for claims about social norms or constructivist theories of world politics (c.f. Bull 1995; Katzenstein 1996; Ruggie 1998). Indeed, the systemic democratic peace offers what is arguably an ideal forum for the rigorous assessment of constructivist theories.\(^5\) To the extent that constructivist explanations generate predictions that can be applied and operationalized in large statistical samples, it should be possible for researchers to find support at the systemic level of analysis.\(^6\) It is thus worthwhile to briefly review the logic of key constructivist arguments as they pertain to the systemic pacifying effects of liberal democracy.

For many constructivists interested in international affairs, anarchy is not what states make of it individually, but what the community of nations and other relevant actors arrive at collectively (Wendt 1992). Constructivist theory offers an end run around the tensions between individual agency and social action that are traditionally associated with anarchy (Waltz 1959; Axelrod 1984). Nations need not be insecure if social norms or a common identity vitiate threats. While any set of norms or identities could take hold (Hopf 2002), democracies are a particularly potent seed from which a peaceful global community might germinate. Wendt (1999) offers a
widely referenced formula for systemic democratic peace. Democracies “externalize” norms of appropriate behavior through a variety of mechanisms. Other states adopt democratic practices initially for instrumental reasons (i.e. carrots and sticks) but eventually modes of behavior become routinized so that states interact in normatively appealing ways regardless of whether this is in their short term interest.

Students of international relations have long grappled with the contrasting logics of individual and social action under anarchy (Snidal 1991; Herz 1950). Security communities provide public goods, but contributing for the general welfare is costly, encouraging free riding (Olson 1965). Social norms can establish common expectations of behavior (Finnemore and Sikkink 1998; Price 1995), but defection should increase as membership grows and the relationship between individual incentives and collective benefit becomes more diffuse (Fearon 1998). Wendt acknowledges a central role for material incentives under phases one and two of his Kantian transformation, where warfare remains a “logical possibility,” but is no longer “legitimate” (1999, page 300). It is not clear, however, who pays to provide these inducements, or why other aspects of collective action—such as shirking and power sharing—are not also problematic. Most states have an interest in avoiding costly war (Claude 1962). Since contests are expensive but nevertheless recur, the threshold of additional psychological or material costs needed to deter states from fighting must be extremely high (Fearon 1995). The logic of war already centers on making one’s enemy suffer. The pressures of social legitimacy may add to these costs, but it is debatable to what degree. Raising the cost of fighting incrementally may matter more for distributional questions than for explaining the actual onset of disputes (Gartzke 1999). Thus, for example, concerns about social stigmas or legal liabilities have reduced the number of formal declarations of war, but only by increasing the advent of undeclared wars (Fazal 2006). Few states claim to be the aggressor, and yet violence recurs.

The security dilemma can be characterized as an informational problem. Contests occur in part because of ecological knowledge (beliefs that some states have revisionist aims) and
individual uncertainty (revisionists pool with non-revisionist types). Democratic peace advocates have already suggested that democracies are more transparent, or more effective in signaling resolve (Fearon 1994; Schultz 1999; Smith 1998). Yet, claims about the uniqueness of democratic attributes do not, by their nature, lend themselves to theories about the externalization of modal behaviors. On the one hand, if the democratic community transforms the international community, it presumably does so by resolving uncertainty about the incentives of the actors or by removing incentives states may have to act aggressively. On the other hand, as we have already seen, the rise of democracies creates a new dimension along which difference may be perceived and tensions concentrated. The notion of a common identity is made problematic to some extent by the very democratic peace research agenda, which must of course differentiate states by regime type.

A second, potentially more potent approach is to argue that democratic communities actually transform individual state preferences (Legro 1996; Rousseau and van der Veen 2005). Wendt anticipates that stage three of the Kantian system will be dominated by “friendship” among democratic community members (1999, pages 298-299). As preferences become aligned, the motivation for conflict will dwindle. Yet, even if we accept the Wendtian logic that socialization equals peace within, the competing security dilemma logic still laps at the community’s edges. Any state not inculcating Kantian enlightenment exposes democracies to attack (Wilson 1917; Bush 2002). Collective security may stem the tide, but only by a recognized willingness to fight. A more proactive remedy is to extend democratic norms beyond the boundaries of the security community. Peace activists have long understood that change among the violent is both necessary, and unlikely, unless transgressors come to share the same basic values as the transgressed (King 1968; Gandhi 2000). This transformation of preferences is both critical and poorly conceptualized in the Wendtian logic. Whether non-democracies adopt democratic norms or identities is ultimately an empirical question.
Dyadic peace theory can more easily explain away the security dilemma, precisely because both parties are said to be touched by the democratic transformation (Dixon 1993, 1994). The deductive arguments of systemic peace theorists, by contrast, hold only if democratic norms extend beyond the liberal community. Further, to be analytically interesting and empirically tractable, it is also necessary that systemic explanations account for more than, or make different predictions from, existing (simpler) dyadic arguments. The normative appeal of social democratic peace theories also increase with externalization, as stable democracy may be long in coming to some parts of the globe. Indeed, Modelski and Perry (1991, 2002) suggest that we may face a transition period of at up to two centuries before the bulk of the world has “learned” to practice democratic politics. If the democratic community can be shown to export peace, democratization, and stability, then this indeed is good news. A series of scholars, including Wendt, have argued precisely that some community is enough to begin the transformation. Not only does this address impatience for peace, but it makes these theories testable. Researchers can demonstrate uniquely systemic consequences of democratization as long as changes attributable to the democratic community do not overlap with effects also attributable to the dyadic democratic peace. If the benefits of democracy exceed the level of democratization—if, for example, non-democracies appear less warlike in the presence of an evolving democratic community—this is powerful evidence for social constructivist theories.

Development and Peace

Economic development has received much less attention from contemporary students of liberal interstate peace than from traditional theorists. Thucydides (1960) saw that prosperity caused the Athenians to seek to expand their influence among the Peloponesse. Lenin (1975[1917]) anticipated a contest among the most developed states for control over world markets. Blainey (1973, ch. 6) argued that development gives the wealthy reason to be overoptimistic about the likelihood of military victory. Liberal political economists saw development as fundamentally
pacifying (Cobden 1903[1847]; Bastiat 1995[1848]; Angell 1933; Hobson 1938[1905]). Given the prediction and finding that trade produces peace (Polachek 1980, 1997; Oneal and Russett 1997) --- often explained in terms of the high costs associated with disrupting economic ties --- is not unreasonable that more developed states might have more to lose from fighting and hence be deterred from launching wars. Indeed, a number of studies argue that developments ranging from the emergence of modern nationalism (Knorr 1966, pp. 72-74; Gilpin 1981) to the reduction in the economic value of land (Kaysen 1990) to changes in the nature of global production (Brooks 1999) have decreased the benefits that can be wrung from conquest and hence have made war among developed nations obsolete. Economically developed countries have increasingly become “trading states” (Rosecrance 1985), substituting economic competition and cooperation for the military diplomacy of the past.

The drumbeat of war has repeatedly drowned out expectations for a simple linear relationship between development and peace, however. While Angell (1933) contended that World War I confirmed his view that war could no longer pay economically, the high costs did not, in fact, deter participants from fighting, nor did fear of further costs prevent a return to war in 1939. Early quantitative studies found little evidence that economic development correlated with either war or peace (Richardson 1960; East and Gregg 1967; Rummel 1967), while any findings in later studies typically proved marginally significant, non-robust, and historically contingent (e.g. Bremer 1992; Reuveny and Thompson 2002). At best, development seemed to amplify the effects of joint democracy (Hegre 2000; Mousseau 2000). In the absence of robust relationships, international relations has invested relatively little attention in the possibility that economic development might bring peace.

Modern scholars like Polachek and Robst (1998), Weede (2005), and Gartzke (2007) have resurrected interest in a capitalist peace. In a series of articles, Mousseau (2000; 2003; 2009) lays out an argument for the contingent nature of democratic peace. Liberal capitalism sponsors a culture of contracts in which individuals and nations prefer bargaining to coercion or
force. Mousseau’s theory is similar in some ways to Schumpeter (1955), though the argument was developed independently. McDonald (2009) similarly argues for an interaction between democracy and capitalism, though his theory relies more on liberal institutions than on capitalist culture. Boehmer and Sobek (2005) find that economic development has non-linear effects on conflict at the state level. Poor countries cannot project power, while rich states tend to be satisfied and secure. Thus, the most disputatious states are those that are partially developed. Gartzke and Rohner (2009) distinguish between conflicts over private (resources, territory) and public goods (collective security, norm enforcement), demonstrating formally that capital accumulation shifts conflict away from conquest and toward compellence. Initial increases in prosperity were associated with technology shocks that allowed states to project power and engage in conquest abroad. Further development reduces the utility of conquest, but the ability to project power means that developed states still fight over policy goals. While development influences the way in which states interact, increasing two countries’ wealth will not necessarily reduce the probability that they end up fighting. At the same time, system-level studies have not evinced much interest in economic development. We do not yet know how the remarkable economic growth over the past two centuries has influenced the likelihood of war.¹⁴

Theory: Summing Up the Parts

Systemic theories held pride of place for much of the modern study of international relations. It is only in the last three decades that emphasis shifted to the dyad as the smallest unit in which interstate conflict can occur (Bueno de Mesquita 1989). At least part of the appeal of systemic theories was simplicity. The world gets more complicated when one starts to think about the actions and interactions of parts instead of the whole. Another reason for international relations to prefer systemic theories is that they are uniquely international. The state and its policies can be claimed by students of domestic politics. Even dyadic research is easily confused with the study of foreign policy. A strict interpretation of international relations thus involves behaviors or
processes that are not easily accounted for by simply “aggregating up” from states or from their immediate interactions. Yet, this distinction between dyad and system is also a challenge. The field of international relations has the clearest and least contested claim where systemic behavior differs from monadic or dyadic models. In this sense, international relations theories involve explaining why systemic behavior is more (or less) than the sum of various national or sub-national parts.

Now that much has been learned about dyads, it may be possible to explore afresh whether systemic research offers unique insights about world affairs, rather than simply assuming this to be the case. The goal, as in earlier systemic research, is to identify attributes of the international system that are more complex than extrapolation from dyadic analysis would suggest. Unlike earlier systemic scholarship, however, it may now be possible to explicitly demonstrate this excess empirical content. It is no longer good enough to explain international behavior in terms of properties of the system unless systemic theories are parsimonious (simpler and equally predictive or more comprehensive). To the degree that systemic behaviors are simply attributes of state or dyad, state level or dyad level theories suffice as explanations of international behavior. In the extreme, there is nothing unique about international relations that cannot be claimed by foreign policy.\textsuperscript{15} If instead systemic attributes differ significantly from the predictions of component theories, then international relations has a unique empirical domain as well as offering novel empirical insights.

The liberal peace provides an ideal venue for evaluating the contribution of systemic theory. Much is known (or believed) about how liberal variables operate in states and dyads. A systemic theory of liberal peace needs to be compatible with existing monadic or dyadic insights and observations, while at the same time adding to our understanding in a way that cannot be inferred directly from dyadic theories. The correlates of democracy and development at the level of state and dyad are already fairly well understood. Of equal importance, it is possible to
imagine ways that each of these variables is likely to function differently in aggregating to the systemic level.

The proportion of the system that is democratic, measured in any reasonable way, has grown tremendously over the past century and a half. Similarly, on average, the world is much more prosperous today than in the past. Figure 1 illustrates the trend in per capita Gross Domestic Product (GDP) and average democracy since 1800. The horizontal axis plots the march of time, while the vertical axis reports proportional changes in the two variables. We can also combine these two trends with evidence that interstate war is becoming less common (Goldstein 2002; Levy 1983; Levy et al. 2001; Luard 1986, 1988; Hensel 2002; Sarkees, et al. 2003), at least in certain regions (Holsti 1991; Kacowicz 1998; Singer 1991), or in recent decades (Eriksson and Wallensteen 2004; Eriksson, et al. 2003). Figure 2 plots the proportion of dyads that experience a militarized interstate dispute in a given year (we include both the actual number and the smoothed average).

Eyeballing the data in this way, it seems plausible that a relationship exists between development and/or democracy and levels of systemic conflict. Given variables that each trend in the same direction over time, however, it is not obvious which liberal variable should be credited with the putative effect. Overall democracy or economic development could separately or jointly account for the post-World War II drop in systemic dispute behavior, or the decline could be explained without recourse to system effects. We discuss the possibilities, pitfalls, and our perspective below.
Advocates for systemic democratic peace have argued that liberal norms, identity, or community operate beyond the dyad at the system level. However, such arguments constitute a conundrum for the dyadic democratic peace observation from which they typically derive inspiration. Predictions and evidence must reconcile across different levels of analysis. If democracies are peaceful with each other, but not with non-democracies (as the dyadic democratic peace observation requires), then we should not expect that systemic democracy has much effect beyond democratic dyads. In other words, systemic democratic peace should not be more than the sum of its monadic and dyadic parts. If instead democracy generates reductions in conflict behavior at the system level in excess of demonstrated dyadic effects, then we should expect to observe a decline in conflict associated with democracy at the monadic level as well, not just within democratic dyads. Systemic effects that exceed the dyadic democratic peace imply an observational equivalent at the state or monad level, regardless of whether these effects are actually caused by unit level factors.\textsuperscript{17} The dyadic structure of the democratic peace creates a significant hurdle for systemic democratic peace claims. The challenge for advocates of systemic liberal peace is then to explain why democracy should matter beyond the dyad when there is weak evidence at best of a monadic effect of regime type.

One possible solution is to imagine that democracies inspire non-democracies to become more cooperative, while the interaction of democracies and non-democracies remains in the grip of more traditional modes of interaction. Several authors make claims of this type (Kadera, et al. 2003; Mitchell 2002; Harrison 2004). The rise of democratic norms or modes of behavior create peaceful communities. Yet, in order to remain consistent with the dyadic democratic peace observation, democracies themselves must fail to participate in such communities. Democracies are peaceful with each other, and autocracies are peaceful among themselves.
(putatively due to the presence of democratic norms or culture), but democracies and autocracies continue to be in conflict.

The idea that democracies exhibit peace, inculcate peace in non-democracies, but nevertheless fail to practice peace with non-democracies is more than a bit tenuous. Notions that democracies externalize norms or liberal identities must be qualified with the claim that such efforts “skip” the most direct form of externalization, that between democracies and non-democracies. Such a partial evolution of community is precariously incomplete if heterogeneous dyads must be unaffected to obtain the dyadic democratic peace observation. At the same time, the effect of such a community must be robust to sufficiently socially construct (constrict?) the conflict behavior non-democracies.

At the same time, there exist other plausible explanations for within-regime type affinity that must be isolated and addressed before we can attribute systemic trends to the influence of democratic social norms or identity. On the one hand, if the democratic community transforms international behavior, it presumably does so by resolving incentives for states to act aggressively. On the other hand, the traditional security dilemma describes an environment in which some states are aggressive despite, or even because of incentives other states have to cooperate (Carr 1939, ch. 4). For democratic peace to be both dyadic and systemic, we must have cooperation, but not too much, and only in certain places. We are skeptical that this can be achieved, particularly given the strength of the existing monadic and dyadic relationships. Contrary to the existing systemic democratic peace literature, therefore, we predict no systemic effect of democracy on conflict.

**Hypothesis 1 (Systemic Democracy):** Systemic democracy is unrelated to systemic peace.

*The Dynamics of Difference*

The dyadic democratic peace observation tells us that democracies do not get along with
autocracies. Given the prominence of this initial relationship, any assessment of systemic
democratic peace must consider the possibility that, rather than democracy promoting peace,
difference promotes conflict. Scholars have long recognized that regime type has two potential
effects. The systemic process of democratization may generate a growing community
possessing mechanisms of tolerance, deliberation, transparency or affinity, but regime change
also imposes difference in the form of political heterogeneity. Difference can generate conflict as
states with incompatible political structures see one another as the proximate threat (Werner
2000; Henderson 2002; Souva 2004). Major wars of the twentieth century pitted political
ideologies, and their accompanying regime structures, against one another. Wars to make the
world safe for democracy can only be fought in the context of tensions between democracies
and autocracies, just as nineteenth-century conflicts to preserve monarchy presupposed the
existence of non-monarchical regimes. While regime type difference may or may not constitute
an important cause of conflict, this is an empirical question. If difference matters to any
significant degree, then it is important to distinguish its effects from the potentially beneficial
consequences for systemic conflict and peace of democracy or development.

Constructivists use difference as the basis for fusing social identity; cohesive nations form
in opposition to “the other.” States in turn create communities of like-minded countries when
faced with common threats. Most extant applications of social construction in the context of
systemic democracy assume that affinities will trump animosities, but there is no inherent
reason that this must be so. The other may be more important in fomenting war than the
community in combating conflict. To properly assess these distinct relationships, we must
untangle the conflict-inducing effects of systemic regime difference from the possibly pacifying
effects of systemic democracy.

Hypothesis 2 (Systemic Difference): Increases in regime type heterogeneity (difference) at the
systemic level should result in an increase in the number of militarized disputes.
This also redounds to dyadic democratic peace arguments. The whole impetus behind the application of social theories to the systemic analysis of liberal peace is based on the conviction that systemic regime effects are distinct from the dyadic observation (Huntley 1996). Thus, our notion of regime type difference is very much in line with the spirit of systemic peace research.

**Hypothesis 3 (Dyadic Difference):** *Regime type difference in dyads should increase disputes.*

**Follow the Money**

Economic growth has dramatically altered the conditions of human existence over the past two centuries, possibly in some ways even more profoundly than the spread of democracy. Yet averages can be misleading. If some are benefitting from modernity, much of the world’s population continues to live under economic conditions that are not noticeably better than they were two hundred years ago. With prosperity has come inequality and a diversity of interests. Prosperous portions of the globe receive intensive benefits from political and economic stability. At the same time, all nations continue to have foreign policy objectives that occasionally benefit from force. The assumption of most scholars and observers has been that developed nations should eschew warfare, since developed states are the chief beneficiaries of stability. Yet, this perspective makes a basic ecological mistake. International stability is a collective good. While developed nations may be more willing to pay the cost of maintaining stability, they should invariably prefer that other nations remain peaceful while developed states continue to use force where fighting is likely to produce private benefits.

Members of a community can prefer that other members conduct themselves through peaceful means, while they themselves resort to force if necessary in pursuit of contested objectives. Thus, throughout the nineteenth century Britain encouraged peace around the world—for example forcing an end to a war between Brazil and Argentina through the creation
of independent Uruguay (McLean 1995, pg. 11)—while reserving to itself the right to acquire
new colonies through conquest. Similarly, during the Cold War, the US and the Soviet Union
tried to tamp down conflict in the Middle East while simultaneously resorting to force in various
disputes in Asia and elsewhere. The prisoners’ dilemma outlines this logic and is a core element
of the normative rationale for government. The desire for peace can be achieved in a fractious
society with the imposition of rewards or punishments that remove the incentive to defect (fight)
and make peace preferred individually as well as collectively. One solution to the PD game is
the leviathan; civilization creates a hierarchy that punishes private violence, ensuring socially
optimal behavior by changing individual payoffs.

Under anarchy, however, no central authority prevents states or other actors from
pursuing their own interests. Nations may collectively agree that war is undesirable, while
individual nations exercise force when it suits them. Conflict participants have intensive
incentives to act in ways that may harm the larger community. Lacking a leviathan, the system
can be more violent than any member prefers. Socially sub-optimal war characterizes anarchy,
even as it ob structs world peace.

Anarchy and hierarchy are ideal types. In practice, international relations is more or less
hierarchical at different times and in different contexts (Lake 2009). Starting from Kindleberger
(1973), considerable work has focused on the way hegemons may promote international
cooperation (c.f. Keohane 1984), but subsequent work has generally neglected Kindleberger’s
observation that even an obvious hegemon may choose not to lead if the perceived benefits of
leadership are not sufficiently intense. In a world in which the costs of war are experienced only
by the immediate participants, there is little reason to expect even a clear hegemon to intervene
to limit violence. The greater the negative externalities of conflict, however, the greater the
incentive to seek measures that prevent the exercise of force around the world. Notably, these
incentives may exist even while the nations motivated to prevent warfare are themselves still
participants in other conflicts. This may well be hypocritical, but it is also rational as long as the
exercise of force (by the state), and opposition to the exercise of force (by other states) each benefit some national interest.

In the atomistic world of pure (idealized) anarchy, the use of force significantly impacts only the targets of force, and possibly also their allies and enemies. Interdependence (economic and otherwise) alters anarchical systems by spreading these costs more widely. Disruptions to trade, flows of refugees, and the possibility that conflict will spill over to regions currently at peace all impose costs even on those not directly at war. Third parties thus acquire an incentive to encourage peace, whether through inducements such as American foreign aid to Israel and Egypt or through the imposition of more negative sanctions. Socially inefficient conflict may continue, but its prevalence will drop, with the most capable countries focusing on preventing the most disruptive conflicts involving the most malleable states. Increases in either the negative externalities of warfare or the ability of outside actors to influence participants should lead to relative ecological peace.

What factors then increase the incentives and ability of non-participants to encourage the maintenance or reestablishment of peace? While several possibilities exist, we argue that economic development has particularly potent implications for both the incentive and the ability of states to enforce peace around the world. Economics constitutes perhaps the most significant dimension along which territory and politics fail to coincide. Developed countries increasingly have economies that are much more dependent on interacting with the larger global economic system than nations with more traditional economic systems (Rosecrance 1996; Brooks 2005). Integration into the global economy creates efficiencies that make nations more prosperous, but developed countries are also more vulnerable to the destabilizing effects of external conflict. Developed nations are bound to care more about the conflict behavior of other nations, since conflict in turn affects prosperity.

Yet, economic integration is only part of the story. Development also provides the means to discourage destabilizing violence, either through reward or punishment. The economically
developed countries of the world are among the most heavily armed, even when they face few immediate threats. This capability to inflict harm can be used to deter conflict among third parties. It is common for the advanced countries of the Northern hemisphere to threaten or act aggressively to discourage or terminate conflict in the developing world. Economic development increases the incentives for key actors in the international system to promote peace, at least among third parties. Indeed, much of the international system appears designed to assist developed nations in managing the affairs of weaker nations. Tacit spheres of influence, from US preeminence in the Americas to the continued interest of the former colonial powers in their old colonies, helps the developed world coordinate on who bears responsibility for enforcing peace. Likewise, developed nations are dramatically overrepresented in the international organizations that actively manage ongoing conflict, with the composition of the UN Security Council an obvious example. In many cases, these resources allow developed states to prevent conflict through the second face of power (Bachrach and Baratz 1962), with potential disputants deterred from even preliminary uses of force.

**Hypothesis 4 (Systemic Development):** Increases in economic development at the systemic level should result in a reduction in the number of militarized disputes.

It does not follow, however, that developed states are more or less peaceful themselves. The benefits of peace for developed countries that do not have a direct stake in conflicts are unambiguous. Economic prosperity is increasingly a function of economic relationships that transcend national boundaries. Globalization has both enriched some nations and made them more vulnerable to political instability in distant places. If fighting by other states hurts growth or prosperity, then ecological conflict is a problem for developed countries. In contrast, the payoffs for developed states with an interest in the outcome of a contest are more complex. While developed states may be more vulnerable to harm when participating in a contest, all countries
at war face costs for pursuing their objectives. The price of war is one that nations have chosen to bear in return for some chance of victory. The possibility that costs are higher for developed countries can be counteracted by the effects of development in increasing state capacity, in turn making the nation more capable of inflicting harm. The combined effects of political and economic self-interest should make developed nations more eager to encourage peace in other nations. Developed nations have been increasingly willing to pay for peacekeeping operations in poorer countries, for example, while excluding peacekeepers from their own conflicts. Moreover, to the extent that development works through interdependence or some other variable to encourage peace, that pacifying effect will be offset by the active role that the developed states play in discouraging conflict elsewhere. Thus, we cannot say that developed countries are less dispute prone, only that they are less willing to ignore dispute behavior by others.

Hypothesis 5 (Dyadic Development): *Developed dyads are no less prone to experience disputes.*

While development produces nations that can be more intensively harmed by conflict, it also equips countries to inflict more devastating damage. Early scholarship on development and war tended to look only at one or the other side of this equation, ignoring the ambiguity created when willingness and ability cancel each other out. The effects of development on conflict among third-parties is less ambiguous. As we suggest here, development is likely to have its largest impact on peace not in terms of the conflict behavior of developed states, but in terms of the overall disputatiousness of the system as a whole. The relative dearth of attention to the impact of development on interstate conflict may be a consequence of the recent focus on states and dyads rather than on systemic relationships. To the degree that the incentives and capabilities of developed and developing countries differ, and to the extent that third party
effects are salient, we can expect systemic behavior to depart from linear extrapolations of monadic or dyadic evidence.

**Analysis: Which Liberal Community Externalizes Peace?**

Systemic democratic peace research claims that the size or strength of the democratic community influences patterns of systemic conflict (Mitchell 2002; Crescenzi et al. 2011; Mitchell et al. 2009). We argue that peace should be associated with a prosperous global economy. A properly specified test requires that both the independent and dependent variables be examined at the system level of analysis (Ray and Tucker 2005). Surprisingly, most systemic peace research has been conducted at the level of the dyad (Russett and Oneal 2001; Cederman 2001). While exceptions exist (Maoz and Abdoladi 1989; Senese 1997; Crescenzi and Enterline 1999; Mitchell, et al. 1999; Gortzak, et al. 2005; Maoz 2005; Ray and Tucker 2005), these studies focus on other questions or fail to examine key systemic variables. We thus begin by evaluating key determinants of systemic peace.

Our dependent variable is the system-wide number of new fatal Militarized Interstate Disputes (MIDs) in a given year. We follow other researchers in using MIDs, given that wars are rare. Much of liberal peace research evaluates all MIDs, but recent work emphasizes peculiarities of non-fatal disputes (Weeks and Cohen 2007). Indeed, the critical test of most theories of liberal peace is not whether nations threaten each other or experience isolated front-line clashes involving troops or minor functionaries, but whether national leaders intentionally instruct their militaries to act aggressively. Fatal MIDs are not a perfect representation of national intentions, but they avoid minor clashes, while including acts short of full-scale war. Systemic Fatal MID onsets range from zero in a year to a maximum of eleven. We also lag observations to limit problems with endogeneity.

Several independent variables measure key concepts or related processes. *Avg. Polity* represents the mean polity score in the system. This variable ranges from a minimum of roughly
-7.5 in the early 1800’s to roughly 2.8 at several points in the twentieth century. Given the possibility of a non-monotonic relationship between average democracy and international conflict, we also create a quadratic systemic democracy variable. In addition, we examined other indicators of systemic democracy. Prop. Dem. is a variable that measures the proportion of states in the system that reach a threshold level of democracy (Polity IV = 7). We use both of these variables interchangeably in our tests.

To capture the effect of regime heterogeneity, we construct Difference, which provides annual observations of the standard deviation in (non-missing) polity scores for the system. As the world has become more democratic, it has also become increasingly politically heterogeneous. As we argue above, a single measure of democratization at the system level combines both the tendency to pacify and the tendency to inflame, conflating these two effects and confounding interpretations of these two distinct consequences of democracy. Measuring regime type difference and the size of the democratic community allows us to separate these distinct implications of systemic democracy.

Systemic development is also measured in two ways. First, we examine global per capita energy consumption using the Correlates of War Composite Indicators of National Capability (COW CINC) component energy. Energy Cons. indicates world energy consumption per capita in thousands of coal-ton equivalents (Small and Singer 1982; Singer 1990). Energy consumption has been used in other studies as a proxy for GDP (Lipset 1959; Burkhart and Lewis-Beck 1994; Hegre et al. 2001) and is available for a longer time period. Second, to confirm our findings, we also estimated relationships using per-capita gross domestic product (GDP) (Maddison 2003). Data on GDP are limited to recent decades and a few other years, with fewer countries included, reducing the sample size for these analyses. The smaller sample size does not substantively alter our conclusions.

Finally, we add controls for the number of states in the international system and for the year. The nineteenth and twentieth centuries were characterized by secular change in a number
of processes that coincide with economic development and the rise of democracy. While extensive debate may be had about which of these processes are most germane, and how each relates to the others, our intent is to be conservative by isolating secular change not exclusively attributable to democracy, development or difference. Similarly, the proliferation of new states can easily be mistaken for an increase in systemic conflict, especially in the last century. Including “control” variables for the year and the size of the global system seems to us to be a prudent and practical approach.

Given that the dependent variable is a count of dispute onsets, the most appropriate estimator is negative binomial regression. Results are presented in Table 1. Model 1 reports coefficients and standard errors of a minimal model that includes only the average polity score and a constant term. While statistically significant, Avg. Polity is positively associated with dispute onset. As the system has become more democratic, fatal militarized disputes are on the rise (not declining).

[Table 1 about here.]

There are at least two ways that a positive relationship between conflict and systemic democracy could be spurious. First, other systemic trends might be conflated with democratization. Many things are changing over the period of the analysis and these could be responsible for the increase in conflict, rather than democracy. To assess this possibility we add controls for the number of countries in the international system and the year. Growth in the number of sovereign states could be responsible for the apparent effect of democracy on conflict. Other processes that increase across time could produce the same effect. Model 2 shows that controlling for time and the number of states transforms the apparent effect of systemic regime type. Systemic Democracy becomes negative and statistically significant. Surprisingly, while the year variable is positive and significant, # of Countries is negative and
insignificant. It seems hardly likely that the number of fatal disputes declines as the number of countries increases, implying that this model is also incorrectly specified.

Second, as discussed, there are really two processes associated with systemic democracy. While systemic democratic peace theorists argue that liberal politics will spill over to other nations, the dyadic phenomenon implies that the increase in regime type heterogeneity should increase conflict, given the increase in conflict-prone mixed dyads (Gleditsch and Hegre 1997). Model 3 adds Difference, which separates out the two contrasting potential effects of systemic democratization. The variable is positive and statistically significant. As the world becomes more heterogeneous in terms of regime type, it also becomes more conflictual. At the same time, systemic democracy is no longer statistically significant. At least at the system level, it appears as if the bulk of the impact of regime type occurs in terms or difference rather than democracy, per se. The number of countries variable is now positive and significant as reason suggests should be the case, while Year is not statistically significant. A correctly specified regression should yield results like Model 3, as the number of countries is exogenous, while the year is simply a stand-in for other possible causes.

We have yet to examine the effects of systemic development. Model 4 introduces the energy consumption variable, which is negative and statistically significant. Fatal disputes decrease as the world becomes more economically developed. Democracy remains statistically insignificant; the democratic community does not appear to reduce the incidence of fatal systemic disputes. Regime type difference continues to generate conflict, as does an increase in the number of countries.

Development could be a proxy for systemic economic interdependence. We argue by contrast that development operates through interdependence but also through other pathways. Model 5 evaluates this claim through the insertion of a control for systemic interdependence. We obtain a measure of systemic trade from Oneal and Russett, used in several of their studies (Oneal and Russett 1999, 2005). Trade represents the summed dependence scores for every
country, divided by the number of countries in the system, where dependence equals the sum of imports plus exports divided by GDP. Trade, like conflict, is an inherently dyadic process. Research on trade and conflict highlights distinctions between dependence and interdependence at the dyadic level (Polachek 1980; Oneal and Ray 1997). Interdependence may discourage conflict while dependence actually exacerbates tensions between states. At the system level, however, these distinctions are less apparent either theoretically or empirically, as the sum of all current account imbalances must equal zero, at least over time. Higher levels of monadic trade dependence necessarily imply higher levels of systemic interdependence. The variable captures the average importance of trade in the system in a given year. Data are not available prior to 1885, reducing the sample size in the regression. This is one of the reasons we use the broader measure of economic development.21

Consistent with our expectations, systemic interdependence is associated with a significant reduction in conflict, but development, although now slightly weaker in terms of statistical significance, remains significant, exactly as our argument predicts. Difference is also highly significant and positive. Regime type heterogeneity is bad for world peace, while democracy per se has no effect on systemic levels of fatal conflict. The number of states and the year remain unaltered.

Finally, given the prediction by Gleditsch and Hegre (1997) of a curvilinear relationship between systemic democracy and militarized disputes, it is possible that linear models 1 through 5 are inappropriate. Model 6 tests this possibility, returning to the specification used in Model 4 (omitting trade does not alter these results, but it increases the sample size, providing a more generous test of the democracy variable). We find no evidence of a curvilinear effect of systemic democracy. Overall, then, it appears that increased systemic difference is associated with greater conflict while development reduces conflict, with systemic democracy having no clear effect on systemic disputes.
It is possible that specific measurement choices drive our results. Per capita energy consumption is a good but indirect indicator of world development levels. Systemic democratic peace theorists have also advocated different measures of systemic democracy. Table 2 explores alternate specifications to determine the degree to which measurement choices drive our results. For these analyses, we replace world per capita energy consumption with world GDP per capita. While GDP per capita is a more valid statistic, it is only available for a restrictive time series.\textsuperscript{22} Model 7 presents results with only per capita GDP and the states and year controls; despite the substantial reduction in total observations, per capita GDP remains significant in the expected direction. Model 8 adds average democracy level. Contrary to expectations that appear in the literature, increasing global democracy appears to result in increased conflict, albeit at a statistically insignificant level. Per capita GDP remains significant in the expected direction. Model 9 inserts the systemic difference variable. Difference is in the expected direction but is not significant, perhaps as a consequence of the reduced sample size. The Year trend variable is also no longer statistically significant.

[Table 2 about here.]

As in Table 1, we examine the impact of economic interdependence to make sure that the effects of trade are not being mistaken for, or subsumed by, broader economic development. Model 10 reintroduces the systemic trade variable used in Model 5 in Table 1. Trade is not statistically significant and does not alter the results for any of the other variables in the model. However, given the more limited data coverage for interdependence, the samples in Models 10 through 12 are smaller.

The remaining models replace our primary measure of systemic democracy—the average Polity score in the system—with alternative measures. Model 11 uses the proportion of countries in the system that surpass a threshold democracy level (Polity score of 7), while
Model 12 adjusts average democracy scores to account for state capabilities as advocated by Kadera et al. (2003). In both cases, systemic democracy continues to be statistically insignificant and positive, while the remaining variables are unchanged. Overall, the findings from Table 2 remain consistent with the prediction that increasing world development is associated with decreased conflict, while systemic democracy levels prove to be a weaker predictor. It appears that development and difference, more than democracy, are responsible for influencing systemic levels of interstate war and peace.

It is most appropriate to test systemic hypotheses at the systemic level, but given the focus of the field on the dyad, we also report results for the dyadic level of analysis. These analyses also permit us to test hypotheses 3 and 5, which are posed in terms of dyads. Table 3 inserts the systemic analysis from Table 1 into a standard dyadic democratic peace statistical model. The independent variables are organized into three groups. At the bottom of the table are the “control” variables from the standard dyadic model (distance, contiguity, alliance status, capability ratio, and major power status). At about mid-point in Table 3 are the three dyadic versions of the key independent variables. Near the top of the table are listed the three systemic variables. We conducted analyses using several estimators, with equivalent results. We report findings for ReLogit which offers advantages in assessing rare events data (King and Zeng 2001a, 2001b). We also include statistical controls for temporal dependence (Beck, et al. 1998). Finally, we use robust standard errors and control for clustering in the dyad to limit the distorting effects of spatial dependence.

In addition to the basic dyadic model, Model 13 introduces the average annual level of systemic democracy. This standard dyadic model produces results equivalent to those that are widely reported in the literature (c.f. Maoz and Russett 1993). In addition, the systemic democracy variable is statistically significant at the 5% level. However, the systemic democracy variable is positive.
Results for several key variables change considerably when we introduce dyadic and systemic development and regime type difference variables in Model 14. Surprisingly, both the systemic democracy variable and the dyadic threshold democracy score are no longer statistically significant. Having a higher proportion of democracies in the world has no effect on the tendency for dyads to experience disputes. Separating out the effects of regime difference and democracy for dyads and the system reveals that difference is highly significant as both a dyadic and a systemic effect (external to the dyad). Democracy has no significant impact either within or outside the dyad.

Systemic development has a statistically significant effect on whether states fight, while the dyadic development indicator is not statistically significant. As anticipated, the effects of systemic development in encouraging peace are much stronger than the effects of dyadic development. Development leads to a reduction in conflict, although not among developed states. Developed, powerful countries are more active globally, policing the commons and enforcing their interests. Weaker states face the threat of sanction or intervention for using force to address their differences. Conflict between weak and strong states is captured by the capabilities variable, while conflict between developed and developing countries is difficult to disentangle under our present research design.

[Table 3 about here.]

Model 15 represents a similar analysis using alternative constructions of key variables. Systemic Democracy is measured as the proportion of states with scores above seven on the Polity IV scale. Systemic Development is coded as world GDP per capita (which again reduces the sample size). In most cases, the results are similar, if slightly weaker given the relatively short time interval available using these data. One difference is that Dyadic Development is now statistically significant at the 1% level. Developed states are less warlike to each other in recent
decades. There may be a curvilinear relationship between development and conflict that is masked by the longer time-series used in the other statistical models. Exploration of this issue will require additional research.

Conclusion
This paper contends, and finds, that the determinants of peace may change as we shift from one level of analysis to another. The special peace among democracies does not appear to translate into a universal peace for all nations: across a range of specifications, we find no evidence that a more democratic world is a less conflictual one. Instead, peace at the system level is linked to development, despite the limited evidence that richer countries are less likely to fight either monadically or with each other. We have argued that development is bound to affect the interest in peace among developed countries, but that it is most likely to be manifest in terms of efforts to make other nations pacific. Developed systems encourage stability, which may be achieved by any reduction in conflict, not just that among developed states. Further, development creates power relations that facilitate a hypocritical stance in which developed countries prevail on poorer nations not to upset global commerce, while developed nations themselves continue to use force.

The notion that peace can be the result of hypocrisy may at first be more than a bit jarring. Still, there is nothing too surprising for students of social behavior in finding a tension between “ought” and “is.” What is promising, in fact, is that familiar patterns of opportunism and hypocrisy can actually be shown to be responsible for doing some good as well as being expedient. World peace can be supposed to be the product of virtue and high-mindedness. If in practice reality falls somewhat short of our ideals, we have to console ourselves with the discovery that, much like Adam Smith and the invisible hand in free markets, a not-so-virtuous motive can produce virtuous effects.
Figure 1: Global Historical Trends in Development and Democracy (1820=1)
Figure 2: Global Historical Trends in Militarized Dispute Probability
Table 1: Systemic Liberal Variables and Interstate Conflict, Negative Binomial Regression (1816 – 2001)

<table>
<thead>
<tr>
<th>D.V.: # Fatal MID Onsets</th>
<th>Model 1</th>
<th>Model 2 Controls</th>
<th>Model 3 Difference</th>
<th>Model 4 Energy Cons.</th>
<th>Model 5 Interdep.</th>
<th>Model 6 Non-linear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democracy</td>
<td>0.260 ***</td>
<td>-0.0977 *** (0.0344)</td>
<td>0.0131 (0.0488)</td>
<td>-0.0630 (0.0631)</td>
<td>-0.0380 (0.0688)</td>
<td>-0.0575 (0.0686)</td>
</tr>
<tr>
<td>Democracy^2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.0038</td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>0.777 ***</td>
<td>0.714 *** (0.214)</td>
<td>0.8687 *** (0.208)</td>
<td>0.736 *** (0.224)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development</td>
<td>-1.131 ***</td>
<td>-0.9519 ** (0.393)</td>
<td></td>
<td></td>
<td>-1.128 *** (0.394)</td>
<td></td>
</tr>
<tr>
<td>Trade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-57.0119 *** (21.4879)</td>
<td></td>
</tr>
<tr>
<td># of Countries</td>
<td>-0.0037 (0.0028)</td>
<td>0.0085 * (0.0049)</td>
<td>0.0123 ** (0.0052)</td>
<td>0.0167 ** (0.0070)</td>
<td>0.0120 ** (0.0053)</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>0.0255 ***</td>
<td>-0.0040 (0.0038)</td>
<td>0.0106 (0.0098)</td>
<td>-0.0008 (0.0106)</td>
<td>0.0107 (0.0141)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.080 *** (0.0935)</td>
<td>-48.37 *** (7.216)</td>
<td>2.662 (17.15)</td>
<td>-24.31 (18.91)</td>
<td>-3.4965 (25.2956)</td>
<td>-24.52 (18.78)</td>
</tr>
<tr>
<td>ln(α)</td>
<td>-0.0862 (0.164)</td>
<td>-2.330 *** (0.642)</td>
<td>-2.724 *** (0.807)</td>
<td>-3.796 (2.075)</td>
<td>-3.391 *** (1.506)</td>
<td>-3.802 (2.082)</td>
</tr>
<tr>
<td>N</td>
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<td>186</td>
<td>186</td>
<td>186</td>
<td>113</td>
<td>186</td>
</tr>
<tr>
<td>χ²(1,3,4,5,6,6)</td>
<td>57.23 ***</td>
<td>218.93 ***</td>
<td>223.97 ***</td>
<td>237.95 ***</td>
<td>147.67 ***</td>
<td>239.77 ***</td>
</tr>
</tbody>
</table>

Signif.: *** : 1%  ** : 5%  * : 10%. Values in parentheses are standard errors (all tests are two-tailed).
Table 2: Per Capita GDP and Systemic Conflict, Negative Binomial Regression

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(S.E.)</td>
<td>(S.E.)</td>
<td>(S.E.)</td>
<td>(S.E.)</td>
<td>(S.E.)</td>
<td>(S.E.)</td>
</tr>
<tr>
<td>Per Capita GDP</td>
<td>-1.005 ***</td>
<td>-1.021 ***</td>
<td>-0.997 **</td>
<td>-1.097 ***</td>
<td>-1.092 ***</td>
<td>-1.117 ***</td>
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<tr>
<td></td>
<td>(0.279)</td>
<td>(0.309)</td>
<td>(0.322)</td>
<td>(0.312)</td>
<td>(0.319)</td>
<td>(0.323)</td>
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<tr>
<td>Democracy</td>
<td>0.00715</td>
<td>0.0217</td>
<td>0.0297</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.0397)</td>
<td>(0.0498)</td>
<td>(0.0533)</td>
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<tr>
<td>% Democracy</td>
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<td></td>
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<td>(1.114)</td>
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<td>Dem. Power</td>
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<td>(4.307)</td>
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<tr>
<td>Difference</td>
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<tr>
<td></td>
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<td>(0.244)</td>
<td>(0.264)</td>
<td>(0.248)</td>
<td>(0.206)</td>
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<tr>
<td>Trade</td>
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<td>-26.60</td>
<td>-26.15</td>
<td>-27.62</td>
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<tr>
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<td># of Countries</td>
<td>0.0185 *</td>
<td>0.0191 *</td>
<td>0.0204 *</td>
<td>0.0260 *</td>
<td>0.0249 *</td>
<td>0.0261 **</td>
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<td></td>
<td>(0.00831)</td>
<td>(0.00947)</td>
<td>(0.00954)</td>
<td>(0.0102)</td>
<td>(0.00998)</td>
<td>(0.00983)</td>
</tr>
<tr>
<td>Year</td>
<td>0.0295 ***</td>
<td>0.0292 ***</td>
<td>0.0246</td>
<td>0.0188</td>
<td>0.0213</td>
<td>0.0221</td>
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<td></td>
<td>(0.00722)</td>
<td>(0.00742)</td>
<td>(0.0133)</td>
<td>(0.0192)</td>
<td>(0.0209)</td>
<td>(0.0174)</td>
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<tr>
<td>Constant</td>
<td>-55.18 ***</td>
<td>-54.59 ***</td>
<td>-46.53</td>
<td>-35.33</td>
<td>-39.77</td>
<td>-41.47</td>
</tr>
<tr>
<td></td>
<td>(13.82)</td>
<td>(14.21)</td>
<td>(23.93)</td>
<td>(35.22)</td>
<td>(38.41)</td>
<td>(32.30)</td>
</tr>
<tr>
<td>ln(α)</td>
<td>-16.59 ***</td>
<td>-18.37 ***</td>
<td>-19.13 ***</td>
<td>-16.40 ***</td>
<td>-17.43 ***</td>
<td>-17.42 ***</td>
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<tr>
<td></td>
<td>(2.042)</td>
<td>(0.857)</td>
<td>(0.475)</td>
<td>(1.918)</td>
<td>(0.231)</td>
<td>(0.223)</td>
</tr>
</tbody>
</table>

N                      57                  57                  57                  51                  51                  51
Log pseudo-like         -121.463             -121.449            -121.412            -110.280            -110.330            -110.308
χ^2 (3,4,5,6,6)         25.66 ***             26.75 ***             29.24 ***             18.83 ***             17.70 ***             18.04 ***

Signif. levels: *** : 1%  ** : 5%  * : 10%. Values in parentheses are standard errors. All tests are two-tailed.
Table 3: Combining Liberal Systemic and Dyadic Variables and Conflict, Rare Events (RE) logit (1816 – 2001)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 13 Democracy/Development</th>
<th>Coeff.</th>
<th>Sig.</th>
<th>S.E.</th>
<th>Coeff.</th>
<th>Sig.</th>
<th>S.E.</th>
<th>Coeff.</th>
<th>Sig.</th>
<th>S.E.</th>
<th>Coeff.</th>
<th>Sig.</th>
<th>S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systemic Democracy</td>
<td>0.0395 *</td>
<td>(0.0199)</td>
<td></td>
<td></td>
<td>-0.0530</td>
<td>(0.0338)</td>
<td></td>
<td></td>
<td>-0.942</td>
<td>(0.965)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systemic Development</td>
<td>-0.644 ***</td>
<td>(0.130)</td>
<td></td>
<td></td>
<td>0.814 **</td>
<td>(0.270)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Systemic Difference</td>
<td>0.648 ***</td>
<td>(0.0849)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Dyadic Democracy (low)</td>
<td>-0.109 ***</td>
<td>(0.0318)</td>
<td></td>
<td></td>
<td>-0.0473</td>
<td>(0.0379)</td>
<td></td>
<td></td>
<td>-0.0041</td>
<td>(0.0577)</td>
<td></td>
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<tr>
<td>Dyadic Development</td>
<td>-0.0716</td>
<td>(0.0619)</td>
<td></td>
<td></td>
<td>-0.103 **</td>
<td>(0.0367)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dyadic Difference</td>
<td>0.105 ***</td>
<td>(0.0233)</td>
<td></td>
<td></td>
<td>0.135 ***</td>
<td>(0.0294)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance (ln)</td>
<td>-0.239 ***</td>
<td>(0.060)</td>
<td></td>
<td></td>
<td>-0.236 ***</td>
<td>(0.0567)</td>
<td></td>
<td></td>
<td>-0.291 ***</td>
<td>(0.0764)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contiguity (dummy)</td>
<td>1.375 **</td>
<td>(0.454)</td>
<td></td>
<td></td>
<td>1.552 ***</td>
<td>(0.426)</td>
<td></td>
<td></td>
<td>1.746 **</td>
<td>(0.581)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alliance (dummy)</td>
<td>-0.322 *</td>
<td>(0.160)</td>
<td></td>
<td></td>
<td>-0.273</td>
<td>(0.168)</td>
<td></td>
<td></td>
<td>-0.180</td>
<td>(0.206)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capabilities (ratio)</td>
<td>2.350 ***</td>
<td>(0.464)</td>
<td></td>
<td></td>
<td>2.493 ***</td>
<td>(0.451)</td>
<td></td>
<td></td>
<td>2.086 ***</td>
<td>(0.611)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Power (dummy)</td>
<td>1.532 ***</td>
<td>(0.205)</td>
<td></td>
<td></td>
<td>1.654 ***</td>
<td>(0.176)</td>
<td></td>
<td></td>
<td>1.446 ***</td>
<td>(0.270)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-4.788 ***</td>
<td>(0.536)</td>
<td></td>
<td></td>
<td>-9.025 ***</td>
<td>(0.717)</td>
<td></td>
<td></td>
<td>-10.02 ***</td>
<td>(2.188)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N: 619,104   619,104   482,675

Sig.: ***: 0.1%  **: 1%  *: 5%. Values in parentheses are standard errors. All tests are two-tailed.
Notes

1 Crescenzi et al. (2011) offers a more focused treatment on conflict mediation and does not include this quote.


3 It is worth distinguishing between arguments couched at the level of the international system and systems theories. Both the literature that we engage and our own arguments are system-level but not true systems theories. Systems theories introduce complex interdependencies and feedback effects that make valid generalization extremely difficult (Modelski 1990; Jervis 1997; Cederman 1997). We thus believe that it makes sense to restrict our focus to system-level analysis, which introduces a number of challenges of its own. As Kadera et al. (2003) point out, for example, inferring from the dyadic democratic peace to the systemic level can lead to erroneous conclusions.

4 Alternate regime-based arguments might purport to explain some of the same behavior, as for example with an institutional explanation for improved democratic survival in more democratic systems (Simon and Starr 2000).

5 Constructivist approaches to international relations are extraordinarily diverse, and thus by necessity our review can only touch on a few key themes. We focus our efforts on “positivist” approaches, as they are the most salient to our interests. At the same time, the works we address are some of the most theoretically informed and widely cited in the field. See Finnemore and Sikkink (2001) for a review of the constructivist literature in international relations.

6 We view the attempts by systemic democratic peace researchers to establish the external validity of constructivist arguments as important to the evolution of constructivist theory, and as
beneficial to political science. Constructivists and quantitative researchers have tended to view the other (no pun intended) as emblematic of traditional pathologies in the discipline. For some on each side, the paradigmatic divide is too great to bridge, but abandoning such a rich dialectic would be unfortunate. While mindful that, to some, testing constructivist theories is a contradiction in terms, we remain open to arguments that demonstrate empirical support for propositions derived from clear theoretical logic.

In his classic study of cooperation under anarchy, Axelrod (1984) unfortunately does not allow players to vary parameters such as costs or the stakes, nor can participants bargain over the division of the spoils from a dispute.

We are reminded of the international law scholar who attempted to make the use of nuclear weapons illegal (Weston 1984, 1990), as if a head of state facing nuclear war might be deterred by possible jail time in the Hague.

Part of the premise of constructivism is that the distinction between state and system, and the “bottom-up” directionality we imply, is overdrawn. While possible, our concern, shared by others (Glaser 1997; Copeland 2000) is that by de-emphasizing actors and incentives, social theory effectively discounts much of what international relations sees as the critical problem of anarchy (Waltz 1959).

Wendt (1995) describes the security dilemma as a “social structure composed of inter-subjective understandings in which states are so distrustful that they make worst-case assumptions about each others’ intentions” (page 73). A security community is a social structure “of shared knowledge in which states trust one another to resolve disputes without war” (page 73). The key dynamic in Wendt’s theory thus hinges on the evolution of trust (Kydd 2005).

Inculcating norms presumably involves the possibility of violence, as does collective defense. A country could, for example, argue that force was justified in extending the domain of the democratic community (Bush 2004).

In descriptive analysis, Bremer finds that more advanced dyads are more likely to fight, but the
opposite (and theoretically unexpected) relationship emerges in multivariate analysis. Reuveny and Thompson find mixed support for hypotheses connecting systemic economic growth to war, with variation in effects before and after World War II.

The lack of strong interstate effects contrasts with research on civil wars, where economic development is one of the most robust and powerful predictors of internal conflict (c.f. Fearon and Laitin 2003; Hegre and Sambanis 2006).

Studies of democracy and economic development are complicated by the observation that these variables clearly are not independent --- economic trends in particular are seen as responsible for the proliferation of democracy in the twentieth century (Lipset 1959; Huntington 1991; Burkhart and Lewis-Beck 1994; Boix and Stokes 2003). For the purposes of this study, we remain agnostic about the origins of democracy, except to note that there is more evidence that development encourages democracy than that democracy encourages development (Przeworski and Limongi 1997; Epstein, et al. 2006). If development, democracy, and conflict are all related in some way, then system level studies linking regime type with peace are also deficient in failing to address the impact of economic development.

This is (one of) Waltz’s key challenges and shortcomings. In divorcing foreign policy from international relations, he ensures that his theory cannot explain any aspect of international relations that is not uniquely international.

Average democracy is coded using the Polity IV dataset (Marshall and Jaggers 2002). GDP per capita data come from Maddison (2003). Maddison provides periodic estimates of world GDP prior to World War II.

Assume a world in which democratic dyads are more peaceful and in which greater levels of democracy in the system have a uniform pacifying effect on all countries, but in which there is no monadic effect of democracy on peace. As most observations of democracies would occur when levels of systemic democracy are high (with the opposite condition holding for non-democracies), an incorrectly specified model that left out systemic democracy but included
monadic democracy levels would suffer from omitted variable bias, which would produce an apparent monadic effect of democracy on peace. This point holds unless increased democracy at the system level produces peace primarily among non-democracies, in which case we are confronted with evidence of apparent democratic hypocrisy.

Waltz’s defensive realism errs in assuming that states overcome collective action problems in balancing threats, while discounting the impact of mechanisms such as interdependence in generating state level incentives to intervene.

Recent combined efforts by the developed nations to combat Somali pirates illustrates this point. Developed countries were particularly eager to deploy naval power to deter aggression against the shipping lanes. A similar reaction followed the September 11 terrorist attacks. Support in the developed world for US actions in Afghanistan was widespread, since the United States appeared intent on destroying a group (Al Qaeda) and a government (the Taliban) whose actions were inimical to international stability. The exact opposite international reaction greeted the invasion of Iraq, which appeared to most observers to reduce, rather than increase, international stability.

Given that a small number of highly developed powers reap the greatest benefits from world peace, it should not be surprising that they overcome free rider problems to promote peace among the less developed.

We plan additional analysis on the special effects of systemic trade, but prefer to focus on the broader relationship in this study. We also examined a regression in which missing values of the systemic trade variable were replaced with zeros, or the variable mean. These regressions produce nearly identical results to those reported in Model 5.

Maddison’s (2003) GDP data includes a few estimates for years prior to the start of the main time series. Excluding these observations reduces variation, but the results in Table 2 are robust to this change. Per capita GDP is consistently negative and significant, while systemic democracy and difference are typically insignificant.
We also substituted the alternate measures for average Polity score in Table 1, with equivalent results. The reported findings are also robust to other possible confounding variables such as a dummy variable for US hegemony.
References


