

Interdependence, Networks, and Public Preferences*

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For presentation at the Political Economy of Systemic Risk conference
London School of Economics
November 17, 2016

Abstract

What logics underlie citizen preferences? While studies of policy support often emphasize direct effects on personal welfare, for many regulatory policies – like financial regulations – direct effect models yield unclear predictions while indirect policy effects – such as a policy’s interdependent effect on reciprocal foreign policies or on the global economic network as a whole – are more clear. We examine how citizens respond to distinct logics about policy externalities. An original survey experiment compares support toward financial regulations when respondents receive different arguments – direct, interdependent, or network – about the policy’s positive effects. Respondents consistently and most strongly supported regulations when provided with the network logic argument. This argument increased support even among respondents least likely to support regulations (e.g. conservatives). Interdependence arguments did not significantly increase support. We also identified theoretical sources of heterogeneity across citizens and find some evidence that folk realism moderates the degree to which respondents believe the interdependent argument’s causal chain. We found little evidence that respondents’ degrees of ethnocentrism moderates the effects. Our results suggest that interdependent and networked perspectives toward the structure of the global economy represent a promising avenue to further understand public preferences over economic policies.

*Authors are listed in alphabetical order and appreciate helpful comments from Ryan Brutger, Songying Fang, Henry Farrell, Julia Gray, Sarah Hummel, Abe Newman, Celia Paris, William Winecoff, and participants at the 2015 IPES and 2016 ISA annual conferences.

How do citizens form preferences over foreign economic policies? International political economy (IPE) scholarship often considers this question from the perspective of a set of well-known neo-classical economic models. These models theorize about types of individuals likely to benefit from a particular policy change, and researchers use this to predict whether specific individuals are likely to support or oppose that policy (Lake, 2009; Frieden and Rogowski, 1996). This approach has been most often used to study preferences over trade (Rogowski, 1987; Hiscox, 2002; Scheve and Slaughter, 2001b). For example, a factor endowments model predicts that owners of a scarce factor of production gain from high tariffs, so those owners should support protectionist trade policies. More recently, this literature has expanded beyond trade to address attitudes toward foreign aid, investment, and immigration.¹ This approach is most fruitful to analyze issue areas where a policy's labor market effects are most central, allowing underlying economic models to yield clear predictions about who should support or oppose a policy. However, for a large class of policies – regulatory policies, among others – direct employment and pocketbook consequences are less clearly defined by an underlying economic model.

We examine whether and how citizens respond to different classes of logic that make distinct assumptions about the international externalities of domestic economic policies. Rather than assume an a priori model, we examine how citizens react to three distinct logics – *direct*, pocketbook effects of a country's policy upon the respondent (without emphasis on international externalities); *network* effects, where one country's position in the global economic network determines externalities; and *interdependent* effects, where one country's policy may lead to a change in another country's policy. A growing body of literature has begun to emphasize the interdependent and networked causes and effects of policies in a globalized economic environment.² We seek to bridge these policy-level analyses with individual-level ones.

Specifically, this paper asks, *can arguments that tap into interdependent and network logics affect citizens' policy preferences?* Existing work implies that arguments based on direct pocketbook consequences should affect preferences. But, can indirect arguments – interdependence and network – resonate to a similar or potentially larger degree upon citizens' opinions? In a world where national economies are increasingly intertwined, we think it is likely that citizens are responsive to arguments about policies that extend beyond their own pocketbooks and national borders. For financial regulations in particular, the political sphere and elite discourse discuss US policy in ways that emphasize interdependence and

¹E.g. Milner and Tingley (2011); Pandya (2010); Hainmueller and Hopkins (2015).

²Oatley (2011); Hafner-Burton, Kahler and Montgomery (2009); Farrell and Newman (2014).

network perspectives of policy effects. This creates the possibility that such arguments trickle down to influence citizens' opinions.

We additionally analyze how and why citizens might respond to these indirect – i.e. interdependent and network – arguments. We expect that reactions reflect beliefs about the international system and valuations of the possible foreign benefits to regulations. Beliefs about the international system affect a citizen's expectation that cross-border policy spillovers will or will not occur. Citizens that value foreign benefits are those most likely to care about international spillovers. Respondents may vary in their views of both dimensions, and we hypothesize that this explains why some citizens are more or less responsive to each logic.

We consider United States (US) respondents' attitudes toward financial regulatory stringency, where changes in US domestic financial regulations have more clear indirect effects and less clear direct effects. As applied to financial regulations, network logics might expect that stricter US regulations will make the worldwide economic system more stable and less susceptible to financial contagion. Interdependence logics might expect that stricter US financial regulations will spur European Union (EU) nations to adopt similar policies.³ In contrast, we wouldn't necessarily expect citizens to have neo-classical economic models in mind (i.e. import- or export-orientation, or factor scarcity or abundance) when they form preferences over financial regulations.

We fielded an online survey with an embedded experiment to empirically assess the degree to which citizens find each argument type persuasive. Respondents were randomly assigned to treatment groups consisting of an argument in favor of stringent US financial regulations. Each pro-regulation argument emphasized either direct, interdependence, and network channels of regulatory effects. As an outcome measure, we asked the respondents about their support for more strict US regulations. We compare support levels to treatment groups that receive no argument and a placebo argument.

We expect that citizens will react to all perspectives, and identify specific hypotheses about the logic that might underlie citizens' support for indirect perspectives. Regarding interdependence – which examines the likelihood that regulatory change in one country might lead to policy change in a second country – we expect that citizens that believe that power politics dominate international relations, as measured by questions pertaining to the respondent's 'folk realist' beliefs (Kertzer and McGraw, 2012), may be less likely to expect that foreign countries will follow the US lead on regulations, and therefore may be

³That is, the UK, the ECB, or both.

less responsive to the interdependence treatment. Similarly, a citizen who cares less about benefits for foreigners, as measured by questions pertaining to the respondent's degree of ethnocentrism (Kam and Kinder, 2007; Mansfield and Mutz, 2009), may also be less responsive to the interdependent treatment.

In comparison to respondents who received no argument, respondents who received network and direct arguments in favor of increasing US financial regulation were systematically more likely to support such policies. Network treatment respondents' support was consistently as strong as, and often stronger than, among direct treatment respondents. This pattern persisted even for respondents least likely to support regulation, such as for Republicans, ideologically conservative respondents, and for those who expressed a general dislike for government regulation writ large.

Interdependent arguments did not significantly increase support for regulations. This ran against our expectations, especially since such arguments featured prominently in the public debate over financial regulations. We also did not find strong results in support of hypotheses that respondents' degrees of folk realism or ethnocentrism moderate preferences. While Non-Folk Realists (those with low folk realism values) were most responsive to the interdependence treatment, folk realism additionally moderated all other treatments such that we cannot say the result is specific to interdependence. Against expectations, we found little evidence of ethnocentrism moderating respondent support for the interdependence argument. Overall, the inquiry provides initial evidence that indirect models (interdependence and network perspectives) should be considered within the realm of public preferences, and that folk realism may underlie variation in citizen responsiveness to each model.

Our results suggest the value of broadening our views beyond the economic models that potentially underlie citizen preferences. It also suggests that it might be fruitful to expand the trope that a citizen might consider beyond his own national boundary. In many contexts, the direct pocketbook effects of a policy are driven by an individual's personal characteristics (e.g. her sector of employment) *and* subsequent decisions by foreign countries. While this inquiry focuses upon financial regulation, many others – including environmental policy – share similar features where cross-border interdependent and network effects determine a large amount of the net effects of a policy change. This paper bridges the preferences' literature with broader theorizing within international relations.

The paper proceeds with discussion of the preferences and IR theoretical literatures, followed by the application of different IR models to the area of financial regulations, arriving at specific hypotheses. We then introduce the survey experiment and present results. We conclude by discussing broader

implications.

1 Expanding the Set of Underlying Preference Models

While extant scholarly literature often analyzes the determinants of citizen preferences from a direct perspective, IPE theorizing more broadly calls for more attention to interdependent and network perspectives of the world. Existing focus on direct perspectives excludes the possibility that citizens are interested in, and react to, other logics. We thus identify the *citizen-relevant portion* of each of three perspectives – direct, interdependent and network – and then offer an empirical test of the degree to which citizens respond to each logic.

The Three Logics

Table 1 summarizes relevant distinctions among the three perspectives examined in this paper. Academics and policy-makers who conceptualize the world using a *direct* perspective examine bottom-up national preference formation and give primacy to citizen self-interest. This approach, often associated with Open Economy Politics, analyzes how national policy positions begin with citizen preferences that, subsequently, get filtered through domestic political institutions to arrive at an aggregate country preference (Lake, 2009). Within this approach, public support for a policy is informed by how a national policy change – within an open economy – will affect a citizen’s wages and wealth according to neoclassical economic theories. For example, a low-skilled citizen in a relatively labor abundant country is expected to gain from trade liberalization (Rogowski, 1987). Generally, a citizen’s position within the domestic economy determines whether he might gain or lose from more free trade versus protectionist policies (Scheve and Slaughter, 2001a), restrictions on foreign direct investment (Pandya, 2010), or tighter immigration rules (Hainmueller and Hiscox, 2010). Citizen preferences are often analyzed directly – through survey or experimental work. This area of research is particularly mature regarding preferences over international trade policy, analyzing the effect of education (Hainmueller and Hiscox, 2007), risk aversion (Ehrlich and Maestas, 2010), gender (Gidengil, 1995; Mansfield, Mutz and Silver, 2015), and knowledge of economic models (Rho and Tomz, 2015). Related work analyzes whether gains and losses from trade policy affect citizens’ actual voting action and elected officials’ voting records (Margalit, 2011; Milner and Tingley, 2011; Guisinger, 2009).

Direct approaches de-emphasize a policy’s effects on the actions or welfare of others abroad. This is not to say that foreign actors are unimportant in this conception. Indeed, the responses of foreign

Logic	Policy Action	Possible Externality	Policy Effect Consideration
Direct	Nat'l policy change	None	Nat'l policy on national outcomes
Network	Nat'l policy change	Worldwide public good or bad	Nat'l policy on world outcomes
Interdependent	Nat'l policy change	Another country's policy change	Nat'l policy on another country's outcomes

Table 1: *Differences in the three logics.*

actors in the global market (e.g. changed prices or patterns of production, immigration, or investment) are critical intermediate steps, but they are only important insofar as they govern how a policy translates into an increase or decrease in a citizen's domestic welfare. The logic does not directly engage with the effects of a home country's regulation upon individual other countries nor upon the system as a whole.

These approaches then use neoclassical economic theory to create clear expectations of a citizen's preference for or against policy.⁴ If the model predicts that the citizen gains (loses) from the policy change, the citizen is expected to support (oppose) the policy. These expectations assume the international market is stable and unchanging in the short-run.

A *network* perspective begins with a given international structure and asks how this affects a government's – and its citizens' – national preferences within a top-down process. Though national policy might have network-wide effects, the international structure is usually considered fixed and exogenously-given in the short-run.⁵ Hafner-Burton, Kahler and Montgomery (2009, 560) define networks as “sets of relations that form structures, which in turn may constrain and enable agents.” In the short run, actors are constrained by, yet cannot affect, the network structure. Kahler (2009, 4, emphasis in original) most overtly states, “networks as *structures* [...] influence the behavior of their members, and, through them, produce consequential network effects. [...] network design is not intentional on the part of any actor or set of actors.” Thus, while direct perspectives focus on how individual interests shape national policy, network perspectives emphasize how the international system affects national (and individual) interests.

Finally, *interdependence* perspectives consider how decision-makers create policy and institutional changes that, in turn, affect other countries' incentives for policy and institutional reforms (Farrell and

⁴As applied to preferences, citizen deviation from one's economic interest is often explained by altruism and sociotropic factors; for instance, Mansfield and Mutz (2009). Regarding the importance of individual preferences as the starting point for policy outcomes, see (Lake, 2009, 230-231) .

⁵Though, the international system may change in two ways – first, the system may face a crisis, or exogenously-given shock, that changes the system in the short-run, or, second, the system may endogenously change in the long-run through changes in node fitness (Oatley et al., 2013). To apply this perspective's logic to the individual level, we focus on the short-run, non-crisis/non-shock moment.

Newman, 2014, 2015). Said differently, national policy in one country begets national policy in another; together, national policy in one country affects and changes the systemic environment that other countries face.⁶ Policies in one country can spill over to another because of increasing rule-overlap, where multinational firms must navigate jurisdictions with varying rules, creating incentives for consistency. The increasingly interdependent nature of global economics also creates opportunities for sub-national actors to have cross-border influences on policy. This perspective focus on the short-run, endogenously determined nature of the international system.

Application to Financial Regulations: Academic and Practitioner Views

We examine these three logical conceptions – direct, interdependent, and network – using the substantive issue of national financial regulations, an area where scholars have called for additional attention to network and interdependence approaches. Thus, this is an especially good context to begin to link research on indirect models to public preferences. The 2007 financial crisis and its global effects renewed interest in the politics of financial regulation, as financial regulatory failures were consistently identified by policymakers,⁷ economists,⁸ and political scientists⁹ as a cause of crisis. IPE scholars reflected on the stability of the system¹⁰ and the state of the IPE literature to understand and explain what happened.¹¹ To fully understand the causes and effects of crisis required scholars to move beyond a direct approach of considering independent decisions of countries within a system toward examining the interdependencies of policies and outcomes across borders.

Scholarly analyses of the crisis often call for more attention to the world financial network.¹² In an important conceptual shift, a *network* perspective of the international financial system argues that the financial regulatory strength of the most important, central nodes of the system ensures stability of the system as a whole (Oatley et al., 2013).¹³ Further, Oatley et al. (2013) provide empirical evidence that

⁶There are multiple aspects of new interdependence; here, we focus on sequential policy change, which is the key point through which the international system is seen as endogenously determined at any given time.

⁷Financial Crisis Inquiry Commission (2011)

⁸Johnson and Kwak (2011)

⁹McCarty, Poole and Rosenthal (2013)

¹⁰Helleiner, Pagliari and Zimmermann (2010); Drezner (2014)

¹¹Cohen (2009); Mosley and Singer (2009); Helleiner (2011); Katzenstein and Nelson (2013).

¹²Cohen (2009); Drezner and McNamara (2013); Katzenstein and Nelson (2013).

¹³Prior to the 2007 financial crisis, network approaches often analyzed how strong countries' policy preferences led to policy convergence of weaker states. Drezner (2007); Simmons (2001); Mosley (2010). The dependent variable of interest was policy alignment – regulatory convergence or divergence – rather than systemic stability.

the US is the central node within a hierarchical international banking system, with the implication that US financial stability will ensure stability of the entire system. For a simple analogy, a shock like the US financial crisis is like dropping a stone (or boulder) into a pond. The ripples spread outward from the epicenter of the shock. Crisis in a less central node within the hierarchy may create instability for some countries, but is less likely to trigger widespread crisis. For instance, contagion was prevalent in both the 1980s Latin American debt crisis and in the late 1990s Asian financial crisis, yet neither led to widespread crisis within the major, developed Western economies. Other network approaches were also introduced. Cohen (2009) focused on the potentially changing nature of the international financial system and called for a move beyond the assumption of a static and unchanging system. Answering this call, Drezner and McNamara (2013) put forth a life-cycle theory of global financial orders that evolve over time.

A separate body of scholarship emphasizes *interdependence* among national regulations, allowing room for self-interested actors, within an open economy, to consciously affect and alter the structure as a whole. One strand of this literature includes international regulatory capture. Young (2013) shows how financial special interests affected the content of international bank capital regulations throughout the 2000s (and that this relationship was interrupted after 2008). Seabrooke and Tsingou (2014) and Tsingou (2015) show how financial special interests embed themselves within intellectual policy clubs to legitimize their preferences within international regulation best practices. Another strand shows how states may pool their institutional and market power to counter larger states to achieve international financial regulatory preferences (Posner, 2009; Buthe and Mattli, 2011). Overall, interdependence emphasizes the competitive and interconnected nature of financial regulations across countries that create the financial system. This approach agrees with much legal scholarship that emphasizes stark distributional consequences associated with various international arrangements (Gadinis, 2008; Brummer, 2010). Interdependence thus focuses on how domestic-level regulations affect other countries' financial regulations.

Beyond academic scholarship, we observe that politicians engage with all three logics during the course of US legislative policymaking. The 2010 US Dodd-Frank Act increased both the number and stringency of existing US financial regulations.¹⁴ The following July 2010 exchange between Republican Senator, Bob Corker, and US Treasury Under Secretary for International Affairs, Lael Brainard, discusses

¹⁴The US Dodd-Frank Act was introduced as a bill in December 2009 and signed into law on July 22, 2010.

the implications of the Dodd-Frank Act upon US competitiveness and upon other countries' national regulations:¹⁵

Bob Corker (Senator, TN-R): If we ended up being out of synch [sic] with the rest of the world in areas that made us not competitive. . . would you come back and talk with us about those so that we might make changes[?...]]

Lael Brainard (Witness, US Treasury): [...O]ther countries are going to want to move in [the direction of Dodd-Frank] because it will improve the strength and[...] resilience of our financial system[...] [M]any of the countries participating in the G-20 have, in fact, been waiting to see the final outlines of U.S. financial reforms because they want to move in that direction and emulate the systems that we are putting in place.

Bob Corker: But the question is, if [other countries] do not emulate [the US], will you come back and talk with us?

Lael Brainard: [...Yes, though] in those areas where we must have international rules, we will absolutely pursue them and ensure that the U.S. standard, high standard, is the world standard.

The quote begins with Senator Corker emphasizing his concern that higher US regulations will make US-headquartered finance less competitive than these firms' competitors headquartered in other countries. This is an example of *direct effects*, where the international system is fixed in the short- to medium-term, and relative change in national policies leads to short-run competitive effects that some actors may want to pursue or avoid. Under Secretary Brainard responds, emphasizing that other countries will likely follow US reforms, an example of indirect *interdependence* approach, emphasizing the sequencing and interconnectedness of countries' policy choices. And, Senator Corker replies with skepticism that other countries might indeed follow the US high regulations.

The types of dynamics emphasized by network theories also permeated a great deal of discussion around financial regulations. Arguments for regulation recognized that the US crisis had spread outwards because of increasingly intertwined financial markets. And arguments against regulation often recognized the potential for multinational firms to simply move elsewhere.

Politicians also varied in their beliefs about the likelihood of foreign countries cooperating on financial regulation and in the degree to which they emphasized the benefits of regulation to foreign countries, concepts linked to folk realism and ethnocentrism below. Senator Corker's skepticism that other

¹⁵Hearing before the Subcommittee on Security and International Trade and Finance of the Committee on Banking, Housing, and Urban Affairs, Senate Hearing 111-720, 'Continuing Oversight on International Cooperation to Modernize Financial Regulation,' July 20, 2010, <https://www.gpo.gov/fdsys/pkg/CHRG-111shrg62563/html/CHRG-111shrg62563.htm>.

countries would indeed emulate US policies implies that he holds a realist view of the world. We find additional examples of this concern from October 2011:¹⁶

Mike Johanns (Senator, NE-R): [An ongoing concern is how Dodd-Frank is] going to be harmonized internationally. US Deputy Secretary [of the Treasury Neal] Wolin said, [...] “We are working closely with our G-20 partners to make sure that we get a regime that works worldwide so we do not have new opportunities for arbitrage.[...] Soon after that.. Michel Barnier of the European Union said[...], “We don’t support the same approach. [...] That is not what we are going to do.”

So what assurance can you give me that the G-20 [... is] trying to figure out how to [follow...] the leadership of the United States? [...] It is not very reassuring to me [when you talk about principles being adopted to harmonize legislation.] All that tells me is that we are having a lot of meetings.

Thus, there exists variation among actors’ beliefs that countries will follow others’ policy leads; we operationalize this as folk realism. Strong realists do not believe that consultations will yield significant result (as illustrated by Corker’s and Johanns’ skepticism above), while less realist perspectives view international policy-making as potentially cooperative (as illustrated by Brainard and Wolin’s perspectives).

Further, we find variation in the degree to which one might have an interest in helping others abroad, as illustrated below from March 2009:¹⁷

Carolyn McCarthy (House Representative, NY-D): AIG [...] was saved because it was a systemic risk to the American economy. [...Yet this week] we find out that a significant amount, billions and billions, tens of billions of dollars, went to foreign banks. I do not believe we should be bailing out foreign banks. I believe other governments should bail out their own banks.

I would like to ask the panelists, do you feel that that is a proper use of taxpayers’ money, under the guidelines that it protects the systemic risk of the financial institutions of America?

Peter Wallison (Witness, American Enterprise Institute (AEI)). Let me try to start on that, Congresswoman, and just say that if you were to bail out any U.S. bank of any size, you are going to be bailing out foreign banks, because banks are all interconnected.

Thus, there is variation in the expectation that there will exist international effects of national policy, and the degree to which one cares about those international effects. With these theoretical and empirical

¹⁶Hearing before the Subcommittee on Security and International Trade and Finance of the Committee on Banking, Housing, and Urban Affairs, Senate Hearing 112-350, ‘The G-20 and Global Economic and Financial Risks,’ October 20, 2011, <https://www.gpo.gov/fdsys/pkg/CHRG-112shrg73895/html/CHRG-112shrg73895.htm>.

¹⁷Hearing before the Committee on Financial Services, U.S. House of Representatives Hearing 111-14, ‘Perspectives on Regulation of Systemic Risk in the Financial Services Industry,’ March 17, 2009, <https://www.gpo.gov/fdsys/pkg/CHRG-111hrg48867/html/CHRG-111hrg48867.htm>.

background considerations in mind, we turn to our argument and hypotheses.

Hypotheses

We ask whether citizens respond to prompts that emphasize direct and indirect – interdependence and network – policy effects. And, if so, what explains variation across citizens’ responses? We expect that citizens will respond to indirect effects in a globalizing world, and that variation across individuals may be explained by their beliefs in the nature of the international system (as fundamentally more competitive or cooperative) and by their degree of concern for others. We assess citizen preferences when applying each logical channel to the context of increasing the stringency of US financial regulations. We expect that our arguments will increase support for regulations – but through distinct channels – and that our moderators will provide additional insights to explain variation across respondents.

We first consider direct logics, which consider how national policy change occurs within a given international market. It does not consider the effect of national policy change upon other countries nor for the world as a whole. When we present the direct logic to survey respondents (discussed in detail in section 2 below), we first emphasize that an increase in financial sector regulations will increase stability of the US financial sector. We then tell respondents that a stable US financial sector will positively impact the real US economy, and, then finally, the stability of the US as a whole. Thus, survey respondents that receive the direct treatment are primed to consider the effect of US regulations within an all-US context (US financial sector stability, US real economic stability, and US stability). While international externalities may arise from a change in US policy, such effects are not overtly mentioned.

We expect that network logics can also move respondents. Network logics emphasize that policies implemented within a central node within the system (e.g. US financial regulations) hold implications for policies and outcomes abroad. These central countries also hold the most responsibility for stability of the system as a whole (Kindleberger, 1973; Krasner, 1976), and we consider the degree to which citizens support national policies that create worldwide outcomes and preferences (US action, network-wide effects). Again, when one considers the international financial system as one network comprised of state units, it becomes clear that some units are more important than others for the stability of the financial system as a whole. Within a hierarchical structure, financial stability or instability in the central node may spill over into smaller nodes, while the reverse is not true. Empirically, Oatley et al. (2013) and Winecoff (forthcoming) establish that the current financial system is hierarchical, with one major node (the United States) and many smaller nodes. They further show that, in comparison to the pre-crisis

period, the centrality of the US within the financial network has *increased* in the aftermath of crisis.

Though discussed in more detail in section 2 below, respondents primed with the network logic first consider how an increase in US financial regulatory stringency may directly increase the stability of the US financial sector. This, in turn, will increase stability of the international system as a whole. Here, there are dual benefits to an increase in US regulations – the US financial system is more stable (a direct effect) and the international system is also more stable (an indirect effect). Unlike the direct argument, this logic emphasizes an ultimate effect of regulations upon global stability, with US stability as an intermediate step. To be persuaded by this logic, respondents must believe that US financial sector stability will, in fact, increase stability in the US and the system as a whole. Further, respondents must value stability of the international system.

Finally, we also expect interdependence logics to affect respondent support for financial regulation. Interdependence assumes that there is an endogenously evolving international system, and, importantly, one country's policy selection may shift the incentives for another country to change its own policy or regulation (Farrell and Newman, 2014, 2015). Applied to the context of US financial regulations, a US citizen might support an increase in US financial regulations if it creates incentives for other states to adopt similar national policies with positive feedback effects for the US citizen. Within finance, this is most obvious when we think about how regulatory decisions by bodies within the European Union (e.g. the Bank of England, the European Central Bank) or within the US (e.g. the Federal Reserve Board, the Securities and Exchange Commission) directly and indirectly affect the business environment for both domestic and foreign firms.

Interdependence emphasizes that a country that initially changes policy may do so with a variety of intentions. That country may select policies to subsequently increase its bargaining power vis-a-vis other countries (Posner, 2009), it may seek to attract business through regulatory competition (without any intention of bargaining or subsequent coordination with other countries), or it may be reacting to home country domestic preferences for certain regulatory levels. Upon one country's policy change, reactionary policy change in a second country might occur, and might do so through a variety of channels – among others, through domestic interests in the second country or through transnational alliances. Generally, the interdependence perspective captures this ongoing, evolving equilibrium of countries that select domestic regulations within the context of an evolving system that, at any given time, is comprised of all countries' national regulations.

In summary, the direct approach focuses upon self-interest of the respondent and her country in isolation from the financial system as a whole. Both interdependence and network approaches emphasize the value of third country stability within an international financial system, but the logic through which this is channeled is markedly different. Within a network perspective, the outcome of third country stability directly derives from US policy. Within interdependence third country stability occurs through actions of other countries in response to US policy. The first set of hypotheses test the simple question of whether each of these three arguments' logics will systematically affect citizen policy preferences:

H1a: Direct Logic Hypothesis: Direct arguments will increase citizen support for regulatory stringency.

H1b: Interdependence Logic Hypothesis: Interdependent arguments will increase citizen support for regulatory stringency.

H1c: Network Logic Hypothesis: Interdependent arguments will increase citizen support for regulatory stringency.

Though we are not testing the arguments as substantive alternatives to one another, the ability to measure the relative resonance of each argument allows us to answer the research question of whether or not indirect logics – interdependence and network – broadly resonate with respondents.

Moderators

Citizens are likely to be heterogeneous in the degree to which they are affected by the argument. A moderator variable is one that explains within-treatment citizen preference variation. The Congressional hearing quotes demonstrate how actors vary along two dimensions: the degree to which they believe that foreign actors will follow suit with regulations of their own and the degree to which they care about any benefits that are accrued to foreign citizens instead of citizens of their own country. This variation implies two individual level characteristics – folk realism and ethnocentrism – that might moderate the degree to which a particular argument persuades a citizen.

Some citizens hold strong folk realist beliefs, which include world views that are skeptical of the ability of states to cooperate and harmonize policies within an anarchic world (Kertzer and McGraw, 2012). While not identical to the beliefs associated with the academic version of realism, Kertzer and McGraw (2012) find significant heterogeneity in the degree to which laboratory subjects espouse beliefs that reflect traditional assumptions about preferences made by realist scholarship. Those with more folk realist beliefs tend to be characterized by pessimism about cooperation versus conflict in international relations and the belief that states must provide for their own security.

In the context of international political economy and financial regulations, respondents holding such beliefs would likely be less responsive to interdependence arguments, since those arguments rely on other countries cooperating with the United States by enacting similarly strict regulations. Folk Realists might be more likely to believe that, if the United States took the lead with stricter regulations, then other countries would take advantage of the United States by leaving their own regulations lax. In this way, the foreign country benefits from whatever additional stability the US regulations bring, while simultaneously making their own country more attractive for financial actors who dislike onerous regulation.¹⁸ If the respondent does not believe that US regulations will spur foreign regulations, then the interdependence argument likely does not increase his affability towards regulation. However, Non-Folk Realists will believe and respond to a cooperative logic.

H2a, Folk Realism moderates interdependence: Non-Folk Realists will respond to interdependence arguments.

Citizens vary in the degree to which they consider costs and benefits that accrue to foreign countries or actors – as opposed to purely domestic costs and benefits – as the result of national policy change. Kam and Kinder (2007) and Mansfield and Mutz (2009) describe variation in citizens’ levels of ethnocentrism, defined as the tendency to “divide the world into in-groups and out-groups”, ascribing positive traits and characteristics to in-group members and negative traits to out-group members (Kam and Kinder, 2007, 321). As applied to international relations, people who are relatively more ethnocentric (Ethnocentrists) have been found to more strongly support the war on terror and to oppose free trade.¹⁹

Since the interdependence argument emphasizes how the benefits of regulation are eventually accrued by foreign countries, Ethnocentrist respondents may be less inclined to support regulation if the end result is to increase financial stability for other countries. In contrast, Non-Ethnocentrists may be more influenced by benefits of a policy, regardless of the location of benefits.

H2b, Ethnocentrism moderates interdependence: Non-Ethnocentrists will respond to interdependence arguments.

2 Experimental Design

We designed and fielded an original survey experiment to assess two questions: (1) to what degree do citizens respond to arguments pertaining to the direct, interdependent, and network effects of regula-

¹⁸This describes the regulator’s dilemma, described in Kapstein (1989); Oatley and Nabors (1998); Singer (2004, 2007).

¹⁹See also Margalit (2012) on the relationship between ethnocentrism and overall views towards globalization.

tions, and (2) what individual characteristics moderate these treatment effects? We randomly assigned respondents to receive different arguments in favor of increasing financial regulations. Each argument contained one logic among the three theoretical channels described above – direct, interdependent, and network. In all cases, respondents learn that increasing US regulatory stringency increases stability – but through different logical channels – in order to assess whether arguments based on each type of effect can influence citizens’ preferences over regulation. We also have null and placebo treatments.

For the first question, we assess the effect of treatment on the ‘outcome,’ which measures support for stricter financial regulations. We examine statistically whether, and by what relative magnitude, these arguments cause an increase in support for regulation. We will compare support for financial regulations when respondents are given one treatment to a null case, where they are given no positive explanation, and to a placebo explanation. The relative difference in support is attributable to the degree to which the logic resonates, on average, across the survey respondents.

To keep sharp focus upon the research question at hand – and especially because financial regulations is just one of multiple policy areas that we expect to display similar logics – the survey asks about abstract concept of financial regulations. We say more strict regulations to circumvent citizen assessment of the efficacy of current regulations as adequate or inadequate. It most broadly capture the idea that regulatory stringency may be increased by imposing an additional number of regulations or more stringent regulations.²⁰

The Respondents

We recruited 1,293 survey respondents using Amazon’s Mechanical Turk (mTurk) service in July 2015.²¹ mTurk is an online web-based platform where researchers can post ‘tasks’ and compensation levels for participants who complete the task. In this case, the task was to complete the survey. Respondents were compensated \$1.25, and 1,159 respondents completed the survey in a median time of 16 minutes.²² After

²⁰The phrase “more strict regulation” plausibly isolates respondents’ reactions to the given argument and avoids respondents’ evaluation of existing levels of financial regulation (if the alternative phrasing was “stricter regulation”), and abstracts away from ideological bends toward favoring more (liberal) or less (conservative) regulation (if the alternative phrasing was “more regulation”).

²¹Specifically, on July 17 and 18. This timing was prior to significant kick-off of the US 2016 presidential primary campaigns, and during this time, there were no obvious, especially contentious US financial regulatory issues in the broad public eye. To the extent that financial regulation and financial stability was relevant, this was a period where financial headlines related to European debt crises (specifically, Greece re-negotiating its IMF package).

²²Mean completion time was 21.6 minutes, and completion times ranged from 3 (minimum) to 411 (maximum) minutes.

accepting the task on mTurk, participants were directed to an external survey site (Qualtrics) to answer the survey questions.²³ Because mTurk is relatively inexpensive for survey research, its use has grown within international relations scholarship and beyond.²⁴ Since online survey respondents can sometimes take surveys very quickly or get distracted by other tasks and then return to the survey, we limited our sample to respondents who were spent at least 8 minutes (no less than half the median completion time) on the survey, but who did not take greater than 32 minutes (double the median completion time). This corresponds to excluding the fastest 1.8% and the slowest 7.7% of survey takers.²⁵ Excluding these respondents lowers the analysis sample to a maximum of 1,049 respondents.

The recruited respondents are a reasonable sample to test the theoretical relationships of interest. Subjects recruited on mTurk are more representative of the U.S. population than convenience samples drawn from student populations, though less representative than subjects recruited via nationally representative internet-based samples or national probability samples (Berinsky et al., 2012). Our respondent pool was similar to national averages, but differed in some ways. For example, 54% of our sample was male, compared to 48% in the 2012 ANES survey. Our respondents tended to be younger than the national average (sample average 34.3 years old), and our sample contained more white respondents than the national average (sample average 77.4% white). However, we have no reason to expect that treatment effects are biased one way or another because of these differences. We are not making claims about nationally representative treatment effects, but also have no reason to expect that the theoretical relationships we test would differ in another sample. Electoral channels are the most direct way in which citizen preferences affect policy, and our sample specifically requires respondents to be of voting age (18 or older).

Main Treatment

After a few background questions – e.g. about the respondent’s age, gender, race – the survey began with a randomized experiment. Respondents read a short introduction, reproduced below, that describes the 2007-2008 financial crisis. Each respondent was told that there exists a debate over whether or not it is desirable for the United States to adopt more strict financial regulations.

Since the Financial Crisis of 2007-2008, policymakers and citizens in the United States

²³Berinsky et al. (2012) have a detailed description of the mTurk platform.

²⁴For recent examples, see Chaudoin (2014); Tingley and Tomz (2013).

²⁵Figure A.1 shows the skewed distribution of completion times. An alternative method to drop the fastest and slowest 10% of respondents does not substantively change results.

have debated how to regulate banks and other financial actors. Some have argued the firms should have more strict regulations, such as banning banks from engaging in especially risky activities.

This debate is very important. The United States holds the world's largest financial sector. Further, the United States is also at the center of the global financial network, with contracts between U.S. banks and banks from other countries totaling over 6 trillion USD. To put this in perspective, that is twice the amount as the next largest country in terms of banking transactions, the United Kingdom.

Each respondent was then given the following argument against increased regulation: “*When regulations are more strict, banks may make fewer loans, which can hurt the economy as a whole.*”

Next, each respondent was randomly assigned to one of five conditions – either one of three distinct arguments in support of more stringent regulations (direct, interdependent, or network), or one of two control groups (null, placebo). Treatment wordings were carefully chosen to ensure that the primary difference between each treatment is the logic that underlies the pro-regulation argument. Each treatment has similar word counts, similar tone, and verbiage of similar force, meaning that no treatment contains significantly stronger or weaker wording than the others. The treatments differ from one another in the *location of policy externality* and the *location of the ultimate effect* of national regulatory change on financial stability, as indicated in Table 1.

We reproduce these treatments below, and underline the important differences for emphasis.²⁶ Each of the pro-regulation treatments is prefaced with the statement “*Other people have argued that the United States should adopt more strict regulations.*”

- **Direct Treatment:** These people believe that more strict regulations will increase the stability of the United States financial sector, which increases the stability of the United States as a whole. This helps ensure that another financial crisis does not occur in the United States.
- **Interdependent Treatment:** These people believe that more strict regulations will increase the likelihood that foreign countries adopt similar regulation, which increases the stability of foreign countries' financial sectors. This helps ensure that another financial crisis does not occur in those other countries.
- **Network Treatment:** These people believe that more strict regulations will increase the stability of the United States financial sector, which increases the stability of the global financial network as a whole. This helps ensure that another financial crisis does not spread across countries.

The direct treatment emphasizes US regulatory change and its subsequent effects on US financial stability. The interdependent treatment emphasizes how US regulations potentially change other coun-

²⁶Respondents did not see any underlining or the bold headers/treatment labels.

tries' regulations, increasing stability in those other countries. The network treatment emphasizes how US regulatory change increases global stability through US actions alone.

Two additional treatment conditions include a null treatment, where the respondent was not given any pro-regulation argument, and a placebo condition. For the placebo treatment, respondents receive a positively toned message but one without actual argumentative content. The placebo treatment allows us to assess the degree to which the three main treatment effects are caused by the logical argument contained in the treatment, as opposed to just simply having positively toned, pro-regulation words on the page.

- **Placebo:** Other people have argued that the United States should adopt more strict regulations. These people believe that more strict regulations will increase stability. This helps ensure that another financial crisis does not occur.

To ensure that respondents internalize the logic of the treatments and pay attention, we promised them an additional monetary reward at the end of the survey if they could answer factual questions about the survey they had just taken. The questions ask them to identify the pro- and anti-regulation arguments that they were given. Previous research has shown that these types of incentives induce participants to pay greater attention to the survey and that respondents are generally able to correctly recall features of their treatment assignment. Our respondents performed well on these manipulation checks.²⁷

Outcome Variable

After treatment assignment, respondents were asked, “*Do you favor or oppose more strict regulation of the U.S. financial system?*” As noted above, the phrase “more strict regulation” was selected to best isolate respondents’ evaluation of the arguments separate from ideological considerations or evaluation of existing level of regulations. Respondents could choose “strongly favor,” “somewhat favor,” “weakly favor,” “neither favor nor oppose,” “weakly oppose,” “somewhat oppose,” or “strongly oppose.” Respondents choosing “neither favor nor oppose,” were asked a follow up question of whether they “lean toward supporting or opposing” regulations. We code a respondent as *supportive* if he chose “strongly favor” or “somewhat favor.” As noted below, results are similar when using alternative definitions of support that include respondents who weakly supported regulation or who leaned towards supporting regulation.

²⁷84% correctly recalled the anti-regulation that they all received. Among respondents receiving the direct, interdependent, or network treatments, 42% correctly recalled which of the treatments they received.

Moderator Measurements

To measure the degree to which an individual holds realist beliefs, Kertzer and McGraw (2012, 248) propose a set of 13 items. Each item asks a question such as, “In your opinion, are countries inherently cooperative or inherently conflictual?” or “In your opinion, can war usually be avoided or is usually unavoidable?” Some individuals answer these questions in consistent ways, often choosing the realist option (e.g. “countries are inherently conflictual”, “war is usually unavoidable”) while others are not as realist.

We used a subset of three questions that most closely pertained to questions of international cooperation. Specifically, we used the items that asked, “What’s more important to you: Upholding international law or protecting American corporations?”; “In your opinion, countries are inherently cooperative or are inherently aggressive?”; and, “In your opinion, countries should be able to trust other states or should never trust other states?” We coded respondents as high or low on the folk realism dimension according to the number of times they chose the realist option.²⁸ Of 1040 analysis sample respondents that answered folk realism questions, 363 respondents (35%) never chose the realist option, while 404 (39%), 213 (20%), and 60 (6%) chose the realist option 1, 2, or 3 times respectively. In our sample, respondents at and above the median – those who chose the realist option one, two, or three times – were classified as Folk Realist, and those below the median – those who never chose the realist option – were classified as Non-Folk Realist.²⁹

To measure respondents’ levels of ethnocentrism, we followed existing literature and asked respondents a set of questions about different groups in society, such as racial groups (e.g. whites or Hispanics) and other groups (e.g. physicians or teachers). Respondents classified these groups along continua regarding certain traits, such as hardworking versus lazy. We calculated the standardized difference between how positively a respondent evaluated her in-group compared to how she evaluated out-group members. A larger difference indicates a higher degree of ethnocentrism. We classified a respondent as high (Ethnocentrist) or low (Non-Ethnocentrist) on the ethnocentrism scale if her score was in the upper or lower half of the sample distribution.³⁰

²⁸The realist option is the latter of each of the two options in each question above. In the experiment, however, the set of options was randomized across respondents.

²⁹The lefthand graph of Figure A.2 shows the sample distribution, and Table A.1 shows that the distribution was approximately equal across treatments.

³⁰Among respondents, 913 answered questions to arrive at an ethnocentrism value. Figure A.2 graphs the pooled distri-

3 Results

How did different treatments affect respondents' support for regulation? All three main treatments (direct, indirect, and network) raised support for regulation, on average. 41.1% of respondents in the null group (who did not receive any argument) supported more strict regulation, as compared to 48.1% of respondents who received the interdependence argument and 57.1% of respondents who received the network argument.³¹ The direct treatment also increased support to 56.2%. A simple difference in means test, which compares support after a particular treatment with support after the null treatment, indicates that this difference is statistically significant for the network and direct treatments, though not for the interdependent treatment.³² The placebo treatment also increased support to approximately 49.3%, which was very similar to the effect of the interdependent treatment.

Figure 1 use simulations to arrive at confidence intervals around each point estimate and show how levels of support change with each treatment. This figure shows Bayesian estimates of the level of support, with credibility intervals, for each treatment category.³³ Respondents who received the network and direct treatments indicated greater levels of support for regulation as compared to the null group. Respondents receiving the interdependent argument increased support for regulations on average, but support levels are similar to support for the null and the placebo respondents. Thus, the interdependent treatment respondents had weaker positive effects. Results are consistent across different codings of the dependent variable, with network and direct treatments having the largest and most significant effects on support for regulation.³⁴

Beyond pairwise comparisons across treatments, Table 2 shows results of estimating logit regressions of the outcome variable on treatment assignment and a variety of other respondent characteristics. The first column includes the set of four treatment indicators, with the null treatment withheld as the base

bution of ethnocentrism values, and Table A.1 shows that the distribution is approximately equal across treatments. Since the moderator items were post-treatment, we also checked, and did not find any evidence, that treatment assignment affected moderator levels.

³¹Table A.4 provides details.

³²Table A.4 provides difference-in-means test and that results are substantively consistent across two, alternative broader definitions of support. When using a moderate definition of support, respondents who received the interdependent treatment indicated higher average support than did null treatment respondents at the 10% level.

³³Estimates were constructed using non-informative Jeffrey's priors for the Beta distribution. See Appendix A for full details.

³⁴Figure A.3 presents bayesian estimates for each definition of support.

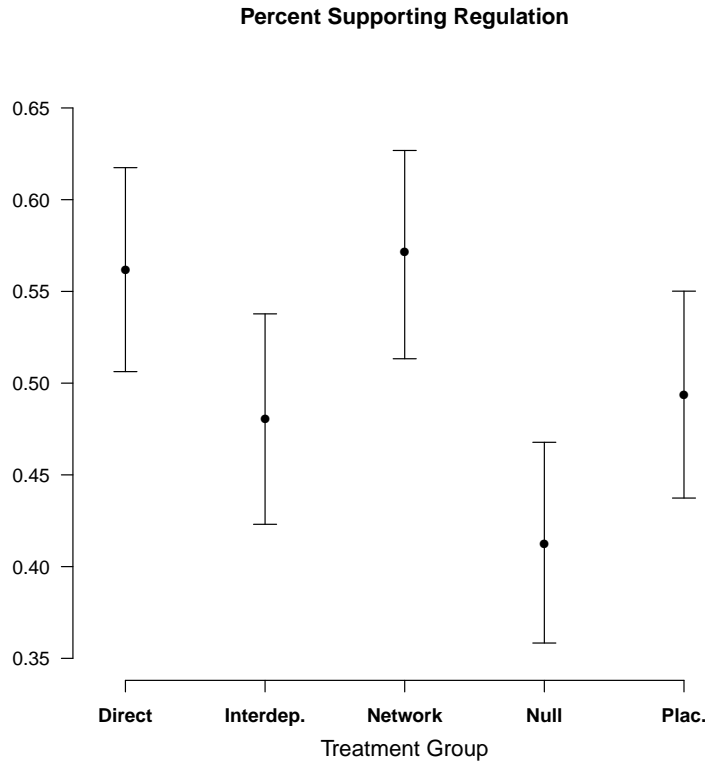


Figure 1: *Respondent support across treatments, Bayesian point estimates and 95 percent confidence intervals.*

category, while the second column adds a set of respondent characteristic control variables found to be important in other analyses. In both models, we find that those in the direct and network treatments are statistically more supportive of financial regulations than are respondents in the null group. In Model (1), without additional control variables, those in the placebo group were also statistically more likely to support financial regulations. Model (2) includes controls that we might expect to affect support for regulation, as well. We find that more highly educated respondents and those with high scores on the political knowledge questions are more likely to support regulations. Those with incomes greater than \$50,000 per year (44% of the sample) are less likely to support financial regulations. We did not find significant differences based on whether the respondent was caucasian, male, or employed.

Across Models (3), (4), and (5), direct and network treatment respondents continue to be associated with statistically higher levels of support for financial regulation, and we add additional controls for characteristics theoretically expected to affect respondents' levels of support for regulation. Model (3) includes a measure of general affinity for regulations. It asks for a respondent's opinion regarding the

current state of regulations and codes whether respondents indicate there exists “too much” (1), “about right” (2), or “too little” (3) regulation of business.³⁵ It is straightforward to expect that respondents who believe there is too much regulation will be less likely to support financial regulations, and those who believe there is too little regulation will be more likely to support financial regulations. Indeed, this indicator is positive and statistically significant. Among additional control variables, all except political knowledge lost statistical significance. Model (4) replaces regulatory preference with an indicator of self-identification as a Democratic party member, and Model (5) includes respondents’ self-identification along a traditional seven point ideology score, ranging from “Extremely conservative” (1) to “Extremely liberal” (7). As expected, Democrats and those who identify as more liberal were associated with statistically higher levels of support for regulation.

The final column includes the possibility that the moderators analyzed below – folk realism and ethnocentrism – have a direct effect on a respondent’s support for regulation. We enter discrete measures of folk realism (0, 1, 2, 3) and continuous measure of ethnocentrism, and – even controlling for ideology – find that higher levels of folk realism are associated with less support for regulations. Higher levels of ethnocentrism are negatively associated with support for regulations, but the estimates are not statistically significant. Direct and network treatment respondents remain statistically likely to support financial regulations at higher rates than the null.³⁶

Across these methods of analysis, the main result is that respondents who received network and direct arguments consistently indicated greater support for financial regulations.³⁷ The estimated coefficients for the network treatment are approximately 20% larger than those for the direct treatment. The interdependence argument has a positive, though mostly insignificant effect on support for regulation.

³⁵The specific question was, “In general, do you think there is too much, too little, or about the right amount of government regulation of business and industry?”. Respondents selected either “Too much” (21.2%), “About right” (35.9%) or “Too Little” (39.8%).

³⁶For the 899 observations for which there is full data across Table 2, Models (1) through (5), Table A.3 shows the correlations among theoretical regulatory predisposition and moderator variables. While democracy indicator and ideology scale are highly correlated (0.72), democracy and ideology are less correlated with measure of general demand for regulations (0.51 and 0.53, respectively), and moderator variables are positively correlated with each other at 0.25, and negatively correlated with ideology variables at between -0.22 and -0.30. We also checked that treatment assignment did not have any statistically significant effect on respondents’ answers to these questions.

³⁷Results are similar using the other codings of the outcome variable. For each model, we can reject the null of a constant-only model from likelihood ratio tests at conventional levels of significance.

	Baseline	Additional Controls	Regulatory Preferences	Party	Ideology	Moderators
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment Assignment Indicators						
Direct Treatment	0.608*** (0.197)	0.593*** (0.201)	0.670*** (0.221)	0.658*** (0.211)	0.686*** (0.215)	0.793*** (0.234)
Interdependence Treatment	0.282 (0.196)	0.265 (0.201)	0.249 (0.219)	0.301 (0.211)	0.251 (0.213)	0.330 (0.231)
Network Treatment	0.647*** (0.197)	0.631*** (0.201)	0.780*** (0.222)	0.716*** (0.211)	0.795*** (0.215)	0.826*** (0.234)
Placebo Treatment	0.330* (0.197)	0.300 (0.202)	0.266 (0.220)	0.305 (0.212)	0.264 (0.214)	0.245 (0.237)
Additional Controls						
Education Level		0.098* (0.051)	0.061 (0.056)	0.086 (0.054)	0.051 (0.055)	0.013 (0.059)
Caucasian Indicator		0.204 (0.153)	0.188 (0.167)	0.389** (0.161)	0.259 (0.163)	0.189 (0.214)
Female Indicator		0.006 (0.129)	-0.075 (0.141)	-0.018 (0.135)	-0.066 (0.138)	-0.112 (0.152)
Employed Indicator		-0.115 (0.145)	-0.072 (0.159)	-0.112 (0.153)	-0.085 (0.155)	-0.094 (0.171)
Income >50,000 Indicator		-0.256* (0.133)	-0.158 (0.146)	-0.179 (0.139)	-0.181 (0.141)	-0.204 (0.155)
Political Knowledge Level		0.297*** (0.057)	0.292*** (0.061)	0.344*** (0.060)	0.313*** (0.060)	0.354*** (0.067)
Regulatory Preference						
Demand for More Regulations			1.184*** (0.097)			
Democrat Indicator				1.412*** (0.152)		
Liberal Ideology Scale					0.461*** (0.045)	0.434*** (0.050)
Moderators						
Folk Realism Level						-0.232*** (0.089)
Ethnocentrism Level						-0.108 (0.097)
Constant	-0.359*** (0.139)	-1.791*** (0.346)	-4.262*** (0.436)	-3.108*** (0.396)	-3.905*** (0.428)	-3.622*** (0.509)
<i>N</i>	1,049	1,045	1,044	1,044	1,044	900

Notes:

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

Table 2: Logistic regression results, effect of treatment on support for regulation

Ensuring Robustness to Alternative Explanations

We consider how treatments differentially affect subsets of respondents for which we hold theoretical expectations about respondents' predispositions to like or dislike regulations. To do this, we consider the additional control variables discussed in Table 2, Models (3), (4), and (5) that examine whether a respondent believes there exists too much or too little current regulation *in general*, whether the respon-

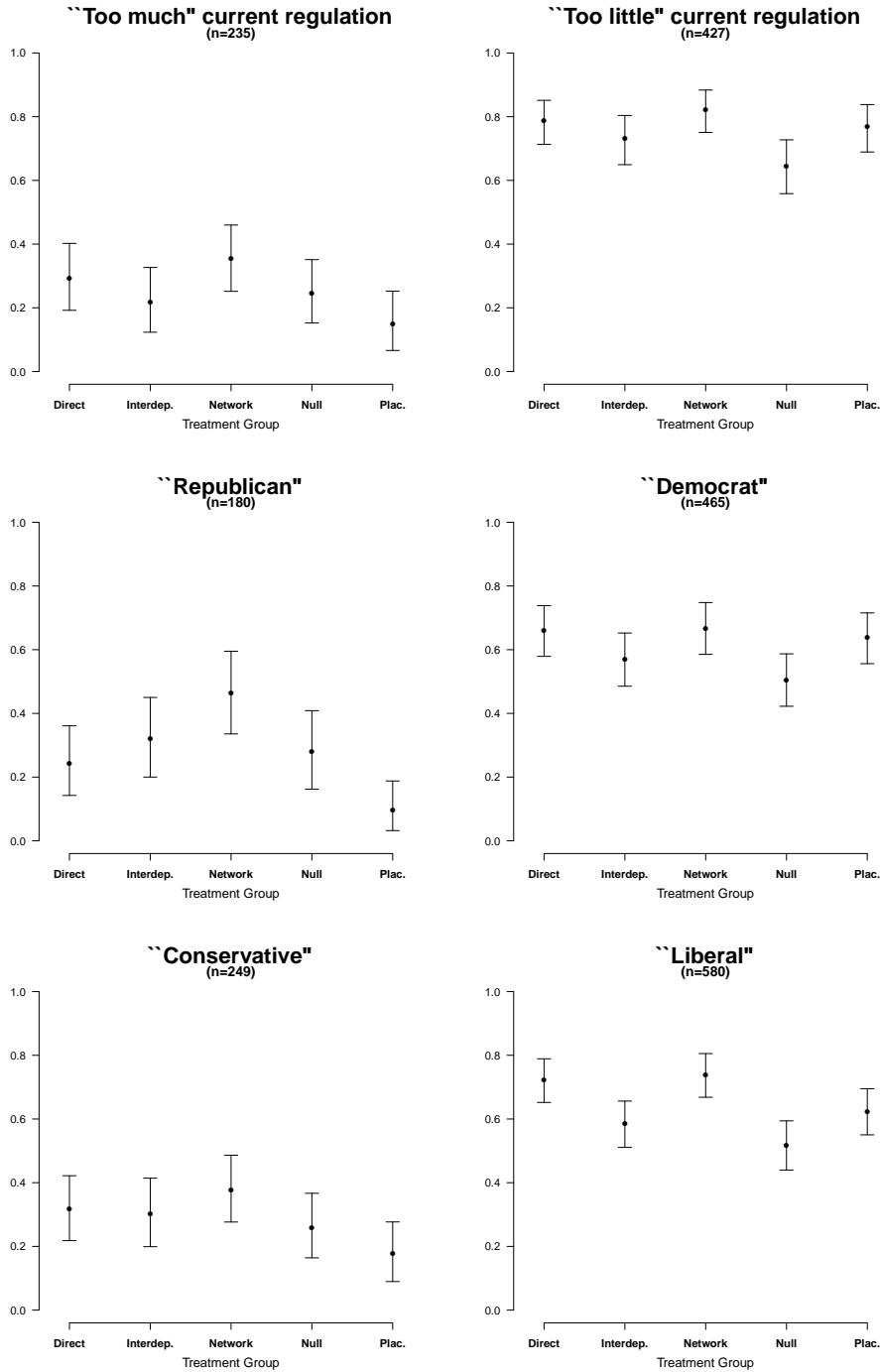


Figure 2: Percent Respondent support for financial regulations, across treatments, by regulatory preference (top), party ID (middle), and ideology (bottom).

dent self identifies as a Republican or Democrat, and whether the respondent self identifies as a Liberal or Conservative. Figure 2 subsets respondents who are pre-disposed to dislike regulations (left panels)

and to like regulations (right panels).³⁸

Across all three subsets of respondents we identify as predisposed to like regulations – those in the right hand panels, who believe there is too little current regulation (top), self-identify as Democrats (middle), or self-identify as liberals (bottom) – we see that network arguments are consistently associated with an increase in support for financial regulations as compared to those who receive the null treatment. Among self-identified Liberals (bottom-right graph), those who received the direct argument also increased support as compared to the null; among other specifications, those who receive the direct argument increase support on average but it is not substantially different from the null. Interdependence arguments increase this subset’s proclivity to support financial regulations on average but the posterior distributions are similar. In sum, even among those predisposed to support regulations, we see variation across treatment groups, with consistent evidence that network arguments were most persuasive to respondents.

Among those predisposed to dislike regulations – those in the left hand panels, who believe there is too much current regulation (top), self-identify as Republicans (middle), or self-identify as conservatives (bottom) – we see fascinating patterns. The placebo argument actually *lowered support for regulations*, on average, as compared to the null. This might indicate backlash among these respondents. Interestingly, network arguments increased support on average as compared to the null, and increased support more substantially as compared to the placebo argument. This is more evidence that network arguments – across the board and for different subsets of the population – seem to resonate consistently and most strongly. Those who received the network argument have, on average, higher support for regulations than do those who received the direct argument, which indicates that the systemic effect of regulations resonates with respondents (above and beyond direct effects to the US). We find little support for interdependence arguments to affect respondent support.

Again, this inquiry provides additional evidence of the strength of the network argument to resonate

³⁸See footnote 35 above for specific question about too much or too little regulation; we consider only those respondents who indicate there is “too much” or “too little” current regulation, which excludes those who say there is “about right” regulation (386 respondents). Democrat and Republican subsets exclude those who self-identify as Independent (313 respondents) or Other (91 respondents). Liberal (Conservative) include any identification – “extremely liberal (conservative)”, “liberal (conservative)” or “slightly liberal (conservative)” – with the ideology. It excludes the group of 219 respondents who indicate they are “Moderate”, and results are not substantively different if we use a more narrow definition and include only those who are “extremely liberal (conservative)” and “liberal (conservative)”.

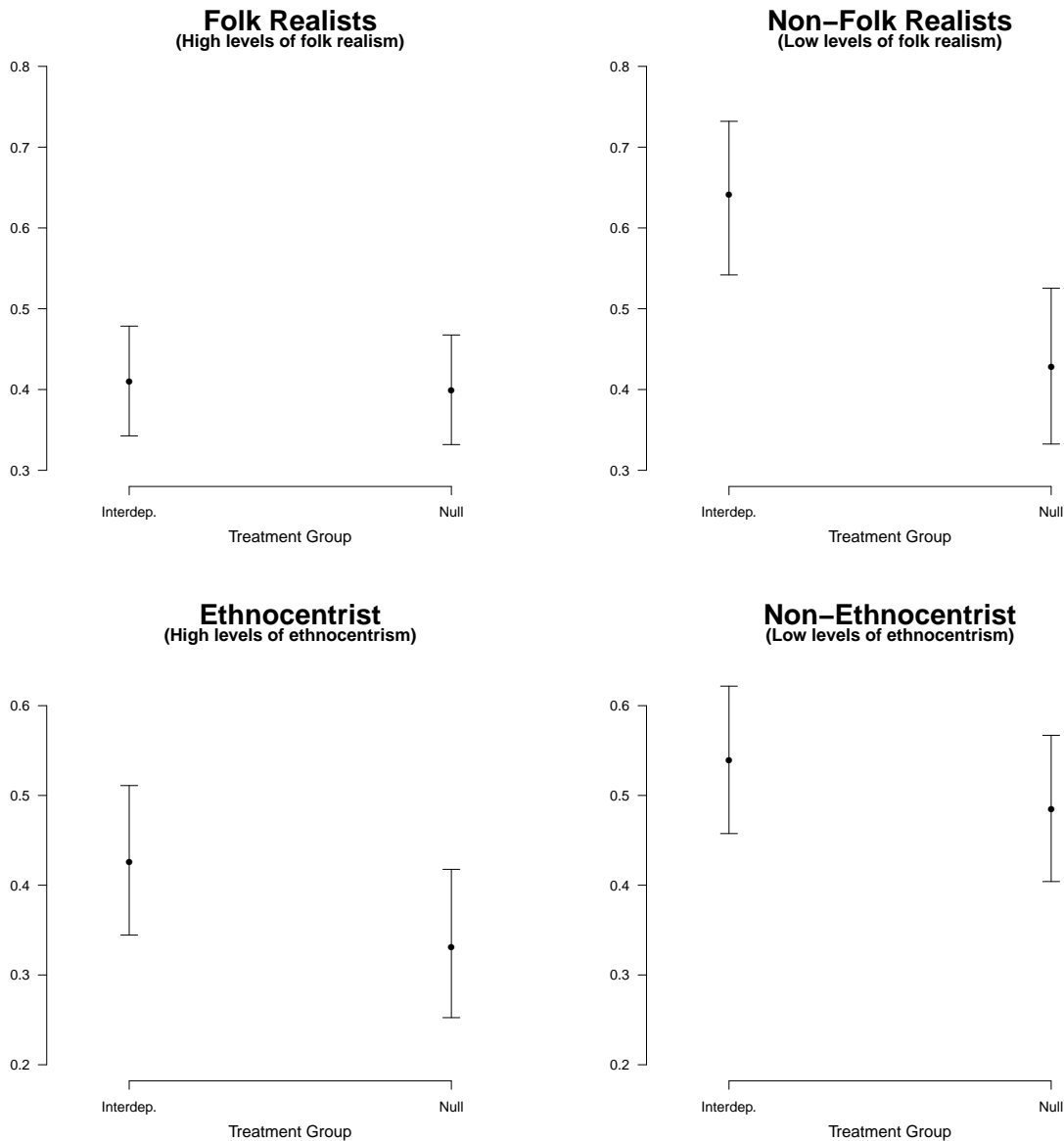


Figure 3: Support for financial regulations, Folk Realism and Ethnocentrism Moderation Results for Interdependence Treatment

across broad swaths of the population.

Moderation Results

Do respondent characteristics, such as level of ethnocentrism or folk realism, explain variation in treatment effects? We examine this question especially for interdependence arguments, where we held theoretical expectations but for which we found little evidence of an aggregate treatment effect.

Figure 3 shows direct tests of these hypotheses for interdependence. Consistent with expectations, estimated treatment effects (compared to the null) are indeed weaker for Folk Realists (top left) than for Non-Folk Realists (top right). Among Non-Folk Realists, those who received the interdependent argument expressed support for financial regulations at higher rates than did Non-Folk Realists in the null treatment who received no argument for regulations. Among Folk Realists, there is not a substantial difference in support among respondents in the interdependence and null treatment groups. Results for ethnocentrism, however, were less consistent with expectations. Though Ethnocentrist respondents (bottom left graph) were less likely to support regulations than were Non-Ethnocentrists (bottom right graph), we find no evidence of moderation effects. That is, among Non-Ethnocentrists, those who received the interdependence argument were not substantially more likely to support regulations than were those who received the null argument (bottom right graph). Further, we would expect larger differences in support among Non-Ethnocentrist interdependent respondents and Non-Ethnocentrist null respondents (that is, a greater treatment effect) than among the equivalent Ethnocentrist comparison; instead, there is a larger mean difference for Ethnocentrists than for Non-Ethnocentrists, which is not consistent with our expectations.

To put results in perspective, Figure A.4 shows results for all treatment effects. We find that folk realism moderates *each* treatment as compared to the Null such that we cannot say that the effect is specific to the interdependence treatment.

Overall, folk realism results were more consistent with our theoretical expectations, suggesting that heterogeneity in how respondents' world views of international relations do indeed affect how they process outside arguments about foreign policies. Ethnocentrism results were less consistent, however. There are several possible reasons for these inconsistent results. The first is that the effective sample size decreases as we divide respondents by the types and by treatments. Since approximately 200 respondents received each treatment, dividing them into categories decreases the amount of data used to generate each estimate. A second possibility concerns the ethnocentrism measurement specifically. We used the battery of questions from Mansfield and Mutz (2009). Those questions measured ethnocentrism vis-a-vis other domestic groups of peoples, e.g. asking a white respondent questions about black people. Our argument for why ethnocentrism might moderate treatment effects, however, pertained to how respondents viewed foreign groups of people, e.g. how an American respondent felt about Norwegians. While we expected those two respondent characteristics to be correlated, a more theory-specific

measurement of ethnocentrism might yield different results.

4 Conclusion

This paper highlights distinct theoretical perspectives about how national policies interact with the international system and provides a first test of the degree to which citizens react to each perspective's logic as applied to increasing stringency of US financial regulations. To the best of our knowledge, this is the first paper to examine whether interdependent and network arguments resonate with citizens regarding policy preferences. While we have solid evidence that direct arguments can influence citizen preferences in certain issue areas, we have few expectations about whether and how interdependent and network arguments might resonate with citizens. We thus conceptually distinguish among these perspectives and test them.

Within an original survey experiment, we find that network arguments resonate most consistently and strongly across respondents, followed by direct arguments. We find little support that our interdependent argument led respondents to systematically increase their support for regulations. Nonetheless, we find strong evidence that respondents do react to international externalities. We also find less support for our moderation hypotheses, though folk realism – despite being not highly correlated with partisanship and ideology – has a strong moderation effect across all treatments. Additional work can and should probe the nature of this effect.

This inquiry is consciously abstract and normative to provide a base for further examination of citizen preferences within international frameworks. Existing work heavily emphasizes direct effect stories, yet this paper establishes that alternative international frameworks can matter, too. They especially matter for regulatory issue areas – which might include environment and human rights – where direct effects offer the most tentative expectations. This paper examined financial regulations as a starting point because the dominance of the US as a center for capital offers special strength for evaluating network logics. However, other regulatory areas, environment and workers' rights, among others, are increasingly important, as evidenced by being included in international trade and investment agreements (Hafner-Burton, 2005; Duer, Baccini and Elsig, 2014).

One may ask why we should examine citizen preferences over regulatory policy when that policy is technically complex and of low electoral salience. On both dimensions, we emphasize that elites and politicians maintain the ability to frame issues such that complex issues may be simplified for public consumption and unexpected events provide grassroots opportunities to mobilize citizens for causes. For

example, to “break up the banks” was a key part of Bernie Sanders’ campaign platform in the 2016 presidential primary race. In short, technical complexity may become simplified, and past salience does not predict future salience.

Substantively, we examined politician statements toward the policy of interest at the committee-stage of US national law-making. It was interesting to find many examples of overt politician concern with interdependent argument dynamics and little discussion of network effects from the perspective of assuming that US national policy would automatically and unilaterally lead to international outcomes. Instead, politicians were concerned with the degree of international cooperation (in an issue area where states hold few international legal obligations) and did not consider unilateralism. In sum, in committee statements, politicians often made interdependent arguments and few network arguments. Shifting to the experimental results, it is interesting to note that network logics resonate with citizens more systematically and universally than did interdependent logics. Though the experimental prompts were designed to be abstract and to not test support for a specific substantive policy, it is interesting to note this disconnect. Future research might seek to more closely tie theoretical and observed arguments to a specific policy of interest. Further, one could consider how international institutional commitments might moderate this high interdependent concern regarding whether or not countries might follow or compete with another country’s policy lead.

Overall, we conclude that citizens do understand and will respond to interdependent and network logics. Through a test of these arguments, we are closer to understanding citizens’ perspectives vis-a-vis their country, other countries, and the world as a whole.

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Appendix A Bayesian estimates details

The figures show Bayesian estimates of the posterior distribution of the proportion of respondents supporting regulation. Let θ_t be the proportion of respondents supporting regulation under treatment regime $t \in \{ \text{null, direct, indirect, network, and placebo} \}$. Let n_t be the number of respondents receiving treatment t and a_t be the number of respondents in regime t approving. For a prior distribution for θ_t , we used the non-informative Jeffrey's prior, $\theta_t^0 \sim \beta(0.5, 0.5)$. The conjugate posterior distribution for θ_t is $\theta_t^p \sim \beta(a_t + 0.5, n_t - a_t + 0.5)$. The mean and 95% credibility intervals are from 5,000 draws from the posterior distributions.

Appendix B Additional Figures and Tables

Moderator Distributions

	Treatment Group					
	Pooled	Direct	Interdep.	Network	Null	Placebo
Non-Folk Realist {0} (below median)	34.9%	38.3%	32.5%	32.2%	32.2%	39.3%
Folk Realist {1, 2, 3} (at and above)	65.1%	61.7%	67.5%	67.8%	67.8%	60.7%
Ethnocentrist (above median)	49.1%	52.4%	51.4%	48.4%	46.6%	46.5%
Non-Ethnocentrist (below median)	50.9%	47.6%	48.6%	51.6%	53.4%	53.5%

Table A.1: *Descriptive Statistics – Moderator Sample Distributions across Treatments*: Tables show the distribution of high and low values of Folk Realism and Ethnocentrism across treatments.

Respondent Sample and Support Distributions

	Treatment Group					
	Pooled	Direct	Interdep.	Network	Null	Placebo
All respondents	1255	252	248	251	253	251
In-sample respondents	1049	210	208	210	214	207
% support	50.3%	56.2%	48.1%	57.1%	41.1%	49.3%
% support, moderate defn	68.1%	73.8%	68.3%	71.9%	60.3%	66.2%
% support, broad defn	74.5%	78.1%	72.9%	78.1%	67.1%	76.3%

Table A.2: *Descriptive Statistics – Dependent Variable Sample Distribution*: Respondents were randomly assigned to one of five treatment groups.

Correlation Matrix (re: Table 2)

	Prefers Regulations	Dem Partisan	Liberal Ideology	Folk Realism	Ethno-centrism
Demand for regulations	1.00				
Democratic partisan	0.51	1.00			
Liberal ideology	0.53	0.72	1.00		
Folk realism measure	-0.27	-0.27	-0.29	1.00	
Ethnocentrism measure	-0.23	-0.22	-0.30	0.25	1.00

Table A.3: *Correlation Matrix for select variables in Table 2*: Among 899 respondents with values for all variables, correlations are presented above.

Treatment Group	N	Proportion Support	Difference	SE	t stat	p value
DV: Support (baseline definition) ("strongly favor" or "somewhat favor")						
Null	214	0.411				
Direct	210	0.562	0.151	0.034	3.13	0.002
Interdependence	208	0.481	0.070	0.035	1.44	0.151
Network	210	0.571	0.160	0.034	3.33	0.001
Placebo	207	0.493	0.082	0.035	1.68	0.093
DV: Support – Moderate Definition ("strongly favor", "somewhat favor", or "weakly favor")						
Null	214	0.603				
Direct	210	0.738	0.135	0.030	2.99	0.003
Interdependence	208	0.683	0.080	0.032	1.71	0.087
Network	210	0.719	0.116	0.031	2.54	0.011
Placebo	207	0.662	0.059	0.033	1.26	0.210
DV: Support – Broad Definition ("strongly favor", "somewhat favor", "weakly favor", or "lean toward favoring")						
Null	213	0.671				
Direct	210	0.781	0.110	0.029	2.54	0.011
Interdependence	207	0.729	0.058	0.031	1.30	0.194
Network	210	0.781	0.110	0.029	2.54	0.011
Placebo	207	0.763	0.092	0.030	2.10	0.036

Table A.4: *Support for Regulation by Treatment Group*: This table shows the DV distribution and simple difference-in-means test against the null treatment. The top part of the table shows the narrow definition of support and the bottom shows the broad definition of support, with medium in between. The last four columns show results from a simple difference in means test, comparing support after a particular treatment with support after the null treatment. The standard deviation, t stat, and p values for differences in approval rates use the normal approximation of the Bernoulli data. The number of respondents in each group is much larger than traditional minimum values for use of the normal approximation. P-values less than 0.10 indicate that respondents that received that treatment indicated support for increased financial regulations at rates that are statistically distinguishable from those respondents that received no argument (the null). Across all definitions of support, respondents who heard the network and direct arguments were statistically more supportive of increased regulations as compared to the respondents in the null treatment who received no argument. Respondents that received the interdependence argument were statistically more likely to support regulations compared to the null in the moderate definitions of support, and respondents that received the placebo argument were statistically more likely to support regulations in the baseline and broad definitions of support.

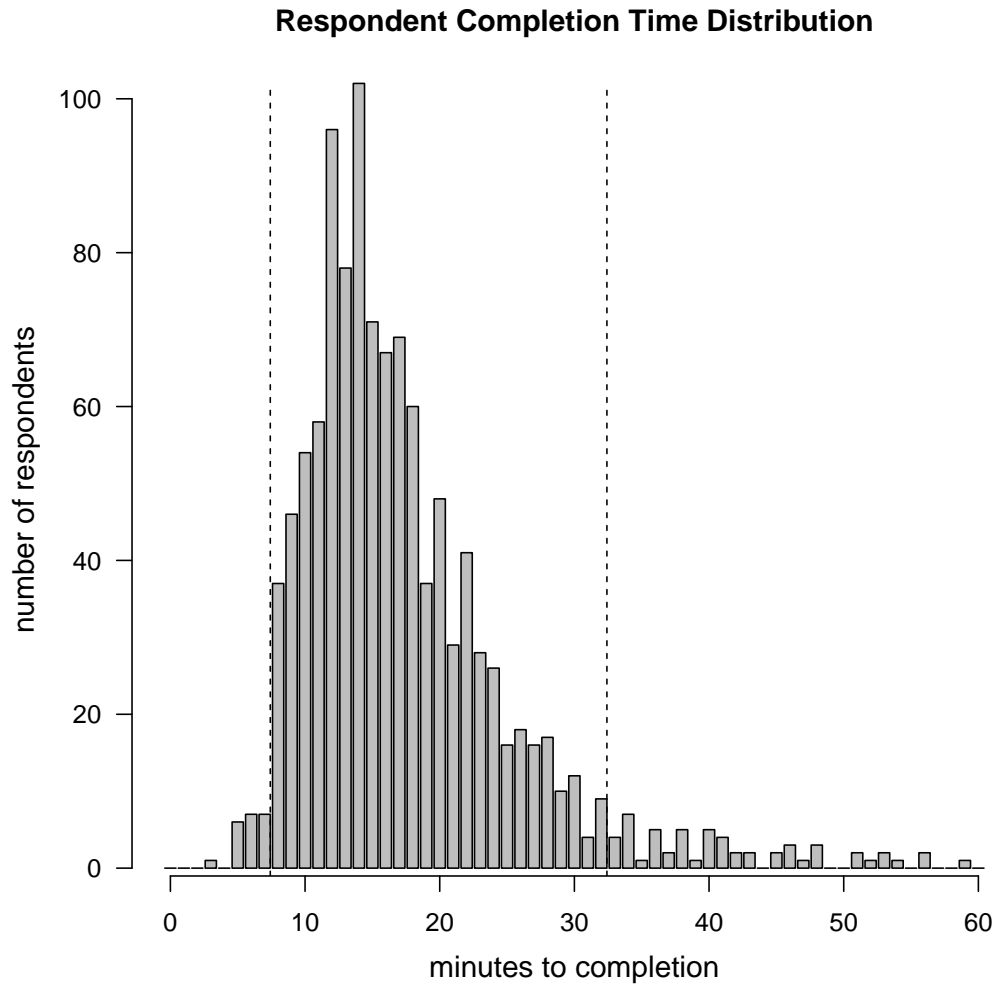


Figure A.1: *Respondent Response Time Distribution*: The graph displays the distribution of response times for 1126 respondents who completed the survey within 60 minutes. Another 33 respondents completed the survey in between 61 and 411 minutes and – for clarity – are not displayed above. Dotted lines at 8 minutes (half the median survey completion time) and 32 minutes (double the median completion time) delineate the portion of respondents included in the analysis sample.

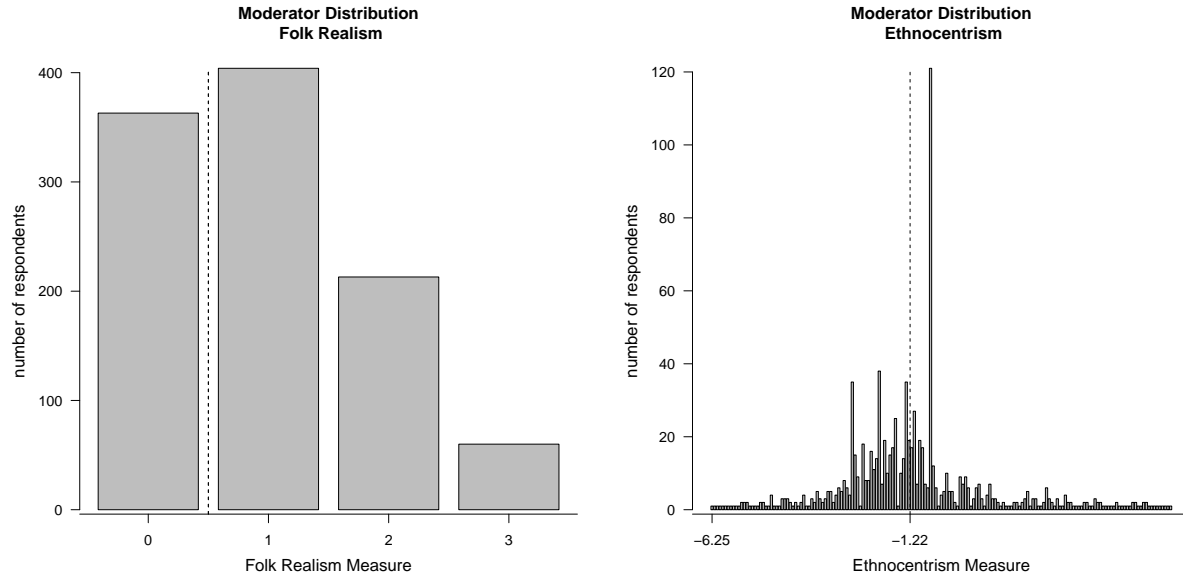


Figure A.2: *Moderator Sample Distribution*: The distribution of each moderator value is graphed above. 1040 respondents answered questions to receive a Folk Realism value and 913 respondents answered questions to receive an Ethnocentrism value. Those values to the left(right) of each dotted line are sample of the low(/high) values of Folk Realism and Ethnocentrism. The spike in ethnocentrism values reflects a number of respondents who selected neutral values of this series of questions.

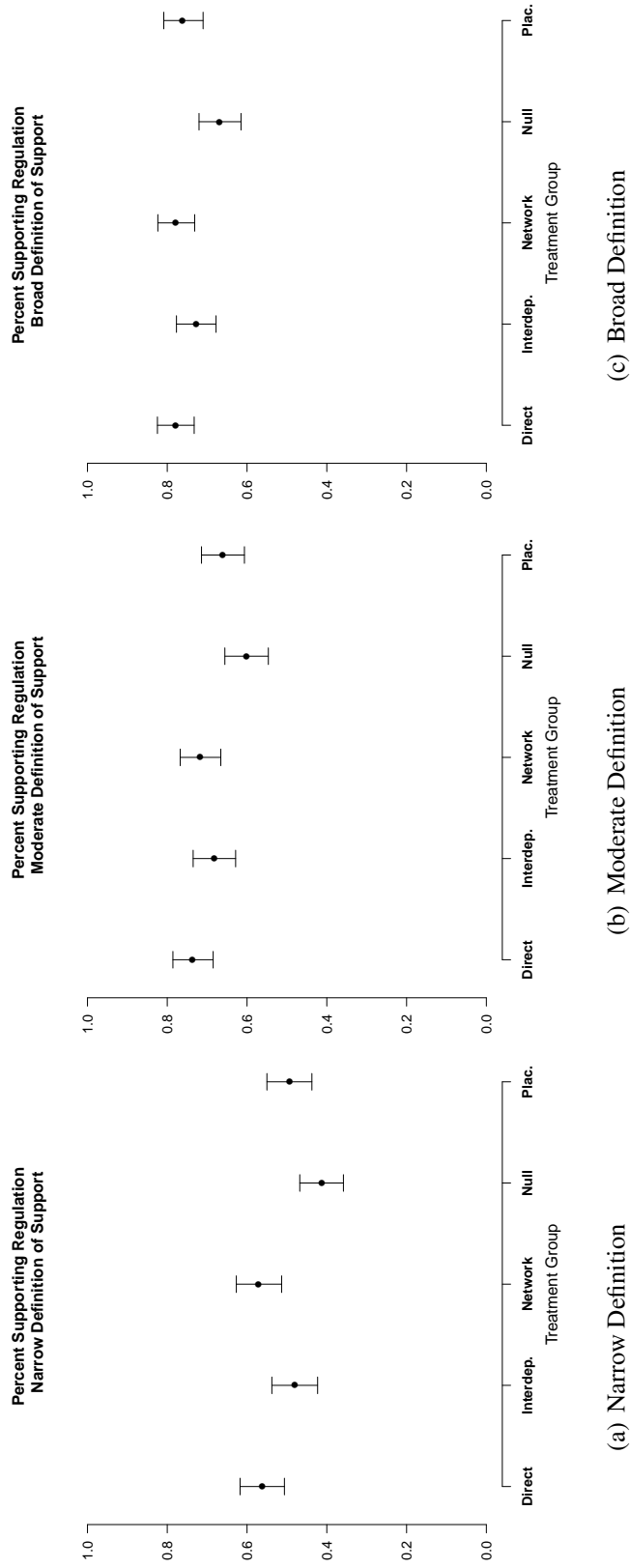


Figure A.3: *Treatment Effects for Different Definitions of Support*: This figure shows point estimates with beta-estimated, 95 percent confidence intervals. Treatment effects are relatively similar across three narrow (left, ‘strongly favor’ or ‘somewhat favor’), moderate (middle, narrow definition plus ‘weakly favor’), and broad (right, moderate definition plus ‘leans toward favoring’) definitions of support.

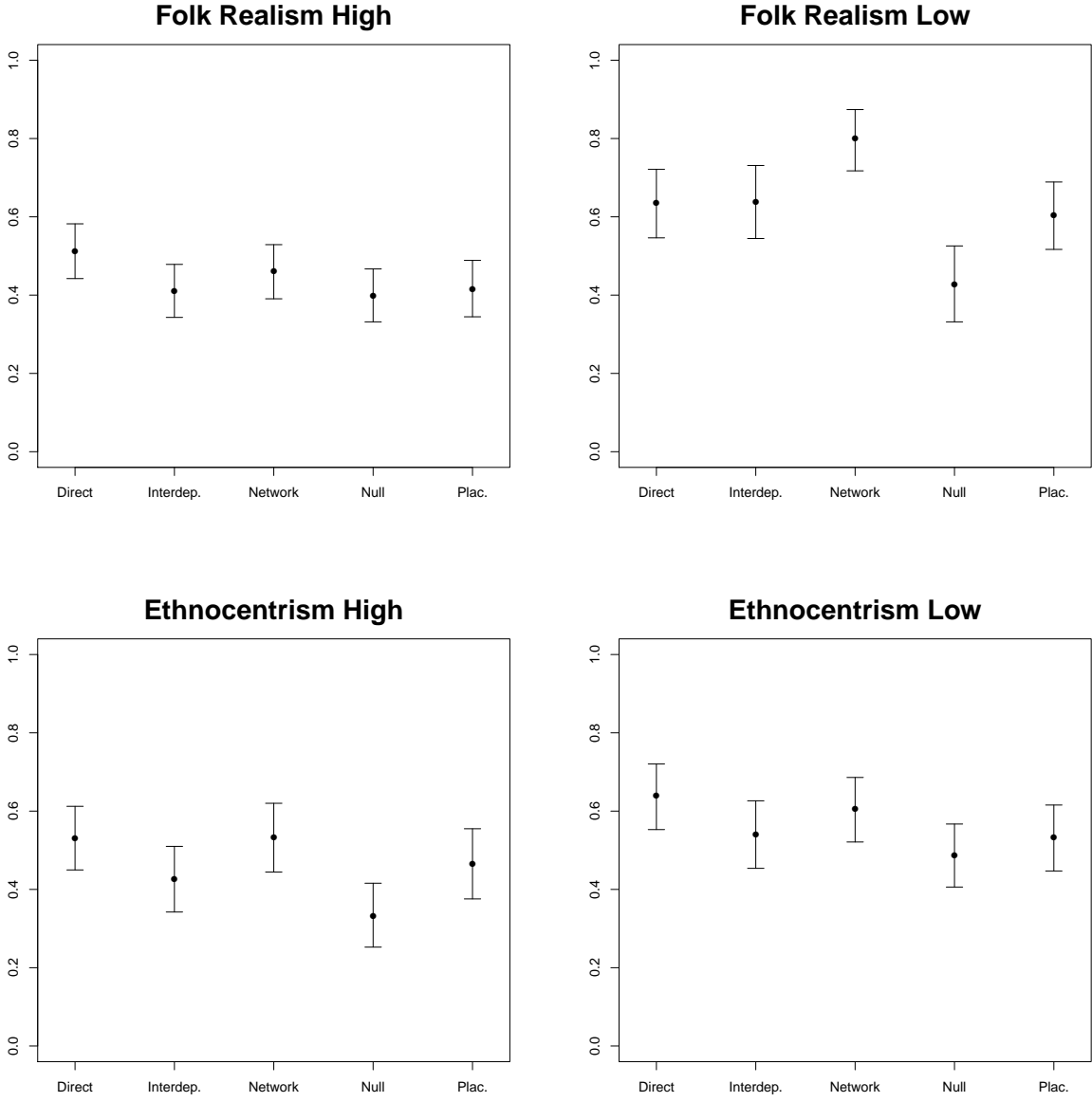


Figure A.4: *Folk Realism and Ethnocentrism Moderators, High/Low*: For subsets of high and low values of folk realism and ethnocentrism, this figure shows levels of support across all treatments with beta-estimated, 95 percent confidence intervals.