

Olga Chyzh

CONTACT INFORMATION

Department of Political Science
555 Ross Hall
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EDUCATION

University of Iowa, Iowa City, IA

Ph.D., Political Science, 2013

- Dissertation: *Tell Me Who Your Friends Are: An Endogenous Model of International Network Formation and Effect on Domestic Political Outcomes*

University of Nebraska—Lincoln, Lincoln, NE

M.A., Political Science, 2008

B.A., Political Science, 2005

ACADEMIC APPOINTMENTS

Iowa State University, Ames, IA

Assistant Professor, Departments of Political Science and Statistics (joint appointment), 2015—present

University of Alabama, Tuscaloosa, AL

Visiting Assistant Professor, Political Science, 2014—2015

Washington University, St. Louis, MO

Post-Doctoral Fellow, Political Science, 2013—2014

RESEARCH INTERESTS

International Relations: international trade, authoritarian institutions, international organization, human security, rule of law

Statistics: spatial statistics, network analysis, multilevel models, sample selection, endogeneity

Formal Theory: *n*-player public goods games, signaling games

PUBLICATIONS

Chyzh, Olga. 2016. "Keeping Up With *Which* Joneses: Spatial Diffusion of Rule of Law through Economic International Organizations." *Foreign Policy Analysis*. <http://dx.doi.org/10.1093/fpa/orw040>.

Chyzh, Olga. 2016. "Dangerous Liaisons: An Endogenous Model of International Trade and Human Rights." *Journal of Peace Research*. 53(3): 409-423.

Boehmke, Frederick J., Olga Chyzh, and Cameron G. Thies. 2016. "Addressing Endogeneity in Network Position Similarity Measures." *Political Science Research and Methods*. 4(1): 123-149.

Thies, Cameron G., Olga Chyzh, and Mark David Nieman. 2016. "The Spatial Dimensions of State Fiscal Capacity: The Mechanisms of International Influence on Domestic Extractive Efforts." *Political Science Research and Methods*. 4(1): 5-26.

Chyzh, Olga. 2014. "Can You Trust a Dictator: An Endogenous Model of Authoritarian Regimes' Signing and Compliance with International Treaties." *Conflict Management and Peace Science*. 31(1): 3-27.

- Featured in *Slate*: [Click here to read](#).

- Receptient of the Lynne Rienner Best Student Paper Award, ISA-Midwest (2011)

ADDITIONAL TRAINING

University of Essex, Colchester, United Kingdom

Essex Summer School in Social Science Data Analysis, August 2011

- Strategic and Selection Modeling (with Curt Signorino)

University of Michigan, Ann Arbor, MI

Inter-University Consortium for Political and Social Research (ICPSR) Summer Program in Quantitative Methods of Social Research, July-August 2010

- Event History Analysis (with Brad Jones)
- Multi-Level Modeling (with Rudy Espino)

WORKING PAPERS

“Network Analysis Using a Local Structure Graph Model” (with Mark Kaiser). *Abstract:* We introduce a local structure graph model (LSGM)—a class of statistical estimators that allows for modeling network outcomes that occur at the edge- rather than node-level, such as formation of political coalitions and voting blocks, balancing and bandwagoning, policy learning, imitation, diffusion, and tipping-point dynamics and cascade effects. Such processes are not easily modeled using the traditional network approach of treating actors (legislators or international states) as network nodes and alliances among them as edges. Any network processes, in which network edges form in response to formation or characteristics of other edges are best modeled by re-conceptualizing the problem in terms of connectivities among *edges* rather than *nodes*. We demonstrate the properties of LSGMs using Monte Carlo simulations and two empirical applications to formation of legislative coalitions and international alliances.

“Bridging Levels of Analysis: Selection as a Multi-level Process” (with Mark Nieman and Doug Gibling). *Abstract:* Many dyadic processes are nested within broader system-level structures, yet such dependency is often ignored in empirical research. As a result, empirical estimates of observable events data are prone to inferential problems associated with non-random sample selection. We demonstrate that this type of multi-level data generating process (DGP) is equivalent to a selection DGP and can be modeled using known selection models. Using Monte Carlo simulations from a multi-level DGP, we show that a selection model outperforms other commonly employed estimators, including random effects models; the multi-level structure of the data also helps meet the exclusion restriction. To further illustrate the importance of the proposed modeling approach, we replicate two prominent empirical studies of government-opposition behavior—a model of civilian protest outcomes and estimates of civilian killing by insurgent groups—and demonstrate that structural selection affects many of the inferences we draw from the observable data.

“Tell Me Who Your Friends Are: An Endogenous Model of International Trade Network Formation and Effect on Domestic Rule of Law.”

- Receptient of the Frank Klingberg Best Faculty Paper Award, ISA-Midwest (2013)

Abstract: What is the relationship between networks and unit-level outcomes, such as international trade networks among states and domestic rule of law? Do these effects hold after accounting for actors’ strategic selection of network ties? I explore these questions by building a multi-player game, in which players make two simultaneous decisions: whether to form trade links and whether to increase their trade benefits by improving their domestic economic risk factors, such as rule of law. The model predicts an endogenous relationship between the number of direct trade partners and rule of law: states with strong rule of law have more trade partners, and the number of trade partners has a positive effect on rule of law. A state’s rule of law is also affected by indirect trade connections—counter-intuitively, indirect trade has a negative effect on rule of law. Empirical tests employing an exponential random graph model provide support for the hypotheses.

“Modeling Network Dependencies Theoretically: Application to Transitivity.” *Abstract:* Fast-paced progress in statistical modeling of networks has not been matched by equal advances in theoretical understanding of many types of network outcomes, especially higher-order network relationships

(e.g., triads, 2-stars, 4-cycles). Despite the increasing ability to statistically model higher-order network complexities, the causal and theoretical processes associated with these complexities are poorly understood. This paper takes a first step towards a richer theoretical understanding of such complexities, by focusing on one of the more commonly used measures of dependencies—transitivity, or actors’ tendency to form triangles. The paper explores the possible causal processes behind the formation of triangles in networks and assesses the measurement validity of the commonly used transitivity measure as a proxy for the posited causal mechanisms using Monte Carlo simulations. I supplement these results with an empirical demonstration, in which I compare the transitivity measure of indirect trade flows between international states to a corresponding instrumental variable measure.

“Explaining Variation in Protesters’ Commitment: Survey Results for Ukrainian Protesters during EuroMaidan 2013-2014” (with Mark Nieman).

Abstract: Why do some protesters place themselves into situations with a high-risk of personal injury? The threat of nighttime violence in Maidan during anti-government protests in Ukraine provided an ideal setting for answering this question. We conducted surveys and interviews with over 110 protesters on December 13-14, 2013, in Maidan. Contrary to the conventional media story of an East–West divide, we find that protesters that stayed at night came from all over the country and consisted of both Russian and Ukrainian-speakers. More systematically, we use logistic regression to examine four competing explanations—culture, politics, economic, and education—to explain protester goals, and to identify what characteristics made a protester more likely to remain in Maidan at night, when the threat of violence was greatest (and costliest to an individual). We then compare these accounts using Clarke’s distribution-free test to discriminate between non-nested models in order to identify the account with the most explanatory power. Our analysis provides one of the few studies examining costly forms of unconventional political participation at the time of that participation, rather than retrospectively.

“When Will States Liberalize? Lost Monies as an Explanation for Institutional Change” (with Douglas M. Gibling).

Abstract: Most examinations of state liberalization focus on political change and the likelihood of democratization in the state. However, this misses the real effects that economic change has in providing the institutional structure that facilitates these democratic processes. Starting with the theoretical premise that international leaders balance between the domestic costs and international incentives of political liberalization, we argue that states liberalize when the monies lost as a result of poor institutional design are consequential for leaders’ tenure. Our results strongly support this argument. Using a global cross-section of states from 1970 to 2004, we find that the opportunity cost of lost trade and FDI due to poor institutions matters tremendously for certain states and explains future economic liberalization.

“Puppet Regimes, Protests, and Repression: A Model of Biased Third-Party Intervention on the Part of the Government” (with Elena Labzina).

Abstract: Game theoretic models of protesters—government interactions suggest that governments should repress the weak protesters, but negotiate with the strong. In reality, however, we often observe seemingly off-equilibrium outcomes, such as a government’s failure to make concessions, even despite its inability to successfully repress the protests. In 2013-2014 Ukrainian crisis, for example, President Yanukovich failed to reach an acceptable settlement with the protesters, first opting for shocking acts of repression and eventually fleeing the country. In this paper, we explore the conditions under which a government opts for repression, even in the face of a possible loss of office. In particular, we argue that this becomes an equilibrium outcome, when rather than drawing support solely from its domestic winning coalition, a government is propped up by an outside third party, which has a stake in the issue being disputed by the protests. This prediction holds, however, only when the outside power does not value its international reputation. Operationalizing regime’s dependency on an outside power using Lake (2009) hierarchy measures, we find empirical support for our predictions using data on protests and repression between 1950-2000.

“Autocratic Regimes and Diversionary Uses of Force” (with Brian Lai and Sara McLaughlin Mitchell). *Abstract:* This paper analyzes the variance in autocratic regimes’ propensity to use force for diversionary purposes while controlling for states’ opportunities to use force. Theoretically, we expect military regimes to use diversionary force more frequently than party regimes and for strongman regimes that combine characteristics of military control and personalist leaders to be most belligerent in the face of domestic turmoil. Empirical analyses of politically relevant directed dyads from 1960-2001 provide strong support to the theory, showing that military regimes and strongman regimes are much more likely than other autocratic regimes to initiate the use of force when inflation is high. However, these effects are conditioned by opportunities for states to use force, as diversionary motives manifest themselves most clearly in the context of interstate rivalry.

“Sending Mixed Messages: Regime Type, Dispute Onset, and International Signaling” (with Kyle Mattes).

Abstract: This paper explains why some autocracies (1) engage in more disputes, and (2) once in a dispute, signal their resolve by sending costlier threats to their opponents. We argue that the two outcomes—entering disputes and the level of threat sufficient to signal resolve—are related and must be modeled as a two-stage process. Consistent with previous literature, we link these two outcomes to leaders’ ability to generate audience costs. Audience costs depend on two factors: the size of a winning coalition and the availability of an institutionalized leader removal mechanism. Using this theoretical framework, we show that personalist and military autocrats engage in more disputes and, when they do, use costlier threats to signal their resolve than democracies, oligarchic and single-party autocrats. We test our hypotheses using a two-stage Heckman probit estimator with Militarized Interstate Disputes (MID) data for the time period between 1816 and 2001.

“Pinning One’s Hopes on a Flag? The Effect of Patriotic Symbols in Positive and Negative Candidate Assessments” (with Kyle Mattes).

Abstract: This paper aims at establishing a clearer connection between the use of national symbols, voters’ reflexive judgments of political candidates, and election results. We presented research participants with briefly shown images of unfamiliar political candidates who ran against each other in real elections, varying which of the two candidates was wearing a flag lapel pin. We asked participants to make trait judgments based solely on viewing the photographs. We found that competence, threat, simulated vote, and patriotism judgments in the laboratory correlated to real world election outcomes. We also found that adding a flag lapel pin to a losing candidate’s picture made the candidate actually look more threatening. Furthermore, candidates with the lapel pin appeared more competent and more electable whenever the lapel pin made them seem more patriotic. Our findings show that it may be difficult for otherwise undesirable candidates to change voters’ first impressions of them by juxtaposing their images with patriotic symbols.

INVITED
PRESENTATIONS

“Dangerous Liaisons: An Endogenous Model of International Trade and Human Rights.” *Networked International Politics: Complex Interdependence and the Diffusion of Conflict and Peace*, University of St. Gallen, Switzerland, November 20-22, 2014.

“Tell Me Who Your Friends Are: An Endogenous Model of International Network Formation and Effect.” *New Faces in Political Methodology*, Penn State University, April 27, 2013.

“Addressing Endogeneity in Network Position Similarity Measures” (with Fred Boehmke and Cameron Thies). *Spatial Models of Politics*, Texas A&M University, February 21-23, 2013.

“The Spatial Dimensions of State Fiscal Capacity: The Mechanisms of International Influence on Domestic Extractive Efforts” (with Cameron Thies and Mark Nieman). *Spatial Models of Politics*, Texas A&M University, February 21-23, 2013.

“Trusting a Dictator: The Effects of Institutional Variation among Autocracies on Signing and Complying with International Treaties.” *Journeys in World Politics*, University of Iowa, November 17-19, 2011.

“When the STARS Align: Membership in International Organizations and Democratization.” *Visions in Methodology*, Columbus, OH, May 7, 2011.

CONFERENCES AND PRESENTATIONS “Network Analysis Using a Local Structure Graph Model: Application to Alliance Formation” (with Mark Kaiser). *Peace Science Society*. South Bend, IN. October 21-22, 2016.

“Network Analysis Using a Local Structure Graph Model” (with Mark Kaiser). *Society for Political Methodology (PolMeth)*, Houston, TX, July 21-23, 2016.

“Network Analysis Using a Local Structure Graph Model” (with Mark Kaiser). *9th Annual Political Networks Workshops & Conference*, St. Louis, MO, June 23-25, 2016.

“A Theoretically Informed Model of Unobserved Network Dependencies: Application to Transitivity.” *Midwest Political Science Association* annual meeting, Chicago, IL. April 6-10, 2016.

“A Theoretically Informed Model of Unobserved Network Dependencies: Application to Transitivity.” *International Studies Association*, Atlanta, GA. March 16-19, 2016.

“When Will States Liberalize? Lost Monies as an Explanation for Institutional Change” (with Douglas M. Gibler). *International Studies Association*, Atlanta, GA. March 16-21, 2016.

“Puppet Regimes, Protests, and Repression: A Model of Biased Third-Party Intervention on the Part of the Government” (with Elena Labzina). *International Studies Association-Midwest*, St. Louis, MO. November 20, 2015.

“Puppet Regimes, Protests, and Repression: A Model of Biased Third-Party Intervention on the Part of the Government” (with Elena Labzina). *Peace Science Society*. Oxford, MS. November 13-14, 2015.

“A Statistical Approach to Measuring Unobserved Trade Flows Using an Outcome Inflated Model.” *Society for Political Methodology (PolMeth)*, Rochester, New York, July 21-24, 2015.

“Dangerous Liaisons: An Endogenous Model of International Trade and Human Rights.” *International Studies Association*, New Orleans, LA. February 18-21, 2015.

“Dangerous Liaisons: An Endogenous Model of International Trade and Human Rights.” *MPSA*, Chicago, IL. April 3-6, 2014.

“Tell Me Who Your Friends Are: An Endogenous Model of International Network Formation and Effect.” *Annual Meeting of the Peace Science Society*, Knoxville, TN. October 24-26, 2013.

“Tell Me Who Your Friends Are: An Endogenous Model of International Network Formation and Effect.” *Annual Meeting of the American Political Science Association (APSA)*, Chicago, IL. August 28-September 1, 2013.

“An Approach to Modeling Endogeneity between Network Position and Effect.” *Society for Political Methodology (PolMeth)*, Charlottesville, Virginia, July 17, 2013.

“Tell Me Who Your Friends Are: An Endogenous Model of International Network Formation and Effect.” *MPSA*, Chicago, IL. April 11-14, 2013.

“Tell Me Who Your Friends Are: An Endogenous Model of International Network Formation and Effect.” *Annual Meeting of the International Studies Association (ISA)*, Junior Scholar Symposium, San Francisco, CA, April 2-7, 2013.

“Tell Me Who Your Friends Are: A Formal Model of International Network Formation and Effect.” *Annual Meeting of the Midwestern International Studies Association (ISA-Midwest)*, St. Louis, MO, November 1-3, 2012.

“The Effect of International Trade Networks on Domestic Processes: Rule of Law, Compliance with Human Rights Treaties, and Democratization” *PolMeth*, Chapel Hill, July 19-21, 2012.

“An Approach to Modeling Endogeneity between Network Position and Effect.” *European Political Science Association (EPSA)*, Berlin, Germany, June 21, 2012.

“The Effect of International Trade Networks on Domestic Processes: Democratization, Compliance with Human Rights Treaties, and Civil War Termination.” *MPSA*, Chicago, April 14, 2012.

“The Effect of International Trade Networks on Domestic Processes: Democratization, Compliance with Human Rights Treaties, and Civil War Termination.” *ISA Annual Convention*, San Diego, April 3, 2012.

“Trusting a Dictator: The Effects of Institutional Variation among Autocracies on Signing and Complying with International Treaties.” *ISA-Midwest*, St. Louis, MO, November 12, 2011.

“Autocratic Regimes and Diversionary Uses of Force” (with Sara McLaughlin Mitchell and Brian Lai). *Annual Peace Science Society Meeting*, Los Angeles, CA, October, 2011.

“The Role of Patriotic Symbols in Positive and Negative Candidate Assessments” (with Kyle Mattes). *APSA*, Seattle, WA, September 3, 2011.

“When the STARS Align: Membership in International Organizations and Democratization.” *PolMeth*, Princeton, NJ, June 17, 2011.

St. Louis Area Methods Meeting (SLAMM). April 15-16, 2011.

“When the STARS Align: Membership in International Organizations and Democratization.” *MPSA*, Chicago, IL, March 31, 2011.

“Can Threatening Candidates Use Political Symbols to Overcome Voter Fear?” (with Kyle Mattes). *MPSA*, Chicago, IL, April 25, 2010.

“Sending Mixed Messages: Regime Type and International Signaling.” *MPSA*, Chicago, IL, April 24, 2010.

“Sending Mixed Messages: Regime Type and International Signaling.” *New Horizons in International Security*, University of Illinois at Urbana-Champaign, April 10, 2010.

FUNDING AND AWARDS

\$1,250 Political Methodology Summer Meeting NSF Travel grant (2016)
\$900 Political Networks Workshops & Conference NSF Travel grant (2016)
\$1,000 Political Methodology Summer Meeting NSF Travel grant (2015)
\$150,000 Presidential Fellowship, Graduate Studies, University of Iowa (2008-2013)
\$1,000 Political Methodology Summer Meeting NSF Scholarship (2013)
\$250 International Studies Association (ISA) travel grant (2013)
\$1,000 University of Iowa Department of Political Science Graduate Student Conference Travel Funding (2012-2013)
\$1000 Political Methodology Summer Meeting NSF Scholarship (2012)
\$500 International Programs Graduate Student Conference Travel Award (2012)
\$900 Political Methodology Summer Meeting NSF Scholarship (2011)
\$250 Lynne Rienner Best Student Paper Award, ISA-Midwest (2011)

\$1,500 University of Iowa Department of Political Science Graduate Student Summer Workshop Funding (2011)
 \$10,000/yr Graduate Assistantship, Dept. of Political Science, University of Nebraska-Lincoln (2006-2008)
 \$1,500/yr Douglass Scholarship, Dept. of Political Science, University of Nebraska Lincoln (2005-2006)
 \$1,000/yr Regents Scholarship, University of Nebraska Lincoln (2003-2004)
 \$500/yr New Nebraskan Scholarships, University of Nebraska Lincoln for (2003-2005)
 \$24,000 Freedom Support Act Undergraduate Fellowship, the International Bureau of Exchanges (IREX), US Department of State (2002-2003)

TEACHING
EXPERIENCE

Iowa State University, Ames, IA

Instructor

- STAT 401: Statistical Methods for Research **Fall 2015, Fall 2016**
- POL S 315: Terrorism **Spring 2016**
- POL S 251: Introduction to International Relations **Spring 2016**

University of Alabama, Tuscaloosa, AL

Instructor

- Introduction to Statistics (graduate level) **Spring 2015**
- Introduction to International Relations **Spring 2015**

Washington University in St. Louis, St. Louis, MO

Instructor

- International Politics **Fall 2013**
- International Organization **Spring 2014**

University of Iowa, Iowa City, IA

Instructor

- Russian/Post-Soviet Politics **Spring 2010**

University of Essex, Colchester, United Kingdom

Teaching Assistant

- Advanced Programming in Stata **August 2011**

PROFESSIONAL
SERVICE

Officer

International Studies Association—Midwest, 2013-2015.

Reviewer

American Political Science Review, Journal of Politics, American Journal of Political Science, International Organization, Journal of Peace Research, Journal of Conflict Resolution, International Studies Quarterly, Foreign Policy Analysis, Conflict Management and Peace Science, Political Science Research and Methods.

Discussant

International Studies Association Annual Meeting, Atlanta, GA, March 17-19, 2016
 International Studies Association—Midwest Annual Meeting, St. Louis, MO, November 19-21, 2015
 Summer Meeting for Society of Political Methodology (Polmeth), Rochester, NY, July 21-23, 2015
 Midwest Political Science Association Annual Meeting, Chicago, IL, April 3-6, 2014
 International Studies Association—Midwest Annual Meeting, St. Louis, MO, November 5-8, 2013

International Studies Association—Midwest Annual Meeting, St. Louis, MO, November 1-3, 2012
Midwest Political Science Association Annual Meeting, Chicago, IL, April 12-15, 2011
Journeys in World Politics Workshop, University of Iowa, November 17-19, 2011
International Studies Association—Midwest Annual Meeting, St. Louis, MO, November 11-13, 2011

DEPARTMENT
SERVICE

Degree Committees

Samantha Tyner, PhD (in progress), Department of Statistics, Iowa State University;
Joseph Papiro, MA (in progress), Department of Statistics, Iowa State University;
Goran Hassan, MA (in progress), Department of Political Science, Iowa State University.

Department Committees

Graduate Admissions Committee, Department of Statistics, Iowa State University, 2015-2017
Graduate Committee, Department of Political Science, Iowa State University, 2015-2017
Social Committee, Department of Statistics, Iowa State University, 2015-2016
International Relations Search Committee, Department of Political Science, University of Iowa, Fall 2011
Junior Graduate Student Representative, Graduate Association of Political Science, University of Iowa, 2011-2012

PROFESSIONAL
MEMBERSHIPS

American Political Science Association
• Political Networks
Midwest Political Science Association
Peace Science Society
International Studies Association
• Scientific Study of International Processes
Society for Political Methodology
Women in Conflict Studies