

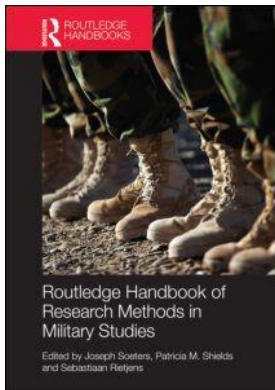
This article was downloaded by: 10.3.97.143

On: 02 Oct 2023

Access details: *subscription number*

Publisher: *Routledge*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: 5 Howick Place, London SW1P 1WG, UK



Routledge Handbook of Research Methods in Military Studies

Joseph Soeters, Patricia M. Shields, Sebastiaan Rietjens

The Empirical Analysis of Conflicts, Using Databases

Publication details

<https://www.routledgehandbooks.com/doi/10.4324/9780203093801.ch21>

Min Ye, Uk Heo

Published online on: 09 Jun 2014

How to cite :- Min Ye, Uk Heo. 09 Jun 2014, *The Empirical Analysis of Conflicts, Using Databases* from: Routledge Handbook of Research Methods in Military Studies Routledge

Accessed on: 02 Oct 2023

<https://www.routledgehandbooks.com/doi/10.4324/9780203093801.ch21>

PLEASE SCROLL DOWN FOR DOCUMENT

Full terms and conditions of use: <https://www.routledgehandbooks.com/legal-notices/terms>

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

21

THE EMPIRICAL ANALYSIS OF CONFLICTS, USING DATABASES

Min Ye and Uk Heo

J. Oneal, B. Russett, and M. Berbaum (2003) “Causes of peace: Democracy, interdependence, and international organizations, 1885–1992,”
International Studies Quarterly 47: 371–393.

“Causes of peace” is an empirical analysis of the Kantian peace theory. According to Kant, international peace depends on three factors: republican constitutions or democracy, economic interdependence through trade, and common membership of international organizations. The theoretical logic behind this argument is as follows. Democracies tend not to fight each other because democratic norms discourage using force to solve disputes and democratic government structures make the decision to go to war against another democracy difficult. Trading goods and services results in interdependence between trade partners and waging a war against an important trade partner significantly affects citizens’ everyday life. Common international organization membership provides government officials with opportunities to develop personal networks with other government representatives. Thus, as the number of common international organization membership increases, the two countries are likely to have stronger personal networks among government officials, which makes a war less likely.

Due to the potential simultaneity bias between conflict and trade, the authors developed two empirical models to test the Kantian peace theory: conflict and trade equations. The dependent variable of the conflict equation is fatal militarized interstate disputes. Since militarized interstate dispute data include pairs of nations that never threatened or used force against each other, they used the fatal disputes, which are a corrected version of militarized interstate disputes. Independent variables of the conflict equation include democracy, trade, joint inter-governmental organization (IGO) memberships, national capability ratio, alliance, territorial contiguity, distance, minor powers, and fatal disputes in the past seven years. The trade equation’s independent variables are democracy, joint memberships of IGOs, alliance, gross domestic product (GDP), population, trade amount in the previous ten years, fatal disputes in the past two years, territorial contiguity and distance.

Using the Correlates of War (COW) data for 1885–1992, the authors conducted a statistical analysis and found that democracy, economic interdependence, and common IGO memberships

significantly reduce conflicts. They also found that democratic countries trade with other democracies more than non-democracies, and the number of joint IGO membership were commensurate with trade amount. In contrast to previous findings, alliance did not have significant effects on conflicts.

The contribution of this study is threefold: first, the authors developed an integrated model based on extant literature. Incorporating all the theoretical tenets included in realism and liberalism, the authors proposed an empirical model that can be widely used in conflict studies. Many conflict studies published after this work employed similar model specifications. Second, both realists (power ratio, distance, and contiguity) and liberal arguments (trade interdependence, democratic peace, and common IGO memberships) were empirically supported. Third, this study included distributed-lags modeling to incorporate the accumulated effects of certain variables over time. By doing so, the authors analyzed a certain variable's combined effects of past and present on the dependent variable. Considering history often plays a significant role in conflict onset and trade relationship, this approach is theoretically meaningful and methodologically innovative. Thus, it suggests a new direction to conflict studies.

Introduction

Important theoretical contributions need empirical confirmation. Since the scientific revolution in political science in the 1960s, empirical analysis using quantitative data – also known as data-based analysis, large-N analysis or, more generally, quantitative research, or scientific study – has been one of the most prevailing approaches in the discipline. In *American Political Science Review*, the most prestigious journal in political science, the proportion of articles that employ empirical analysis with quantitative data sets has dramatically increased from less than a quarter in the 1960s to about a half in the 1980s (King 1991). In the subfield of international relations, approximately 45 percent of the articles published in the leading journals between 1990 and 1999 used quantitative data and methods (Zinnes 2002). In the meantime, great improvements have been made in both methods and data collection. As a result, students today have a rich repertoire of rigorous methods and databases, covering a wide range of significant issues in conflict studies. For instance, the Inter-university Consortium for Political and Social Research (ICPSR) has archived a total of 60 data sets under the subject of “Conflict, Aggression, Violence, and Wars.”

In this chapter, we provide a comprehensive review of conflict studies that used quantitative datasets. Since the validity of empirical analysis heavily relies on the proper method and the quality of data, the focus of this study is on methodological innovation and advances in data collection. To this end, we analyzed the articles published in *Journal of Conflict Resolution (JCR)* for 1957–2009. There are two reasons for us to do this. First, *JCR* is generally considered one of the best journals in studying international conflicts. Another reason is that *JCR* well represents theoretical, empirical, and methodological advancement in conflict studies.

Empirical analysis in conflict studies: Then and now

Of the 1,120 conflict studies published in *JCR* between 1957 and 2009, 704, or 63 percent, are empirical analyses using some sort of data. Figure 21.1 illustrates the overall growth of empirical studies in *JCR*. Our analysis suggests three major stages in the development of empirical analysis of conflicts, as marked in the figure. At the beginning, less than 20 percent of the articles

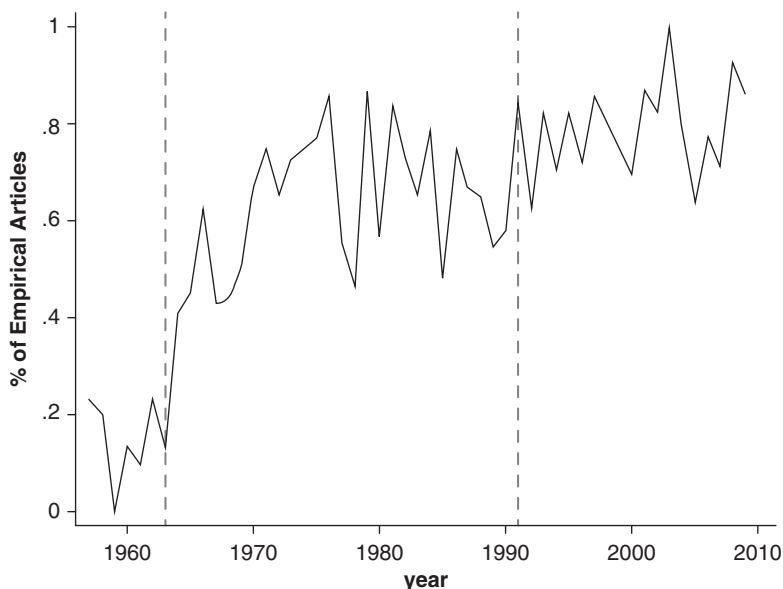


Figure 21.1 The growth of empirical analysis of conflicts with data sets

published in *JCR* used empirical data and methods. Most empirical data used in these studies were from governments, international organizations, businesses, or borrowed from other disciplines of social sciences. Most of these data were processed with basic descriptive statistical methods, such as percentages and cross tabulations. The most sophisticated inferential statistical method adopted in these studies was bivariate correlation. This is not surprising considering the lack of methodological skills among political scientists and insufficient financial and institutional resources for data collection in the late 1950s and early 1960s.

As the scientific revolution gradually took place and methodological training reached more faculty and graduate students in political science departments, the late 1960s and 1970s saw a dramatic surge in quantitative research in political science (Franklin 2008). This is also reflected in conflict studies. As demonstrated in Figure 21.1, the proportion of empirical analysis published in *JCR* has increased sharply since 1964, reaching 70 percent in the early 1970s and remained steady at that level thereafter. In addition to the dramatic growth in quantity, more fundamental changes took place in the quality of empirical conflict analysis in terms of both data collection and methods.

While government and commercial data, and data from other disciplines were essential for the takeoff of empirical analysis of conflicts, they had serious limitations: most of these data were compiled to serve purposes other than the research of military conflicts. It was always difficult for researchers to find information to operationalize and measure key concepts in conflict studies such as power, conflict, or foreign policy behavior. Therefore, as more institutional and financial resources became available (Harty and Modell 1991) political scientists started constructing databases tailored to the specific needs of conflict studies. Their efforts resulted in a number of landmark research projects and data sets – the Correlates of War (COW) project, Conflict and Peace Data Bank (COPDAB), the World Event/Interaction Survey (WEIS), and the Stockholm International Peace Research Institute (SIPRI) databases, US Arms Control and Disarmament Agency (ACDA) data, just to name a few – that were widely utilized in later studies. Moreover, a computer program named EUGENE (the Expected Utility Generation and

Data Management Program) was developed to make quantitative data management easy. The program is a Windows-based data management tool. It facilitates the creation of data sets for use in the quantitative analysis of international relations by merging multiple data sets to generate new dyadic data sets, including variables used to test rational choice theories.

Of all the data sets created during this period, perhaps the most influential is the COW project by J. David Singer and his colleagues at the University of Michigan. The COW data have been used in 118 *JCR* articles through 2009. Founded in 1963, the COW project aimed to offer comprehensive data on all international conflicts and wars after the end of the Napoleonic War. The project marked an important milestone in our theoretical exploration of conflicts and wars. Its conceptualization of war, its collection of various “correlates” of war guided generations of scholars in their quests for causes of wars. The COW definition of war and state, and its classification of war have basically become the standard in conflict studies and are still commonly taught in courses of international relations. Over the years, the project has been continuously updated and expanded into new territories of research. It currently offers 11 major databases on various issues and topics of conflicts between 1816 and 2007 to scholars and the public.

Great progress has also been made in research methods. Two major changes are noticeable: extensive use of inferential statistics and the variety of statistical methods. In Figure 21.2, we listed the percentage of articles that used descriptive and inferential statistics. The trend is clearly noticeable: starting from the late 1960s, the number of studies using inferential statistics continuously increased. Another conspicuous change is the variety of statistical methods used in the literature, which include ANOVA (Analysis of Variance), Student’s *t*-test, factor analysis, time series ARIMA (Autoregressive Integrated Moving Average) modeling, multiple regression, logit/probit analysis, Vector Autoregression, Error Correction Model, distributed-lag model, and simultaneous equation model. Although, as King (1991) pointed out, these imported methods (mostly from economics, statistics, and psychology) may not be well suited to political data and research, their contributions to the development of empirical conflict studies were significant. These research methods also heightened our ability to process empirical data to a new

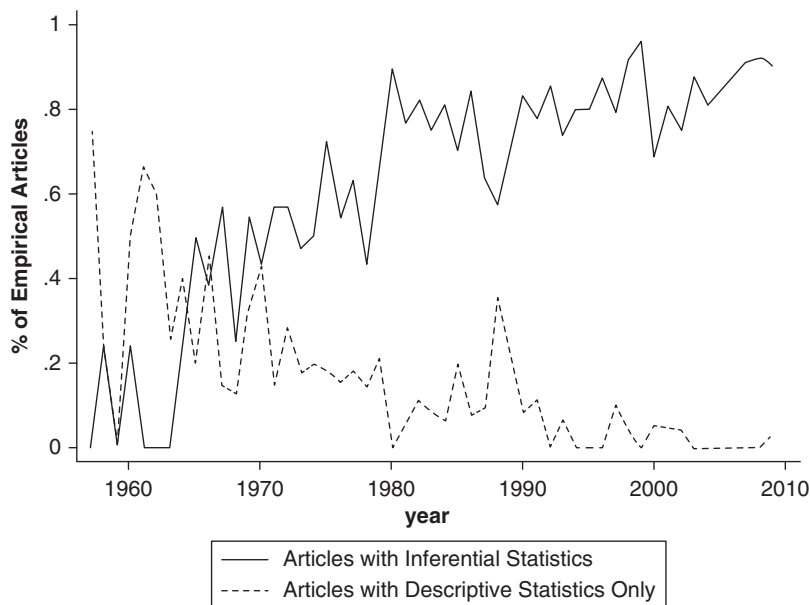


Figure 21.2 Statistical methods used in empirical analysis

level, which in turn motivated more systematic data collections. In addition, applications of these methods highlighted the role of quantitative methods in conflict studies – including both what they are able and unable to achieve – and effectively stimulated the demand among faculty and graduate students for more advanced methods training.

The end of the Cold War brought another transformation in conflict studies. As the bipolar rivalry faded away along with the demise of the Soviet empire, scholars shifted their focus to more urgent threats to international security, such as conflicts between small states, civil wars, ethnic conflicts, and after the September 11 terrorist attack, terrorism. To empirical analysis of conflicts, the immediate impact was the end of the dominance of systemic-level analysis as well as the obsession with great powers. Researchers started embracing a multilevel approach that allowed them to probe state- and individual-level explanatory variables. In addition, studies started forming “standard” variables that are almost required to be included in quantitative conflict analysis. The study by Oneal et al. (2003) shows a list of variables that typically appear in quantitative analysis of conflicts.

However, previous data sets, because of their preoccupation with systemic-level variables, were unable to offer enough information to test the new hypotheses. Therefore, the most notable development in empirical conflict analysis occurred in data collection. Over the years, scores of new data sets were created, expanding empirical analysis to fields where only qualitative research was conducted in the past. For instance, in our review of *JCR* publications after 1990, data sets like the Minority at Risk (MAR) project, Polity project, International Crisis Behavior (ICB) project, UCDP/PRIO Armed Conflict Dataset, International Terrorism: Attributes of Terrorist Events (ITERATE), and Global Terrorism Database (GTD) were applied to topics such as ethnic conflicts, civil wars, international crises, and terrorism.

The most remarkable progress in this period was the usage of game-theoretic approach in conflict studies. Compared to other analytical methods in conflict studies, the most distinguished feature of game theory rests on its emphasis on the interactive nature of conflicts. One party’s behavior is affected by the opponent’s move. The analysis of equilibrium – i.e. the stabilized status of interactions – generates insights and testable hypotheses about the initiation, duration, and termination of conflicts. It should be noted that game theory is nothing new in conflict studies. Thomas Schelling’s (1957) seminal study on bargaining and war was published in the first issue of *JCR*. The study attempted to explain interstate wars and bargaining process from a game perspective between two nations. Nevertheless, game theory did not become a fruitful approach until the 1980s when political studies emphasized dyadic analysis in conflict studies (Levy 2000). Since the pioneer studies by Bueno de Mesquita and Lalman (1992), Fearon (1995), and Powell (1999), a myriad of game-theoretic studies has been designed to investigate various issues of international and domestic conflicts. Between 1990 and 2009, 64 articles that employed game theory were published in *JCR* – as opposed to 23 between 1970 and 1989 – involving a wide range of topics, such as international conflict and crisis, domestic constraints on states’ war behavior, economic sanctions and war, civil and ethnic conflicts, terrorism, etc. These achievements have manifested the potential of this powerful and rigorous analytical approach to our understanding of conflicts.

Our literature review has sketched out the development of empirical analysis of conflicts in the past half-century. As one of the most vibrant subfields in international studies, conflict studies always stand out for its ability to absorb the most advanced methods and theories and echo the most recent changes in the real world. Their findings help scholars, policy makers, and the public to better understand the world. That said, the achievements should not blindfold us to the challenges we are facing. The future success of this approach will ultimately depend on whether these challenges are properly addressed. Next, we turn to the basics of empirical

analysis of conflicts, and discuss its rationale, major steps, the current debate on its drawbacks and limitations, and possible solutions.

Reflections on empirical analysis of conflicts

Why empirical analysis of conflicts?

To every student of conflict studies, this comes naturally as the first question to be addressed. The answer includes at least two parts. The most direct response is because many research questions on conflicts are empirical. Questions like “What is the relationship between the likelihood of war and the power ratio between the two confronting countries? Do democracies tend not to go to war against another democracy? Or does domestic disturbance prompt a state’s external use of force?” are difficult to answer without empirical data and proper statistical techniques. The second part is more contentious, which has divided the study of conflicts between the so-called “traditional qualitative” and “scientific quantitative” communities. Advocates of the scientific approach argue that the merit of empirical analysis over traditional qualitative method (such as historical analysis and case study) in conflict studies lies in its ability to accumulate our knowledge. As demonstrated in the renowned “wheel of science” diagram (Wallace 1971), while our observations of some conflicts can help us reach some generalized conclusions, or theories, about the nature and causes of the conflicts in interest, these theoretical propositions must be verified by systemically collected observational data before they are accepted as being useful. Furthermore, as new observations and data become available, we will repeat this process and put existing theories to new tests. As a consequence, the wheel rolls forward and our knowledge about conflicts is accumulated.

Since Wright (1942) and Richardson’s (1960) pioneer studies, impressive progress has been made in our knowledge of war and conflict. Compared to the beginning years of empirical analysis of conflicts, we have a much better understanding of conflicts. Now we know that, as opposed to the popular Balance-of-Power theory, war is more likely to occur when there is parity of power between disputants. But when a war breaks out, it is more likely to be started by the stronger side (Bueno de Mesquita 1980); although democratic states are generally as war-prone as non-democracies, war rarely takes place between democratic states because of normative and structural reasons (Oneal et al. 2003; Rousseau et al. 1996); autocratic leaders are more likely to employ diversionary tactic – when a nation experiences domestic political and/or economic difficulties, the leader of the nation may employ risky foreign policies including using force to divert public attention from domestic issues – than democratic leaders (Oneal and Tir 2006); democratic leaders are selective in the wars they are willing to fight, whereas autocratic leaders tend to fight longer wars (Bueno de Mesquita and Siverson 1995). We also know what factors help deterrence work or fail (Huth 1988); insurgency and civil war are more likely triggered by economic adversity and political instability rather than ethnic and religious characteristics (Fearon and Laitin 2003).

Nevertheless, these accomplishments do not necessarily mean empirical analysis is the only valid approach in conflict studies. Statistical analysis with quantitative data is not much helpful in addressing normative issues, such as just causes to go to war or right behavior in the war. Neither do they suggest the inconsequentiality of other methods – most notably, qualitative methods – in the analysis of conflicts. Quite the contrary, we believe the relationship between the quantitative and qualitative approaches should be complementary each other rather than competitive. Just as Leng (2002: 423) insightfully contended, “the most interesting research questions often are those that require the integration of quantitative and qualitative methods.”

While a complete review of qualitative methods in conflict studies is beyond the scope of this chapter (several chapters in this volume are devoted to various qualitative methods), two facts are crucial for students of empirical analysis of conflicts. First, after decades of advance in methodology and research design, qualitative analysis has grown into a significant part of scientific inquiry in conflict studies. In our literature review of *JCR*, a growing number of comparative analysis and case studies, like their quantitative counterparts, generated both insights into and cumulative knowledge about conflicts. Generally speaking, quantitative research is good at identifying the broad pattern between the dependent variable and independent variables, whereas qualitative research enables us to delve into their particular causal mechanisms (Fearon and Laitin 2002). Second, in those fields where large-N analysis cannot be conducted because of the lack of systemic data or variables, case study and/or small-N analysis remain our only choice. In fact, many data generation enterprises began with comparative case studies. In-depth analysis and comparison of historical events not only generate the first batch of observational data, but also offer the initial theoretical propositions that guide the following data collection efforts.

How to design an empirical analysis of conflicts?

Typically, an empirical analysis of conflicts starts with a clearly defined **research question**. Because an empirical research article is supposed to explicate a real issue in the world, a research question typically involves “why,” “how,” or “whether.” The principal function of a research question is to specify the phenomenon the author attempts to explain, namely, variance of the dependent variable. For instance, in our classical study presented in the textbox, the research question is “whether . . . trade, institutionalized democracy, and joint memberships in international governmental organizations affect the likelihood of militarized interstate disputes” (Oneal et al. 2003: 372). The dependent variable is the “likelihood of militarized interstate disputes.” At this stage, the author does not have to propose an explanation. But it is always helpful to discuss the significance of the research question, a justification of the research project.

The second step of empirical research is to conduct a **literature review**. The purpose of literature review is to summarize findings of previous studies concerning the research question. Since empirical research aims to accumulate knowledge, it is crucial to recognize what we have learned, what data sets have been created, and what methods have been employed to process the data. According to Johnson and Reynolds (2005: 132), a literature review is also used “to develop general explanations for observed variations in a behavior or phenomenon; to identify potential relationships between concepts and to identify researchable hypotheses; to learn how others have defined and measured key concepts . . . and to discover how a research project is related to the work of others.” In our illustrative research example, Oneal et al. (2003) provide a literature review on democratic peace and the effects of trade on interstate conflicts. Their literature review points out how previous studies failed to show the causal relationship between trade and war, that is, whether trade prevents war or is merely an outcome of peace. Obviously, the analysis of the accomplishments and deficiencies illustrates the current status of our knowledge and what their research is going to achieve and how to accomplish it.

After presenting the research question and assessing the current status of the literature, the following step is to propose an answer to the research question, or the author’s **theory**. Simply put, a theory is a generalized explanation for some social phenomena. In an empirical analysis of conflicts, the proposed theory could be derived from a well-established theory, inspired by a particular study, or generated from the author’s own observations. A theory is usually expressed as a statement about the relationship between a dependent variable and explanatory variables. For example, the proposed theory in our classical study is based on the famous Kantian theory of perpetual peace

that asserts “international peace could be established on a foundation of three elements: republican constitutions . . . free trade and economic interdependence, and international law and organizations” (Oneal et al. 2003: 371). The three independent variables are bilateral trade, the political character of regimes (democracy), and joint international organization memberships.

To test a theory, **hypotheses** are developed. A hypothesis is an educated guess regarding the relationship between a dependent variable and an independent variable. The function of a hypothesis is to test whether or not a theory is supported by empirical data. Each hypothesis is a prediction about the effect of an independent variable on the dependent variable with the direction of the relationship: positive or negative. In our classical study (Oneal et al. 2003), based on the Kantian theory, the authors expected a negative relationship between all three independent variables (bilateral trade, democracy, and IO memberships) and the dependent variable (the likelihood of war).

To test the hypotheses, an empirical model has to be specified based on extant literature. Since many variables affect social phenomena, inclusion of all the theoretically relevant variables, the so-called control variables, in the model is crucial because statistical analysis is based on the assumption that the model is fully specified. Under-specified models due to omitted variables can lead to incorrect results in the statistical analysis.

All the variables included in the model specification also need to be operationalized in order to quantify the corresponding concepts. Fortunately, international relations scholars have developed a notable number of data sets by operationalizing a cohort of core concepts in conflict studies. As a result, most empirical studies can resort to existing data sets for variable measurement. In our classical study (Oneal et al. 2003), for instance, all the variables are directly drawn from existing data sets: the likelihood of interstate war is calculated using the Dyadic Militarize Interstate Disputes from the COW project (Maoz 1999); bilateral trade from Maddison’s (1995) and Gleditsch’s (2002) trade data sets; democracy from the POLITY project; and international organization memberships from the *Yearbook of International Organization*. Nevertheless, operationalizing and measuring new variables is still a big challenge.

The last step is to put hypotheses to an empirical test with the data. **Data analysis** serves two purposes. One is to find out whether to accept or reject the null hypothesis – that there is no relationship between the dependent and independent variables – at a certain statistical significance level. If the null hypothesis is rejected, then researchers want to know what the direction of the relationship is to see whether the prediction of the hypothesis is confirmed. As discussed earlier in our review of articles published in *JCR*, progress in research methods has provided plenty of choices in data processing. However, a caveat is that the research question and the particular type of data at hand should determine the selection of a proper method. In this regard, our classical research presents a good example. Traditional studies rely on a system of structural equations to investigate the reciprocal relationship between trade and conflict. However, as Oneal et al. (2003) indicated, this method only considers contemporaneous terms, that is, the bilateral trade in a year only affects the likelihood of conflict in the same year and vice versa. To include the long-time effects between trade and conflict on each other, they employed a distributed-lag model, which includes lagged values in the model.

Finally, the main research question, and the author’s theory, and all the empirical findings are summarized in the conclusion. In addition, theoretical and policy implications of the findings are discussed. Future research can also be suggested to conclude the empirical study.

Limitations and future developments

There are two issues in the recent literature of empirical conflict studies. These two issues are pertinent to many ongoing research projects and pivotal for the future development of this

approach. The first issue concerns the integration of multiple levels of research. The “unexpected” end of the Cold War exposed the weakness of neo-realism, especially its preoccupation with systemic-level analysis. As a result, more and more theoretical quests have employed a multilevel framework that includes variables at the systemic, domestic and individual levels. The reason is that multilevel analysis is required for the analysis of hierarchically structured data as Goldenberg and Soeters (2014) argue in Chapter 18. This change in approach generated a new wave of empirical research in conflict studies. However, most of the multilevel models are, using Levy’s (2000: 322) term, “additive in nature.” That is, they simply put variables from different levels in the same regression model without inspecting the real interactions between them. This is more than a model specification problem (therefore cannot be resolved by including some interaction terms). The nature of the relationship between hierarchically structured variables must determine how empirical models should be specified. Simply adding variables would not grant meaningful findings.

The second problem, which is related to the first issue, is the absence of a theoretical framework that can systemically incorporate different levels of analysis in the analysis. A series of questions need to be addressed before such a framework can be established. What is the unit of analysis? Should we take it as a monadic issue of decision-making or a dyadic problem of interaction? In the former case, how do the decision maker, a state, a domestic organization, or a national leader, balance interests at different levels? For the latter, how can interactions between two decision makers be modeled and empirically tested? Substantial progress has been made in the theoretical probe into decision-making approach with growing research interests in the link between domestic politics and foreign policy (Bueno de Mesquita et al. 2005). But our empirical investigation in these fields gained limited ground, mainly because of the lack of data at the individual level, not to mention the tremendous gap in our knowledge of multilevel dyadic models.

Conclusion

At the turn of the century, after reviewing the development of conflict studies, Vasquez (2000: xvii) asserted, “while we still have a long way to go, it is clear that we know a great deal more today than we did thirty-five years ago” about international conflicts. A decade later, this comment is still cogent. On the one hand, considerable progress has been made in theories, research methods, and data collection; on the other hand, there still are many questions to answer, many problems to address, and many challenges to overcome.

As for the future, the healthy development of the discipline hinges on its three kinds of ability. The first is the discipline’s ability to capture changes in the real world. Due to the uniqueness of its subject matter, conflict studies should be able to identify the most pressing threats to global peace, unveil their nature, and recommend their solutions. After all, the real world is not only where the research questions and data are found, it is also the *raison d’être* for this discipline. Our ability to serve the world is vital for the discipline to attract best brains and secure more resources.

The second is the ability to assimilate the achievements in the subfields of political science and other disciplines. The history of the empirical study of conflicts reveals a pattern of absorbing and integrating the theoretical developments and methodological innovations from other fields. In many places of this chapter, we have urged the integration between quantitative and qualitative, between systemic, state, and individual levels of analysis, and between formal and statistical models. Part of the reason is the interdisciplinary nature of conflicts. Yet the deeper root is the belief in the value of diverse approaches and methods to our knowledge of conflicts.

This belief is the reason the pioneers began the empirical inquiry into conflict, the driving force for the discipline to keep growing and expanding in the past decade, and we are convinced, the secret for empirical conflict studies to continue to thrive in the future.

Finally, a rich source of data is available at the operations level (e.g. situation reports). Researchers should follow the lead of early COW scholars and construct these types of databases. The point is to extend the use of databases into new areas of research.

References

- Bueno de Mesquita, B. (1980) "An Expected Utility Theory of International Conflict," *American Political Science Review*, 74: 917–931.
- Bueno de Mesquita, B. and Lalman, D. (1992) *War and Reason: Domestic and International Imperatives*, New Haven, CT: Yale University Press.
- Bueno de Mesquita, B. and Siverson, R. (1995) "War and the Survival of Political Leaders: A comparative study of regime types and political accountability," *American Political Science Review*, 89: 841–855.
- Bueno de Mesquita, B., Smith, A., Siverson, R., and Morrow, J. (2005) *The Logic of Political Survival*, Cambridge MA: MIT Press.
- Fearon, J. (1995) "Rationalist Explanations for War," *International Organization*, 49: 379–415.
- Fearon, J. and Laitin, D. (2002) "Integrating Qualitative and Quantitative Methods," in J. Box-Steffensmeier, H. Brady, and D. Collier (eds) *The Oxford Handbook of Political Methodology*, Oxford: Oxford University Press.
- Fearon, J. and Laitin, D. (2003) "Ethnicity, Insurgency, and Civil War," *American Political Science Review*, 97: 75–90.
- Franklin, C. (2008) "Quantitative Methodology," in J. Box-Steffensmeier, H. Brady, and D. Collier (eds) *The Oxford Handbook of Political Methodology*, Oxford: Oxford University Press.
- Geller, D. and Singer, J.D. (1998) *Nations at War: A Scientific Study of International Conflict*, Cambridge: Cambridge University Press.
- Gleditsch, K. (2002) "Expanded Trade and GDP Data," *Journal of Conflict Resolution*, 46: 712–724.
- Goldenberg, I. and Soeters, J. (2014) "Cross-national research in the military: Comparing operational styles," in J.M.M.L. Soeters, P.M. Shields, and S.J.H. Rietjens (eds) *Routledge Handbook of Research Methods in Military Studies*, Abingdon: Routledge.
- Harty, M. and Modell, J. (1991) "The First Conflict Resolution Movement, 1956–1971: An attempt to institutionalize interdisciplinary social science," *Journal of Conflict Resolution*, 35: 720–758.
- Huth, P. (1988) "Extended Deterrence and the Outbreak of War," *American Political Science Review*, 82: 423–443.
- Johnson, J. and Reynolds, H.T. (2005) *Political Science Research Methods*, 5th edn, Washington D.C.: CQ Press.
- King, G. (1991) "On Political Methodology," *Political Analysis*, 2: 1–30.
- Leng, R. (2002) "Quantitative International Politics and Its Critics," in M. Brecher and F. Harvey (eds) *Millennial Reflections on International Studies*, Ann Arbor, MI: University of Michigan Press.
- Levy, J. (2000) "Reflections on the Scientific Study of War," in J. Vasquez (ed.) *What Do We Know about War?*, Lanham, MD: Rowman and Littlefield.
- Maddison, A. (1995) *Monitoring the World Economy: 1820–1992*, Paris: OECD.
- Maoz, Z. (1999) Dyadic Militarized Interstate Disputes (DYMID 1.1). Available at Dataset ftp://spirit.tau.ac.il/zeevmaos/dyadmid60.xls.
- Oneal, J., Russett, B., and Berbaum, M. (2003) "Causes of Peace: Democracy, interdependence, and international organizations, 1885–1992," *International Studies Quarterly*, 47: 371–393.
- Oneal, J. and Tir, J. (2006) "Does the Diversionary Use of Force Threaten the Democratic Peace? Assessing the effect of economic growth on interstate conflict, 1921–2001," *International Studies Quarterly*, 50: 755–779.
- Powell, R. (1999) *In the Shadow of Power*, Princeton, NJ: Princeton University Press.
- Richardson, L. (1960) *Arms and Insecurity: A Mathematical Study of the Causes and Origins of War*, Pittsburgh, PA: Boxwood Press.
- Rousseau, D.L., Gelpi, C., Reiter, D., and Huth, P. (1996) "Assessing the Dyadic Nature of the Democratic Peace," *American Political Science Review*, 90: 512–533.

- Rubinstein, A. (1982) "Perfect Equilibrium in a Bargaining Model," *Econometrica*, 50: 97–110.
- Schelling, T. (1957) "Bargaining, Communication, and Limited War," *Journal of Conflict Resolution*, 1: 19–36.
- Vasquez, J. (ed.) (2000) *What Do We Know about War?*, Lanham, MD: Rowman and Littlefield.
- Wallace, W. (1971) *The Logic of Science in Sociology*, Chicago, IL: Aldine-Atherton.
- Wright, Q. (1942) *A Study of War*, Chicago, IL: University of Chicago Press.
- Zinnes, D. (2002) "Reflections on Quantitative International Politics," in M. Brecher and F. Harvey (eds) *Millennial Reflections on International Studies*, Ann Arbor, MI: University of Michigan Press.