

Exploring the Past, Anticipating the Future: A Symposium

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Anticipating the future is both a social obligation and intellectual challenge that no scientific discipline can escape.¹ The field of international studies is no exception to this, and we believe that few other disciplines reflect so deeply about their own capacity to provide accurate forecasts and to deliver useful early warning schemes. One school of thought declares prediction to be an impossible aspiration, sometimes because certain events are *a priori* considered to be unforeseeable (cf. Beyerchen 1992). The *ex post facto* realization that dramatic singular events like the fall of the Berlin Wall (e.g., Gaddis 1992) or the September 11 terrorist attacks (e.g., Herrmann and Choi 2007) shape global politics dramatically nurture this radical skepticism. Government, IGO, and NGO officials often take the opposite view that academics could anticipate the future if they would accept their “responsibility” of contributing something useful to society. Users of such forecasts in offices around the world are, for obvious reasons, convinced that anticipating the future is possible. In the words of one civil servant of the European Commission, “it can safely be argued” that the implemented early warning schemes have

made a very significant contribution to the overall objective of further rooting the culture of conflict prevention in the day to day work...to making more systematic and more coordinated use of EU instruments to get to the root causes of conflict. (Niño-Pérez 2004:15)

Some early warning initiatives die out after some time because they can not live up to the unrealistic expectations or because the internal agenda of the

¹The articles in this symposium were presented under the convention theme at the 50th Annual Convention of the International Studies Association in New York City, February 15–18, 2009. The editors served as President of the ISA (Gleditsch) and Program Chairs of the convention (Carey, Schneider). This introduction borrows from our description of the convention theme. Our work has been supported by the German Peace Research Foundation (Schneider), the Research Council of Norway (Gleditsch), and the Centre for the Study of Civil War (Carey).

organization has changed. *International Alert* was married to the idea of early warning in the early years but no longer mentions early warning on its website.² *Swisspeace* has closed down its FAST program, which relied on expert knowledge in conflict regions for the production of the forecasts.³

The contributions to this symposium take a middle position between the two opposing attitudes to the capacity of international studies “to augur well” (Singer and Wallace 1979). All articles in this symposium are inspired by the conviction that systematic research can make a difference and that the development of sensible forecasts provides scientists and policymakers alike with tools to anticipate crucial trends and, if needed, to counter them with appropriate policies. But the contributions are also aware of the limitations of our current efforts.

This collection attempts to provide the policy making community with systematic *ex ante* forecasts of political events and trends (see for example, Choucri and Robinson 1978; Singer and Wallace 1979). This approach had fizzled out by the late 1980s, but this symposium shows that the provision of early warning schemes has now regained its prominence. Indeed, prediction is now as much part of the scientific business as explanation and some models make credible claims to forecasting specific events like the onset of interstate wars (Beck, King, and Zeng 2000) or civil war (Rost, Schneider, and Kleibl 2009; Ward, Greenhill, and Bakke 2010). Outside academia, forecasting has developed into a lucrative business (Sherden 1997). The Economist Intelligence Unit, to name one of the most prominent forecasters of economic and political trends, employs for instance “300 full-time professionals in 39 offices around the globe, supported by an international network of over 500 expert contributors.”⁴

The long-standing Quaker aspiration (AFSC 1955) of “Speaking Truth to Power” (Wildavsky 1979) is no panacea; scholars need to be aware of how governments and IGOs shape the demand for policy-relevant forecasts. Barkin (2009) also convincingly points out that some theories face a severe tension between prediction and prescription. This is especially the case for deterministic hypotheses like the ones propagated by realist scholars. If actors according to a certain “law” of international relations always act the same way and for instance maximize their power, advising policymakers to behave in exactly this way becomes a trite and superfluous exercise.

The article by O’Brien (2010) in this issue shows that interaction between the scientific community and public officials can take place on equal terms and that some administrative units deal with forecasts in a sophisticated way. Before introducing this and the other contributions to the symposium we offer a short taxonomy of forecasting approaches and discuss the role that the past takes in their development. Any scientific prediction uses historical data; we need to pay attention to the different ways in which the “past” produces the future.

Early Warning in International Studies

Prior to the autumn of 1989, few people predicted the fall of the Soviet empire and those who did usually did so for the wrong reasons—such as nuclear war with the West, war with China, or ethnic disruption. The general theme for East–West relations was to find the right mix of confrontation (which could move things forward) and conciliation (to minimize risk of war). Only two and a

²See <http://www.international-alert.org/index.php>, last consulted August 2, 2009.

³See <http://www.swisspeace.ch/typo3/en/peace-conflict-research/early-warning/index.html>, last consulted August 2, 2009.

⁴See http://www.eiu.com/site_info.asp?info_name=aboutUs_peopleResources&entry1=about_eiuNav&page=noads, last consulted August 11, 2009.

half years after the spring 1989 decision of the Hungarian government to open its borders, the Soviet Union imploded. Not only had it let the Warsaw Pact countries go their own way, but it even granted the same privilege to the 15 republics that made up the Union. Germany was reunited, a prospect held in low esteem by most international relations experts only a short time before. Ten years earlier, after the end of the disastrous Mao era, almost no one predicted how fast China would be overtaking the Soviet Union and become the main geo-strategic and economic challenger of the United States. The social sciences were equally silent on the prominent role that the Internet and other technological innovations would play in what came to be known as “globalization.” They did foresee that the emerging AIDS crisis would increase the plight of the developing world but erred in assuming that the Ebola virus and other health hazards would assume similar proportions.

Following the sea-change in international relations at the end of the Cold War, scholars began to see the potential for dramatic changes behind every corner. Would the liberal twins, capitalism and democracy, be so successful that we would soon experience “the end of history”? Would Russia disintegrate, just as the Soviet Union had? Must Germany acquire nuclear weapons to deter possible challengers to European stability? Could Ukraine and Russia avoid a major confrontation over nuclear weapons as well as the Crimea? Would the world see a “clash of civilizations” or a return to plague-like human health disasters? Would the income gap between Africa and the OECD world widen to a point where it could provoke a major conflict?

The twin pitfalls of over-predicting and under-predicting change form the background for our attempt to take stock of the early warning literature. Scientific predictions are a necessary endeavor if we attempt to counteract dangerous developments like arms races or climate change. Counter-measures may be too little too late. A classical indicator of “how close humanity is to catastrophic destruction,” the *Bulletin of the Atomic Scientists’* “doomsday clock” from 2007 stands at five minutes to midnight, as against 17 minutes in most of post-Cold War period. Although somewhat arbitrary, such indicators gain considerable public attention. However, early warning may lead to the wrong policy prescriptions if based on the wrong theoretical or methodological foundations (Ward et al. 2010). Despite such caveats, early warning is possible and enjoys a rich tradition in international studies, especially in security affairs. In recent contributions to this literature, the risk of interstate war is assessed by Beck et al. (2000) and Ward, Siverson, and Cao (2007), civil war by Ward et al. (2010) and Rost et al. (2009), state failure by Goldstone, Gurr, Harff, Levy, Marshall, Bates, Epstein, Kahl, Surko, Ulfelder, and Unger (2000), Goldstone, Bates, Gurr, Lustik, Marshall, Ulfelder, and Woodward (2005) and King and Zeng (2001), general political instability by Bond, Jenkins, Taylor, and Schock (1997), genocides by Fein (1992) and Harff (2003), human rights violations by Poe, Rost, and Carey (2006), ethnic conflict by Gurr and Moore (1997), and complex humanitarian emergencies by Harff and Gurr (1998).

Obviously, this is just a small selection of relevant work, mainly from political science. Many contributions to the early warning literature are interdisciplinary or from other disciplines. Whatever their disciplinary background, all early warning schemes require an analysis of past events. Thus, “exploring the past” and “anticipating the future” necessarily go hand in hand, as the title of this symposium suggests. Another unifying feature of all early warning schemes is the relatively little weight attributed to parsimony, normally a key criterion in the assessment of an explanatory model. Early warning schemes with the same predictive capacity should certainly be judged on how little information is necessary to produce the forecast. However, if an early warning scheme produces more accurate forecasts than its competitors, it should get

priority regardless of the number of variables that are used for the calculations of the predictions.

Despite their commonalities the essays collected in this issue show that the strategies to provide risk assessments based on historical information differ widely. This is largely a consequence of the very different nature of the problems that international challenges create. Predicting rare events like severe forms of political violence requires another research design than forecasting the ups and downs in day-to-day interactions between two political partners. If the phenomenon under analysis changes slowly, a structural approach accounting for piecemeal changes through relatively stable factors might be appropriate. Such early warning schemes are appropriate if, for instance, one wants to assess the long-term risk of energy shortages. By contrast, to predict how certain conflicts escalate to violence, we typically need a time-series design with attributes that can change quickly.

Summary of the Contributions

We have asked colleagues from different continents and with different outlooks on epistemology and methodology to take part in this endeavor. Given the rich literature on the early warning of war, state failure and related issues, it is no coincidence that most articles address security issues. Geller and Alam (2010) combine a macro-level system dynamics model with an agent-based computational model to simulate armed conflict in Afghanistan. By marrying these two approaches the authors evaluate how socio-cultural factors drive armed conflict within the context of system-level features, such as support from the local population and access to technology. Particularly within the context of Afghanistan, family relations and social cohesiveness play an important role in shaping conflict dynamics. Geller and Alam incorporate this aspect into their study by modeling the dynamics of *qawm*, which are “fluid solidarity groups” (2010) in Afghan society. *qawm* are developed by elite and non-elite agents interacting based on their subjective preferences. Based on the actors’ preferences and characteristics, *qawm* decide whether to side with the Afghan National Army, the Taliban or the ISAF. Their study predicts that ISAF’s success does not depend on the support from the local population, but instead relies on the use of advanced technology. Therefore, Geller and Alam conclude that the “hearts and minds” strategy of ISAF is only of limited use and ISAF should instead focus on a high-tech approach to the conflict. Their study also predicts that ANA needs strong support from the civilian population in order to be successful. However, the lack of such support for ANA can be counter-balanced by support from ISAF.

Computer simulations are also the approach that Cioffi-Revilla and Rouleau (2010) use for their more general model of rebellion. Both the Geller and Alam (2010) and the MASON RebeLand model that these authors introduce follow the logic of agent-based simulations. They are thus conceptually very different from the simulations that were run in the 1970s and 1980 to forecast the future of the globe. Cioffi-Revilla and Rouleau (2010) demonstrate that the rigorous and meaningful analysis of a single case is a sufficiently complex endeavor. Substantively, the evaluation of their model corroborates findings from the empirical literature according to which semi-democracies are less stable than both autocracies and full-fledged democracies. They argue that rent-seeking endemic in these hybrid regimes makes them vulnerable to political upheaval. The authors briefly highlight the advantages of their approach for prediction and early warning. In their view, computer simulations are particularly suitable for these tasks as they allow the research community to study how the co-occurrence of several triggering mechanisms brings a country to the abyss of a political revolt.

Instead of uncovering patterns of interaction and conflict dynamics, Devlen (2010) focuses on predicting the behavior of one particular actor during a specific crisis. His contribution makes predictions about Iran's behavior during the nuclear crisis between Iran and the United States. Like Geller and Alam (2010) and Gioffi-Revilla and Rouleau (2010), Devlen combines different tools to inform his predictions. He applies operational code analysis in order to develop the actors' preferences in an asymmetric escalation game. The operational code analysis identifies a set of philosophical and instrumental beliefs of political leaders that drive and explain their foreign policy decisions. Devlen uses two public letters that were sent by Iranian President Mahmoud Ahmdeinejad to the American people and George W. Bush in 2006 to construct Iran's operational code about the United States, that is, Iran's expectations about possible United States policies and strategies. The operational code informs the preference ordering of the United States in a modified asymmetric escalation game, in which the United States is the Defender and Iran the Challenger. Additionally, the actors are shaped by domestic constraints, large-group identity, and concerns about political survival. Devlen comes to the conclusion that Iran will eventually become a nuclear power, yet the international community ought to concentrate on preventing Iran from developing nuclear weapons. To overcome the current deadlock, the United States could increase the expected cost of conflict to the Iranian government so that conflict falls outside the realm of possible options. The second option Devlen suggests is to reach a negotiated settlement. To achieve this, the United States should separate the issue of a nuclear program and a nuclear weapons program. At the same time, if the United States were to increase Iran's self-confidence, for example by offering direct negotiations on different subjects, then this would alter Iran's beliefs about the United States, convince Iran that they were also in control of development and not the victim of a bully, and as such end the deadlock.

Raleigh (2010) shows in her contribution that the collaboration between geography, climate research, and conflict studies is of utmost importance for the development of sound early warning schemes. Substantively, she addresses the extent to which environmental issues are a driving force in the onset of low-level communal conflicts. However, changes in these conditions only trigger violence if the social and political context of a country is particularly disadvantageous. Based on a thorough literature review, Raleigh argues that political marginalization and state capacity are key intervening factors in this context. Methodologically, she makes a strong case that conflict studies and early warning schemes need to take the interdependence between different decision making arenas into consideration. She shows how the usage of data collected at different levels of aggregation can make a difference. Raleigh points out how her analytical framework can be used for forecasting purposes, arguing, similar to Gioffi-Revilla and Rouleau (2010), that the interaction of several key root causes of conflict can make a difference.

O'Brien's (2010) contribution takes a different approach to predicting than the other papers by comparing and evaluating different forecasting approaches and efforts. His article highlights the need for timely predictions for the policy community and describes a recent attempt by the US military to develop an Integrated Crisis Early Warning System (ICEWS). This system aims to provide military commanders with the information on which countries are likely to experience domestic and international crises in the near-, mid-, and long-term, what factors drive these instabilities, and what combination of diplomatic, information, military, and economic resources are most likely to mitigate the instabilities. The team most successful in generating accurate, precise, and actionable forecasts integrated several different modeling systems, including models used by the other contributors in this issue. The prediction models described by O'Brien used information from news stories and country data information about

countries in the Pacific Command area between 1998 and 2004 and then generated eight quarterly forecasts for the two subsequent years. Based on the ICEWS, O'Brien (2010) makes several suggestions for improving scientific prediction within international studies. First, he points out that some common trends in quantitative conflict research, such as including lagged dependent variables or static variables that cannot be manipulated, such as mountainous terrain, are unsuitable for providing policy-relevant forecasts. Second, he argues that the usefulness of statistical models should be tested with out-of-sample forecasts, rather than relying exclusively and almost blindly on statistical significance tests. Finally, he strongly supports the use of a multi-method approach to forecast crises, in particular the incorporation of agent-based models—a tool that has already been implemented by several contributions to this issue.

The theoretical and empirical advances reported in this symposium leave us with the question as to why international studies are often not able to predict the “extreme” events like the end of the Cold War or massacres with a particularly high death toll like the ones committed in Rwanda in 1994. We believe that international studies should not be ashamed of its current incapacity to predict the most extreme events. It shares this fate with many disciplines such as seismology which all too often fail to predict or give early warning of the most severe earthquakes (Kerr 2009). However, the inability to provide short-term forecasts that the natural sciences attribute to their own models (for example, Bakun et al. 2005), has not lead to an iconoclastic movement devoted to the abandonment of the entire scientific enterprise. The periodic self-flagellation still witnessed from time to time in international studies is not only completely unnecessary but even hazardous to scientific and human progress. The renaissance of early warning in international studies shows that a growing number of colleagues around the world takes the dual obligation seriously of advancing knowledge and addressing issues of global concern.

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