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## FROM MY PERSPECTIVE

## National intelligence: A tool for political forecasting and the forecasting of rare events

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## ABSTRACT

This article discusses national intelligence as a forecasting tool for political issues. The text presents political forecasting as a tool for test and calibration of technology forecasts where political factors may influence the evolution of science and technology. The essence of intelligence forecasting is presented as a “top-down” benchmark methodology that guides a “bottom-up” assessment work. The text details that methodology and argues that contemporary environment has created a risk-averse culture which practically is a hybrid of traditional intelligence methods, soft quantitative analysis and risk management. The paper underlines several concepts characterizing contemporary trends in intelligence, most of them belong to counter-terror intelligence, which can be used for the creation of a new paradigm aimed for future trajectories and forecasting of broad political and societal questions. These questions often refer to the forecasting of issues that are related to limited number of actors and rare events. The text discusses methods of robust planning and scenario analysis as tools to handle the current highly uncertain political environment.

## 1. Introduction

Political forecasting has many forms but in the context which is discussed here political forecasting is referred to the assessment of political institutions and leaders. That sector of political forecasting has tremendous effect on our lives and it is less structured and rigorous than other fields of forecasting since it aims to assess rare events and phenomenon which in many occasions are unique and unprecedented. Furthermore, it deals with future moves which are to be done by conscious actors who calculate and react possible conscious self-reference moves among other players in the system. These characteristics pose special challenges for forecasting and was identified by [Ascher \(1982\)](#), [Rice and Mahmoud \(1990\)](#), and [Brandt et al. \(2011\)](#).

The relevance of political forecasting to technological forecasting is not direct. It is near-to-medium future forecast that helps to calibrate medium-to-long range technological forecasting, as additional dimension that many times may provide critical point of view to hegemonic technological trends which are perceived as deterministic.<sup>1</sup> These trends are manifested in many forms that are part of politics, e.g. regulation, tax policy, funding and other R & D targeting mechanisms; all may determine the course of basic and applied science. Furthermore,

political events, especially military conflicts, turn politics to be more attentive to spending on R & D with defensive applications. Oil price is another field that from one side is sensitive to political developments and from the other side creates motivation or demotivation for technological progress in energy related areas, e.g. hydrogen fuel cells.

Intelligence is not a strict forecasting activity but its assessments have many aspects of forecasting that refer to possible developments from the present to the near-to-medium future (2–3 years). These forecasts usually have a defined time and space with specific agents and institutions in a context of contemporary events which are laid on a continuous timeline from the present to a defined future. The intelligence is considered here as an organized governmental activity which aims to collect and analyze information so it can be used as a feed for planning and other forms of national decision making. It is a unique mechanism, a public organization working on forecasts with heavy responsibility to the security of the nation. The intelligence is required to high level of accountability and is under close supervision of leaders, political institutions (e.g. the congress), peers, academia and the press. That attention has created special methodological features regarding to accountability and control, which have shaped its products ([Tetlock and Mellers, 2011](#)). The article underlines the influence of that dynamic

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<sup>1</sup> [Steve Cohn \(1997: 25–28\)](#) book brings the story of civil nuclear energy as an example for the influence of socio-political trends on civil R & D. See also [Rossel \(2011\)](#) about the necessity to develop reflexive tools for better foresight.

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on areas which have relevance to all types of forecasting. Intelligence will be presented here not only as a tool for political forecasting but also as a unique foresight organization which operates in an environment which is not ruled by hegemony of quantitative culture, a factor that alters the way which the forecaster perceives the future.

The text has 8 parts: in order to understand intelligence as a unique form of forecasting, the text begins with a historical-philosophical description that enabled the creation of knowledge which is not fully based on empirical evidence, the type of knowledge that is the base for forecasting and intelligence. The second part focuses on Game Theory as a pivotal element in the understanding of politics, political analysis and political forecasting. The third and the fourth parts describe the consolidation of the methodology of intelligence forecasting within the specific context of the Cold War. These parts were brought here to explain the way which this “war” was perceived and analyzed and the way which intelligence was designed to fit in that setting. Special attention was given in part five to *warning* as intelligence's most important task that may provide insights to the importance of weak signals and indicators in forecasting. The sixth section of the article observes the incompatibility of classical intelligence methodology to the current environment. That section also analyzes several elements of counter-terrorism intelligence as a potential new methodological approach that may better fit contemporary threats and opportunities. The absence of “postmodern” planning tools turns these historical aspects valid in explaining much of the intelligence forecasting which is done today. The last part discusses the application of current trends, mainly the risk inclined analysis, to broader political issues in the contemporary changing environment.

## 2. Forecasting and early concepts of causality

Intelligence, as a disciplined activity based on knowledge, can be considered as a late evolution of the epistemic discourse developed around the scientific revolution. A revolution that had emerged around physics and created the analytical and the intellectual framework enabled transforming data into knowledge which is not fully based on empirical evidence. Calculus as a method for making accurate predictions based on a given initial position is an obvious early milestone of that intellectual development, and was a base for techniques that reduced the need for trial and error experiments. I want to emphasize here *logic* as an important element regarding the emergence of forecasting as disciplined activity. Modern logic established a coherent axiomatic basis for mathematics as stemming from logic, an approach that created equivalence between mathematics and logic, (Schlick, 1930; Russell, 1908), and created a strict analytic concept that based the meaning of sentences on the methodology for their confirmation.<sup>2</sup> It was the beginning of a scientific discourse anchored in claims that are considered as valid on the basis of their lingual structure and their logical confirmation, rather than on empirical data. These analytical ideas were developed in a period of significant advancements in theoretical science, such as Einstein's theory of relativity, a purely analytic idea that was not then supported by empirical evidence.<sup>3</sup>

The line of “logicization” of mathematics and “mathematization” of logic was further developed in an effort to perform a deconstruction of science findings into a language of minimalistic expressions and sentences. With this new form of sentence structure it was much easier to determine their “truth/false” value and thus to validate the analyzed data (Friedman, 1991). That new interdisciplinary approach created an analytical thinking about reality which could not be tested directly but

<sup>2</sup> JM Keynes's early work from 1905 to 1910 can also be considered as part of that intellectual trend. Keynes writing on probability tried to merge probability with logic. It was strongly influenced by Wittgenstein and dealt with empiricist inconclusive claims (O'Donnell, 1990).

<sup>3</sup> It should be mentioned here that the technological advancements of that era also created more explicit future oriented visuals, e.g. Jules Verne Stories (Clarke, 1978).

could still be considered as scientific. The outline of that approach is well known with its four inter-connected elements: 1. a strong emphasis on the accurate definition for terms and variables; 2. a “complete information” assumption<sup>4</sup>; 3. an articulation made with probabilistic style phrasing; 4. reductionism. These are key elements in analytical reasoning which fulfill the same function in both qualitative and quantitative analysis.

## 3. Game Theory – from the academy into a dominant national security mindset

Game Theory (GT), System Analysis (SA) and Operational Research (OR) are all examples for practical applications of these modernist and positivist ideas. Game Theory is more important than the other two to the story of intelligence forecasting since it denotes a certain equilibrium point that has predictive attributes: an a-priori injective solution for the analyzed interaction embedded with description of probable outcomes and “pay-offs”. Game Theory went a leap forward during WWII, when war years created a unique incubator for the combined scientific, technological and practical implementation of ideas, an unprecedented collaborative effort to achieve military advantages at war, (Fortun and Schweber, 1993). Once the war was over OR still maintained its prestige as an advanced concept for decision making, control and planning. OR teams took a dominant role in analysis and planning of national defense problems, including those related to nuclear weapons, force structure and logistics. During the 1950's, that prestige led the disciplines of GT and OR, with their embedded predictive attributes, through a gradual process of popularization that reflected a transition from a complicated mathematical concept to almost the natural language of decision making, management and leadership, which was now started to be called “strategy”.<sup>5</sup>

## 4. Cold War years: the role of “echelons” and “road maps” as a guide for forecasting

The fear of expansionist intentions of the USSR after the end of the WWII, as well as the wish to reconstruct the economy and to avoid mass budget allocations for defense, led the US as the leader of the “Free World”, to the framing of *Containment* as a “hedging” policy. That policy had two layers, an outline which declared a non-compromising stand against communism and a second practical layer aimed at consolidating the status quo that was established after the war. Unlike grand ideological ideas of the 19th century and early 20th century, *Containment* was tailored according to the style of positivism and GT. It was “slim” and technical, where strategy was determined by analyzing an actor's capabilities and their ability to initiate provoking moves which may challenge the status-quo that was emerged at the end of the WWII.<sup>6</sup> In that calculation military capabilities were receiving the highest weight. The establishment of the National Security Council in 1947 is an organizational change that reflected that rationale of subordinating diplomacy to military considerations (May, 1992).<sup>7</sup>

Through that prism of analysis, and within the *Zeitgeist* that favored systematic and comprehensive explanations, world order could be

<sup>4</sup> The term *Common Knowledge* is better fit here but it was developed and defined later, in the late 1960s. See: Heap and Varoufakis (1995) 23–24.

<sup>5</sup> That popularization motivated the creation of “soft” versions to analytical principles of GT (e.g. Kissinger's book from 1957 *Nuclear Weapons and Foreign Policy*). Thomas Schelling's book (1960) *The Strategy of Conflict* is another example for that trend where it successfully brings the reader the essence of GT analysis, and its predictive power, in a clear and fluent language. See Mintzberg (1994) about the plugging use of the term “strategy”.

<sup>6</sup> DOD's office of net assessment and its methodological approach is one application for that approach. For the story of the Office of Net Assessment see: Bracken (2006).

<sup>7</sup> According to later analysis of Henry Kissinger (1994: 430–431) the non-compromising principle in Truman's containment vision further strengthened the role of military capabilities in diplomacy and international relations.

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