MODEL FOR ANALYSIS OF INTERNATIONAL DISPUTES

ORIGINAL ARTICLE

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ABSTRACT

The present text aims to present a methodological contribution to the problem of the accuracy of the analysis of the reaction of States in the face of situations of international disputes. To this end, after considering other methodologies for analyzing international relations, a description of a functional model of immediate application is presented. This model indicates the likely reactions of governments in the face of certain dispute situations, as a result of an analysis in which objective elements of power projection and the defense of national interests are associated with political, cultural and ideological variables that make up the cognitive and psychological formation of a country's ruling elites and ultimately influence its decision-making process.

Keywords: International Relations, Constructivism, System Dynamics Modeling, Geopolitics.

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1. INTRODUCTION

Since the beginnings of human organization, the survival of societies has depended on the availability of food, shelter and security. As these societies evolved into cities, kingdoms, states, empires and other formats, the aforementioned basic elements of survival continued to be relevant, although taking on progressively complex dimensions. To this context are added, on the one hand, the external component of the structure of the means of production of these societies, with emphasis on trade (ORGANIZATION OF THE UNITED NATIONS, 2015), finance (ARRIGHI; SILVER, 2001; STRANGE, 2015) and, in addition, security and protection mechanisms (KEOHANE, 1984). However, the description of the evolution of societies and how they interact with each other - peacefully or not - could not be limited solely to the economic and defense systems. In the author’s view and converging with elements of the theory of constructivism (ADLER, 1999; WENDT, 1999), the modeling of nonlinear dynamic systems (FISUNOGLU, 2019) and the concept of “interactive autonomy” (FUCHS; COLLIER, 2007, p. 23), variables whose essence is subjective, such as the accumulated degree of knowledge (or its reverse, ignorance), religions, ideologies, racism and sociopolitical architectures (in this case, classes, castes and the like), they are also decisive in actions and reactions in the context of relations between societies.

Decisions taken by governments in the face of external challenges and conflicts – most commonly of an economic or defense nature – are supposedly based on rational analyses, which are developed on a set of parameters selected according to their relevance and pertinence to specific situations. However, history records – from antiquity to the present day – numerous cases in which empires and nations, endowed with ample human and material resources, practically destroyed themselves – in some cases in short spaces of time – as a result of decisions taken far from rationality, but which could be understood when taking into account
motivations that are not as obvious or configurable as those that can be applied to the economy and defense: self-view (in this case, the local leaders or elites), vision of their peers, vision from the “external”, their beliefs and allegiances. Knowing these and other variables (ADLER, 1999; GIDDENS, 1984) and incorporating them into analytical processes of international relations would provide an advantageous position for those who conduct them, insofar as it would be possible to get rid of a quasi methodological obligation to explain international relations only from the dispute for power, territory, markets, capital, technology and raw materials, among other factors that are generally used by traditional theories of analysis of international relations to explain the reasons why nations enter into conflict. As João Pontes Nogueira and Nizar Messari (2005, p. 8) indicate, “the contemporary debate in International Relations would be a debate between realism, liberalism and constructivism and their respective variants”.

The present text aims to present a methodological contribution to the problem of the accuracy of the analysis of the reaction of States in the face of situations of international disputes. Therefore, after considering other models of analysis of international relations, we present a description of a fully operational tool, developed by the author of this article, which indicates likely reactions of countries in situations of international dispute supported by an analysis within the scope of the which objective elements of power projection and the defense of national interests interact with cognitive factors that shape the minds of a country's leaders and ruling elites. The formulas that make up the model establish interactions and weights between a set of factors influencing decision-making processes in the international area and respective subsets of variables, to which numerical weights are assigned, in successive layers. In the end, the model indicates the most likely reactions of countries, within a finite set of alternatives selected in light of the real practice of international relations, in two possible contexts: regular and extreme. It should be noted that the model is not based on statistics, nor does it aim to build alternative scenarios of international conflicts, although changes in the weights of
its variables allow a certain level of flexibility in projecting the reactions of the governments under study.

2. THE ANALYSIS OF CONFLICTS IN INTERNATIONAL RELATIONS

The model of analysis of international relations, based on the theory of rational action (ALDEN, 2017, p. 3-7), advocates that decision-making is conducted by the apex of a country's power structure - the State - based on a rational process of cost-benefit analysis, which seeks to maximize national interests and values. In this model, foreign policy decision makers objectively analyze the information elements available for a given external context and define possible courses of action, taking into account the availability and scope of available means and instruments for external action, the possible external scenarios and the potential consequences of the adopted courses of action. This analysis paradigm can be associated with the realist model of international relations theory (MORGENTHAU; THOMPSON, 2005).

For the model of rational action to be effective, a State should have a set of requirements that, in principle, would not be common to have at the same time: political leaders with great experience in the political field and high intellectual capacity, diplomacy that is equally experienced and qualified, professionalized intelligence services and equipped with ample instruments of action and effective performance, in addition to the availability of political, economic, technological and/or military means for immediate action (POWELL, 1994). It can be argued that it would not be difficult to find some States currently endowed with the above requirements. However, even so, the anchor of this model, the application of rationality by power formulators, alone, could not guarantee the success of a course of action defined by a State in facing a conflict situation in the international field. A political leader (as the personification of a State) may understand that he is
making a “rational” decision in the external field, despite being oblivious or unaware of the fact that the basis of his reasoning (including that of his direct advisers and the structure analytical support to a high public administration) reflects ideological, religious or racial views.

For the time being, it would be worth remembering that being “rational” is not the same thing as being “realistic”. The analysis of an international dispute situation based on the cost-benefit assessment (from which the definition of possible courses of action in foreign policy derive) can make the mistake of reflecting a snapshot of the moment, a geopolitical or economic situation, while a evaluators who strive for realism will tend to go beyond their current circumstances and be aware, in the long term, of the dynamics of international relations. In this sense, applying the model of rational action in an analysis of international disputes can be useful to simulate the process of mental construction of a decision maker, but it would be an incomplete tool for not considering psychological elements (HERMANN; HERMANN, 1989) and cultural (ESTER; VAN NISPEN, 2013) that affect the reasoning of a country’s ruling elites.

Other theoretical models go beyond realism and the positioning of the “State” as the main actor in international relations, capable of developing logical and rational reasoning, immune to the real world in which it is inserted. Among these other models (e.g. liberalism, idealism, Gramscian Marxism, English school, postmodernism, etc.), three would converge with the conceptual conception of the model of analysis proposed in this article: (i) the model of the political process (Mc ADAM , 1982, p. 81-104), which advocates that the decision maker is affected by the proactive action of non-public actors, such as civil society and the media. Naturally, the effectiveness of the strategies and tactics of influencing these actors depends on the profile of a society: whether the political regime is democratic and representative, whether the state is secular, whether there is a free press, whether civil society enjoys freedom of association and expression and, not least, if the
largest portion of the population has basic levels of education, even if non-traditional, as a basis for having a notion of themselves as individual political actors and instruments for exercising citizenship; (ii) the multidimensional model, which seeks to consider the intertwining of different approaches and theories in the analysis of international conflicts. According to Ali Askerov:

[...] para selecionar e coordenar esforços de resolução de conflito, em diferentes níveis, de forma a se obter êxito na mitigação e transformação de conflitos sociais prolongados, necessitamos diagnosticar a origem de suas causas minuciosamente, pelo emprego de uma abordagem multidimensional. (ASKEROV, 2008, p. 66).

To compose his study on the Russian-Chechen conflict, Askerov (2008, p. 66-79) chose the following group of theoretical frameworks: basic human needs[2], cultural and structural violence[3], frustration-aggression[4] , structuring[5], classification imbalance[6], social identity[7], relative deprivation[8] and psychoanalysis[9]. In the document Conflict-sensitive approaches to development, humanitarian assistance and peace building: tools for peace and conflict impact assessment, jointly published by non-governmental organizations APFO[10], CECORE[11], CHA[12], FEWER[13] , INTERNATIONAL ALERT[14] and SAFERWORLD[15], it is indicated that conflict analysis can include the search and processing of information obtained from different sources and actors (governments, civil society, international organizations, etc.), as a way of crossing information, corroborate information, identify convergences and identify divergent points between different views of a dispute situation under scrutiny.

Some means, to do so, involve conducting research, interviews, group discussions and consultations. The different models of conflict analysis applied by international agencies include topics such as politics, economy, security and geographic environment[16], human rights[17], internal stability, ethnic relations, natural resources, diaspora[18] and social dynamics (classes social, gender, identity, history, beliefs)[19]; (iii) the constructivism model, in which the analysis of a
country's foreign policy incorporates social, identity and ideological aspects. According to Emanuel Adler, Professor in the Department of International Relations at the Hebrew University of Jerusalem:

Construtivismo é a perspectiva segundo a qual o modo pelo qual o mundo material forma a e, é formado pela ação e interação humana depende de interpretações normativas e epistêmicas dinâmicas do mundo material. (...) Além disso, os construtivistas acreditam que a capacidade humana de reflexão ou aprendizado tem seu maior impacto no modo pelo qual os indivíduos e atores sociais dão sentido ao mundo material e enquadram cognitivamente o mundo que eles conhecem, vivenciam e compreendem. Assim, os entendimentos coletivos dão às pessoas razões pelas quais as coisas são como são e indicações de como elas devem usar suas habilidades materiais e seu poder. (ADLER, 1999, p. 205-206).

This framing of the world based on collective understandings would generate multiple possibilities of reaction of leaders and political elites to situations of international dispute, as a consequence of different processes of construction of an interpretation of the material world and how it works. Also according to Emanuel Adler:

Constructivismo broadened the horizons of the analysis of international relations by demonstrating the added value of the factors that generate social facts and the behavior of their actors in the composition of decision-making processes. As appropriate, it would be appropriate to rescue another statement by Emanuel Adler (1999):
O construtivismo está no meio termo (entre o Racionalismo e o Relativismo[20]) porque se interessa em entender como os mundos material, subjetivo e intersubjetivo interagem na construção social da realidade, e porque, mais do que considerar exclusivamente como as estruturas constituem as identidades e os interesses dos agentes, ele pretende também explicar como, antes de tudo, os agentes individuais constroem socialmente essas estruturas. (ADLER, 1999, p. 216).

The analysis model presented in the present article converges conceptually with the theory of the political process, with the multidimensionality of the decision-making process by political agents and, particularly, with the basic principles of constructivism, namely, that the structures of human association are determined primarily by shared ideas rather than material forces and that the identities and interests of actors relevant to the analysis of international relations are constructed by these shared ideas, and not given by nature (WENDT, 1999). In fact, it can be said that the theories of analysis of international relations that emerged after the centuries of reign of the realist approach have the common characteristic of recognizing the obvious: leaders and political elites are human beings and the figure of the “State” is not cloistered in a bubble immune to its surrounding environment[21], conditions – which could not be neglected in any theoretical framework of analysis of the dynamics with which international conflicts arise – are faced and resolved, regardless of the fate and fortune of the actors involved.

3. ANALYSIS TOOLS


A “hegemonia dos modelos lineares” na ciência política é o resultado de uma tendência dependente de trajetória (“path-dependent”) causada pelo domínio histórico dos modelos lineares e pela maneira como os dados das ciências sociais são coletados. Consequentemente, a impressão sociológica de modelos lineares nas ciências sociais é ainda significativo. (FISUNOGLU, 2019, p. 233, tradução nossa).
In research carried out by Detlef Sprinz and Yael Wolinsky-Nahmias (2004) on methodological approaches applied to the study of international relations, it was found that, in articles published in journals[22] on this subject, between 1975 and 2000, the proportion number of studies based on statistics grew from 26% during the late 1970s to 43% in the late 1990s. Using statistical tools, one can select a set of parameters (e.g. domestic policy, foreign policy, defense, economics and international trade) and build databases able to identify patterns and draw inferences. However, statistical tests must be substantively coherent with the causal mechanisms underlying the theories (in this case, in the field of international relations) that they intend to evaluate (BRAUMOELLER; SARTORI, 2004). With this information, it would be possible, therefore, to identify an “average behavior” of a country for each item that integrates a database, which would become a reference to be applied in the analysis of a new (or potential) international dispute.

This analysis model makes it possible to indicate the tendency of a country’s reaction to specific situations, based on a profile outlined in records systematically collected and recorded in a standardized way. However, some questions could arise when applying linear models: to what extent a pattern or “average behavior” constructed through artificial intelligence algorithms, which process records accumulated over decades and multiplied by new information capture formats (e.g. social networks; “internet of things”), would it have enough flexibility to consider sudden or radical changes in the international positioning of countries? To what extent would a statistical-based model be able to incorporate factors theoretically not subject to statistical records in its analytical process? An interesting analysis of the improvement of statistical-based analysis models was made by Nathaniel Beck, Gary King and Langche Zeng (2000, p. 21-36).

Current communication and information technologies, in addition to data collection and processing tools, such as data mining and big data, have, for decades, offered means for the systematization and analysis of information that even consider
factors in the evolution of the object subjected to a follow up. The culminating stage of this process would be the identification of standards that could be applied in the analysis of disputes in the field of international relations (PRAKASH, 2019). In fact, there is a growing dissemination of the use of these tools, as in the case of the economic sphere: the definition of a consumer profile (CHEN, 2011) and analysis of messages exchanged in social networks[23]. According to Ben Scott, Stefan Heumann and Philippe Lorenz (2018, p. 14), “intensive national investment in research and development of Artificial Intelligence is intended to achieve an asymmetric advantage in new technologies that could alter the balance of global leadership”.

The view that statistical models – enormously enhanced by contemporary information technologies – as instruments capable of providing elements of accurate information for the analysis of international conflicts is not, however, unanimous. As indicated by Hamid Akin Unver (2018):

O forte empiricismo da modelagem estatística e de regressão foi desafiado pelo campo qualitativo por uma variedade de razões, incluindo distorção do foco analítico, manipulação de dados e um ceticismo generalizado sobre em que medida um valor matemático pode implicar causalidade. (UNVER, 2018, p. 2, tradução nossa).

In this context, it is worth remembering the controversial side of this new reality, involving, for example, the clandestine sale of consumer records, the sharing of personal data that companies operating virtual social networks do with intelligence services, and even theories about the possible applications of 5G technology.

The use of computing in international relations derives from an identical but earlier process implemented in the social sciences (UNVER, 2018). Its application, however, focuses on the same themes as the traditional analysis of the realist theory of international relations: peace and security, state actors, international treaties and organizations, and world order. As the analysis of issues related to defense and national security became more sophisticated beyond traditional
themes such as military capacity and counterintelligence, including research and monitoring of the activities of terrorist organizations, fundamentalist religious groups and social movements of political militancy, sociological elements were progressively incorporated into this process. The question that arises is: to what extent analysts of international conflicts are fully exploiting the potential of this incalculable universe of information involving public and non-public actors. Also according to Hamid Akin Unver (2018), research focused on topics such as defense, balance of power, armed conflicts and infrastructure have attracted more attention from computational research than other promising approaches in international relations, such as constructivism, poststructuralism and critical theories or postmodern.

Without prejudice to the value of statistical systems for the analysis of international relations, the purpose of this article is to argue that an analysis model based on the logical association of social, economic, political and defense and security variables can be useful as a complementary tool in identifying States’ reactions to potential international disputes. The model in question would be in line with the vision of Christian Fuchs and John Collier (2007), in the sense that society is a complex system, with multidimensional causal factors, in which causes and effects cannot be mapped linearly. For the aforementioned authors, social systems would be dynamically interconnected: economic, political and social structures and practices drive cultural creative processes, while cultural structures and practices drive creative processes in economic, political and social systems. The methodology in question presents, in turn, a converging conceptual approach with the modeling of non-linear dynamic systems (FISUNOGLU, 2019).
4. PROPOSAL FOR ANALYSIS MODEL OF INTERNATIONAL DISPUTES

As mentioned in the introductory part of this article, the economy is one of the main motivating elements for international relations between sovereign States. In addition to that, the establishment or maintenance of hegemonic economic positions as a basis for sustaining structures of power and stability and social control requires the perception of security of command and trust that rulers need to transmit to their subordinates (HASEL, 2013), the availability of political-military deterrents (ART; GREENHILL, 2015), competence in conquering and maintaining markets and secure access to raw materials[24], ability to invest in new technologies (ZHANG, 2004, p. 94-95), diplomatic proactivity (TOWNSEND-GAULT, 1998, p. 182-185; NIBLETT, 2010) and an industrial base (TOZZO, 2018, p. 23) sufficient to support the instruments of affirmation and maintenance of power.

Despite the weight of the economy in the functioning of a society, it alone would not be able to explain the attitudes taken by sovereign governments in their international relations. As noted in the introduction to this text, other factors such as religion, ethnic homogeneity and ideology, for example, would also need to be considered. In a decision-making process, government officials are faced with objective situations to be considered, whose answers would derive, in theory, as previously noted, from a rational analysis of strategic, tactical options and available means (ALDEN, 2017). But it should not be forgotten that rulers are human beings, members of societies with values, beliefs and cultural idiosyncrasies (HERMANN, 1989, p. 365), composing a multifaceted, dynamic picture, subject to the circumstances of a historical moment.

In this sense, when one intends to analyze the international performance of governments in the face of challenges imposed on them - or imposed by them on
third parties - it would be advisable that a wide range of factors could be considered, in a complementary way to the study of economic and geopolitical factors that impact decision-making in the context of international relations. The creation of an analytical model that proposes to carry out this task would face the challenge of equating heterogeneous elements of analysis: on the one hand, sets of parameters or attributes that can be collected and measured using government statistical systems or defined classification criteria by specialized private institutions; on the opposite side, items whose morphological nature is diffuse, integrated by cultural elements that affect the formation of political leaders’ minds and how they interpret reality (HERMANN, 1989, p. 365; ESTER; VAN NISPEN, 2013, p. 8-13). This article presents the conceptual basis and structure of a model intended to serve as a tool to carry out such an analysis. The model is composed of a standardized set of factors and variables, the latter with quantified weights. Model formulas – which will not be reproduced in this article – indicate possibilities for States to react to potential international conflicts in the contemporary historical context.

5. MODEL DESCRIPTION

The International Dispute Analysis Model (MADI) aims to indicate the likely reactions of two countries to a specific set of potential international disputes, based on an analysis based on formulas that correlate a selected group of factors and the respective variables that theoretically influence decision-making of governments in their international relations. Depending on the nature of the dispute, the model formulas establish different configurations of the weights applicable to the aforementioned correlation of factors that affect decision-making. This article does not present the details of the formulas and weights of the variables of the model under discussion, due to the author’s intellectual property.
The model consists of six Worksheets and twelve Reference Tables. The model was fully developed in English.

5.1 WORKSHEET

The process of constructing the suggested outcomes for each of the two countries analyzed unfolds in six consecutive stages, structured in spreadsheets with formulas that generate a progressive accumulation of scores. The steps are detailed below:

Step 1 - Country Profile Definition: In this first step, the individual profiles of the two countries under analysis are determined based on ten factors. Each of the factors has a subset of variables, to which numerical weights are assigned. Since the profile of one of the analyzed countries tends to be stable within a time range (e.g. from 1 to 2 decades), the model can operate based on a bank of profiles for successive use. Given the internal dynamics of social, political and economic relations in any country in the world, and also of international relations in different dimensions (trade, investment, defense, etc.), it would be necessary to promote periodic adjustments in the variables and their weights.

The 10 factors selected by the model, plus a justification for their choice, are as follows:

Civilizing heritage[25]: the temporal extension of a country's civilizing experience can provide relevant input for an analysis of the degree of maturity of a political elite and its society when it comes to making a decision in relation to the outside world. It is not an exact science, but an argument that societies endowed with social and political structures operating for thousands of years tend to act in a more balanced, strategic way (KISHWAR, 2017) and, therefore, less willful. Nevertheless, there are countries in this first group that, in periods of turmoil or social/political radicalization (SUNY, 2007, p. 59-63), can also adopt measures in
the international field in a reckless and poorly calculated way. In a second group of nations, with a few centuries of social and political organization, the relationship with the outside would not be referenced in a civilizational heritage, but in a self-constructed image, based on beliefs and moral values that would express its “exceptionality” (NYMALM; PLAAGEMANN, 2019, p. 14; HENDRICKSON, 2018, p. 69-70);

Political regime: it would not be necessary to present exhaustive evidence in the sense that democratic regimes have more balancing mechanisms (HENDRICKSON, 2018, p. 72-74; MARTILL, 2018, p. 16-25; BRANDON, 2005, p. 120) and rationality in the exercise of power than autocratic or authoritarian regimes. In this sense, regimes structured around representativeness and the balance between three powers (Executive, Legislative and Judiciary) tend to act more prudently in international relations, without implying negligence in the application of strategies and tactics adopted in the projection or defense of their national interests (LINDSAY, 2018, p. 145-161). In turn, highly centralized, vertical regimes lacking self-control mechanisms are exposed to unpredictable attitudes of their leaders (e.g. military adventures and alliances celebrated without a prior analysis of their added value) and to the risks of autocratic decisions (GANDHI, 2008, p. 101), which can be, in many cases, irrational. This second group includes the classic cases of dictatorships, one-party regimes and those of a populist nature, prone to the cult of (to) personality (BRANDON, 2005, p. 120-124);

Economy: the size of a country's economy, measured by its Gross Domestic Product (GDP), has a direct influence on the international performance of governments. Countries with large economies need to seek, in the cross-border context[26], the maintenance of markets, access to sources of natural resources and (positive) flows of capital, among several other items that would not need to be enumerated here, as a basis to preserve the foundations of constituted power. Consequently, for these countries, the need to implement proactive rather than
reactive actions is unavoidable. On the other hand, countries with fragile or merely survival economies seek to insert themselves, as a rule, in the space of action of economic powers, a situation that limits the exercise of an independent foreign policy (BEASLEY et al., 2013, p. 4). On the other hand, countries with economies of intermediate size have some room for maneuver in the international area, particularly in cases where the “Defense” factor is not the balance sheet (BEASLEY et al., 2013, p. 7-8).

Another important aspect also analyzed in the model variables involves the weight of foreign trade on the country's economy and, consequently, on the governmental decision-making process (WOLFF, 2018). Countries that have a low percentage of GDP linked to exports tend to be less assertive in the dispute for markets, in negotiating trade agreements and in participating in international discussions regarding mechanisms for regulating trade in goods and technology. On the other hand, countries where an important fraction of the local GDP depends on the export of goods and services and on the import of inputs of different natures, an active foreign policy is maintained and that unfolds in multiple forms of action, motivated by a survival instinct, which it may even explain military actions (STOCKWIN, 1955, p. 158).

Also within the scope of the economy, it would be possible to verify the weight of the influence of the private sector on government decisions (KIM; MILNER, 2019, p. 5-13). At this point, the size of the GDP of the country under analysis would not matter so much, but the history of the relationship between the productive sector and its political leaders and, here too, the weight of foreign trade on the local economy. Naturally, this analysis would only apply to countries that have productive structures above the level of survival.

Defense/Security: together with the economy, defense (in the military sense) and security (in the sense of social and political stability) of a country explain, since the beginning of history, many of the movements that occur in the international arena.
Initially, we can remember countries with an interventionist history, an action that can take place via direct military or camouflaged conspiracies and actions, such as the provocation of regime change and the indirect funding of freedom fighters (COOLEY, 2018). There are situations in which interventionism – as a way of acquiring new territories, imposing political and economic hegemony or unifying ethnic communities – is part of the very belief of creating the country as a nation (KRAKAU, 1994, p. 257-258). In other situations, interventionism can be momentary, linked to periods of ideological or religious exacerbation, or as a response to a perception of risk to the very existence of the country as an organized society (TELHAMI, 1990, p. 400-401). On the other hand, it can be said that, when observing the dynamics of international relations, most countries do not show that they are interventionist. In part of this second group of countries, ethnic predominance or the presence of stable borders, in the sense of the concept of Westphalian sovereignty, are factors that tend to avoid border conflicts (ATZILI; KADERCAN, 2017, p. 122-123). In other cases, there are countries with unresolved social and geographic situations, which very likely would instigate interventionist desires, but which are neutralized by economic and military limitations[27].

Another group of variables to be considered in an analysis of the defense theme naturally involves military capacity and, depending on the country, the degree of influence of military commanders over their central government (BECHTEL, 2017, p. 4-7). In the case of military capacity, its greater or lesser availability is a decisive element in determining the potential for action and reaction of a country in the face of potential external conflicts. Even so, miscalculations can happen, and history is replete with examples of unsuccessful military adventures. Since the model to be described below can be analyzed for all nations as a whole, it would be essential to highlight the specific situation of countries equipped with nuclear weapons and the means for their projection. In stable governments with political legitimacy, the performance of the military is usually professional and based on rational
evaluations. In countries with exceptional or highly ideological regimes, the military are mobilized as instruments to exacerbate foreign policy actions (LISINSKA, 2019, p. 58-66).

Another important variable to be analyzed in the field of defense and security involves the risk of terrorist actions. If there is evidence of the presence of this risk and according to its materialization potential, the external action (in this case, reaction) of a country will be proportional: from the adoption of internal protective measures (intelligence; security protocols; blocking of financial operations)[28], to the organization of extreme actions (military attacks and commando operations)[29].

Finally, it would be worth remembering the political-military alliances. Countries that are members of alliances, regardless of their leadership or leadership position, use them whenever necessary as an instrument of pressure or threat[30]. In turn, countries that are not part of defense or collective security alliances need to maintain some level of political alignment with major powers, as a source of immediate support in facing international crises in the field of defense and/or security. This support from powers to countries with less military and security capabilities is not provided without political and economic counterparts[31];

Cultural formation: the cultural heritage of a society, along with other factors that shape the mind of political leaders (ESTER; VAN NISPEN, 2013; FRIEND, 2018, p. 160) in numerous psychological aspects, does not seem to be valued in analyzes of international relations. Culturally diverse, cosmopolitan countries that are open to receiving contributions from other cultures (HANNERZ, 2006, p. 2), tend to react more peacefully in the face of disputes with the “foreigner” (NAN et al. 2009, p. 6). On the other hand, countries in which a sense of traditional national culture permeates tend to react defensively and are less flexible in conflict negotiation (FRIEND, 2018, p. 161-165). Emphasis could be given here to the countries that we could classify as “disseminators”, those that project elements of...
their culture on a regional or global scale. This practice is a vehicle of soft-power and political projection through non-military and economic means (RYNIEJSKA – KIEŁDANOWICZ, 2009, p. 12);

Education and technology base: The first part of the comments on this item concerns the level of education of political leaders in a country. Even more important than the individual capacity of a political leader, the level of training of his/her advisers[32] and the first echelons of government is a determining condition for the success or failure of a foreign policy. In his speech at the inauguration ceremony as Secretary General of the Brazilian Ministry of Foreign Affairs, delivered on January 20, 2015, Ambassador Sérgio Danese[33] addressed the matter as follows:

Uma História de duzentos anos, da qual guardamos zelosamente uma orgulhosa e útil memória institucional, e a qualidade do seu corpo de funcionários tornaram o Itamaraty respeitado dentro e fora do Brasil e deram ao país não apenas uma ferramenta poderosa na sua interação com o mundo, mas um patrimônio de muitas dimensões, a começar pelo seu próprio território e pelas relações exemplares de amizade e entendimento que mantém com cada um de seus vizinhos. É sobre esse duplo patrimônio que se constrói qualquer boa gestão do Itamaraty. (MINISTÉRIO DAS RELAÇÕES EXTERIORES, 2015).

Despite, however, the importance of the presence of leading cadres with high educational background, this asset alone does not result in efficient, effective and rational international action, since other factors also make up the judgment capacity of individuals, such as their cultural heritage, eventual religious faith, ideology and racial perception, as discussed above, in the item “cultural formation”.

The relationship between technology, innovation, national security and power in the context of international relations is an object of general recognition and neglecting this reality can have significant consequences in terms of economics and political leadership (LEWIS, 2018, p. 1-6). Having a local capacity for innovation in research and development (SCHOT and STEINMUELLER, 2018, p. 345)
1555-1562), public or private, is essential for the continued modernization of sectors such as defense, information technologies, pharmaceuticals, energy generation and agricultural production, just to cite the most emblematic cases. The registration of patents would be an indicator of measuring the technological capacity and economic production of a country (POWELL; SNELLMAN, 2004, p. 202-206).

Religion: Under the argument of defending or expanding a faith, countless wars, massacres and barbaric acts have been committed throughout history. The destruction of the library of Alexandria by the Roman Catholic Church, the Crusades, the Islamic invasions in Europe during the Middle Ages and Modern Age, in addition to the destruction of religions and knowledge developed by different pre-Columbian societies by European colonizers are examples of the use of religion as a pretext for the conquest of power, territory and wealth. Religion has been used by political leaders as a tool for mass manipulation and for the mobilization of great efforts necessary to meet the purposes of a superior spiritual entity or a sacred book. In this context, religion also influences a country's foreign policy (ALTORAIFI, 2012, p. 23; BLACKMAN, 2018, p. 525-528; WARNER; WALKER, 2011, p. 117-125);

Ideology: A person who consciously follows an ideology is little different from a practitioner of religious doctrines. All the mistakes made as a result of religious fervor can also be found in individuals who practice ideological doctrines. The different ideological traditions (HEYWOOD, 2012, p. 9) offer “certainties” that would not be subject to a consistency analysis (HEYWOOD, 2012, p. 15). A State policy based on an ideological doctrine, followed by its leaders and senior officials, would be structured on unquestionable interpretations of reality, on “moral” or “civilizing” values to be imposed on other nations (for the own good), as well as by the exportation of models of social and political organization deemed “more evolved” in relation to other “less evolved” nations. Socialist or fascist regimes are relatively
easy to identify and classify by their ideological basis. This task becomes more difficult when ideology is behind conceptual curtains, such as “freedom”, “democracy” and “justice”.

Geography: the geographic factor is naturally associated with the defense and economy of a country. Since the dispute over territories is considered to generate conflicts of a military nature (SCHULTZ, 2015, p. 28-29), the model partially presented in this article includes conflicts in border areas as variables.

Ethnic homogeneity: The ethnic factor has assumed a more present role in international relations after the end of the ideological competition between the West and the socialist world that marked the period of the Cold War (CARMENT, 1994, p. 551). The ethnic composition of a society as an element of construction of a national identity (ALTORAIFI, 2012, p. 45-48; LEWIN-EPSTEIN; LEVANON, 2005, p. 94) was, therefore, selected as a variable to compose the profiling of the countries analyzed in the proposed model described in this article. The model formulas give more pronounced weight to countries with greater ethnic homogeneity. This is not about valuing such homogeneity, but rather indicating that countries with ethnic homogeneity would be more likely to assume positions influenced by particular elements of their customs and values (ALTORAIFI, 2012, p. 113-115). In this context, attitudes that could be associated with xenophobia are included (LEWIN-EPSTEIN; LEVANON, 2005, p. 90-93).

Stage 2 - Start of profiling the wording of the country for each of the five potential types of dispute: The function of this second stage of the model is to define, in numerical values, a first approximation of the reactions of a country in relation to 5 (five) themes: (I) Defense/Security; (II) Economy; (III) Policy; (IV) Territory; and (V) Technology. For each of the five items, formulas that associate different compositions of the 10 country profiling factors are applied. In these formulas, the subtotals of the variables that make up the aforementioned factor compositions are
used. A generic description of the model's tables and formulas will be presented below.

Stage 3 - Introduction of elements of emphasis for the 5 potential conflict situations: In this third stage, the profile of a country's reaction to each of the five potential conflict situations undergoes a first refinement process, with the aim of applying weights additions to the variables originally selected for each composition of the model formulas, in order to accentuate the impact of the initial reaction profiling.

Step 4 - Application of additional variables to the profiling of a country's reaction to the 5 potential conflict situations: In this step, the construction of the reaction profile goes through a second refinement process, in which four variables that address the interaction are quantified and applied of governments with internal and external interlocutors: Mutual Perception; Bluff; Public opinion and political-ideological orientation. The content of these variables will be discussed in the description of Tables 5 to 8 of the model.

Step 5: Consolidation of the country's reaction, with application of the “NIAR” factor and indication of the outcome suggested by the model. In this fifth stage, the most important of the model, the definition of the country's reaction to each of the 5 potential types of dispute is consolidated, with a third process of refinement of the already accumulated scores. This step involves the application of the “National Interest Considered Under Risk-NIAR” factor. This factor is applied through different associations of the subtotals of the variables that make up its components.

Step 6 - Definition of the probable mutual reaction of the two countries under analysis to their reactions: Once the reactions of the two countries under analysis are defined, the model indicates a probable outcome of the dispute, based on a relationship between the degree of asymmetry of the reaction of each of the two
countries analyzed and the difference between the weights of the variables that make up the “NIAR”. The value obtained from this relationship between data leads to an automatic selection of one of the five possibilities of mutual replication listed in the model table.

5.2 TABLES

Table 1 lists 10 factors that can influence the international action of a sovereign State: Civilizing heritage; Political regime; Economy; Defense/Security; Cultural training; Educational and technological level; Religion; Ideology; Geography and Ethnic Homogeneity. The description of each of these factors was presented in item 5.1 of this article. For each of these factors, variables are linked to outline a profile for the countries under analysis. The model has dozens of variables in Table 1. A numerical weight was assigned to each variable. The framing of countries in the aforementioned variables can be based on international sources of information, included in the body of Table 1. The model has a flexible structure, which allows the unfolding of the original variables of each subset and their numerical weights, without compromising the application of its formulas, which work from subtotals. Thus, progressive evolutions can be incorporated into the model. For the analysis of conflicts situated in other historical moments, it will be necessary to adjust the variables and their weights to the reality of the time to be analyzed.

Table 2 introduces the 5 potential dispute situations for which the model builds reaction scenarios: Defense/Security; Economy; Policy; Territory and Technology. For each type of dispute, the model establishes formulas that establish different correlations of weights and weights, as shown below:

b) Economy: weightings between the variables of the factors Economy, Education/Science and Technology, Political Regime and Cultural Formation;

c) Politics: weightings between the variables of the factors Political Regime, Ideology, Ethnic Homogeneity, Cultural Formation, Religion and Civilizing Heritage;

d) Territory: weightings between the variables of cultural background, Religion, Ideology, Geography, Political Regime, Ethnic Homogeneity, Defense and Economy; and

e) Technology: weightings between the variables of the Education/Technology, Economy and Defense/Security factors.

Table 3 includes formulas that aim to emphasize the extent of the potential impact of the five dispute situations on the composition of the reactions of the countries under analysis. General aspects of these formulas are presented below:

a) Impact Factor for Defense/Security Dispute: the formula correlates the index in Table 2 for the “Defense/Security” dispute situation with the variables of the Defense/Security, Ideology and Geography factors;

b) Impact Factor for Dispute in Economics: the formula correlates the variables of the “Economy” factor with the index in Table 2;

c) Impact Factor for Political Dispute: the formula correlates the variables of three factors (Political Regime, Religion and Ideology) with the index in Table 2 for the situation of political dispute;

d) Impact Factor for Territory Dispute: the formula correlates the variables of three factors (Economy, Ideology and Geography) with the result of the index in Table 2 for the territorial dispute situation; and
e) Impact Factor for Dispute in Technology: the formula correlates the variables of the Education & Technology factor with the index in Table 2 for the dispute situation in the technological field.

Table 4 introduces into the model, as an additional element of analysis, the impact of possible risks caused by external factors on national interests understood to be of great sensitivity for a country. These risk factors are grouped into 5 categories (Defense/Security, Economy, Politics, Territory and Technology), in order to allow an association with the five potential situations of international dispute. Variables are also associated with each of these factors, with their respective specific weights. Table 11 presents a generic description of the composition of these factors. The five categories are broken down below:

I) Defense/Security: the variables for this component in the model establish weights that seek to capture (i) the extent to which the action of foreign agents can cause disturbances in the stability of a country; (ii) the extent of the impact that situations of instability in neighboring countries (or regions/continents, depending on the geographic projection of the country under analysis) may have on the strategic interests of the country under analysis; and (iii) the extent of the impact that potential international disputes may have on a country's defense infrastructure, depending on the costs of maintenance and readiness of contingents and equipment, modernization schedule and, in the event of an actual conflict, operational costs and human and material losses;

II) Economy: the variables for this topic relate to international trade, economic blockades, trade sanctions and sabotage by foreign actors in the operations of foreign companies. Damage to the flow of trade can generate structural impacts on a country's balance of payments, tax revenue, job losses and price inflation, among other effects. The intentional action of external actors to harm a country's economy would be one of the examples of the so-called "hybrid war"[34]. In turn, international disputes can have harmful effects on a country's financial system. As RC: 124785

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with foreign trade, the financial system can also suffer the consequences of the imposition of sanctions, the blocking of bank transactions and the impact of unorthodox operations, such as the clandestine distribution of counterfeit currency. The spread of fraudulent news and cyber attacks also pose risks to financial systems.

The effects of external disputes on a country's Gross Domestic Product were considered as relevant components of the model discussed here. Depending on the economic extent of the negative effects of an external dispute, a systemic impoverishment of a country is possible, with consequences in terms of political and social instability. Finally, the model also considers access to raw materials, fuels and other items of a strategic nature, which, depending on the particular situation of each country, can motivate the adoption of measures reactive to the risk of free and regular access to these inputs;

III) Politics: the variables for this topic consider a country's concern not to see an image constructed as an instrument of its foreign policy at risk. A positive international image can be useful in a number of situations, such as, for example, serving as a “moral argument” for the adoption of aggressive actions against third countries labeled as transgressors of the “good behavior” that would be expected of them in the context of international relations, or a platform for inducing agendas (e.g. environment; human rights; security, etc.), which, on the surface, would be "in the collective interest", but which camouflage strategic interests. In this sense, countries that invest in external image as an instrument of power are sensitive to disputes that, if not competently managed, can compromise strategic foreign policy projects. Additionally, disputes with other countries that weaken the effectiveness of a foreign policy, that reduce their instruments of participation in international economic flows or that spread a vision of loss of political resilience, end up weakening the support of regional or global leadership and the success of long-term geopolitical projects.

RC: 124785
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Finally, the model includes in its analysis process the impact of domestic policy on a country's foreign policy. Here is a risk factor perceived by leaders and political elites, as the demonstration of weakness, lukewarmness, or ineptitude when dealing with international disputes can become a factor of political destabilization. Depending on the country's political regime, the impacts of external failure can range from non-traumatic consequences (loss of political support/electoral base, in the case of democratic regimes) to traumatic (civil disobedience; civil war; coups d'état; regime collapse in force);

IV) Territory: the variables for this topic establish weights for a set of situations that can generate progressive levels of severity. A border crisis can have many origins, which can potentiate or even catalyze additional sources of conflict between two countries. In the case of border disputes, the degree of sensitivity is pronouncedly greater, as it requires the mobilization of diplomatic and, as appropriate, military efforts. A border dispute can unleash social passions buried in time, with unpredictable consequences. Some regions of the world are still experiencing tense situations in this regard, such as the Caucasus, the Balkans and the Middle East;

V) Technology: the variables for this topic establish weights that cover access to foreign technology markets and maintenance (or loss) of the technological threshold. Countries that are leaders in the production and commercialization of cutting-edge technology (or products derived from it) do not want competition, either because an important fraction of cutting-edge technologies is linked to the Defense sector, or because of the vital interest in maintaining control over the higher layers of global value chains and, in this context, the direction of capital flows and income concentration. Thus, countries in a leadership position are highly sensitive to technology-based disputes, which means that they will be willing to adopt tough measures against their rivals. On the other hand, countries that do not produce technology and that are simply producers of raw materials and/or
suppliers of cheap labor are unlikely to toughen negotiations on this matter and will seek to obtain advantages in return to open their local economy to foreign technology.

Tables 5 to 8 of the model introduce 4 (four) elements that are not part of the set of factors that define a country's profile and were, therefore, located outside Table 1, but that can affect the discretion of political leaders at the level of foreign relations of a country. These items are as follows:

a) Mutual perception: the purpose of this variable is to weigh the extent to which country “A” respects country “B” and vice versa; the extent to which one side considers the other to be resilient and, therefore, motivated and firm when facing each other in a disputed situation. When assigning a value to this variable, many of the aforementioned factors of a subjective nature are present that impact the worldview of governments and political leaders: xenophobia, interventionism, ideology, etc. It is, however, a variable that can lead to ambiguous situations: on the one hand, obtaining an objective diagnosis regarding the levels of self-esteem, morals and confidence of the rulers of the other country based on information obtained by intelligence sources; on the other hand, political leaders who see the other country in a presumptuous and prejudiced way, regardless of information presented by their intelligence services, because they give greater importance to their worldview, which can be biased by prejudices. In the first case, perception will be a positive element for the analysis of a conflict situation. In the second case, this variable would be applied in the completely opposite direction to its function, erroneously inducing the model's calculations and compromising its results;

b) Bluff: the function of this variable is to incorporate into the model's calculations the possibility of a country considering that the other country uses the bluff tactic. The analysis of this variable bears similarities to that of “Perception” described above, particularly in relation to the information search processes and how they are
evaluated: objective analysis and based on intelligence data “versus” subjective and non-rational interpretation of a conflict situation;

c) Public opinion: variable whose influence is particularly present in democratic countries; and

d) Ideological identity: the function of this variable is to relativize the reaction of a country when faced with a potential situation of dispute with another country with ideological affinities. In these cases, the tendency is to move away from the adoption of drastic measures between the two countries.

Table 9 presents the main functionality of the model: the indication of the possible reactions of the analyzed countries to dispute situations. At this point in the model, the formula that correlates the “country reaction” to each of the five potential conflict situations and the index of “national interest at risk” for each country is applied. In turn, the selection of the alternative reaction for each of the five situations of potential dispute is based on score ranges that correspond to the alternatives presented in Table 9, composed of three subsets: Appeasement, Encirclement and Military mobilization, without external interference from the evaluator. Another feature of the model is to present two reaction possibilities: “regular” and “extreme”.

Table 10 is directly linked to Table 9. Its purpose is to indicate the profile of the mutual response of the two countries to their respective reactions. The calculation in this table includes formulas that take advantage of the score asymmetries of certain items in the model for each of the countries under analysis and, from that point, generate a score from which a replica scenario contained in Table 12 of the model will be selected.
Table 1 - Model Operation Flow

Context: we want to analyze a dispute between two countries, “A” and “B”, and identify their probable reactions.

Application of the model: the model generates a cumulative score by applying formulas that quantify, cumulatively, national profiles, the impact of specific groups of variables and the intersection of data from the two analyzed countries. At the end, the model automatically indicates the likely reaction of each country to five potential dispute situations: defense, economy, politics, territory and technology.

1st stage: definition of generic profiles of Countries “A” and “B”, based on ten factors (attributes) that cover political, economic and psychosocial aspects, among others. The subsets of variables associated with each factor generate subtotals (“X”).

2nd stage: quantification of a second profile of countries “A” and “B”, this time in relation to five potential dispute situations. From the interaction between groups of subsets measured in the 1st stage (“X”), values are generated for each potential dispute situation, by country (“Y”).

3rd stage: addition of an emphasis factor (impact) of each of the five potential dispute situations to the profile of countries “A” and “B” measured in the 2nd stage (from “Y” generates “W”).

4th stage: quantification of the impact of external factors (“Z”), which are added to the accumulated values of previously measured national profiles (“Y” and “W”).

5th stage: determination of the reaction of countries “A” and “B” to the five potential dispute situations covered by the model: (i) the relationship between “Z” and the variables “NIAR” is measured; (ii) with the final accumulated score, the model automatically selects, for each potential dispute situation, one of the likely reaction alternatives contained in a
6th stage: determination of the Mutual Replica to the Reactions of “A” and “B” to the five potential dispute situations, taking into account asymmetries quantified by the model between the profiles of each analyzed country.

Source: Own authorship, 2020.

6. CONCLUSION

As previously indicated in this article, the model was not configured to perform statistical analysis of the factors that would directly or indirectly affect decision-making in the field of international relations. The conceptual architecture of the model is based on an approach that seeks to consider, through logical associations, the weights of different groups of variables that profile a country and its leadership, in the light of its internal characteristics and its interactions with the outside, with the objective of to point out likely reactions to a selected group of possible international disputes. As it is structured in formulas, variables and standardized weights applicable to any country, the model can serve as a complementary tool for analyzing scenarios carried out by other platforms, with the added value of incorporating cognitive, psychosocial, cultural and ideological elements, normally absent of the traditional process of analysis of international conflicts, which traditionally focuses on aspects of defence, security, economics and politics.

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APPENDIX - FOOTNOTE REFERENCES


20. Title of the chapter of the article under reference, from which the citation originates.

21. With the spread of artificial intelligence, the possibility of extensive automation of the process of analysis of international relations is revealed. However, it would be too early to speak of a triumph of the theory of rational action, since the result of a reasoning developed by a computer is limited to the universe of concepts and variables available to it, which may have their origin addicted to ideological values, religious, social and racial.


23. On the Capterra website alone, in the Social Media Monitoring Software query option, 72 companies are listed that offer social media monitoring platforms, tools and services. Available at: www.capterra.com Accessed on: 26 Mar. 2020


30. Exemplo recente desse tipo de manobra é o caso das atividades militares da Turquia na Síria, tema abordado em artigo de Candace RONDEAUX intitulado RC: 124785
Available in: https://www.nucleodoconhecimento.com.br/geography/international-disputes
“NATO Is in Denial About the Risk of War Between Turkey and Russia”, World Politics Review, 06 mar. 2020. Disponível em:


32. “An individual appointed or assigned to be a chief of mission should possess clearly demonstrated competence to perform the duties of a chief of mission, including, to the maximum extent practicable, a useful knowledge of the principal language or dialect of the country in which the individual is to serve, and knowledge and understanding of the history, the culture, the economic and political institutions, and the interests of that country and its people” Sec.304 (a)(1), Appointment of Chiefs of Mission, Foreign Service Act of the United States of America. Disponível em: https://www.usaid.gov/sites/default/files/documents/1868/fsa.pdf Acesso em: 01 abr. 2020.


34. “The synchronized use of multiple instruments of power tailored to specific vulnerabilities across the full spectrum of societal functions to achieve synergistic effects”. Multinational Capability Development Campaign (MCDC), p. 8. Disponível
em:
