Toward the End of Inter-Paradigm Debates

—Theoretical Synthesis of Grand Unified Model—*

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Abstract

Dissatisfied with the current state of the discipline of international relations to provide a solution for the prolonged inter-paradigm debates, this study seeks to merge theories to form a unified comprehensive theoretical framework, Grand Unified Model (GUM), through theory synthesis of existing paradigms. Selectively utilizing theoretical constructs embedded in contending research traditions, theory synthesis is expected to provide a persuasive solution. Specifically, this study develops main arguments as follows. First, a critical review of the three major research traditions, namely, neorealism, neoliberalism and constructivism is conducted to indicate that there are certain meta-theoretical deficiencies which undermine the results of those researches on the drastic transformation of the international environment. Then, by synthesizing modified assumptions of research traditions, a basic framework of GUM is constructed as a grand theoretical model. GUM is expected to be a comprehensive explanation of global phenomena set forth not in the state-centric but in the individual human-centric manner, contributing to theoretical improvement with regard to decision-making assumption, unit of analysis and epistemology. In light of the increasingly untenable nature of the traditional approaches, this study aims to demonstrate that theory synthesis has a potential to bring an end to the inter-paradigm debates.

Keywords : Theory Synthesis, Inter-paradigm Debates, Neorealism, Neoliberalism, Constructivism

* This study is an extension of the research project which was funded by a research grant for young scientists, awarded by foundation for the Fusion of Science and Technology (FOST) . Special thanks are due to Prof. Toshitaka Takeuchi for his expert guidance on the decision-making process, especially, game theory, and inspiration throughout the project as my dissertation advisor.

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1. Introduction

Ever since the ages of Sun Tzu or Thucydides, one of the essential goals of intellectual inquiry, along with a variation of ontological and epistemological concerns, has been to address a fundamental issue: How can humanity attain and sustain cooperation? In the modern world, it has become more vital. That is because the arrival of globalization as well as the advance of information technology has set off a radical transformation of the international environment, where a multidimensional entanglement in the contexts of politics, economics, race, religion, and culture coexists. In this regard, despite a fact that increasing numbers of scholars have devoted themselves to understand, explain and predict the unprecedented complex issues, there remains insufficient theoretical development, especially, in empirically grounded models that generate policy-applicable knowledge.

As is well-known, the history of international relations (IR) theories involves a series of intellectual clashes between theoretical traditions with opposing epistemological perspectives, called "Great Debates" starting from the first Great Debate between the idealists and the realists, to the Post-Cold War contest among neorealism, neoliberalism, and constructivism. Table 1 shows the history of "Great Debates." To some extent, those inter-paradigm debates in IR theory have continued to this day, but little has settled (Lake, p. 568). Jack Levy argues that the division between paradigms inhibits efforts at synthesis while it has "imposed some order on a chaotic field" (1998, p. 211). Similarly, Bear F. Braumoeller states that the "temporary theoretical convenience" of separating paradigms "was transformed into ossified ontology" that hindered challenges at theoretical synthesis (p. 242). It may create an atmosphere in which scholars who dare to combine paradigms are to be criticized for theoretical impurity. Unfortunately, this means that there is no sound replacement but "older conceptual apparatus at our intellectual peril" (Holsti, p. 2). It even appears that all we have at hand is an abundance of irreconcilable middle-range models aimed to deal with specific areas of their interests, which often causes problems of selection bias undermining the generalization of outcomes. Apparently, we have still been unable to escape from the situation, where "no one has successfully integrated accumulated knowledge on state behavior into a single theoretical framework that provides a general explanation of the causes of war at least in a way that has generated anything close to scholarly consensus on its validity" (Levy, 1989, p. 211).

1.1: The Query and Rationale

Dissatisfied with the current state of discipline to provide a solution for the prolonged inter-paradigm debates, this study seeks to merge theories to form a unified comprehensive theoretical framework, Grand Unified Model (GUM), through theory synthesis of existing paradigms. Critically employing theoretical constructs embedded in contending research traditions, theory synthesis is expected to build a persuasive solution to important questions (Hellmann et al., 2001, pp. 131-133). Theory synthesis indeed is not a new concept (Katzenstein & Sil, 2008, p.109). In his study on multinational corporations, Robert Gilpin (1981) synthesized a political explanation of liberal principles and practices in U.S. foreign economic policy by linking a realist analysis of the international political economy into liberal orientation. In order to illuminate postwar international system, Robert Keohane (1984) resorts to theory synthesis of hegemonic stability and regime theories. Specifically, this study develops the main arguments as follows. First, a critical review of the three major research traditions, namely neorealism, neoliberalism and constructivism is conducted to indicate that

there are certain meta-theoretical deficiencies which undermine the results of those researches on the change of the international environment. Then, by synthesizing propositions of research traditions, a basic framework of GUM is constructed as a grand theoretical model.

Table 1: History of Great Debates

	Duration	Paradgims
First Great Debate	1930s and 1940s	Realism / Idealism
Second Great Debate	1960s	Traditionalism / Behaviouralism
Third Great (Inter-paradigm) Debate	1970s and 1980s	Neorealism / Neoliberalism
Fourth Great Debate	1980s and 1990s	Rationalism (Neorealism, Neoliberalism) / Reflectivism (post-modernism, feminism, constructivism and critical theory)

Source: (Lake, 2007)

2. Critical review

In general, IR theories have employed a wide range of approaches, often imported from other disciplines such as psychology, economics or sociology, and grown in size and sophistication to contribute to a diverse set of academic researches. Since the range of work in IR theories is enormous, it would be impossible to cover everything, given the time and space available here. The major aim of this review is not to make an exhaustive appraisal of the contributions of those literatures, since it has already been the purpose of other studies. Rather, the goal is to point out the fact that no body of current literatures effectively deals with meta-theoretical deficiencies. Based on the survey results done by the Teaching, Research, and International Policy (TRIP) Project, neorealism, neoliberalism, and constructivism are selected to be appraised. TRIP Project at the College of William & Mary's Institute for the Theory and Practice of International Relations has conducted extensive surveys on faculty members who do research in the IR field or who teach courses on IR at four-year universities in various nations (Jordan, Maliniak, Oakes, Peterson, & Tierney 2009, 2014). According to TRIP survey conducted in 2008, 52 percent of international relations scholarship fell within realism, liberalism, or constructivism approach with 18, 17, and 17 percent respectively, as shown at Table 2. The survey result in 2014 shows that 53 percent of respondents identified themselves as one of the three paradigms, which is not quite different from outcomes in 2008.

Table 2: TRIP survey on theoretical orientation

	2008	2014
Realism	18	18
Liberalism	17	12
Constructivism	17	23
Marxism	5	4
English School	2	4
Feminism	4	2
Other	12	11
I do not use paradigmatic analysis	25	26
	N = 2724	N = 4659

Source: (Maliniak, Peterson, Powers & Tierney, 2009, 2014)

2.1: Neorealism

It may not be an exaggeration to say that one could find a nearly endless list of literature within a continuum of realist paradigm. Within the realist traditions, neorealism, proposed by Kenneth Waltz, has made substantial contributions to produce a diverse set of scholarly research, particularly in the context of system-level analysis (Waltz, 1979). The neorealist paradigm shares the following fundamental assumptions. First, states are the dominant actors in world politics. Second, they, as being the rational and unitary actors, behave based on rational calculation of self-interests, defined in terms of the systemic distribution of power postures and capabilities. Their powers among the other nations and the preservation of sovereignty are states' foremost concerns in international affairs. Third, the international system is anarchic in the sense that it lacks authoritative government, which can enact and enforce rules of behavior. According to Waltz, this anarchic nature of the international system creates the "self-help" situation, in which states' preoccupation is survival. Accordingly, issues of military security are considered to be more important or "high politics" and economic issues are viewed as less important, "low politics." As considering states as being unitary, the internal structures, histories, and cultures of states do not matter for realists.

Though the international distribution of power, particularly among the leading states, is the central variable in realist models, there are several conflicting approaches to assess the consequences of a particular distribution of power. For example, one is the balance-of-power approach, and the other is the power-preponderance approach. The central proposition of the balance-of-power approach is that an approximate parity of power facilitates the avoidance of major militarized conflicts. The proponents of the balance-of-power approach argue that under the balance-of-power situation, any one state would not achieve a position of dominance over other states, since several possible blocking coalitions might be established against the possible aggressor. As a result, there will be a short of a major militarized conflict among great powers. The balance-of-power approach is, however, rejected by the power-preponderance school. The advocates of the power-preponderance approach, such as Robert Gilpin, maintain that international stability is not enhanced by a balance-of-power, but by the presence of a "hegemonic power" that plays a major role on maintaining peace (Gilpin, Ch.1). These scholars emphasize the deterrence function of power-preponderance. They argue that an approximate parity increases the likelihood of militarized conflicts, since it may lead both sides of states to perceive that the likelihood of winning a militarized conflict is high. However, under the power-preponderance system, a militarized conflict is obviously not winnable for states with inferior capabilities, and therefore, it is not necessary for the states with superior capabilities. Consequently, there will be the absence of a major militarized conflict.

2.2: Neoliberalism

Neoliberalism or neoliberal institutionalism can be perceived of as a distinct paradigm descending from liberalism with reliance on microeconomic theory and game theory. Neoliberalism originally initiated as the study of international organizations and regional integration. Since the early 1980s, its focus has been broadened from international organizations to regimes, defined as "principles, norms, rules and decision-making procedures around which actor expectations converge in a given issue-area" (Krasner 1982, p. 185). During the 1980s and early 1990s, the confrontational exchange between neorealists and neoliberals, so-called the "third Great Debate," dominated mainstream inter-paradigm argument in IR. Neoliberalism is built on the following assumptions. First, states are not the dominant actors in world politics. The primary actors also include non-state

actors, such as international institutions, NGOs or transnational corporations, which may pursue their own interests even against those of their states. Second, states are not considered a unitary actor or "black box" seeking to survive and prosper in an anarchic system. Rather, they are comprised of sub-state actors, who project interests into the international system through a particular kind of domestic political institutions. Their preferences across the international system determine state behavior taking the nature of domestic preferences or regime-type into account. They are aggregations of individual and group interests who then project those interests into the international system through a particular kind of government. Third, the nature of the international system is defined by the configuration of state preferences rather than the distribution of power. Free trade and growing interdependence create a harmony of interests, which eventually reduce the need for war. The democratic peace, introduced by Immanuel Kant, describes the absence of war among mature liberal democratic states. Fourth, states may create institutions and develop shared norms, which play a major role in producing more orderly relations among states, and facilitate to reduce structural anarchy to the extend (Dunne, Kurki, & Smith, 128). Neoliberalism assumes that there could be a harmony of interest among states which would allow them to cooperate with each other rather than engage in conflictual relations.

2.3: Constructivism

The conception, "constructivism" in IR theory was first introduced in the late 1980s, as the end of the Cold War and the subsequent failure of neorealists and neoliberals to predict the termination had set the stage for the constructivism within the discourse of IR theory. Drawn from established sociological theory, constructivism can be considered as an oppositional movement against traditional IR theories. Its major proponents include Alexander Wendt, Emanuel Adler, Ted Hopf, Peter Katzenstein, Friedrich Kratochwil, Nicholas Onuf, and John Gerard Ruggie. Generally speaking, constructivism makes the following claims. First, in contrast to realism and to neoliberalism, constructivism considers the international system as a sphere of interaction which is shaped by the actors' identities and practices and influenced by constantly changing normative institutional structures. Second, the key structures in the international system are intersubjective rather than material. Third, state identities and interests are constructed by these social structures, rather than given inherently to the system by human nature as neorealists maintain. In other words, constructivists argue that the international system is socially constructed, which is consists of the ways in which human beings think and interact with each other. In general, constructivists consider the dynamic relationship between ideas and material forces as a consequence of actor's interpretation of their social reality, and are interested in how normative structures shape the identity and interests of states. Specifically, rejecting the basic assumption of neorealist theory that the state of anarchy is a structural condition inherent in the international system, constructivist theory argues that anarchy is the result of a process which constructs the rules or norms, as is known in Alexander Wendt's words, "anarchy is what states make of it." It is also important to note that constructivists have regarded neorealism and neoliberalism together as rationalist approaches to world politics that share an materialist ontology, as opposed to their own approach (Wendt, 1999).

3. Theoretical synthesis

3.1: Decision-making assumption

The dominant form of a decision-making assumption, which neorealism employs and so does neoliberalism to some extent, is embodied as the rational choice model. The rational choice model can be basically defined as follows: “When ends are given, formal reasoning is the process of choosing the means to achieve these ends, by collecting information, subjecting it to methodical analysis, and selecting the most appropriate form of action after weighing the alternatives, within the constraints of available resources” (Gerrard, 1993).

However, preponderance of experimental evidence in cognitive psychology indicates that faced with complex decision problems, decision makers do not follow the principles of the rational choice model in judging the likelihood of uncertain events (Simon, 1955; Tversky & Kahneman, 1981; Kahneman, Slovik, & Tversky, 1982). While decision makers seem to make numerical predictions, their predictions are often made by intuitive reasoning or heuristic procedures, called representativeness and availability. A well-known case of the violation of the existing expected utility model is the Allais paradox (Allais, 1979).

In this vein, as Herbert Simon defines, it is more realistic to view a decision maker as a bounded rationalist. A common deviation from this norm is described by Herbert Simon’s notion of ‘satisficing’ - a result of ‘bounded rationality’. Simon argues that the capacity of the human mind for formulating and solving complex problem is very small compared with size of the problems whose solution is required for objectively rational behavior in the real world or even a reasonable approximation of such objective rationality. While proponents of the rational choice model seem to acknowledge the existence of such an inconsistency, there is a lack of serious efforts to provide a solution to the problem. In their defense of the rational choice model, those advocates of such a model often refer to Milton Friedman’s classic arguments with regard to theory building. That is, a theory with the superior predictive ability is always to be preferred to other, regardless of the accuracy of empirical assumptions or completeness of explanatory mechanisms (Friedman, 1958). Further, some of its enthusiastic advocates claim, “The use of rational actor models in the social sciences is not only, or even primarily, due to its superior predictive power; equally important is the fact that the proposed explanatory mechanism has considerable face validity” (Hedström & Swedberg, 1996). It is a fact that some studies, which employ the expected utility approach such as Bueno de Mesquita’s models have produced excellent empirical results on predicting states’ initiation of war (Bueno de Mesquita, 1981, 1988, 1989).

However, I argue that if scholars are concerned with the accuracy of conclusions provided by a deductive model, they should be also concerned with the accuracy of its empirical assumptions. In this regard, Elster argues, “it is only by close consideration of the reasons for failure that it will be possible to construct a more general account of human behavior in which the concept of rationality will have a privileged, but not exclusive role” (Elster, 27). With respect to the rationality-reality gaps, the unrealistic assumptions result in inconsistency between the model and the observed reality (Tsebelis, 8). After all, those proponents’ self-claimed supremacy in predictive ability of rational choice model should be under question after observing the aforementioned realist’s failure to predict the end of the Cold War. Ironically, even judged by the aforementioned Friedman’s arguments on theory building, they have lost the last ground of its legitimacy of existence.

I argue that the fundamental conceptual problem with the rational choice model is not that decision makers are irrational, but that the rationality assumption is applied in an inappropriate way. In other words, the rational

choice model is not a false but an incomplete description of the principles guiding the behaviors of decision-making units (Sen 1980). In order to apply the rationality assumption in a more appropriate way to expected utility framework, it must be realized that decision makers do not treat the utility and the probability of given strategic choices as continuous variables. In reality, the utility function and the probability distribution are crudely understood by decision makers as ordinal variables, not continuous ones. That is, individual decision makers do not have a sufficient capacity to process information on the complex environment objectively, to generate a complete set of policy alternatives, and to order preferences for all possible consequences on a single continuous utility scale. Instead, they attempt to understand the complex environment by simplifying the information as ordinal variables. While decision makers seem to make numerical predictions, their predictions are often made by heuristic procedures, called representativeness and availability. As a result, decision makers may fail to choose the optional outcome, while trying to maximize the achievement of their presumed goals by estimating the expected utility of each option. Eventually, decision makers appear to deviate from the objective decision-making process, which the conventional expected utility approach suggests.

With regard of alternative decision-making assumption, the notion of modified expected utility framework envisions human beings with limited information and cognitive skills make heuristic, rule-based rather than optimizing choices, which involves the operation of inductive and deductive processes, such as the tendency to simplify objective information based on a threshold with a set of decision rules, the feedback process and the binary categorization (Holland, Holyoak, Nisbett, and Thagard 1989; D. Kahneman and A. Tversky 1988). Specifically, faced with a complex environment, decision makers are assumed to facilitate objective information on probabilities and utilities of a given policy option through simplifying it as ordinal variables. In order to determine whether a probability of success in a strategy is "high," and a utility of the strategy is "higher than others", each decision maker is assumed to have its own fuggy threshold, which is often known as the threshold model (Granovetter 1978). That is, the probability perception can be thought of as determining whether the likelihood of success in a given policy option is "high enough" or not. Similarly, utility of success in a given policy option is determined by defining which policy option provides the "higher" utility than other choices. To reduce the degree of uncertainty, decision makers divide the options into two mutually exclusive categories. Once decision makers choose one category, then they divide the chosen category further into two more specific categories. As a result, decision makers continue this process until they can select a specific strategy through a feedback process.

3.2: Unit of analysis

With regard to the unit of analysis, the notion of the nation-state as a unified and relatively homogeneous sovereignty also deserves scrutiny. Generally speaking, realists argue that it is not necessary to know anything about domestic structures in order to understand that state behavior in IR. Any state behaves in certain ways no matter what its internal composition because of the constraining influence of international anarchy. Reus-Smit claims, "Once the nation-state is seen as a unified political community, it is assumed that there exists such homogeneity of interests and identification within that community that security can be reduced to a minimal conception of state survival which is seen as synonymous with aggregate individual security.... Political action ... is thus explained in terms of a collectivity of purpose among citizens coalescing around a common desire to limit threats by maximizing military capabilities" (Reus-Smit, 1992, p. 17).

Viewed empirically, however, state should not be perceived as a simple unitary entity. Rather, it is composed of a complexity of multiple-agents that act in terms of maximizing values in terms of political, social, economic, financial and cultural contexts through interactions. Realist literature fails to show how the action of the various domestic stakeholders, such as voters, political parties, state bureaucracies, interest groups of producers and consumers, which influences the national policy. While recognizing the integral relationship of behavior in both the domestic and international arenas, it is increasingly important to recognize the role of civil society. With advancement of globalization, civil society is emerging through the creation and applications of NGOs to specific causes, integrating economics, politics, and cultures in ways that has transcended state-border. Realist models also suffer from the absence of an adequate analysis of cultural relevance to the decision-making process. Scholars such as, Pye, argue, "sentiments about change, judgments about utility, expectations as to what different forms of power can and cannot accomplished are all influenced by cultural dispositions" (Pye, 1985). Williams also maintains, "the analysis of culture is the attempt to discover the nature of the organization which is the complex of these relationships" (Williams, p. 60). In this context, I argue that interaction between the decision-making process and organizational culture needs to be accounted. Without such a perspective within the theoretical framework, there is no way to understand the range of consequences, which various inter-state interactions have resulted in.

As the alternative of the traditional unitary assumption, it is assumed that each state consists of a number of stakeholders, which act to and react to other agents on their environment, make decisions adaptive to structural attributes as well as other major agent's decisions, and result in the emergence of macro phenomena which from the bottom up. Each agent's action parameters and algorithmic decision rules have to be defined ex ante. Since the past decade, there has been a rise of interest, especially among constructivists, in the concept of culture as partly a response to the surge in ethnic, and racial conflicts. While the constructivist studies use cultural variables in widely varying ways, they have not provided a sound definition and full explanation of how it works. To reach a conclusion about a definition, it is probably to best to consider the cultural theory, which is introduced by Christopher Hood. Hood has developed grid-group cultural theory, as a theoretical framework for tracing different conceptions of public management that incorporates the influence of culture. However, as he points out in The Art of the State, there is currently no general accepted cultural theoretical framework of in public management (Hood 24). Under the cultural theory, culture is conceptualized as the degree to which a collectivity of the beliefs and values is shared in an organization at a specified time.

3.3: Epistemological issue

Epistemological issues concern all social sciences, and remain the focus of intense debate in the philosophy of science. Some of social science scholars make an effort to establish formal representations of phenomena in forms of statistical or mathematical equations. However, there are several instances, in which formal models fail to make full analysis. Indeed, it is seemingly only in very restrictive circumstances that a formal model has been completely soluble, as individual behavior is complex, characterized by nonlinear dynamics. In such circumstances, it is possible to resort to an agent-based model (ABM) as an alternative to formal models to advance one's understanding of complex phenomena. The ability to systematically analyze non-equilibrium phenomena is one of the powerful features of ABM. ABM uses computer code as a way of formalizing dynamic theories, and employ thresholds and if-then rules, instead of textual forms or mathematical equations. Within the

necessary specification, ABM can be employed to set a laboratory in which researchers have control over important parameters, reduce the gap between models and reality and provide valuable information about the dynamics of the real-world system that it emulates. Moreover, the holistic feature of ABM provides a possible way to integrate some of the contributions of the previous studies on IR as a form of the "grand unified model." In the past ten years, a substantial number of agent-based models have been developed to examine a wide range of social phenomena (Axelrod 1997; Cederman 1997, 2001, 2003; Epstein & Axtell 1996; Cantor and Rousseau 2003).

4. Conclusion

Broadly speaking, the feasibility of grand theory in social science has been the subject of an extended debate (Mahoney, p. 459). In sociology, C. Wright Mills (1959), in his argument against Talcott Parsons, a central advocate of grand theory, states that there is no grand theory in the sense of one universal scheme to understand the unity of social structures. In the field of political science, as one of critics of grand theories, Alexander George claims, "I do not believe, however, that it is useful for this purpose to try to develop a general theory of foreign policy. More useful contributions to foreign policy are made by focusing specifically on each of the many generic problems encountered in the conduct of foreign policy-such generic problems as deterrence, coercive diplomacy, crisis management, war termination, preventive diplomacy, crisis avoidance, mediation, cooperation, and so on" (Ch. 23). Likewise, Stephen Walt argues, "No single approach can capture all the complexity of contemporary world politics. Therefore, we are better off with a diverse array of competing ideas rather than a single theoretical orthodoxy" (1998, p. 30). The ontological question here is whether there can be a grand theoretical framework in the social sciences comparable with one in the natural sciences. In other words, can we formulate a generalized law which fulfills scientific tasks of discovery, explanation and prediction? Understandably, there seems to be a considerable rejection to grand theory, arguing that complexity and paradox of human behaviors cannot be explained thoroughly within a grand theoretical framework. Admitting that grand theory in social science has been rather atypical, however, I argue that chronic obstacles to build grand theory lie not in the complexity of objects themselves, but in the lack of any equivalence of the experimental and methodological techniques developed by the natural scientists.

Over several decades, scholars of international relations have attempted to provide an answer for a seemingly simple question of why states fight each other. Despite the fact that a substantial number of models, either inductive or deductive, have been proposed, there has been no single model which can provide a satisfactory answer to the question. In fact, it seems that there is a pessimistic view about the possibility of achieving such a model among scholars. As a result, in general, researchers of international politics have focused on "middle-range" models. While those "middle-range" models have helped us to gain more specific pieces of knowledge of international conflict and cooperation, it has not provided a framework to integrate the accumulated pieces of empirical results.

In search for a framework to unite accumulated knowledge, this study proposes GUM, by theoretically synchronizing an alternative decision-making assumption and unit of analysis within the holistic framework of ABM. By placing the modified decision-making assumption at the core of the grand unified model, it can combine purposeful behavior with a specification of the structure of international system which constrains that

behavior. Simon (1969) suggested that, “even when we have correct premises, it may be very difficult to cover what that implies. All correct reasoning is a grand system of painstakingly and fallibly tease out the consequences of assumptions” (p. 19). In this vein, utility of ABM is expected to help us to derive correct outcomes from given premises, since it is capable of deducing what should be observed in the referent system. While each run of simulation is valid only for the particular settings of parameters for initial conditions, it is possible to reach the conclusion, which is overlooked by theoretical traditions. In light of the increasingly untenable nature of the traditional approach to the study of international relations, this approach has the potential not only to generate a theoretical understanding of the contemporary world and its pathologies but also to signpost possible routes through which this reality may be transcended through political practice. The study of IR should benefit enormously from careful formulation and complete control of detail provided by GUM.

While the study seems to indicate that our attempt to synthesize a theoretical framework for GUM has made a promising inception, empirical tests of the model remain to be done. Since a model should be defined by its logical structure as well as by its empirical assumptions, the grand model proposed in this research would provide only limited explanatory power in the absence of empirical tests to demonstrate the linkage between the internal logical structure and empirical contents. In this vein, it is important to mention that unlike most formal or simulation models, this model is designed to accommodate the empirical data on the referent world as the initial condition of systemic characteristics, and of deducing logically sound results of state interactions. Therefore, in the subsequent research, GUM is tested empirically against actual outcomes of state behavior. In order to make this model a “bona fide” grand model, several additional steps are necessary to be taken. However, I believe that this research provides an assuring first step toward improvement of existing paradigms of IR through the use of theory synthesis approach as an apparatus of theory-building and hypothesis-testing.

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