



SCENARIO DEVELOPMENT IN PLANNING MILITARY ACTIONS TO PREVENT A CRISIS SITUATION

Colonel, Associate Professor Daniel ROMAN, PhD

“Carol I” National Defence University, Bucharest

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The Russian-Ukrainian military conflict is the most unexpected event having a major societal impact, not only on the conflicting parties, but also on the entire international community. The irreparable damage to critical infrastructures, the loss of human life and the constantly increasing considerable material damage are just three indicators that signal possible future crisis situations. The question that is justifiably raised is “Could this military conflict have been prevented?” Implicitly, another series of questions arises, such as “Can future crisis situations generated by this military conflict be prevented?” When expressing the answers to such questions, the military and societal security specialists turn to specific tools such as threat predictions and scenarios. In this context, we can talk about planning military actions in a much more realistic way, observing the battles taking place in the Ukrainian space, which is a new reality in Eastern Europe. The lessons learned following recent military conflicts refer to the complexity of the combat actions generated by the digitalization of the confrontation space and the interaction of the societal domains in a difficult-to-decipher manner. The experimental vignette methodology – EVM – applied in the development of the threat scenarios by using podcasts, supports the planning of the military actions as a solution to prevent crisis situations. The optimization of the process of teaching and training the military specialist through experimental vignettes opens new horizons on planning the military actions as interactions of the military component with the other components of the societal domains that ensure the transition from a macro- to a micro-military confrontational environment.

Keywords: military specialist; experimental vignette methodology; critical infrastructures; collaborative podcasts; behavioural autopsy;



INTRODUCTION TO THE ISSUES OF MACRO- AND MICRO- CRISIS ENVIRONMENT

The issue of the current international security is part of the competition of the specialized forums for deciphering and understanding the contemporary security environment in the context of the unprovoked and unjustified military aggression of the Russian Federation against Ukraine. From a geopolitical and military point of view, such concerns fall within the new vision of the multidisciplinary achievement of security, in order to conceptually clarify and identify those integrative solutions regarding crisis management. This is possible only in a comprehensive approach where all actors interact in terms of a societal domain: policy/diplomacy, military, economics, society, infrastructure and information, as a result of investigating the extended complex hybrid conflict (within and beyond the physical borders of the states directly involved in the conflict).

The analysis strives towards understanding and managing a crisis situation, in this case the situation in Ukraine, and it is part of the need to understand and decode *the motivational action substrate of the Russian Federation in its international relations, at the level of macro- and micro-confrontational environment*. The possible results of the analysis can play an important role in preventing not only the expansion of the Russian-Ukrainian military conflict but also the escalation of the tensions caused by the arming policies and maintaining permanent tensions and conflicts in the proximity of the Russian sphere of influence.

Within such theoretical coordinates, of macro- and micro-confrontational environment, we can discuss the training of the military specialist at all levels of planning. Mainly, the **military specialist** requires an understanding of the background of the societal problem that can be applied in the military actions, in **three directions of competences: analyst, planner and decision-maker**. Of course, the level of ambition suggested for the development of this scientific material is rather an introduction to this topic for those interested in the theoretical approach

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to the notions of macro- and micro-confrontational environment, scenario, crisis, vignette and planning. In order to achieve the set objective, we have referred to the possibility of initiating a knowledge management approach based on vignettes, namely, the *experimental vignette methodology – EVM* (Business & Management INK, 2014). This methodology can be applied to understanding the crisis situation in Ukraine, the evolution of the military conflict and, most importantly, the behaviour of the military structures of the two participants.

Exploiting the possibilities of the modern technology of audio-video recording and transmitting in the social networks, the internet, in mass media, the facts and events from the conflict zone, the existence and the value of podcasts (Andersen, 2011) have led us to draw a correlation of these sources of information with the mechanisms of the experimental vignette methodology. The communities of both sides involved in the conflict, the pro-Ukrainian and the pro-Russian ones, use **collaborative podcasts** on all war-specific topics, which, in our view, help to build the general picture of the dynamic crisis situation. The introduction of the podcasts in the experimental vignette methodology has emerged from the idea that there is propaganda and manipulation through mass media on both sides of the Russian-Ukrainian conflict, and in spite of that, on-the-scene real data reach the public, which contributes to the credibility of the transmitted data. In addition, knowing the methods of military action for different combat situations, according to the doctrines, manuals and customs specific to the phases of the operations and the combat actions can be the starting point in building the experimental vignettes and later, in transforming them into means of developing scenarios to understand the effects of the behavioural variables in the military conflict.

THE VISIBILITY OF THE MACRO- AND MICRO- ENVIRONMENT OF A CRISIS SITUATION OR MILITARY CONFLICT THROUGH THE MASS MEDIA/ THE COLLABORATIVE PODCASTS

By its very definition, a *crisis* is primarily a situation that occurs by surprise and has a major impact on the parties involved or on those in their proximity. The specialists in the field of security, mainly in the area of risk management, have the necessary tools to identify those indicators that can become early warning indices regarding

the changes in the situation and the development of a crisis. Using the notion of *actor* and putting it in context, namely setting its actions in coordinates of space, time and interests, can generate at least a set of speculations, and certain scenarios or predictions can be formulated regarding the behaviour of the analysed actors/subjects. Based on the hypothetical results of the developed scenarios or estimates, in time and space coordinates by extension, the situation can be monitored at the level of a region and the behaviour of one or more actors can be evaluated by quantification.

In the context of a crisis situation, due to the density of objectives per unit of time, the behaviour of each actor becomes unpredictable precisely due to the impact of the lack of time to prepare the actions and their need to improvise and act in an unforeseen critical situation. In this regard, anticipating negative events is one of the most difficult tasks that the military and civilian crisis management planners must perform. The complexity of such difficulties lies in the “*good evolution of things*”, an evolution that prevents the decision-makers from “*seeing beyond the benefits of a good situation*”. The possibility of the occurrence of a negative event theoretically implies a quick action, which, initially, in the resource planning phase, becomes very easily meaningless and aimless, as long as it is not related to the result of the actions of the involved actors (Godet, 1987). Therefore, the possibility to infer the behaviour of an actor who gets or does not get involved in the development of that negative event entails making certain predictions. The more realistic and to the point the predictions are, the more they can become a real planning and decision-making tool in actions, the military ones included. Taking it into account, we distinguish between *strategic planning* and *strategic management*, two different notions that are characterized by the way of thinking the situation according to the considered time or period of time.

An answer pursued within this paper, at the macro-environmental level is related to the following *hypothesis* we have worded for the crisis situation in Ukraine: “*the actors, through their behaviour, accomplish the dynamics of engaging the contributors to the geopolitical situation in the vicinity of the Black Sea, a fact based on all the subtle transformations of the Russian Federation’s action motivational substrate in its international relations and implicitly on the outcome*



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In the context of a macro-environment network analysis, according to what has been previously mentioned, we can observe the fact that the PMESII societal domains play a dual role in the way of understanding and managing a crisis situation. First of all, the societal domains represent the integrative support of all the actors' actions or, in other words, the societal domains are constituted as an operational framework for the actors. Secondly, the societal domains, through the way they evolve in space and time, can be assimilated to a set of MoP and MoE.

of the military societal crisis in Ukraine". We have made reference to the Black Sea area because of the possibility to conduct a network analysis (which involves several societal fields – especially those of information, mass media), respectively to the existence of an extensive number of actors, mainly the states bordering the Black Sea (Chiriac, 2022). The multitude of actors in the proximity of the Black Sea, the impact of their actions and the consequences resulting from the sequence of negative situations also include those states that are in direct and indirect relations with the states outside the Black Sea area but with which PMESII (political, military, economic, social, information and infrastructure) relations are established (Angelelli, Maymir-Ducharme, Stapleton).

In the context of a macro-environment network analysis (at the level of state actors), according to what has been previously mentioned, we can observe the fact that the PMESII societal domains play a dual role in the way of understanding and managing a crisis situation. First of all, the societal domains represent the integrative support of all the actors' actions or, in other words, the societal domains are constituted as an operational framework for the actors. Secondly, the societal domains, through the way they evolve in space and time, can be assimilated to a set of Measures of Performance (MoP) and Measures of Effectiveness (MoE) (Stancu, Ichimescu, 2020, pp. 76-79). Thus, the relation between the two categories of indicators entails the fact that the development of a scenario is achievable only after the team of scenario writers identifies the relationships between the correlated societal fields and establishes a so-called time horizon (it is not mandatory to analyse all of the six domains) (Petrescu, 2019, p. 41).

The conclusion drawn following the comparisons and interactions between the societal domains, in the macro-environment, is that there is a possibility that one or more events with a major societal impact, either positive or negative, occur in each unit of time and surface. In other words, the differences between the so-called "states of normality" and "states of societal competitiveness"– which can degenerate under certain macro-environmental conditions into negative or crisis situations are analysed. For example, we have chosen to highlight the societal component of the political or foreign policy

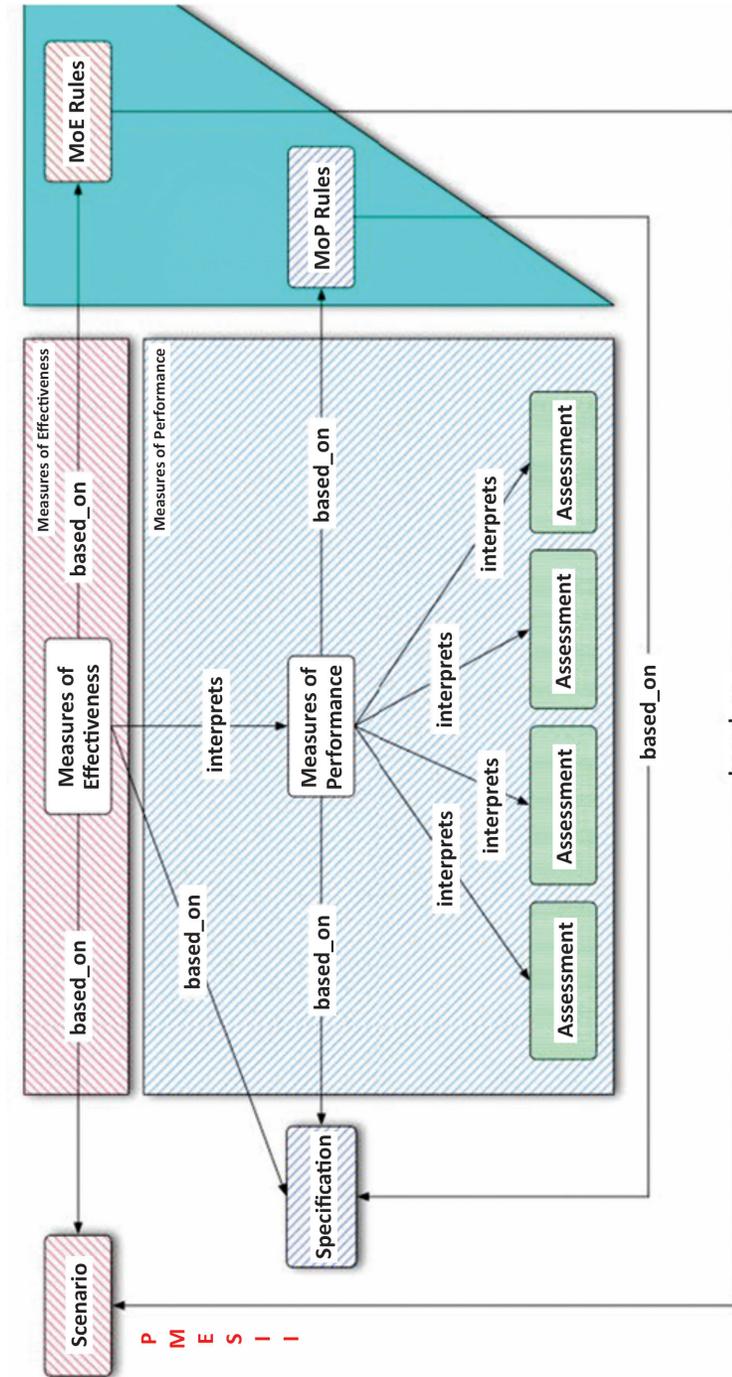


Figure no. 1: Graphical representation of the relationships between the MoP and MoE indicators for the development of a scenario based on the specifications/essential features of the PMESII (Webster, Looker, Russell, Liu & Xu).





The behavioural-autopsy method allows us to obtain the subtle elements of the motivational-action substrate of a nation (such as the Russian people) in an original manner, in order to understand the motivation of its foreign policy. This cognitive psychological substrate represents the real source of the strategy and of the political decision-making support of the Russian Federation and, respectively, of any nation.

domain, in order to emphasize the behaviour of an actor at the macro-environmental level. At a first observation on the societal political (of foreign policy) domain, we have chosen as a reference indicator “the behaviour of the actor – Russia” in its relations with other states. What is interesting is the fact that “this behaviour” is the result of the historical development of the Russian nation and therefore it can only be identified and characterized by analysing the historical events recorded in the “space of the podcasts of the time” or in the mass media of the specific historical times. Therefore, it is necessary to conduct a foray into the past of the Russian Federation in order to understand the evolution of the current situation in Ukraine or to develop predictable scenarios by performing a *behavioural autopsy*. This method of determining the behaviour of a state actor, namely the behavioural autopsy, will be the topic of another extensive paper. In short, similar to the analysis method specific to the operational art, the “war-gaming” from the planning of military operations at the operational and strategic level, the behavioural-autopsy method allows us to obtain the subtle elements of the motivational-action substrate of a nation (such as the Russian people) in an original manner, in order to understand the motivation of its foreign policy. This cognitive psychological substrate represents the real source of the strategy and of the political decision-making support of the Russian Federation and, respectively, of any nation.

One of the emerging observations consists in the possibility of quantifying the results of the evaluation of the behaviour of an actor, by correlating the values of the MoP and MoE indicators, specific to the operational art for planning military operations, by extension for the macro-environment generated by the PMESII relations specific to the states of the Black Sea area. Therefore, based on the negative or extreme values of the MoP and MoE indicators in PMESII relations at the macro-environment level, after studying the behaviour of the Russian Federation in relation to the other actors, one can foresee the occurrence of a new crisis situation. Such an anticipation based on certain predictive scenarios can describe the way things tend to evolve with the risks and the potential threats generated by the Russian-Ukrainian conflict and exploit the security vulnerabilities in the Black Sea area caused by the appearance of new crises of any nature.

Another aspect resulting from the network analysis of the interactions between the following societal domains: political – military – information – infrastructures, according to the model in *figure no. 1*, consists in the connection between determining the behaviour of a certain actor and the method of developing scenarios based on the correlation of the MoP and the MoE indicators. We specify that the database for the set of indicators is obtained after interpreting the results generated from the repetitive evaluations of the situation, to which the *experimental vignette methodology (EVM)* is applied. Thus, the analysis of the behaviour of a state actor, in this case the Russian Federation, can be carried out by means of the predictions and the threat scenarios in terms of the results that the Russian Federation seeks to achieve by employing the military tool against Ukraine in a broad PMESII societal spectrum (actions known up to 24 February 2022 as forms of the hybrid warfare) (Potîrniche, Petrescu, 2019, pp. 53-65). The destabilization of the Ukrainian society through actions specific to the hybrid warfare, the annexation of Crimea, followed by the “special military operation”, combined with actions on the energy resources (natural gas and oil) at the international level, also involve actions against less identifiable critical infrastructures, such as “culture and heritage” (the cognitive substrate of a nation). By combining the methods of protecting the critical infrastructures through developing threat scenarios and analysing situations through a behavioural autopsy, one reaches the conclusion that a state actor has its own motivation or “collective conscience”. This collective (Russian) conscience functions as a primary source in the development of the nation’s (Russian Federation’s) foreign policy which behaves as a reflection of the collective way of thinking, namely “the Kremlin’s way of thinking”. Shifting our focus of analysis from the outside to the inside of the nation or towards the domestic policy this time, we can infer the existence of the “mechanism of building a nation’s conscience” – as a tool for exploiting emotions, often used by the Kremlin to control its own population in order to support its foreign policy (i.e. from the inside towards the outside). On the topic, around the “Orthodoxy – Autocracy – Nationality” triad as a state policy, the interactions of the PMESII societal domains represent the foundation of the development of the Russian society over time, in terms of ethnic



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and religious coordinates, for long periods of time such as the Tsarist Empire, implicitly the USSR and the Russian Federation. This is how we should understand the achievement of a collective conscience at the macro-environmental level, in this case, as a motivational-action substrate in the military operations conducted by the Russian Federation against Ukraine.

Moving from a macro-environment situation to a micro-environment one can be done by keeping track of the relevant measures (the MoP and MoE of the PMESII relationships) and including these values in a log of historical events by means of the collaborative podcasts included in the experimental vignettes methodology. Because of the limited knowledge of how the societal domains interact as well as of how the shock wave of a negative event with a major PMESII societal impact propagates, it is impossible to foresee precisely the next crisis situation. That is why we have resorted to the identification of a possible variant of transition from the macro-environment to the micro-environment of a crisis situation, starting from the “behaviour of the actor – Russia” in its relations with other states based on the PMESII societal criteria, in terms of the behavioural autopsy of the actors involved in a historical event, from long periods of time (years, decades and hundreds of years) to smaller time units: hours, days and months. The reflection of the behaviour of the Russian Federation as a state actor in the way the military structures behave in the military operation in Ukraine makes the transition from the political macro-environment to the micro-environment of each war zone where irreparable damage is caused to the critical infrastructures, and the considerable loss of lives and material damage are unprecedented in the recent European history.

THE SCENARIO – A TOOL IN THE PLANNING OF MILITARY ACTIONS AS A RESULT OF THE COLLABORATIVE PODCASTS INCLUDED IN THE EXPERIMENTAL VIGNETTE METHODOLOGY

The informational analysis and the modelling of the facts and decisions of a state actor, according to the information sources in the mass media of the time, lead to obtaining sufficient details regarding the extent of the historical events, as in a behavioural autopsy process. According to the analysis procedures,

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the modelling-simulation specialists can individually or simultaneously use micro (individual), macro (organizational) or mezzo (between micro and macro levels)-environment behavioural analyses and can determine behavioural patterns on distinct hypothetical situations. These previously-mentioned patterns can be of different nature, both social decision patterns and social network patterns required for explaining the links between entities (such as agent-based modelling – ABM) (Angelelli et al.). After clarifying the ways in which the societal domains interact, scenarios and predictions can be developed on the possibility of occurrence of negative events with a major impact or, in other words, several “possible futures” can be identified. In the graphic representation shown in figure no. 2 we distinguish three societal planes: the physical structure, the information structure and the cognitive structure. Therefore, according to the interactions of the PMESII societal domains represented as in figure no. 2, we can assert that the motivational action substrate of a state entity is conditioned by the physical structure or, simply put, by the territory on which the population of the respective state is deployed.

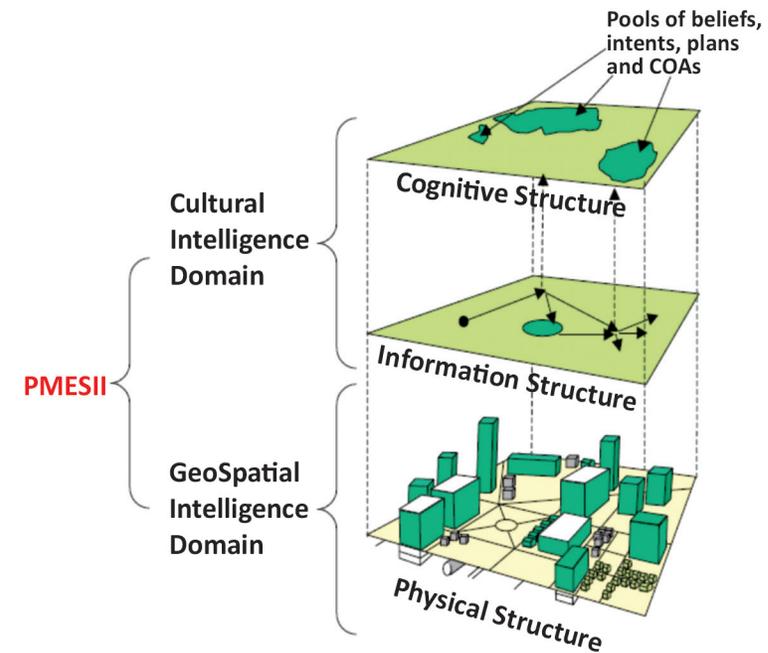


Figure no. 2: Variant of graphical representation of the interactions of the PMESII societal domains (Angelelli et al., pp. 15-18).

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Identifying the behaviour of a single actor is a big challenge because they will seek to hide their true intentions in order to exploit the element of surprise. The transition from the macro- to the micro-operational environment and implicitly the decoding and understanding of the reality of the confrontational environment can be done by “being present at the scene” in the middle of the events.

It is expected that, due to the interactions of the societal domains, the population (component of the societal domain *social*) will react to the changes that will take place in the plane of the physical or territorial infrastructure. If this is conditioned by external factors, i.e. the physical space/national territory is occupied/ invaded by a military actor, then, by means of the information plane, changes will take place in the cognitive plane and implicitly there will be a transformation at the level of the critical infrastructure called “*culture and heritage*”. Regarding the interactions between the societal planes, based on the reciprocity of the actions, we can admit that the changes in the cognitive plane in the “*Orthodoxy – Autocracy – Nationality*” triad as a state policy of the Russian Federation make us predict the motivational action substrate which would justify the military aggression in Ukraine. Moreover, archiving the lessons learned from the military intervention with the data and the facts of the state actor can support the development of the methodology required to identify the behaviour of the analysed actor. Therefore, we can say that the dynamics of the military intervention or the behaviour of the Russian actor will be conditioned by how the transformations will take place in the cognitive plane of the Russian nation, and this action takes time.

Identifying the behaviour of a single actor is a big challenge because they will seek to hide their true intentions in order to exploit the element of surprise. The transition from the macro- to the micro-operational environment and implicitly the decoding and understanding of the reality of the confrontational environment can be done by “*being present at the scene*” in the middle of the events. Because it is possible to “*record the events*” through the mass media, it is as if a large-scale event were recorded and presented by pieces from several points of view through on-the-spot reporting or podcasts. By using collaborative podcasts in the experimental vignettes methodology, it has been possible to create the operational framework necessary for the assessment of the war situations and the positive results of the modes of action as improvisations on the battlefield are disseminated and adopted as standards of military action. In other words, there is an understanding of how to fight and the solutions resulting from the improvisations made or discovered on the spot are

adopted. In this context, we can say that an improvisation turns into a lesson learned.

The collaborative podcasts from media sources such as: mediafax.ro, romania.europalibera.org, aljazeera.com etc., help develop reports necessary for the analyses of the evolution of the dynamic crisis situation. For example, reporting the event that a series of Iran Shahed 136 kamikaze drones were launched on critical infrastructure targets in the Kiev area (aljazeera, 2022) can be collaboratively associated with another podcast containing data and information through which we learn about their technical component and how these drones operate, a media material posted on youtube (<https://www.youtube.com/watch?v=-U0usQ-g9GM>). Collecting the data from the two podcasts and organizing them in a logical manner according to the analysis criteria specific to military actions contribute to the development of an experimental vignette (we call it vignette no. 1) on the topic of using a certain type of drone for engaging a certain type of target. Example no. 2, respectively developing the experimental vignette no. 2, relates the podcast on the Russian cruise missiles attack and the response of the Ukrainian military forces employing the Gepard air defence system (Jucan, 2022) with other podcasts such as the one on the purpose of the Gepard air defence system (KMW, 2022) or about the one on how and what such an air defence system can do (<https://www.youtube.com/watch?v=Aj2jgWpIVM0>). By relating the two experimental vignettes, no. 1 and no. 2, we create a new reality of the battle space, namely the following lesson learned: “*although the Gepard air defence system is designed and is intended for defending the land forces against air threats operating at low and very low altitudes, especially against helicopters, nowadays it can be successfully used against cruise missiles*”. This result obtained in a relatively short time brings substantial changes to the concept of the operation, namely in expressing the air defence missions, i.e. the war is an ample “*laboratory of experimentation*”. Starting from the hypothesis obtained as a result of relating the experimental vignettes, new scenarios can be developed and implicitly changes occur at the level of planning military actions.

It is necessary to differentiate between the notions of macro- and micro-environment in developing the scenarios obtained by the



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experimental vignettes methodology, to which the MoP and MoE indicators are attached, in order to properly understand the levels of action planning, namely the military operations at tactical, operational and strategic level. At the same time, the content of the podcasts or the media sources that report and record the historical events gives a new meaning to how an actor behaves in certain situations. In other words, applying the scenarios as a tool in planning military actions is the result of the collaborative podcasts which are included in the experimental vignettes methodology, which can be a generalized method for relating the societal domains of PMESII. According to the same principle of determination, patterns of interaction between the societal domains can be constructed or, in other words, irrespective of the selected societal topic, the confrontations between two or more actors could be predicted.

Starting from the premise that the contemporary operational environment can be decomposed into the sum/product of interaction relations of the PMESII societal domains, based on the deductions of the behaviour of the relevant involved actors, predictions can be made on future events in agent-based modelling.

In our view, these behavioural patterns overlapping the PMESII societal domains and obtained through the experimental vignettes methodology, based on podcasts (to which the MoP and MoE indicators are attached), provide the basis for developing scenarios in planning military actions; moreover, it can be applied to other societal domains, such as preventing a crisis situation. Starting from the premise that the contemporary operational environment can be decomposed into the sum/product of interaction relations of the PMESII societal domains, based on the deductions of the behaviour of the relevant involved actors, predictions can be made on future events in agent-based modelling. The schemes of events (actor-goals-space-time) can be used to model and identify the actor's behaviour under multiple aspects: political, social-psychological, sociological and economical, at the individual or group level. In other words, a crisis situation can be prevented by applying the behavioural patterns to the societal domains as an analytical tool that "will allow the decision-makers to better understand and predict how individuals and their group interactions will react to events in a hybrid warfare such as terrorism, civil war, state-on-state, insurgency, mass migration, competition for resources and extreme weather events" (Angelelli et al.).

Consequently, we strongly assert that a new conceptual dimension of the experimental vignettes methodology based on podcasts can



support the development of scenarios used as a tool in planning military actions, in the sense that any actor can be seen from the perspective of his "action motivational substrate". Combining and relating the MoP and MoE indicators for each societal domain is practically a "behavioural x-ray" and a necessary prerequisite for creating the context for the description of a hypothetical negative event with major impact, respectively an identification of the measures which create the conditions of a crisis situation. In our opinion, such a picture of possible situations in the operational environment can be graphically represented as in figure no. 3.

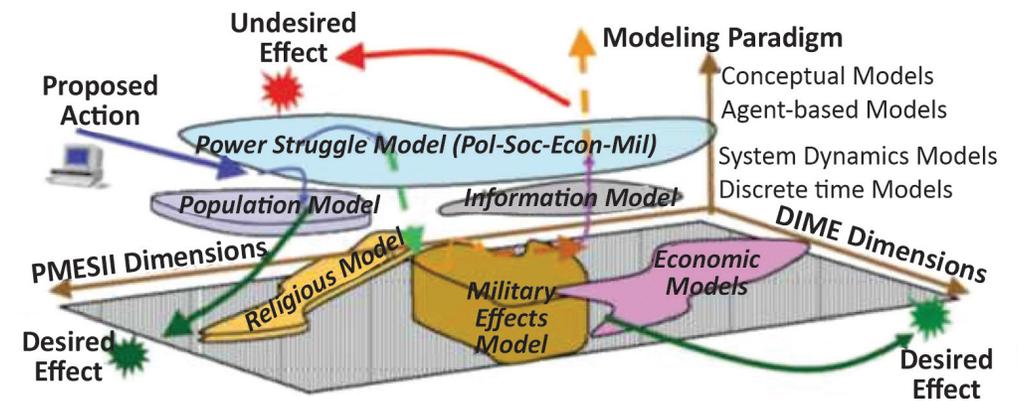


Figure no. 3: Graphical representation of the three-dimensional plane of possible situations in the operational environment generated by the interaction of the societal domains in DIME/PMESII dimensions (Harris, 2019).

No matter how complex the graphical representation of the operational environment is, the future and implicitly the possibility of the occurrence of a major negative event will never be able to be represented with certainty. Instead, the future can be foreseen as "possible futures", as a "hypothetical operational environment", and its characterization can be carried out in terms of the actors' behaviour, a fact that becomes relevant through the use of MoP and MoE measures. On the vertical axis of the representation in figure no. 3 – "the modelling paradigm" – we distinguish the following intermediate elements: object models – causal models – statistical models – conceptual models and the change of paradigm takes place when a new model of thinking is developed, and the previous conceptual vision of the operational environment is replaced with one closer to reality.



In this context, we can talk about training the military specialist to develop a way of thinking about the reality of the contemporary operational environment for the development of scenarios based on patterns and working on vignettes. We have resorted to the notion of experimental vignettes precisely to highlight the need to use the lessons learned and to construct hypothetical situations on a case study similar to what we call the “work of the red team” or to perform a “behavioural autopsy”. In our opinion, the foreign policy of the Russian Federation is not an “accident”, but rather a product or an outcome of the mass consciousness of a nation and should be treated as such. After understanding the balance ratio of the two typologies of conceptual models: DIME (diplomacy, information, military and economics) and PMESII (political, military, economic, social, information, infrastructures), it is possible to understand the behaviour of the societal domains as well as the fact that situational models can be developed that will underlay the scenarios necessary for planning military operations.

The resort to the event or multi-event analysis using podcasts is done through operationalizing the experimental vignette work. “Mainly, several iterations occur, which, once they are filtered by changing the values of the reference indicators, can generate awareness on new situations and the development of hypothetical situations starting from negative events with major societal impact or social crisis”.

Beginning to work with the experimental vignettes methodology based on podcasts is, in our view, a first step in relating the influencing factors, in this case the behaviour of the actors, and in identifying their “motivational action substrate”. The resort to the event or multi-event analysis using podcasts is done through operationalizing the experimental vignette work, which is nothing new! “Mainly, several iterations occur, which, once they are filtered by changing the values of the reference indicators, can generate awareness on new situations and the development of hypothetical situations starting from negative events with major societal impact or social crisis” (Kodalle, Ormrod, Sample & Scott). Briefly described, the podcast-based experimental vignette methodology consists of the following working algorithm:

Step 1. Establishing the analysed topic by describing it in key words and phrases;

Step 2. Entering keywords or key phrases into Internet search engines and obtaining the required podcasts, classifying them and identifying links between them;

Step 3. Identifying and collecting relevant information in support of the analysed topic, respectively putting in context the data necessary to make the connections to relate the topic to other topics based

on the criteria of similarity and contrast, compared to the established MoP and MoE;

Step 4. Constructing the experimental vignettes;

Step 5. Processing and comparing the experimental vignettes according to the war game method – “War-gaming” – used in the operational art, specific to military operations planning;

Step 6. Recording the results and initiating the scenarios according to the model of the threat scenarios, typical of the critical infrastructure protection domain;

Step 7. Developing scenarios and formulating predictions regarding the analysed topic, as described in step no. 1.

The working algorithm presented in these seven steps is not an exclusive one. It can be improved and adapted to the needs and scope of the analysed topic, corresponding to the macro- or micro-environment. We consider particularly important the use of the vignettes as a tool for modelling, teaching and researching the behaviour of the actors involved in a situation analysis. In this way, we believe that the military specialists should be trained in solving problems generated by complex situations such as crisis, on three areas of competence: as a military analyst, a military planner and a military decision-maker, differentiated on the levels of the operation: tactical, operational and strategic.

CONCLUSIONS AND RECOMMENDATIONS

Starting from the prerequisite that there is a need to identify the action motivational substrate, respectively the behaviour of an actor involved in a crisis or military conflict situation, the military specialist is required to provide solutions and to act firmly and rapidly to accomplish a mission. That is why we consider that identifying the future or the “possible futures” is particularly important in predicting a crisis situation or the occurrence of a negative event with a major societal impact – such as war. This method is one of the greatest challenges that the military analysts, planners and decision-makers have to face, regardless of the level of engagement: tactical, operational or strategic.

The operational art with the elements of military science are the formal and practical applicative support for solving unforeseen complex situations, such as a crisis or a war, and this can be done by developing scenarios that contribute to the prevention of a crisis



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or war situation. The irreparable destruction of the critical infrastructures, the loss of human lives and the considerable material damage that is constantly increasing in the Ukrainian space following the unprovoked and unjustified military aggression of the Russian Federation against Ukraine are strong motivational components for identifying solutions to such cases in the future.

We consider that there are multiple answers to questions like: “What prompted the actions of the Russian Federation?”, “Could this military conflict have been prevented?” and “How will the military actions be conducted or what are the best combat methods and equipment for conducting air defence in Ukraine?”, which are related to the macro- and micro-operational environment as well as to the past events that are known and recorded in the documents of the time and nowadays in podcasts. Considering the phrase “what has happened before will happen again” we assign an important role to the scenarios as a powerful tool in planning military actions and operations as well as in countering crisis situations that any of the PMESII societal domains can experience.

Another conclusion is related to the behaviour of a state actor in its relations with other state actors in the sense that its motivation is the result of its historical becoming as a distinct entity. In this context, we recommend that a “behavioural autopsy” should be performed on a state actor in order to understand the motivational substrate, in this case the Russian Federation. We also believe that transforming this into coordinates of criteria or indicators for evaluating the covered situations, the MoP and MoE constitute a minimum guarantee for the veracity of the obtained results.

Within the constraint of this paper dimension, we have brought to the attention of the specialists and those interested in the field of security and military actions planning some aspects regarding the methods to research the complex operational environment based on complicated interactions of the societal domains. In this regard, we have added the “cognitive structure” of a state actor engaged in a crisis situation as a component of the research, in this case referring to the Russian Federation. One of the important aspects that emerges from what has been presented is the fact that the decisions of the international power factors are the result of several historical

events and decoding the motivational action substrate can be done both through the working method of the “red team” and through a so-called “behavioural autopsy”.

Our recommendation consists in operationalizing the experimental vignettes methodology by using podcasts, according to a seven-step algorithm. This algorithm can be helpful in developing threat scenarios, an activity that can be seen as a method of capitalizing on the lessons learned from the recent military conflicts. This fact is endorsed by the complexity of the combat actions generated by the technologization of the space of confrontation and interaction of the societal domains in a difficult-to-decipher manner, which requires diverse sources of information and data processing teams.

We believe that the experimental vignette methodology applied in the development of the threat scenarios supports the process of planning military actions for preventing and overcoming the crisis or war situations. This working methodology is based on what we have called “behavioural autopsy”, which can be a conceptual technical support for optimizing the process of training the military specialist by opening new horizons on the planning of military actions as interactions of the military component with the other components of the societal domains.

Hoping that this paper will come to the attention of the military specialists as well as of those in the field of societal security, we express our firm belief that “the development of scenarios in the planning of military actions in order to prevent a crisis situation” remains an open and inexhaustible topic.

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