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CRITICAL INFRASTRUCTURES AND IDEOLOGY

*Gagik Harutyunyan**

Security issues in information warfare have become relevant in parallel to development of strategies for such warfare. Already in 1996 the US President's Commission on Critical Infrastructure Protection was established to deal with information sector critical infrastructures protection. The results of two years of the commission's work allowed to uncover information security vulnerabilities and served a basis to develop relevant policies in the area. This was followed by a presidential decree which established a number of programs aiming at increased information security in political and military governance, information and communication, finance, energy and water supply, police and rescue and other systems. In turn, in the mentioned "critical" areas the "critical infrastructures" were determined, damage to which could impair their functions. Most of the problems in these areas were related to unhindered operation of technical, electronic and computer devices.

At the same time, as it follows from the doctrines of the "second and third generation" information warfare, "color revolutions", "controlled chaos" and generally total hybrid warfare, there are information challenges not only for technical and technological devices, but also for intellectual and spiritual aspects of individuals, nations and societies. It is then logical to develop protection mechanisms also for areas and structures that ensure security of human activities and normal spiritual/intellectual development. First thing in this regard is to determine which are the most important areas and structures that would be assigned the status of "critical". It is not easy to do, because unlike technical systems, which operate under certain rules or formulas, in this case civilizational peculiarities, values, mindsets and in-depth uniqueness of both individuals and the society as a whole need to be considered, along with their

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similarities with other societies. It is no coincidence then, that the American experts consider the protection of American values as the key objective.

Worded differently, there can be no universal recipes in the “human-societal” area. Each society has to try to know and determine themselves what the critical infrastructures are and how to protect their security. Such approaches are widespread presently. For example, the military doctrine of Israel considers structures of national symbolism as critical infrastructures, such as Yad Vashem Holocaust Museum, temples, etc¹.

It should be noted that discussion of the mentioned issues relates to the defensive system for the society, whereas war also implies offensive operations. In this case there is a need for comprehensive knowledge and understanding of the necessary aspects of the hypothetical adversary’s society. It is relevant to recall a quote by ancient Chinese strategist Sun Tzu: “Know thy self, know thy enemy.”

It is also important to consider that in the modern era of multipolar conflicts information warfare is continuous, creating additional problems both for the defending and attacking parties. To effectively survive in such war, the defender has to carry out information-societal mobilization policy. Some scholars see creation of a solid, modern and flexible ideological system in the society as the means of such policy. Particularly, a starting point for this could be one of the modern definitions of ideology: “a complex of instructions to ensure the most effective mode and interconnection”². This very dynamic, algorithmic definition by V. Yanko may be applicable also for national and particularly, information security problems. In order to discuss the mentioned matters with most clarity, let us briefly examine the role of ideological provisions in various countries and their relation to the national security issues in these societies.

Establishment of multi-ideology: ideology as a term was first coined near early 19th century by Antoine Destutt de Tracy, a member of elite scientific center called *Institut de France*³. In classical phrasing ideology is defined as “system

¹ Гриняев С., О взгляде на проблему безопасности критической инфраструктуры в государстве Израиль, <http://www.csef.ru/index.php/ru/component/csef/project/-/-/?id=3229>.

² Янко В.А., <http://yanko.lib.ru>

³ *Institute* as a term also emerged in this period. Incidentally Napoleon Bonaparte was also a member of *the Institut de France*.

of beliefs on society, individual and surrounding world”. This definition can be taken as a theoretical basis for Yanko’s algorithm of “complex of instructions to ensure the most effective mode and interconnection”, which implies actions.

It is commonly accepted that there are two fundamental universal ideologies: socialist (with main principle of social equality in the society) and liberal (with main principle of individual liberty). Such categorization is due to the fact that the principles forming these two ideologies were used to one or another degree by almost all societies, regardless of their ethnic, religious, or general civilizational backgrounds. Unlike these two, the national-conservative ideologies are based on a specific society’s national-civilizational value system, ideas about identity and traditions. So-called “hybrid” ideologies also emerge, an example of which was German National Socialism that can be considered a cross-breed of extremist national-conservative and socialist approaches.

Over time ideologies evolve, although their fundamental tenets stay relatively unchanged. Sometimes this ends up with positive results, sometimes not. However, the worst perils appear when an ideology gains long-term monopoly and absolute dominance in a society. As a rule, this leads to grave consequences for a given country. The classic examples of this phenomenon are National Socialism of the Third Reich and totalitarian-bureaucratic version of socialism in the Soviet Union. Meanwhile, the historical evidence shows that the societies, which are able to jointly apply liberal, socialist and national-conservative ideologies in well-thought proportions experience significant development and advancement. The “multi-ideology” system running in this pattern has been called “ideological triad” [1]. Such triad increases the society’s various resources, especially the spiritual and intellectual ones, while making the political system flexible both in internal and external affairs. Naturally, these factors boost the levels of national and information security. It is also known that turning ideas into ideology is virtually impossible without complex information activities. In turn, ideology tenets provide for content of information space, and thus, its protection from external information interventions.

In the context of the all above mentioned we will attempt to assess and compare the effectiveness of some societies depending on their information/ideology characteristics.

Anglo-American technologies: The British model is a good example of effective and competitive “multi-ideology” system, which was introduced to one or another extent in all English-speaking countries. The societies in these countries are characterized by ideological open-mindedness. Conservative (national-conservative) and Labour (socially-oriented) idea bearers had developed mutually complementary mechanisms and jointly work in a liberal ideology framework, which is native to the Anglo-Saxon mindset. This factor contributed to the strategic achievements of the British Empire (and the United States, which is often viewed as the successor of the British Empire) and it appears to be the reason why this community is able to maintain its status of global leader for the last several centuries.

Interestingly, perhaps due historical development peculiarities of the USA, though borrowing the British political logic, the US ignored the importance of political force of socialist type ideology. As a result, the uncontrolled growth of liberalism and consumerism is causing serious problems, due to which the USA has started to lose its positions of a global leader. The existence of ideological shortcomings seems to have been acknowledged by the American elite and, perhaps, this was the reason why Bernie Sanders with his socialist orientations was able to make inroads into 2016 presidential elections. Moreover, there is an impression that the winner of elections, Donald Trump, appears to be countering extremal liberalism and as such reminds somewhat the Soviet leader N. Khrushchev, who tried to substantially reform the totalitarian communist system.

Chinese Model: From the ideological perspective, the phenomenon of the “Chinese miracle” is worth a special attention. Mere 30 years ago the mono-ideologist China was far behind the developed countries. The situation took a dramatic turn, when Deng Xiaoping, former associate of Mao Zedong, introduced elements of liberal and national-conservative (Confucian) ideologies in the one-party system, once he became the factual leader of PRC. Remarkably, in parallel to this, all advantages stemming from the “dominant” socialist ideology were retained. Characteristically, even in this universal teaching they tend to maintain the tenets developed by Mozi, a 5th century

philosopher and thinker, who is considered the founder of Chinese socialism. In other words, socialism has been adapted to Chinese traditions and mindset. As a result, China became a superpower and a leading country in economy, military and technologies. The achievements of China are also attributed to meritocracy¹ in administrative/political system, whereby the most able and prepared people must be assigned to the leadership positions.

Islam and Liberalism: There is a trend of strengthening religious conservative ideas in the Muslim world, the extremist manifestation of which is the *Islamic State*. Interestingly, the countries that were able to combine religious traditionalism (which contains also ideas of social justice) with liberal and national approaches, improved their conditions significantly. Among such countries, Iran is worth a particular attention, where fundamentalist Islam, Persian national-civilizational traditions and democratic and economic liberalism elements were combined in certain proportions. As a result, Iran has become a regional leader and is one of the diversely developing countries in the international arena. It has to be noted that insufficient competitiveness of some Muslim countries is often due to their lack of intellectual resources. However, Iran develops its own space and nuclear programs, and has achieved impressive results in nanotechnologies. The principles of meritocracy are applied in this country in a somewhat original way. Particularly, in the government system an important role is played by the Council of Experts and Expediency Discernment Council of the System. This multi-ideological system allowed Iran to survive through decades of Western sanctions (somewhat eased only in 2015) and counter any attempts of “color revolution.”

Continental Europe: Traditionally in Europe an important role is played by liberal and socialist parties. The latter number in several dozen and were able to achieve impressive social welfare results. At the same time, the pan-European national-conservative approaches have little say in the EU, for understandable reasons. Moreover, the nationally oriented parties of European countries often oppose the EU migration programs, due to crises related to the immigration problems. Perhaps this is the reason why EU is outplayed by the

¹ *Meritocracy* (Latin *meritus*: earned, deserved) – rule of the deserving ones.

USA by military-political power and geopolitical influence, despite having the same economic potential.

Ideological Revolutions in Russia: Along with bearers of national and liberal ideas, there are many adherents of socialism in the Russian society, the basis of which is commonly deemed to rest in the traditional lifestyle of the Russian rural community. The ideological conflicts in Russian realities had led to revolutions (1917 socialist, 1991 liberal) with all associated effects and dominance of the winner ideology. Consequently, Russia that has all preconditions and ambitions to be a global leader, instead finds itself in difficult conditions over the last 100 years. Knowing this, the current Russian leadership attempts to combine various ideological movements. In this country, other than the survived Communist Party there is socially-oriented party *A Just Russia* and conservative *United Russia*.

In any case, it has to be stated that unfavorable ideological realities have seriously impacted the development of Russian society and in that context even also the whole Slavic community.

The Israeli Experience: The “ideological triad” works effectively not only in large countries. For example, in Israel, which is under constant conflict situation, the “ideological triad” is represented in well-thought proportions. In the first years of its creation, Israel established about 200 kibbutzim that still exist. Kibbutz is an agricultural community, which also functions as border guard armed force. The property in kibbutz is owned collectively and the results of joint work are distributed equally, which reminds the Soviet collective farms. Kibbutzim were created through a peculiar symbiosis of national-conservative (sometimes orthodox) and socialist ideologies. Such symbiosis ensured high patriotic spirit of border guards, much contributed by socialist principle of equality (including material equality), which in addition contains an organizational/mobilization factor.

It follows from the above mentioned examples that harmony and congruency of the ideological field predetermine the effectiveness of the national strategy. This implies that the ideology and its parameters in the national and information security have to be accepted as primary critical area.

However, as it is known, security is not a static defense, but a strategy of constructive actions. Therefore, if the society's ideological framework does not meet the security requirements and thus, does not promote the spiritual/intellectual and socioeconomic development, then the only method of protection is to form an adequate ideological framework through information/public technologies.

It is also important that theoretical and practical concepts of universal ideologies evolve among a wide segment of the international community, which allows even the societies that possess no adequate resources to make use of them. However, the situation with national-conservative ideology is somewhat different, because the solution of theoretical and content related matters is mostly the task of a specific society.

As it has already been mentioned, the national-conservative ideology (NCI) is based on national, civilizational and religious value system, identity ideas and historical traditions of a specific society. NCI, as well as the other ideologies turn into an influential factor when they become part of the public consciousness, and that is possible only through information means. Of course, the primary task in this matter is the development of the main tenets of such ideology. Yet it does not mean that a relevant system can be formed only after finalization of NCI tenets, as their creation and development imply continuous improvement and practical testing of their effectiveness. Under such approach the main objectives of the internal information/psychological activities could be the following:

- Introduction of certain NCI tenets in the information space of the society,
- Protection of NCI tenets against any external and internal distortions,
- Propagation of NCI concepts in the external information space, in the context of national interests.

At the same time, as a component of the “ideological triad,” which is an information security critical area, NCI has to be perceived as a “critical infrastructure” by itself, because it performs the functions of developing and maintaining the national identity and system of values.

However, as already mentioned, the value system of a society is not a static category. It undergoes modifications depending on historical, military-

political, as well as evolutionary or revolutionary developments of the society. Currently, any society's value system is substantially influenced by both targeted and chaotic information flows, which quite significantly contribute to forming the global community's way of thinking, mindset, and thus also system of values. These realities are characteristic also to the Armenian society.

Ideological Issues in the Armenian Society: Obviously, the Armenian value system that has unique civilizational properties is one of the cornerstones, thanks to which our national and historical continuity was ensured. At the same time, due to geopolitical and revolutionary processes that occurred during the last 200 years, the Armenian society has changed its public-ideological environment several times. These included the Persian rule, Russian Empire, First, Second and Third Republics, to name a few. Consequently, the society's system of values has undergone considerable, sometimes contradictory transformations of content.

The communism tenets, forced upon the society of the Second Republic in 1920-30s, later were transformed substantially and adapted to the possible extent to the ideas of the national value system. However, currently many of those are in conflict with the quite vulgarized and oversimplified tenets of liberal ideology present in our society.

The study of society's system of values is an urgent matter. In this context many international organizations conduct vast research throughout the world. For example, the *World Values Survey*¹ study indicates that the population of the Republic of Armenia is in the cultural domain of the South Asian and ex-Communist countries, where traditional and survival values prevail. However, it has to be stated that any perceptions about the system of values in Armenia and Armenian diaspora are general and emotional, and are far from being scientifically substantiated.

Once again it needs to be emphasized that NCI and policy connections and their practical applications are hard to imagine without a relevant information policy, and this is true not only for values system related matters. In particular, if the coverage of Soviet period in domestic media is considered

¹ See worldvaluessurvey.org

from the information security perspective, it is obvious that there are serious problems related to one of the cornerstones of information security – preservation of the historical memory. Societies that lose their historical base are most prone to information/psychological influences, and in this regard it is pertinent to quote a Chinese proverb: “Forgetting history means betrayal.”

The views on the Second republic voiced in the information space bear mainly “tragic” or “sarcastic” overtones and remind the Bolshevik style, when anything related to the First republic had to be condemned. Perhaps Carl Schmitt was right, contending that “philosophical paradigms of Marxism and liberal ideological/economic demonism are the same.”

As far as assessment of the Second republic is concerned, the mentioned approaches constitute distortion of the objective history, because in addition to its negative and tragic aspects, Soviet Armenia created a powerful scientific, technological and industrial system, experienced demographic growth, formed a creative society with high educational and moral levels.

It has to be clearly realized that history of any country is not just that of its political regime, but also the history of its society and people. In this context it must be admitted that the Armenian society took its share of political, military and revolutionary calamities with high dignity. Boris Kagarlitsky, a prominent intellectual and political scientist, who, incidentally, is a former prisoner of Mordovian labor camps, has noticed felicitously that disparaging the Soviet history is first of all a betrayal of the memory of the Soviet regime’s victims [2].

No attempt is made here to idealize our not so distant past, as it makes no sense to idealize or demonize any historical period. At the same time it has to be understood that the First republic was the basis of the Second one, which in its turn paved the way to the Third republic, and this continuity must be interpreted and dealt with accordingly.

April, 2017

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DIMENSIONS OF STRUCTURAL POWER: RUSSIA AND THE POST-SOVIET AREA

Vahagn Aglyan^{*}

A phenomenon of power in politics and policy-making is one the oldest and traditional topics of academic inquiry and a key domain in theorizing about International Relations (IR). Scholars have elaborated on a variety of types, forms and dimensions of power in IR and policy-making in general, yet some types of power have gained prominence quite recently as international politics and international relationships have been evolving within the new globalized setting(s). Specifically, the post-Cold War period has ushered out new and complex period with the system of international relations being “scaled down” to the regional level from its former bipolar framework. Although these regions are integral and interconnected parts of the globalized world, however, some large regions (macro-regions) emerged as distinct and “self-sustainable” clusters of states, with their own institutional and structural peculiarities.

The post-Soviet space is one of these macro-regions that emerged on the territory of the former Soviet Union (FSU). Over the past quarter of century since the Soviet break-up, unique characteristics that “glued together” the formerly constituent parts of the USSR diminished significantly, but several factors still crucially influence the regional development dynamics. Among these factors and variables Russia is the key factor predisposing the whole region towards some “regional and international personality” by its sheer size and resources that dwarfs the aggregate potentials of all the other FSU republics [1]. Russia continues to “hold” these states grouped due to variety of structural (including path dependency) links and historically formed legacies that are bolstering Moscow’ strategic rationale and policy-driven motivations in the

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“zone of its privileged interests” within the FSU. In this context, the factor of power with all of its manifestations has been acquiring crucial significance.

A traditional emphasis on coercive/ military power application, being a core element of realist calculus, is one of the oldest conceptualization of power in IR. With an explicit reference to its coercive forms (of employment), power is the central aspect in the Realist thinking of international politics and relations. Imposing its will on the other actor and controlling the outcome is an important characteristic of coercive power. The direct application is the typical feature of this type of power. Compulsory power with a direct control over the other, in M. Barnett and R. Duvall’s opinion, is best understood from the perspective of the recipient, not the deliverer, of the direct action [2]. For the neorealist strand, the total amount of resources available to the actor (state) constitutes its hard power capabilities and is essential in identifying power position of any given state in international structure [3].

The second understanding of power - Institutional power - is closer to the Liberal tradition in IR theories as it encapsulated several important notions on power constraints and the role of institutions in constraining anarchy in international relations. Scholars elaborated on a variety of explanatory approaches as to how formal and informal institutions enable some actors to shape behavior or circumstances of socially distant ones. Yet, the institutional substructure and rules can also generate unequal leverage in determining collective outcomes [2].

Some institutions, for example, can potentially generate and foster unequal distribution of power/resources in favor of some actors. That is the typical case in hierarchical arrangements and institutional formats under the predominant state’ control. At the same time, the classical theory of hegemonic stability describes hegemonic states as powerful states that impose their rule and will largely by unilateral means and without establishing strong institutions [4]. The post-Soviet space is not a traditional case of raw hegemonic dominance, despite of power and resource asymmetries that underlie its unipolar characteristics of this distinct macro-region under Russia’s preponderance. However, Russia’s strategies aimed at the Eurasian integration as well as Moscow’s apparent objectives to institutionalize these integration formats are

to a significant degree aimed to reach “advantages of diffusion” [4, p.686]. In T. Pederson' opinion, an “institutionalized regional system is not only a constraint on the regional big power. It is also an asset in the sense of providing an arena for diffusion of hegemon's ideas. Such diffusion may occur in various ways and to varying degrees. Thus, regional institutionalization may serve to “lock in” neighboring states in a set of rules largely determined by the cooperative hegemony [...]” [4]. The Russia-centered Eurasian Union (2015), which currently includes another five post-Soviet states besides Russia, is one example of institutionalization based on “lock-in” logic.

Another stream in the conceptualization of power in international affairs concerns the notion of soft power. Developed and further elaborated by J. Nay, the concept rests on the idea that power and influence can be exercised via non coercive means and instruments; for instance, shaping ideas and social thinking, through persuasion and indirect influence, setting certain normative and discursive trends, or guiding the organizational principles and understandings. The ideas, norms and cultural predispositions all are important building blocks of soft power-yielding in IR [5]. The soft power approaches and arguments are presented in usually positive connotations.

Nevertheless, there is another type of power, structural power, which is of substantial importance for better understanding and explaining of macro-regional realities and the major trends that beset the policies and politics within the post-Soviet space in a strategic perspective. It may shed light upon the peculiarities of Russian-centered hierarchical international system within the CIS domains and its “internal” characteristics as well as. And though the factor of agency in case of structural power is less pronounced in terms of intentionality, many implicit facets of strategic decisions that concern the future of regional development(s) can potentially be sketched up within the structural power framework.

The conception of structural power was first developed and presented by S. Strange who conceptually detailed and elaborated the four pillars or structures in International Political Economy: (1) security, (2) production, (3) finance, (4) knowledge. S. Strange approaches the structural power as the “power to shape and determine the structures of the global political economy within which other

states, their political institutions, their economic enterprises and (not least) their scientists and other professional people have to operate” [6]. In this light, both tangible and intangible sources of power are included into the notion of structural power, with structural factors (such as geographic location, demography) being connected to the matters like technology, ideas and culture. According to S. Strange, power over structures is more important than the power that rests on resources as the structural power is about “how things shall be done, the power to shape frameworks within which states relate to each other, relate to people, or relate to corporate enterprises” [6, p.25].

In practice, it is supposed that state holds structural power if it possesses significant capabilities related to the main power structures and if its is able to exercise authority/control over the structures. Hence, the most important characteristic of structural power is that these structures themselves become the resources of power framing the rules and the settings of the game; metaphorically saying, the structural power is about shaping and setting the limits of possible. Empirically, the term structural in its policy-oriented meaning may refer to two key aspects: the objective to have an effect on structures; and the objectives to have effects that are sustainable. The major aims of structural diplomacy, for example, include exerting influence or shaping sustainable external political, legal, economic, social and security structures at different relevant levels in a given geographic space [7].

Structural power employs both resource-based and relation-based character, but the context is of great importance for the better understanding of the operational specifics [8]. For instance, analyzing the structural dimensions of influence of Russia and the European Union in the so-called shared neighborhood between these two forces, D.Averre emphasizes that “the static conception of a traditional *droit de regard* enforced by ‘hard’ political–military instruments is misconceived; it misses the point that both the sources and effects of power are more diffused” [9].

Over the past quarter of century Russia’ strategies in the post-Soviet space have undergone significant changes: those transformations ranged from the mere resource allocation issues to the policy modalities and conceptual dimensions of RF international and regional policy performance. In difference

to the “erratic 1990’s”, the foreign policy course of Russia has obtained a substantially more coherent and, at the same time, focused character [10]. Along with pragmatic and practice-orient orientation, the institutional basement and the operational capacities of the policy-making have been bolstered visibly. Russia’s regional assertiveness has acquired more multidimensional character paving the way for more comprehensive modes of regional engagement. The previously dominant “one-leg” apprehension of Russia as a state that can boast just raw military might but lacking other resources and instruments of influence and power gave away for a more sophisticated and nuanced acceptance of realities in this part of the world.

Since the mid-2000’ and, particularly, after the 2010’ an apparent shift has emerged in Moscow’s regional strategies from a classical orientation of alliance and block-building towards the policy convergence (diffusion) strategies within its allies circle, apparent moves to force “non - aligned” post-Soviet states to revert to bandwagoning policies [11], whereby for the openly hostile states making the dissent / divergence extremely costly (the case of Ukraine), if not unbearable for the others.

In this context, structural power ought to be regarded as an important dimension of the regional politics at least on two accounts. First, although Russia is not positioned (in absolute terms) as an “ideal paradigm” of modernization and development for the post-Soviet states as contrasted to the EU, yet that does not automatically purport Russia’ disinterest or rejection of (in) direct influence tools and levers over the region other than coercive means or instances of direct involvement that are supposedly regarded as “last resort” measure. Those influence and power-yielding formats potentially include soft power projections, but in practice Russia’s soft power potential is not as effective as one can imagine given the huge resource asymmetry between Russia and its post-Soviet neighboring states combined.

The issues of macro-regional security and stability are of utmost importance for the post-Soviet states of Eurasia. Vast regions south to the former Soviet Union ranging from the Middle East to the Eastern Asia are engulfed with the

security problems and military risks. Internal instability and state failure, domestic and international terrorism coupled with the unsustainable domestic social-economic conditions in these countries and regions are in relative contrast to the comparative stability of the post-Soviet region; a unipolar regional security system where Russia has reserved a central role of security “keeper” by its mere size and scope of its power projection potential since the Soviet break-up: the regional security system in the post-Soviet space is described as unipolar Russian-centered one [12].

In this sense, security dynamics in these states is structurally interconnected and affected by Russia; yet, given the huge resources asymmetries between the aggregate potentials of all the post-Soviet states and Russia, the former group of states are more structurally predisposed to security vulnerabilities than Russia itself which is also dependent on the military and intelligence assets and infrastructural objects that are located in these states and are indispensable in providing security, both at the operational and structural levels [13].

The hierarchical structure of international relations in the FSU geopolitical space resembles core-periphery relationships specifics [14]. Particularly, in the context of economic, infrastructural and social viability, even after the dissolution of the USSR structural dependence of the CIS republics on the RF still continues to shape their overall foreign policy calculus. Though far from being former colonial states (in traditional connotation) and actively expanding regional and international profile of their interactions, the general parameters of interdependency links might favor deposition to vertical integration. One of the features of hierarchical international systems is that: “[...] economic links are structured vertically to the core at the expense of horizontal links among the periphery states, a fragmentation that sets them apart, allowing divide and rule by the core, and deterring regional economic development. As such, client states need their patron far more than the patron, having numerous clients, needs any individual one of them” [15]. The post-Soviet space, certainly, differs in many respects from the described “post-colonial” patterns of relationships, but importantly, horizontal cooperation dynamics between FSU republics has not been set in motion for a variety of objective and subjective reasons.

A noticeable aspect of this kind of “predisposition” to Russia is the evidence-based observation that horizontal links and cooperation formats between the former Soviet republics (other than Russia) have not been sufficiently developed to offset an crucial importance of bilateral relations each of them hold with Russia. For example, still in 2007 SIPRI’ analysis of regional integration and security dynamics noted: “The predominance of Russia in the former Soviet area (even if it is eroding) represents the most powerful independent variable within the post-Soviet space. Not only is Russia by far the strongest state in terms of size, military forces and economic potential, but it is also has the strategic character of a “hub” to which former Soviet states are joined by a more strategically significant relationship than any pair of such states can have with each other” [16].

Another dimension of structural interconnection is the land-locked status of the majority of the post-Soviet states, which necessitates and forces them to count on the Russia’ geographic and geopolitical location. The later aspect can entail not only security-related implications but also social and economic repercussions. Regardless of policy-driven aspects and modalities, the relationships with Russia as well as foreign policy orientations and alignment patterns of these states are acquiring an additional “layer” that cannot be discarded in a longer-run perspective [17]. Out of the 12 post-Soviet states (not counting the Baltic States) only two are not landlocked (Georgia and Ukraine), whereas the rest depend on the Russia’s communication routs (to a varying degrees).

Over the recent decades, Russia has invested heavily into the spheres and sectors of soft power, information and media technologies as well as in some public policy domains that concern the normative and ideational agenda of the state. Knowledge and information structures have been considered as strategic assets specifically with regard to the CIS countries where promotion of cultural images, narratives and discourses acquired a strategic significance. Doctrinal approaches such as “sovereign democracy” or other normative orientations resonate well with some specific political circles or elites, but are not “diversified” enough to appeal a larger segments or the whole societies to follow. Nevertheless, the Russian language is lingua franca for international

communication between the post-Soviet states, whereby education opportunities in Russia are more open and accessible (financially and logistically) for CIS countries younger generations than, for instance, education prospects in the Western universities. Moreover, there are some sectors and technological domains where Russia's presence is well-established in longer term perspective (i.e. military, military-technical, and security).

Since the Soviet dissolution, Russia continues to be a huge market for the post-Soviet states' products and services that attracts not only commodities but also serves as large labor market for the CIS states. Despite of economic and financial crises and subsequent social-economic difficulties, Russian economy and the remittances that the post-Soviet republics citizens send to their home states constitute a substantial and embedded part of the economic structure of these states. The Economist notes that despite of the tightening of the US monetary policies, in 2016/17 "the rebound in remittances will provide a significant boost to economies across the region, in turn leading to a recovery in domestic demand and imports. The poorer CIS states, such as Tajikistan and the Kyrgyz Republic, are the most remittance-dependent states in the world. The appreciation of the rouble and the recovery in remittances should also lead to the stabilization of the currencies of many of the countries in the region this year"¹. Although the other post-Soviet states could be less dependent on Russia, yet the patterns of social-economic interactions developed over the past decades are rather persistent to evaluate them as embedded features of economic life of these states. The export/import share with Russia in overall trade turnover of the post-Soviet states is varying, yet the median is pivoted around 25%.

At the same time, since the first half of the 2000's, Russia' strategic portfolio of investments in the CIS has been mainly focused on the strategic assets and infrastructural objects that potentially can foster further deepening and broadening of structural links and asymmetrical dependencies on Russia given the uneven resources potentials [18]. Though Russia is not a leader in forging innova-

¹ In 2016, the overall amount of remittances to the CIS from Russia was equaled to about \$40bln. The Economist, Russian remittances to CIS show signs of recovery, 21 April, 2017, <http://country.eiu.com/article.aspx?>

tive business solutions and developing industry technologies on par with the Western states, yet in some cases many advanced business and economic solutions are better “emulated” and later on transferred to the other post-Soviet republics as already “passing” the Russian experience. While high-technology export is less than 3% of Russia’s total exports, in some sectors the Russians retain leading positions (for example, in high-tech armaments production or nuclear technologies). Russia is the 8th largest manufacturer in the world [19]; the fact that could not but to influence the economies of the neighboring smaller states with a similar patterns of economic structure and compatible level of development in both dimensions, production and financial sectors.

In contrast to the other types of power where the cause-effect picture is more apparent and visible, the structural power dynamics and mechanisms of “visualization” are difficult to discern empirically. It is even more difficult to understand multiple facets of Russia’s structural power effects and implications towards the post-Soviet space. Nevertheless, in general, Russia yields certain measure of structural power over the post-Soviet space, and that “share” is of substantial importance for any of the former Soviet states. All the four “pillars” of the structural power - security, production, finance, and knowledge/information - are affecting the current dynamics of the macro-regional developments and will certainly shape the contours of Russia’s presence and engagement modalities within the macro-region in mid- to long-term perspective.

December, 2017

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SCIENTIFIC AND TECHNOLOGICAL LANDSCAPE OF THE MULTIPOLAR WORLD

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To interpret the complex processes occurring in the global multipolar world, analysts often make references to the statements and decisions made by leaders of superpowers, and attempt to uncover the obvious or not so obvious intentions of global actors, with consideration of their civilizational peculiarities. Currently, there is a certain focus on information issues, although it seems the original meaning of this term is often forgotten (in Latin: *informare* – to shape, teach, think, imagine) and much attention is paid to activities of hackers, bloggers, as well as the “likes” and “fakes” in social media. At the same time what appears to be often ignored, is that patterns of modern developments significantly depend on the level of awareness (in terms of knowledge) of both the decision-making persons/organizations and those who present such information. Moreover, the quality and volume of knowledge resources determine the place and role of one or another country or community in the modern world order. To substantiate this approach, this article examines the connection between the scientific/technological potential of various communities and their geo-economic characteristics.

The following integrative indicators were used for this purpose:

- Gross domestic product (GDP) based on purchasing power parity (PPP) of the examined country or group of countries (GDP_{PPP}).
- Research and development (R&D) expenditures, also based on purchasing power parity (R&D_{PPP}), as well as the percentage of R&D_{PPP} in relation to GDP_{PPP}¹.

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¹ Hereinafter the "PPP" will be skipped for brevity.

This last indicator describes generally the R&D policies in the country, since it is something planned beforehand during one or another strategy for R&D development. The most accessible and comprehensive source for the mentioned indicators is the *R&D Magazine*, which among other things provides a list and indicators for R&D expenditures in 40 leading countries for the period of 2012-2016 [1, 2]. According to these sources, it had been expected that in 2016 total \$1.9 trillion or 1.74% of the overall global GDP, was to be spent on R&D. The share of the USA is the largest - more than the quarter of the total global R&D expenditures (26.4%, \$514 billion, *see Figure 1*). China's share is over one-fifth of total (20.3%, \$396 billion). The third country is Japan (8.6%, \$167 billion), followed by Germany (5.6%, \$109 billion), and South Korea (4.0%, \$77 billion). The list of these top five countries remains unaltered since 2012.

Characteristically, out of these five countries China, Japan and South Korea represent Eastern Asia, while Continental Europe is represented only by Germany. In addition to these countries, the top 10 includes India, France, Russia and the UK, with Brazil being the last one and the only Latin American country. In 2016 the aggregate share of these ten countries in global R&D expenditures comprised 78.5%. In terms of percentage of R&D expenditures in relation to GDP, the global leader in 2016 was South Korea (over 4.0%), closely followed by Israel (3.93%, which topped the list till 2014), then Finland, Sweden and Japan.

Let us consider countries grouped based on linguistic and cultural attributes ("Worlds of World") for which interesting patterns can be observed. We consider the following six "Worlds":

1. "World of Hieroglyphs": China, Japan, South Korea, Taiwan and Singapore (all these countries are among top 40 of *R&D Magazine* list);
2. "Anglo-Saxon World": USA, UK, Canada, Australia and New Zealand (the latter is not among the top 40);
3. "Continental Europe": Germany, France, Italy, Spain, Portugal, Austria, Belgium, the Netherlands, Switzerland, Sweden, Finland and Norway (all these countries are among top 40);

4. “Slavic World”: Russia, Poland and Czech Republic, as well as the following countries that are not among the top 40 in 2016: Ukraine, Slovenia, Belarus, Serbia and Montenegro;
5. “World of Crescent”: a segment of Islamic world, including Turkey, Iran, Qatar, Malaysia, Pakistan, Saudi Arabia, Indonesia, Egypt and Bangladesh (all these countries are among top 40);
6. BRICS countries group: Brazil, Russia, India, China and South Africa.

Figure 1

World top 10 countries by R&D expenditure (pie chart).

Top 5 countries for R&D expenditure relative to GDP (bottom bar chart). 2016.

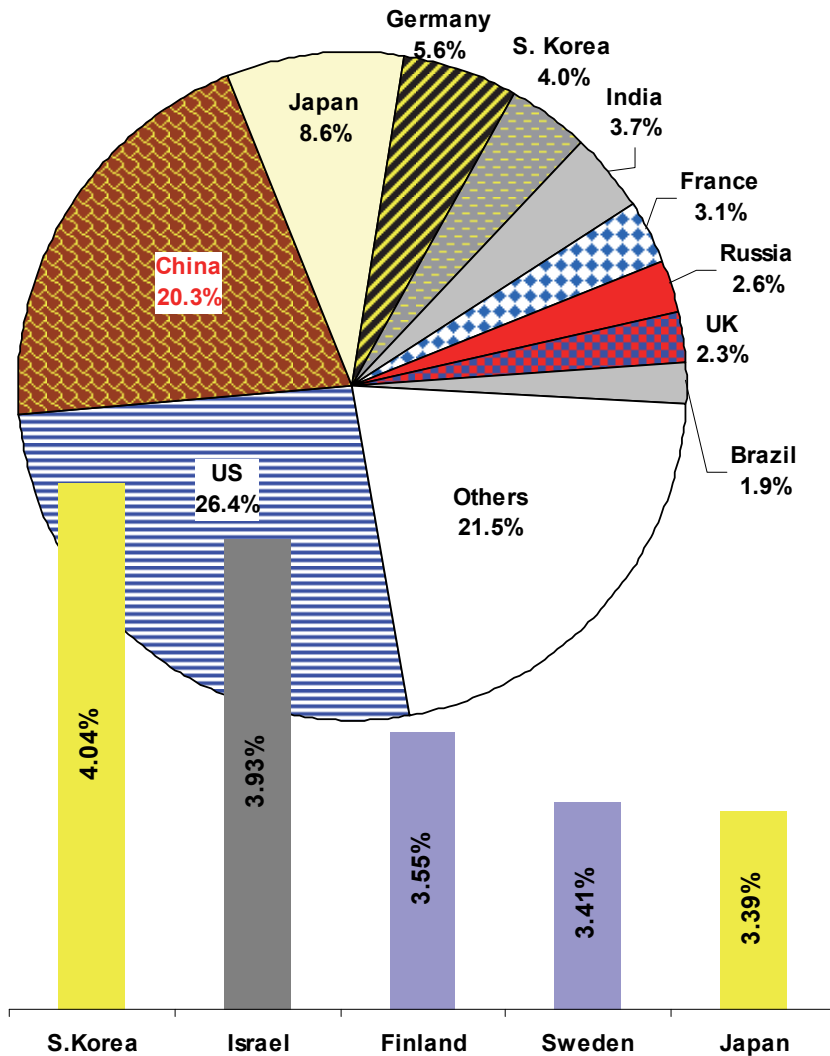


Table 1 summarizes the data for these "Worlds" on their total territory, population and GDP, as well as R&D expenditures expressed in \$ billions (\$ bln) and as average percentage of their group GDP. As seen in the table, the "World of Hieroglyphs" overtakes the other groups (obviously, with exception of *BRICS*) not only by population, but also by total GDP, surpassing the "Anglo-Saxon world" by \$4 bln. There is prevalence also in R&D expenditures, but it is not significant: \$678 against \$619 bln. However, the "World of Hieroglyphs" spends 2.87% of its group GDP on R&D, whereas the "Anglo-Saxon world" 1.98%: Naturally, if this trend continues, the difference in R&D spending will increase in favor of the "World of Hieroglyphs".

Table 1. Totals (and average for R&D as % of GDP)	Territory, million km ²	Population, million	GDP, \$ bln	R&D, \$ bln	R&D as % of GDP
World of Hieroglyphs	10.1	1,580	28 414	678.3	2.87%
Anglo-Saxon World	28.1	451	24 084	618.7	1.98%
BRICS	39.7	3,087	35 606	562.7	1.30%
Continental Europe	3.3	337	13 831	311.2	2.38%
Slavic World	18.6	261	5 758	76.6	1.15%
World of Crescent	8.9	957	9 948	71.7	0.90%

As it follows from the data of the Table 1, the "Anglo-Saxon World" surpasses the "Slavic World" 1.5 times by territory, 4 times by overall GDP and 8 times by R&D expenditures. The "World of Hieroglyphs" tops the "Slavic World" 5 times by overall GDP, 9 times by R&D expenditures and 2.5 times by R&D expenditures percentage relative to the GDP. There is also a significant prevalence of "Continental Europe" over the "Slavic World", including 1.3 times in population, 2.4 times in overall group GDP, 4 times in R&D expenditure and 2.1 times in R&D expenditures as percentage of the GDP. In terms of this last indicator "Continental Europe" fares 0.4% better than the "Anglo-Saxon World" and is outdone only by the "World of Hieroglyphs". Although the "Slavic World" prevails by 0.25% over the "World of Crescent" in this indicator, the R&D expenditures of these groups are about the same, with \$77 and \$72 bln, respectively. As a comparison, South Korea alone spent

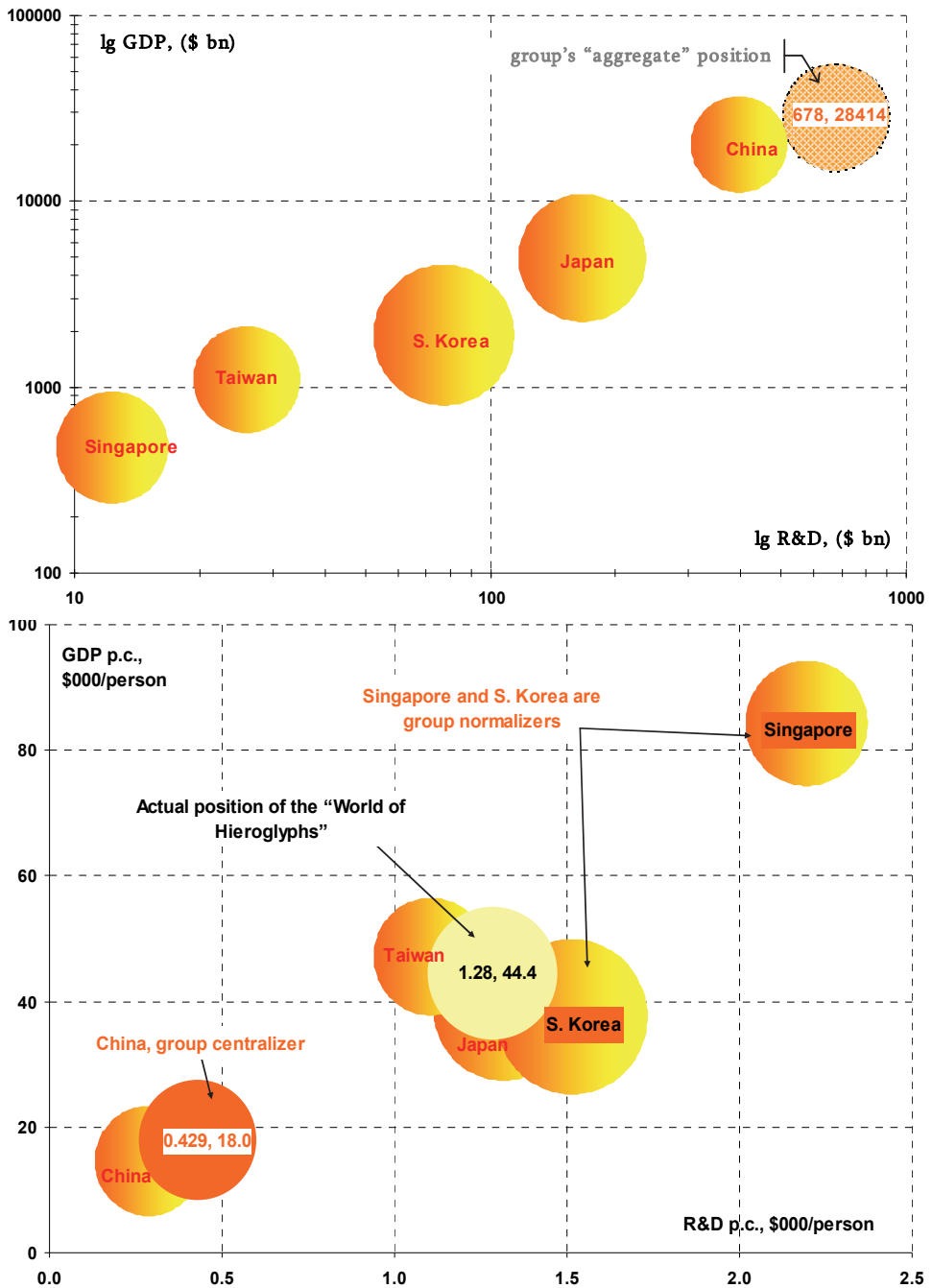
\$77.14 bln on R&D in 2016. It has to be mentioned that the overall GDP of “Slavic World” is 1.7 times smaller than that of the “World of Crescent”, and has a 4 times smaller population.

It is easy to notice that every examined group has a clear leader in terms of economy and demography. For example, in the “World of Hieroglyphs” it is China, with 95% of the group territory, 87% of overall population, 70% of GDP and 58% of total R&D spending. In the “Anglo-Saxon World” the USA is the leader: although its territory is just 35% of the group, but the population comprises 72%, GDP is 77% and R&D expenditure is 83% of the total. Germany’s territory constitutes only 11% of the “Continental Europe”, with 24% of its population, 27% of GDP and 35%. Russia has 92% of the “Slavic World” group territory, 55% of population, 59% of group GDP and 67% of overall R&D expenditures. In the “World of Crescent”, although Turkey occupies just 9% of the overall territory and 8% of population, its R&D expenditures (about \$14 bln) are significantly higher than those of the other group countries, while the GDP (\$1.62 trillion) is second to Saudi Arabia (about \$1.71 trillion). These countries are the conditional “centers of gravity” in their respective groups in terms of GDP and R&D. Loosely following the terminology of the mathematical group theory, we will call them “*centralizers*” of the group. Let us consider “World of Hieroglyphs” as an example.

The Figure 2 (top) shows the configuration of the “World of Hieroglyphs” group of countries in R&D expenditures (X-axis) and GDP (Y-axis) plane, in log scale (chosen to enable demonstration in a single graph, as the values differ significantly). As it can be seen, the countries are located approximately on a single line, with China at the uppermost right end (GDP of \$20 trillion, R&D expenditures of \$514 bln). The diameters of country marker correspond to the given country’s R&D expenditures as % from the GDP in 2016. For example, South Korea’s marker has the largest diameter with a value of 4.04% (see above, Figure 1). If one would choose to present the whole “World of Hieroglyphs” by a single, hypothetical country (group representation), there are three different ways to do it.

Figure 2

Absolute (top) and specific (bottom) indicators of the “World of Hieroglyphs” in 2016



First, all GDPs and all R&D expenditures of the group countries can be summed up and attributed to this hypothetical country. In this case its marker on our graph will have coordinates of \$27.4 trillion (GDP) and \$678.3 bln (R&D), with the diameter of marker determined by the ratio of these aggregated values (2.39%). In our figure this hypothetical country would be positioned higher and to the right of China (see "Group's aggregate position", Fig. 2) However, such additive representation of the "World of Hieroglyphs" in our subject matter is insufficient at least, and actually wrong. Such additive approach implies a powerful unification, which would be true only for a single, unified country. For a *group* of countries it implies close linguistic, historical, cultural, geopolitical and geo-economic consolidation, something that the modern "World of Hieroglyphs" obviously lacks. Suffice to mention the geopolitical controversies between modern China and Taiwan (or Russia and Ukraine, in the case of "Slavic World"). Such a close consolidation currently can be attributed only to the "Anglo-Saxon World". These issues, as well as "dialectics" between *centralizer* and *normalizer* countries of the group (see below), will be touched upon in our next article.

The absolute values of GDP and R&D expenditures, as well as population and territory data, though very important *per se* for assessing the might of a country (or group of countries), are not sufficient in our case. For adequate group representation, specific indicators are necessary: GDP and R&D expenditures per capita (p.c.). Using such indicators may substantially modify the configuration of the examined groups. For instance, the bottom part of Figure 2 shows specific GDP/R&D expenditures diagram (normal scale can be used in this case). As with the previous case, the diameters of markers correspond to R&D expenditures as percentage of the GDP. As seen, the group configuration has changed considerably. The uppermost right end is now occupied by Singapore with its exceptional specific indicators: \$84.3 thousand of GDP p.c. and \$2.2 thousand of R&D expenditures p.c. (2.6%). As we will see later, on the global scale these values are second only to Qatar ("World of Crescent"). The "World of Hieroglyphs" group *centralizer* - China, is now in the lowermost left corner with \$14.6 thousand GDP p.c. (about six times smaller than Singapore) and R&D expenditures of \$0.29 thousand p.c. (about eight times lower than Singapore in 2016).

Now, with this new configuration, if the whole “World of Hieroglyphs” were to be depicted by a single hypothetical country this time on specific GDP and R&D expenditures plane, it could be done in two ways. First, the logic of the previous, additive, approach can be followed again to find out the aggregated coordinates (now - in specific, p.c. dimension) of such hypothetical country: \$18.0 thousand GDP p.c. and \$0.429 thousand R&D expenditures p.c. Such hypothetical country would be positioned close to China, somewhat higher and to the right (see Figure 2, bottom). This is understandable, because in this second approach we still consider China as the group *centralizer* and its economic and demographic indicators are determinant for the group representation. However, in the scientific/technological and information coordinates the adequate representation of the “World of Hieroglyphs” necessarily requires considering the peculiarities of R&D specific indicators of all countries.

Thus, presenting the group adequately should involve *averaging* the countries’ specific indicators, but not just *adding* them up. With this third approach, the single hypothetical country representing the “World of Hieroglyphs” will have coordinates of \$44.4 thousand GDP p.c. and \$1.28 thousand R&D expenditures p.c., with marker diameter of 2.89% (see Figure 2, bottom). Figuratively speaking, this hypothetic country would be the “scientific/technological center of gravity” of the “World of Hieroglyphs”. Characteristically, Singapore and South Korea are positioned far away to the right of this “scientific/technological center of gravity”, which reflects their determining role in “scientific/technological presentation” of the group. Such countries, located upwards *and* to the right from “scientific/technological center of gravity”, would be hereinafter referred to as *normalizer* countries of the group.

For example, unlike Singapore and South Korea, Taiwan is positioned higher than the “scientific/technological center of gravity”, but not to the right of it. This means Taiwan’s prevalence over the center is due to its specific GDP, but not specific R&D expenditures, and hence, it is not a group *normalizer*. Obviously, China is the *centralizer* for the “World of Hieroglyphs”, but not its *normalizer*. Using this method the following two figures illustrate group configurations on p.c. GDP–R&D expenditures plane for the rest of the "Worlds of World" in consideration.

Figure 3

Top: "Anglo-Saxon world", Bottom: "Slavic world" and BRICS group of countries

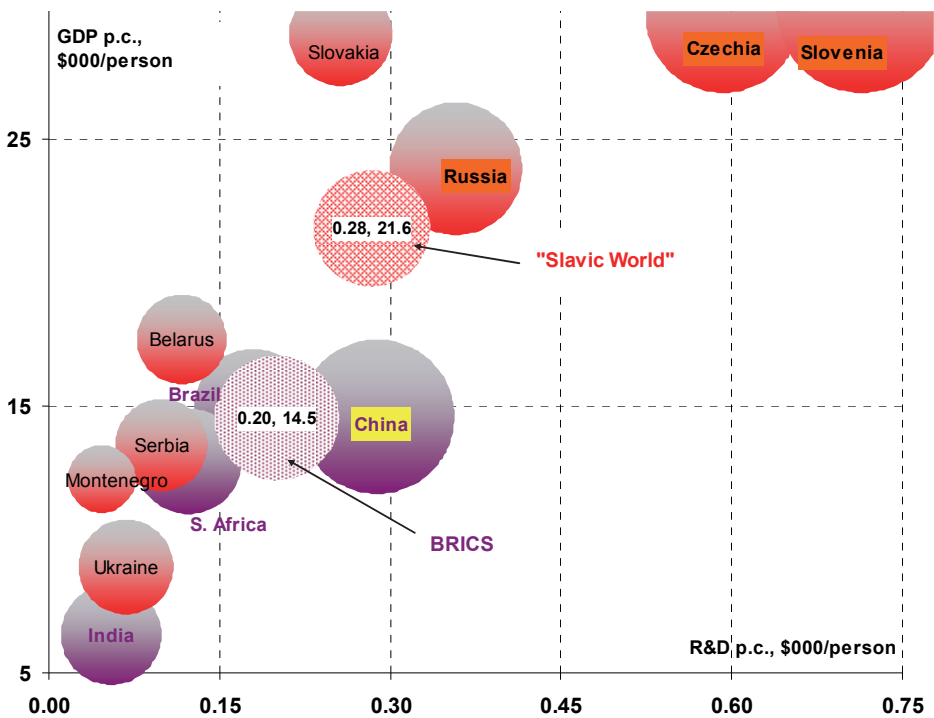
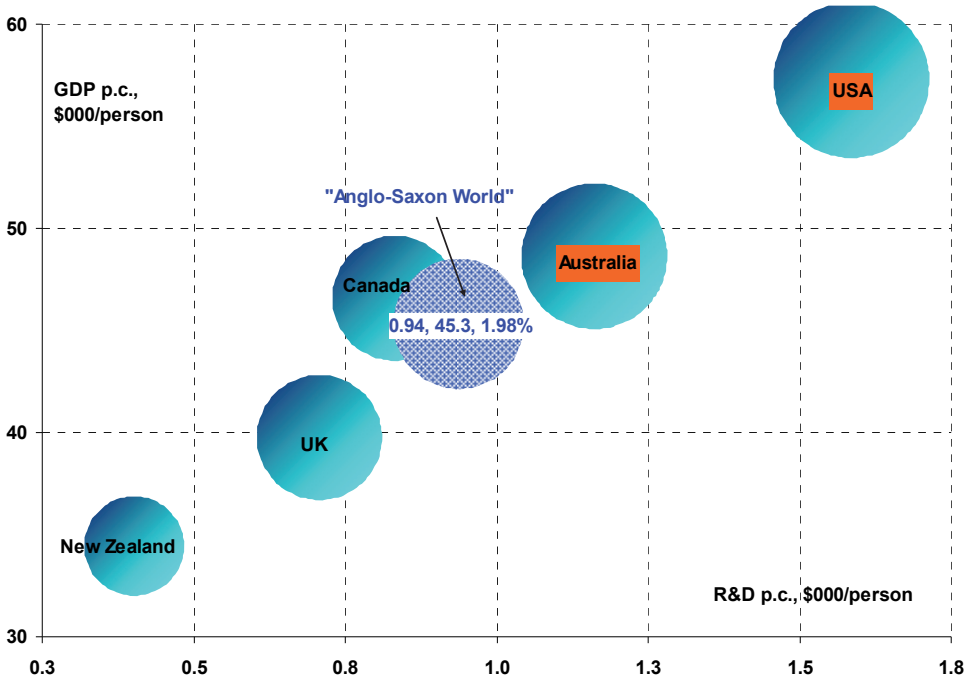


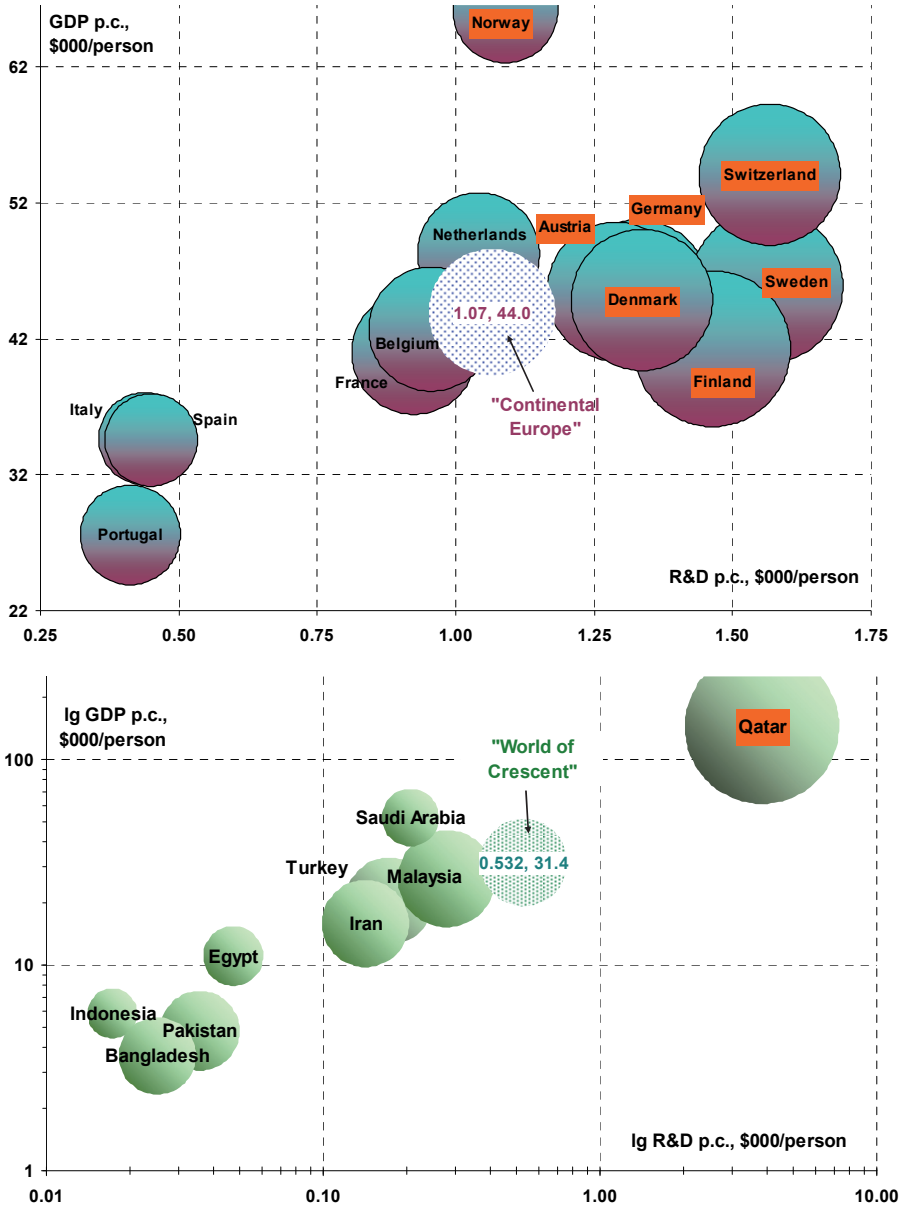
Figure 3 top part shows the configuration of the “Anglo-Saxon World”. The “scientific/technological center of gravity” is at \$45.3 thousand of p.c. GDP and \$0.94 thousand of p.c. R&D expenditures, with marker diameter of 1.98%. The group *normalizers* are the USA and Australia, as they fall to the right (and above) the “center of gravity”. The USA is also the group’s *centralizer*. The bottom part of Figure 3 illustrates “Slavic World” and *BRICS* country groups. As seen, Russia, Czech Republic and Slovenia are the *normalizers* of the “Slavic World”, since they are positioned to the right of the “scientific/technological center of gravity” (p.c. GDP of \$21.6 thousand, p.c. R&D expenditure of \$0.28 thousand and diameter of 1.31%). Thus, Russia is both the *normalizer* and *centralizer* for the “Slavic World”. Interestingly, if Russia (and China) is viewed within *BRICS*, then the hypothetical representative country of *BRICS* (with its p.c. GDP of \$14.5 thousand, p.c. R&D expenditure of \$0.20 thousand and diameter of 1.38%) will be positioned to the left and below of not only Russia and China, but also of “Slavic World”. Hence Russia is the *normalizer* of not only “Slavic World”, but also for *BRICS* group. At the same time “Slavic World” significantly outperforms *BRICS* in terms of science/technology.

The “Continental Europe” group is shown in Figure 4, top. The “scientific/technological center of gravity” coordinates for this group are \$44.4 thousand p.c. GDP and \$1.07 thousand p.c. R&D expenditures, with marker diameter of 2.43%. The group *normalizers* are Germany, Scandinavian countries (Sweden, Norway and Finland), Denmark and Austria. Germany is also the group’s *centralizer*. The bottom part of Figure 4 shows the “World of Crescent”. As seen, it is clearly divided into three subgroups: “underdogs” (Indonesia, Bangladesh, Pakistan and Egypt), middle (Iran, Turkey, Malaysia and Saudi Arabia) and an absolute scientific/technology leader of the group Qatar, with world record-breaking p.c. indicators of \$3.86 thousand R&D expenditure, \$143.1 thousand p.c. GDP (2.7%). The spread in the group is so wide that again logarithmic scale has to be used. The “scientific/technological center of gravity” of the “World of Crescent” is at \$0.532 thousand of specific R&D expenditure and \$31.4 of specific GPD, with marker diameter of 1.7%. As already mentioned, the group’s *centralizer* is Turkey, but it

is not the *normalizer*, since its position is to the left and below of the center. Obviously the group *normalizer* is Qatar.

Figure 4

Top: “Continental Europe”, Bottom: “World of Crescent” (2016)



Now, we are equipped with a method to illustrate the overall scientific-technological landscape of the World in general. The positions of all six groups are depicted together in Figure 5. “World of Hieroglyphs” is the leader here with R&D p.c. expenditure of \$1.28 thousand (2.89% of GDP). It is followed by “Continental Europe” and “Anglo-Saxon world” that spend \$0.9-1.1 thousand on R&D p.c. “World of crescent” is next, at almost half the rate of the leaders, but “chasing” them. “Slavic world” and BRICS are at the tail, with less than \$300 of p.c. R&D expenditure.

Figure 5

Positions of the examined groups in the world’s scientific and technological landscape, 2016.

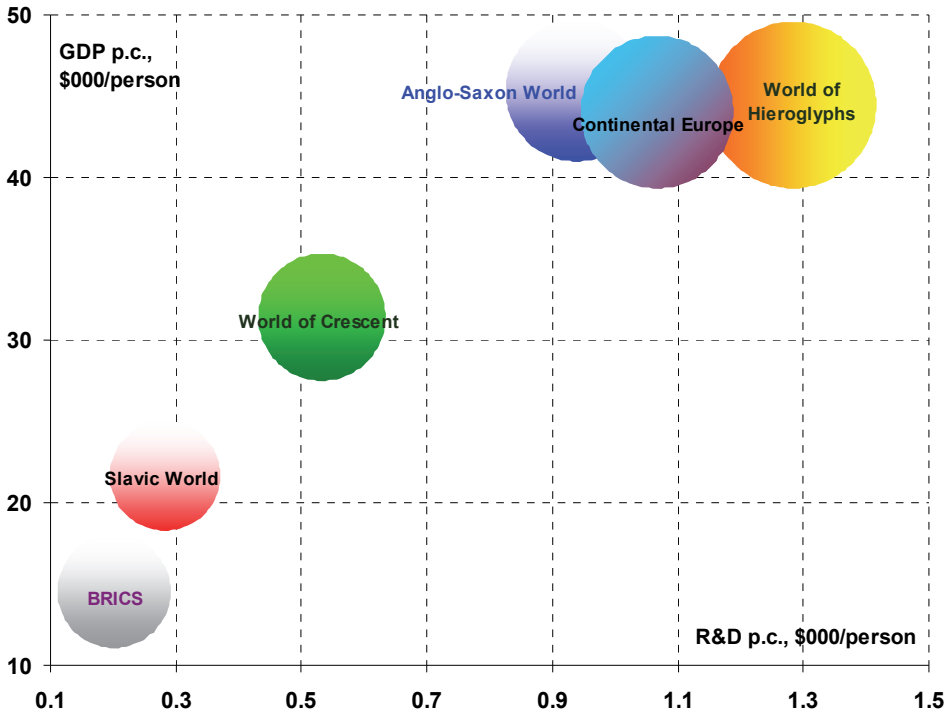


Figure 5 shows only a static picture for 2016. To uncover the trends, the picture has to be examined in dynamic pattern. For this purpose, an analysis of 40 leading countries in R&D was conducted for 2012-2016 [1, 2]. Separately, forecasts for 2014 were also compared with actual R&D spending. Generally, in the past five years R&D expenditures have grown significantly. This

growth is especially noticeable in four of the five *centralizer* countries: the USA, China, Germany and Qatar. In 2012 the top 40 countries list ended with R&D expenditures of \$2.0 bln (Indonesia), with their total amounting at \$1.48 trillion, which was 37.63% of overall global R&D expenditures. In 2014 the floor of top 40 was already \$3.86 bln (Portugal), while their total spending comprised \$1.75 trillion, which was 96.84% of overall global R&D expenditures for the year. Finally, in 2016 the top 40 lower boundary was \$4.27 bln (Bangladesh), with their total amounting at \$1.89 trillion, which was 96.87% of overall global R&D expenditures. In terms of the R&D spending growth, the advancement of “World of crescent” is particularly noticeable.

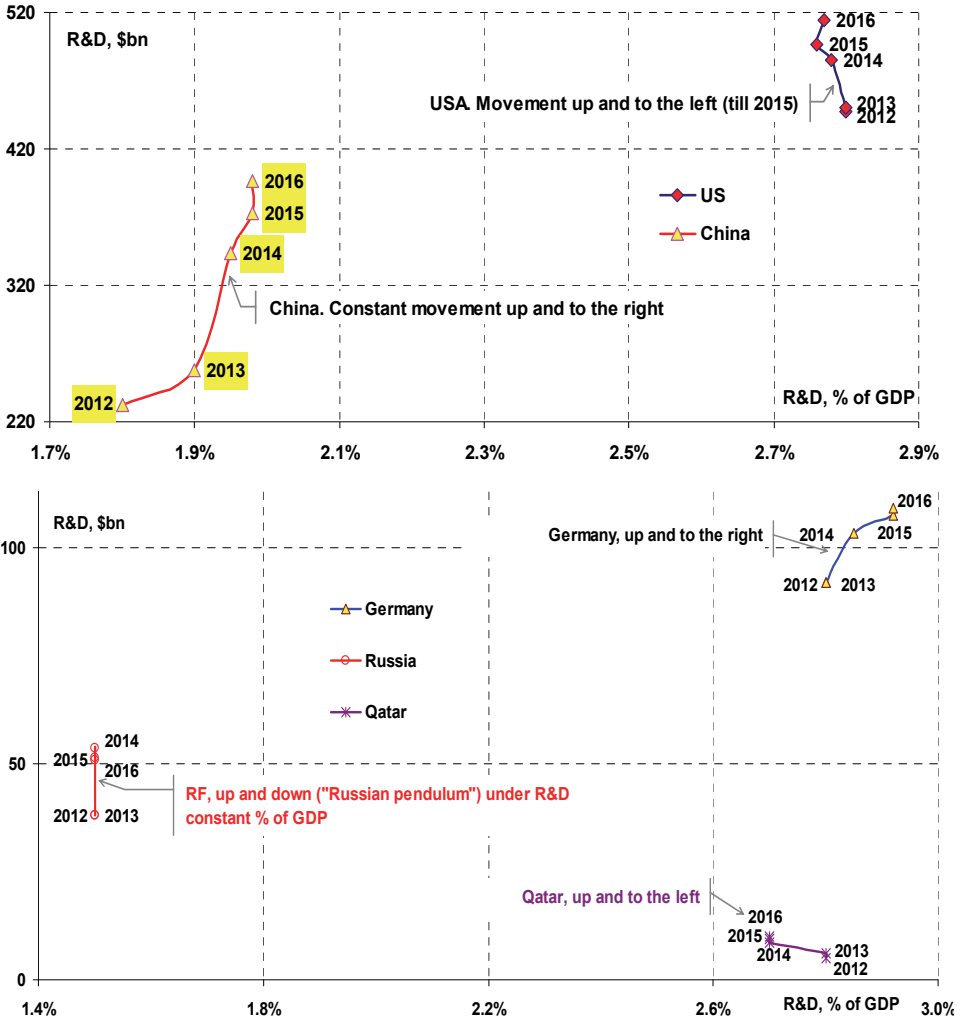
A comparative analysis indicates that actual 2014 R&D expenditures were underestimated in the forecast done in 2013 for more than half of the countries: 23 out of 40. The most underestimated country is China, where the actual R&D spending exceeded the forecast by \$60 bln. China is followed by the USA (underestimation of \$20 bln), India (underestimation of \$18 bln), Russia (\$14 bln), Germany (\$11 bln) and France (\$6 bln). Interestingly, every Muslim country that ever made to top 40 during the last five years was underestimated in the forecast, including Qatar (\$2.7 bln), Indonesia (\$2.6 bln), Turkey (\$2.3 bln), Pakistan (\$2.3 bln), Saudi Arabia (\$2.2 bln), Iran and Malaysia [1, 2].

Moreover, Ireland and Ukraine that were among top 40 in 2013, were replaced by two Muslim countries in 2014 – Egypt and Bangladesh. Consequently, while in 2012 the share of Muslim countries in the top 40 was 18%, in 2016 it reached 23%. One may only guess what would be real picture if the “Arab spring” would have not terminated scientific/technological development in such countries as Iraq, Libya and Syria. Or what would happen if the geopolitical and civilizational processes initiated in 2013 would not cause scientific/technological potential of Ukraine to plummet and the country would stay among the top 40?

Using the available data it is possible to draw the “scientific/technological trajectory” of the countries in 2012-2016 in the dimensions of R&D expenditure – R&D percentage in GDP, which allows uncovering the peculiarities of the R&D strategy in these countries. The top part of the Figure 6 shows these trajectories for the USA and China, while the bottom part of

Figure 6

R&D Trajectory of the USA and China (top), and Germany, Russia and Qatar (bottom)



the Figure 6 illustrates those for Germany, Russia and Qatar. As seen, the “scientific/technological trajectory” of China assertively moves upwards and to the right, reflecting the growth of R&D expenditures both in absolute value and in percentage to GDP. This trajectory can be interpreted as consistent implementation of R&D development strategy in China. The R&D expenditures grew from \$232 bln in 2012 to \$396.3 bln in 2016. There is a noticeable leap in 2013-2014 when the R&D spending increased by almost \$86 bln. In 2016

first time ever the growth was only in absolute value (by \$23 bln), while their percentage to GDP remained the same (1.98%).

The character of “scientific/technological trajectory” for the US is somewhat different. In the examined period it does move upward, but not to the right. This can be interpreted as a result of a conservative strategy for R&D development. Indeed, the US R&D expenditures grew from \$447 bln in 2012 to \$514 bln in 2016. A significant advancement is observed for 2013-2014, when the expenditures increased by \$35 bln. However, in 2013 R&D expenditures comprised 2.80% of GDP, while in 2014 they dropped to 2.78%. In 2016 it is the first when R&D spending grew both in absolute value (by \$17 bln) and percentage to GDP (by 0.01%).

The “scientific/technological trajectory” of Germany has the same pattern as that of China, i.e. moving up and to the right. Actual R&D expenditures of Germany passed beyond \$100 bln (2.85% of GDP) in 2014, while in forecast done in 2013 they were expected to be \$92 bln. Russia’s trajectory is completely different. In the past five years R&D expenditures remained at the same 1.5% of the GDP.

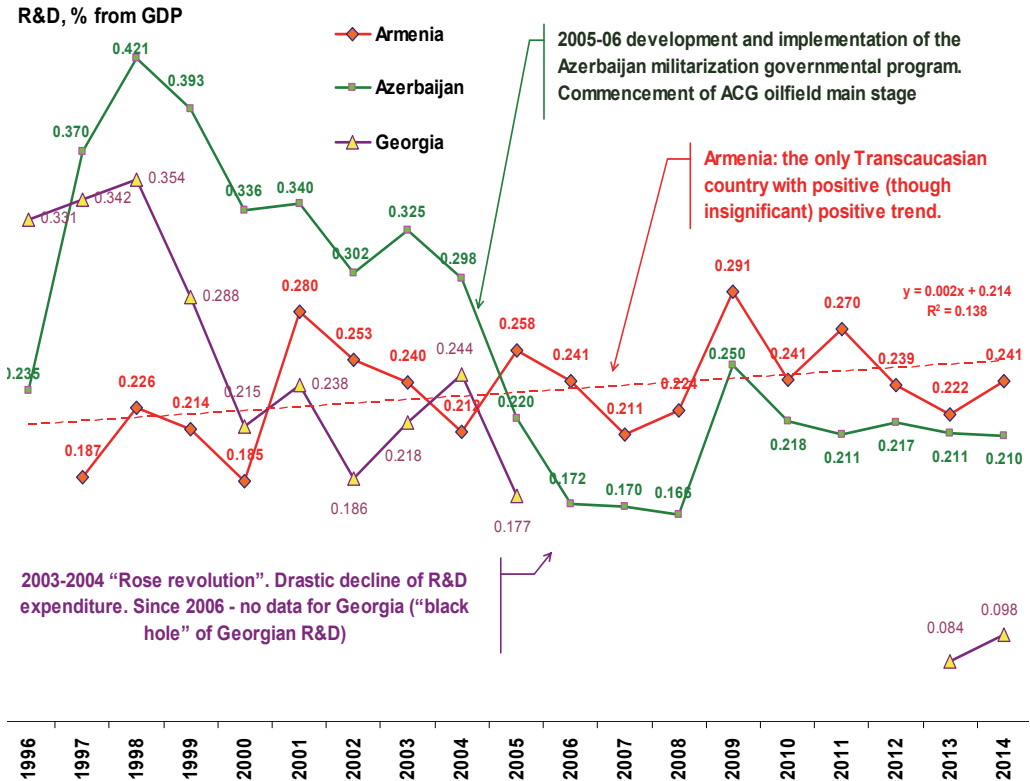
Their absolute value increased from \$38 bln in 2012 to \$53.52 bln in 2014, but then declined to \$51.49 bln in 2015 and \$50.95 bln in 2016. Perhaps, this pattern is a consequence of “leftover funding” strategy for R&D development in the last five years. Finally, Qatar’s trajectory moves upward and to the left (see Figure 6, bottom). Absolute values of R&D expenditure grew from \$5.0 billion in 2012 to \$9.95 bln in 2016, with its percentage to GDP falling from 2.8% (2012-2013) to 2.7% in 2014-2015.

The situation in South Caucasus countries was also reviewed using data from the World Bank (WB). Based on these data the chart of R&D expenditures in 1997-2014 as percentage of the GDP for the three countries is shown in Figure 7. A common property for all three countries in this chart is the miniscule volume of the R&D expenditures. For Azerbaijan, it has to be noted that the commencement of the main stage of oil reserves exploitation in 2005-06 had no effect on R&D expenditure percentage relative to GDP. Moreover, it significantly decreased from 0.3% in 2004 to 0.16% in 2006-2008. A growth was observed only starting from 2008, up to about 0.22% in 2009-2014. In ad-

dition, the R&D expenditure decline in Azerbaijan coincides with development and adoption of the government program for militarization, while the growth follows after the Georgian August 2008 adventurism (see [3]). As for Georgia, a dramatic decline in allocation of funding to R&D is observed (from 0.24% in 2004 to 0.098% in 2014), which can be interpreted as a result of “Rose revolution” and “external governance” of the country. Remarkably, the WB database lacks any data on R&D for Georgia for the period of 2006-2012. It can be supposed that the reason for this “black hole” is the same as the mentioned above.

Figure 7

R&D Expenditures in the three Trans-Caucasian Countries (as percentage of GDP)



According to the WB data, Armenia is the only Transcaucasian country with positive trend line of R&D in 1997-2014, although its angle is miniscule +0.12% (see Figure 7). Starting from 2005, Armenia’s indicator of R&D expenditure percentage relative to GDP surpassed those of its neighbors. Still, the

R&D spending remains untenably low, and unfortunately, to the date there is no strategy in Armenia to improve the situation (more information about this can be found in [4-7]).

In the complicated situation of the “Second Cold War” in a multipolar world, this shortcoming will inevitably have its effects. This concerns not only Armenia, but also its strategic ally Russia. The origins of such situation should be searched in the logic of liberal revolution in 1991.

At the beginning of *perestroika*, despite its numerous deficiencies, the Soviet society was quite close to the “information society” as defined by Daniel Bell. Unsurprisingly, it was the segment of society with most knowledge resources that became a “revolutionary class”, *de facto* implemented the revolution and overthrew the degraded party establishment. However, the lack of knowledge served Soviet intelligentsia a dirty trick, since due to closed system of mono-ideology they were lagging far behind their Western colleagues in humanities sciences, had little idea about Western political culture and geopolitical realities, and hence, about the upshots of the revolutionary transformations they undertook.

While their western partners did everything by rules established beforehand. Following the letter and spirit of information wars they embedded so-called “dead-end ideas” social, economic and ideological areas. A special attention was paid to scientific/technological matters. For example, in some of the post-Soviet countries a special operation was carried out with a general objective to “prompt” the scientific institutions to conduct non-productive research. Grant policies were another tool, which induced the researchers to do “imitation” of work and/or solve non-topical problems. Interestingly enough, this program was called *Spoilt Weapon*, and most likely such programs are still implemented [8, 9]. Consequently, the society which was pretty close to the status of an “information society”, rather quickly turned into a “*de-industrialized*” one [10].

It is well known that after the collapse of the USSR, almost all post-Soviet countries had huge losses, especially in science and technology. Several thousand R&D institutions were closed, and academic institutions went through bankruptcy or degradation. For example, in 1990s the corridors of the

renowned Institute of Chemical Physics in Moscow were used as space to sell Chinese underwear, while the Laser Technology Institute of Armenia produced corn curls. As a result, hundreds of thousands of highly qualified professional emigrated from the former USSR countries. It is pertinent to note that after the Bolshevik revolution in Russia, in 1918-1919 (when civil war was ongoing and devastation and starving reigned in the country) 33 scientific institutions were established, while in 1927 their number reached 90. Later on, in 1975, there were over one million people involved in science and R&D in the USSR, which comprised 25% of all scientists around the world. As already mentioned, things are not well in Armenia, too. For example, in the Third Republic the number of scientists and engineers declined eightfold compared to the Second Republic.

There is no guarantee that “bad scenarios” are in the past and ruled out, especially bearing in mind the internal political conflicts in the “Slavic World”. The current realities are the result of ignoring the importance of scientific and information policies. The main opponents of Slavs, the “English-speaking” nations continue to remain a good example of a quite unified commonwealth, as described by W. Churchill. Meanwhile, not only the “Anglo-Saxon World”, but other “Worlds of World” may pose geopolitical challenges.

It has to be mentioned that there is some advancement observed in Russia’s science/technology area. For instance, in 2011-2016, some 1213 new large enterprises were opened¹, while in the past three years 10 sizable scientific research institutions were established within the structure of Armed Forces². There is an impression that the Russian society recovers its status of “industrial” and strives to become an “information” society. A growth in joint Russian-Armenian developments is observed in military-industrial complex, though hard to compare to the times when there were 200 organizations in Armenia involved in servicing the aviation and space industry and even submarine building.

April, 2017

¹ <http://rusrand.ru/goodnews/obzor-novyh-proizvodstv-dekabr-2016-g>.

² <https://rueconomics.ru/236324-shoigu-rasskazal-ob-otkrytii-novyh-voennyh-nii>.

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CYBERSPACE – A MANMADE DOMAIN FOR WARS

*Anahit Parzyan**

Internet can be considered as one of the greatest achievements of humanity of the last century, which connected the entire world. It created a new space for connections, information and communications, as well as cooperation. Thus, it created also a new platform for conflicts that involved not only individuals but also states. The invention of the twentieth century, the Internet, has become another sphere for international relations, and a new space for defensive and offensive policies for regulating and balancing those affairs. The space called cyberspace has become a platform for interactions not only between individuals, but also between states. The interactions on their side were not only developed in a positive manner, but were also transformed into attacks, which pose a real threat to the security of states. Thus, the following questions arise:

Can cyberspace be considered a new sphere for war? Can conflicts and offensive and defensive operations in cyberspace be considered a real war?

The aim of this article is to specify offensive and defensive actions occurring in cyberspace and to explain the differences and similarities between them and the classical approach to war present in other spheres: land, water, air, and space. Despite the overgrowth of offensive interactions in cyberspace and defensive strategies for enriching the cyber arsenal of states, military specialists have concerns over the reality of cyberwars in general. Parallels are drawn to show the similarities and differences between definitions and perceptions of war, and whether concepts from the classical approach can be transferred to describe wars in the cyber sphere. This research puts cyberwars in line with other wars, thus analyzing their peculiarities, whilst Cyberspace is seen as another sphere for war and international relations in addition to the existing spheres of land, water, air, and space

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Internet's Two Sides of the Coin: From Good to Threat

The Internet that we use today, is based on the Transmission Control Protocol or just Internet Protocol commenced in 1973. The network became operational in January 1983. For the first two decades of its existence, it was the preserve of a technological, academic, and research elite. From the early 1990s, it began to percolate into mainstream society and is widely regarded as a General-Purpose Technology (GPT) without which modern society could not function. [1, pp 5-28]

Only half a century ago it was difficult to imagine that human interactions would be developed in a manmade sphere, totally virtual and artificial. It must have been impossible to imagine that it would penetrate our lives so closely that it would cover everyday life, from communication and information sharing to purchasing products and regulating temperature at home.

Now Internet has connected the entire world breaking the land borders that previously lined geographically differentiating the places where people live. It substituted land borders with digital ones, making it possible to connect the entire world into one sphere.

With the start of the World Wide Web in 1993¹, the greatest accretion of communication came into existence. Since then, information being secret for a limited groups or organizations that were historically used for military purposes as an intellectual advantage, soon became available for masses.

Moreover, equal access to information for all, one of the ultimate achievements of humanity and one of the supreme advantages of the internet, has started to provide information not only for good will, having also provoked irregular warfare.

These chaotic interactions, which Garnett called “fourth generation warfare” [1, p. 202] (4GW), through networks would become a wave of social reactions and pressure that would provide an opportunity for an asymmetric warfare. The tendency is obviously dangerous since not only states possess these “digital” weapons but also non-state actors including terrorist networks. Basically, the Internet allows anyone to join digitally and to be a force or

¹ World Wide Web foundation “*The History of the Web*”, available online <http://webfoundation.org/about/vision/history-of-the-web/>, last accessed on January 04, 2017.

power that could have a significant impact on states' policies.

The sphere where those actions take place with the usage or within the system of information and communication technologies is broadly named *cyberspace* and the actions that take place in this sphere get their terminology accordingly; *cyber-attacks*, *cyberwar*, etc. Though states have various definitions of a cyberspace and with the scope it covers, it is meant to be a non-physical Information and telecommunication technologies environment (ICT). [5, c 17] The term *cybersecurity* has been emerging from the US since the mid-1990s, which later have become widely used in other countries and international organizations such as United Nations (UN), Organization for Security and Co-operation in Europe (OSCE), Organization for Economic Co-operation and Development (OECD), North-Atlantic Treaty Organization (NATO), the Council of Europe (CE), BRICS, Shanghai Cooperation Organization (SCO) and many others.

A cyber-attack is not an end in itself, but a powerful means to a wide variety of ends, from propaganda to espionage, from denial of services to the destruction of critical infrastructure.

From the prism of threat, they may cause, cyberattacks can be implemented using methods, such as malicious programs, that can penetrate systems of specific or not specified group of people or entities causing dysfunctions of computer operations, stealing personal information, phishing stealing passwords of the user as well as infecting computer systems to slow down specific processes, etc. In current internet-run infrastructure a single penetration can be fatal for a society and become a threat for a state. A penetration into the command-control system of critical infrastructures, for example, can cut the supply of energy, change the chemical construction of water thus making it poisoned, etc. and the anonymity can stand as an advantage as cyberattacks are still not attributable through international humanitarian law. Moreover, in a cyber conflict, the terrestrial distance between adversaries can be irrelevant so cyber weapon can reach its target much beyond its borders.

The advance of technology made it possible to give room for clashes between States and non-states actors involved in operations in cyberspace. These clashes have become a real threat for international security. As compared with

kinetic weapons that are relatively expensive to obtain, as well as possible to detect their origin, malicious programs are available to download or buy and even create if there is a good specialist of it: even a teenager can formulate it.

Therefore, it is becoming nearly impossible to patrol all the purchase and supply chain of the cyber arsenal. Malicious viruses or programs can penetrate various computer systems of public and private usage and cause dysfunctions, changing the primary command-control systems, slowing their base speed of operation and causing very costly problems for state security.

Per media reports, the group which rampaged through and besieged part of Mumbai in November 2008 made use of readily available cellular and satellite phones, as well as overhead imagery from Google Earth, to coordinate and plan their attack. [1, p. 204]

However, this invention is an issue of arguments among scientist from the prism of war definition.

Theoretical Dilemma of Cyberwars and Cyber Reality

Despite different conflicts occurring in cyberspace between state and non-state actors, state-sponsored operations, and developments in international relations, military specialists argue about the exact definition of cyberspace, whether to evaluate it as real war or not, and as whether to count operations in cyberspace as a real war between parties involved.

Various conflicts in cyberspace including attacks of regular and irregular origin performing symmetric or asymmetric tactic, do not correspond with the classical approach of the war including only some or one or even missing any aspect of the war characterization. Despite of the current actions and bilateral, multilateral etc., agreements signed by states and international organizations, associations on the cybersecurity issues and despite of the threats the world overcomes or will overcome in cyberspace, theorists have certain disbelieves while defining or accepting cyberspace as a new sphere for wars as well as cyberwars as already occurring facts.

The issue is that there had not been a single verifiable case of cyber terrorism nor has there been any human casualty caused by cyber-attacks, giving grounds for disbelief.

Thomas Rid, a specialist of war, is among those scientists and experts who see debates about cyber wars exaggerated, moreover, he expresses mistrusts related to cyberspace as a new space for war in a classical approach of war definition. He believes that “Cyber war has never happened in the past, it is not occurring on the present and it is highly unlikely that will disturb the future.” [3, p 77]

The fact that computer and Internet assisted attacked may penetrate the operating systems of targets stealing data or causing dysfunction of potentiality of operations Rid, however, in this respect differentiates between *sabotage operations* and *direct physical harm*.

Rid refers to Carl von Clausewitz, a nineteenth-century Prussian military theorist, who defines war according to three criteria, “First, all acts of war are violent or potentially violent. Second, an act of war is always instrumental: physical violence or the threat of force is a means to compel the enemy to accept the attacker’s will. Finally, to qualify as an act of war, an attack must have political goal or intention.” [3, p 77-79]

Theoretical description of war through centuries might have changed its primary strategies and instruments, while his goal is always the same. Within this respect, it is important to observe this definition on a broad way: Of course, computer worm or virus cannot kill directly a person, like it could have a sword, but it can cut the energy supply of a hospital causing a chain of violence, or it can penetrate the command control of the Airplane system and change the direction of the plane or to cause and a catastrophe.

In contrary to classical approach of war, the reality of cyber war is supported by those who believe that cyber wars have already *occurred, are occurring and will, possibly, continue to occur in future*, thus cyber strategies must be implemented.

In July 2016, Allies reaffirmed NATO’s defensive mandate and recognized cyberspace as a domain of operations in which NATO must defend itself as effectively as it does in the air, on land and at sea¹.

¹ 2017. The official website of NATO. *But we have Kurds as always*. Cyberdefence. Available online http://www.nato.int/cps/en/natohq/topics_78170.htm. Last accessed on March 17, 2017.

The former U.S. President Obama speaking about cybersecurity mentioned: *“America’s economic prosperity, national security, and our individual liberties depend on our commitment to securing cyberspace and maintaining an open, interoperable, secure, and reliable Internet. Our critical infrastructure continues to be at risk from threats in cyberspace, and our economy is harmed by the theft of our intellectual property. Although the threats are serious and they constantly evolve, I believe that if we address them effectively, we can ensure that the Internet remains an engine for economic growth and a platform for the free exchange of ideas”*¹.

Thomas Reed, a former staffer on the US National Security Council argues that Cyber wars are even new. They occurred in past, in Cold War Era, and had devastating results. As an example, he mentions about the first ever cyber-attack - a massive pipeline explosion in the Soviet Union in June 1982, counting as the most violent cyber-attack ever. “According to Reed, a covert US operation used rigged software to engineer a massive explosion in the Urengoy-Surgut-Chelyabinsk pipeline, which connected Siberian natural gas fields to Europe. Reed claims that Central Intelligence Agency (CIA) managed to insert malicious code into the software that controlled the pipeline’s pumps and valves. The rigged valves supposedly resulted in an explosion that the US Air Force rated at three kilotons, equivalent to the force of a small nuclear device.” [3, p.78]

Although, neither there are factual evidence of accident being a cyber-attack confirmed or supported by the official U.S, nor there are any Soviet media reports from 1983 also confirming that Reed’s mentioned explosion took place. Though Soviet Union media regularly reported about accidents and pipeline explosions at the time. [3, p 79] In case of cyber-attacks, it is not an easy task to investigate fully and in a short period of time. Forensic examination is needed which presupposes experts and conditions for objective examination. Under the condition of Cold war, the parties would hardly agree to do such an investigation that will reveal secrets about their technical capabilities and the real cause of the explosion. In case Reed’s claims are true, then the massive violence it could have done would theoretically rank cyber weapons among extremely dangerous means and cyber wars would have been defined accordingly.

¹ The White House. Archive of former president Barack Obama. *Cybersecurity*. Available at: <https://www.whitehouse.gov/issues/foreign-policy/cybersecurity>. Last accessed on 10 August 2016.

Another example that speaks about possible cyberattack that will “suit” to the description of war can be considered the 2008th cyberattacks on Georgian most prominent websites, including those of the country’s national bank and the Ministry of Foreign Affairs. In August 2008, in the period of the military conflict over South Ossetia, Georgian Government blamed the Kremlin, but Russia denied sponsoring the attackers¹, and later NATO investigation found no conclusive “proof” of who had carried them out. The fact that the “proof” is not found can illustrate two possible judgments: **first**, the attacker is technically equipped well enough so it is hard to distinguish him, **second**: a potential suspect did not carry out the attack. However, the situation can be judged by the following viewpoint: you are innocent unless your guilt is proved. And because the anonymity is a priority in cyber wars, so it is highly efficient especially for states to use it in hybrid war strategies.

In cyberspace the sides, that are involved in the attacks or counterattacks can be distinguished only in two ways: first, by their own wish (which may occur rarely, or even impossible to happen especially when attacks are carried out by States rather than other subjects) or, according to the evidence. The last one is directly connected with the technical capabilities of an attacker as well as technical competences of an attacked side to be able to detect.

According to Oleg Demidov, a Cybersecurity expert at the Russian Centre for Policy studies (PIR Center), the overview of the NATO experts suspecting Russia in attacking Estonian infrastructure in 2007, Georgian government and private sector networks in 2008, and U.S. financial institutions and private companies in 2014 Spring, as not fundamental, because there was no practical evidence of the proof of the attacker, or lack of technical capabilities to be able to define the source of the attacker. [2, p.39-40]

In his contribution “*Global Internet Governance and International Security in The Field of ICT Use*”, Demidov stresses high possibility and risk of an international conflict between nuclear-weapon states. As he mentioned; “*In the event of lightning-fats cyber-attack that imitates the ‘signature’ of Russian*

¹ Izvestia, analytical online journal. “The Russian Foreign Ministry denied accusations of involvement in the cyber attack on the Pentagon, 2008, 4 Dec. Available online. Last accessed on 21. April 2017. <http://izvestia.ru/news/440465>

perpetrators (for example, Cyrillic code fragments and other linguistic patterns) and targets the infrastructure of NATO countries using servers in Russian territory, there is a risk of NATO military retaliation against Russia. In accordance with NATO doctrine, retaliatory measures may include the use of kinetic weapons and the involvement of all NATO members in a retaliatory strike” [2, p. 40].

These two cyber incidents- the Georgian cyber-attacks and Estonian cyberattacks, are regarded by the U.S. and other Western nations as causes for great attention and much reflection [4].

The Estonian cyber incidents were followed by the establishment of cyber strategies for national and system level for EU members and partners.

Particularly, in 2008, a year after the attacks, NATO set up the Cooperative Cyber Defense Centre of Excellence (CCD COE) in Tallinn. The military-defense usage of Information and Communication Technology (ICT) is one of the main purposes of the center¹. The center is technically equipped well enough to protect its members by providing technical support and human resource to protect Internet infrastructure.

Another well-known and destructive cyber program that processed a worldwide discussion over the reality of cyber wars is the “**Operation Olympic Games**”, a large operation, that included the “development, testing, and use of malware against specific targets to collect information about the Iranian Nuclear program, as well as to sabotage it and slow it down as much as possible. It included such malware as Stuxnet, Duqu, Flame, and Guass (all of them targeting special operation for espionage and sabotage), active in between 2007-2013 [4, p29]. The US presidential administration and Israeli secret services have been named as perpetrators.

Ex-head of the Foreign Relations Committee of Iran’s Supreme National Security Council Seyed Hossein Mousavian, in his “The Iranian Nuclear Crisis: memoir confirms Stuxnet as a malicious computer worm developed to target the computer system that control Iran’s huge enrichment plant at Natanz. Moreover, according to Mousavian, Ali Akbar Salehi, Iran’s Representative to the International Atomic Energy Organization (IAEA) at that time confirmed

¹The Official webpage of the NATO Cooperative Cyber Defense Centre of Excellence Tallinn, Estonia. *About the CCD COE*, available at <https://ccdcoe.org/about-us.html> Last accessed on 29 February 2016.

that Iran was experiencing espionage at its nuclear plants. According to the IAEA, there was a big decrease in the amount of the operating centrifuges caused by the Stuxnet with a vivid decline to more than 100 - from 4920 in May 2009 to 3772 in August 2010. Despite of the Fact that Ahmadinejad mentioned about the problems directly related to the computer software, installed by the spies to slow down centrifuge's operation, nevertheless, Mousavian does not think that this could have cause a big problem and an obstacle for enriching the centrifuges [5, p. 24-26].

In fact, Stuxnet did affect the nuclear enrichment system, and did make problems for Iran's nuclear program. The computer worm was operating inside the system for quite a long time unnoticed, slowing down the operational capabilities of both experts and technical equipment. If we note the fact that it successfully slowed down the system's operation, then we can conclude that operations reached a certain level much later then they could have without the worm Now that sanctions have hit Iran's economy and forced it to make concessions, we can conclude that the situation would have been different if Stuxnet had not affected Iranian programs; Iran would have finished its program faster, before sanctions could devastate its economy. But since Iran discovered the problem much later and the whole process was slowly altered by the worm, we can see that Stuxnet led to a longer timeframe for enrichment, and subsequently longer terms for sanctions.

The action brought not only psychological damage, as would be named and labeled by Israel and U.S. specialist, but it brought also to economical, technical (human resources as well as technical capabilities) crises.

As the Armenian researcher Mher Sahakyan mentions. *"...sanctions were hard and maybe they were the main reason why Iran agreed to the Interim agreement. Though Iranian leaders like to mention that sanctions were not problem, but the Iranian economy had been effectively hit hard by these sanctions. Iranian economy mostly declined when the EU member states imposed an oil embargo on Iran. China also reduced its average oil import levels from Iran in a disagreement on Iran's nuclear program. The depreciation of Iranian Rial, reduction of oil exports and shortages of foreign currency created hard social-economic situation in Iran. So sanctions were hard and maybe they were the main reason*

why Iran agreed to the Interim agreement” [6, p. 58].

It is evident that, not directly but indirectly cyber war may influence politics of a specific State. Today cyber-attacks can target political leadership, military systems, and average citizens anywhere in the world, during peacetime or war, with the added benefit of attacker anonymity.

Stuxnet influenced the Iranians' centrifuges, causing them to overload an intelligence program. This is a new type of and reason for war. While the basic definition of war presupposes physical violence, Stuxnet presupposes a psychological intent. In addition to the technical harm it did, it also influenced the psychology of those who had encountered the undiscovered cyber worm. Regarding the first, undiscovered phase of the computer worm, imagine a specialist working on the program, who faced long-lasting technical problems, becoming filled with doubt towards their personal professional skills and also doubting the capability of Iran in general to develop its program. This is a new approach in the definition of war, as it dramatically shifts the choice of instruments that can cause harm to a State.

From Wars with Swords to Cyber Wars: State Security is Still a Priority

Nevertheless, the war in cyberspace is real, it has happened in the past, it is happening now and it will certainly happen in future.

The classical approach to war sees physical violence carried out by military operations. Cyberwar presupposes physical violence as well as bringing a new, psychological violence, which may cause no less harm. Ideas and things important for state security have changed over the centuries, as have the instruments and measurements of security, but the problem of state security is still a priority. Maybe unexpected ships won't attack from the sea, but cyber-attacks will come.

In past centuries, population size was an important issue for the state in maintaining its governance. It determined the size of the workforce and the size of the army, and the strength of armies was measured by the quantity of troops.

Centuries ago, a human, a good soldier was to aim to harm the opposing side. To conquer the army was to win the war. Afterwards, the period of weapons and technology began, and would enable opposing sides measure

their technical and tactical capabilities to win. At that time, to mobilize technical capabilities was to conquer the army. Due to growing population and technological achievements, in addition to the number of troops, now the amount of military equipment is of much importance. A single-pilot jet may cause greater harm than 1000 troops on the same territory. Nowadays unmanned aircraft can jeopardize enemies' strategic targets in specific cases even without any physical violence, because in a certain situation to harm a strategic unit even without causing physical violence from neither attacking side nor from the attacked still may have fatal result for the states being attacked.

In current stage, the military parades mostly demonstrating technical capability of a certain state, will alarm a possible harm while attack or attacking. Aside from the traditional military spheres like land, sea, and air (added later), an epoch of adding a new sphere, cyberspace, has begun, in which technical capabilities do no less harm than in a traditional war. One of the ultimate advantages of cyberwars is the anonymity of the attacker, which makes it a reasonable choice for state's foreign policy.

In addition to the traditionally distinguished types of harm for a state security, cyberwar brings the conception of psychological trauma for the states making it doubt its capabilities on a certain level. In the case of Stuxnet, the attack was "emotional" and technical.

The definition of the emotional damage through cyberwars was used to describe Russia's so-called internet interference in 2016. "The New Yorker" expresses viewpoints of national-security officials who believed that those series of cyber hackings were directed to destabilize the conception of democracy in the States. *For many national-security officials, the e-mail hacks were part of a larger, and deeply troubling, picture: Putin's desire to damage American confidence and to undermine the Western alliances—diplomatic, financial, and military—that have shaped the postwar world*¹.

¹ Osnos E., Remnick D., Yaffa J. "Trump, Putin, and the New Cold War. What lay behind Russia's Interference in the 2016 election-and what lies ahead?" New Yorker, online publication, available at <http://www.newyorker.com/magazine/2017/03/06/trump-putin-and-the-new-cold-war>. Last Accessed in Feb, 2017.

To technically dysfunction a system just causing a technical harm is a small incident, while targeting CI with technically destabilizing them already has grown into a political scandal.

In turn, cyberattack may cause harm on a specific target without involving other sides especially in case of state sponsored attacks, as it remains undiscovered for a while and the stereotypes and cliché of the traditional war definition will empower the attacker to have “excuses” for the attack. Cyberwars will become more dangerous, if not included and named as war and not struggled as traditional wars.

Cyber Arm Race has started

Despite of the distrust and interpretation of cyberwars within the framework of classical approach of war, states are accelerating cyber arms race. This development has several political and strategic implications that pose the need to find specifically political answers. What is often forgotten or neglected is the increasing importance of understanding cyberspace as a political domain and cyber politics is needed more than ever before [7, p. 50-60].

While experts are debating over the exact description and definition of cyberwar, States are enriching their State defensive arsenal with cyber equipment and technical staff for better governance in cyberspace, as well as regulations and doctrines that will define the strategy for the defensive and offensive operations for ICT threat.

In November 2011, the Department of Defense of the U.S. issued a report to Congress confirming, that it was ready to add cyberspace to sea, land, air, and space as the latest domain of warfare – the military would, if necessary, use force to protect the nation from cyberattacks [8]. This statement shape the interactions in cyberspace on the same level with other spheres making them equally important and in case of need, changeable and cooperative.

By this, next to the traditional war spheres: ground, sea, air, space, a new battlefield—the cyberspace is differentiated.

With the technological developments, nearly every aspect of our lives is technically run, so it becomes very sensitive to any cyberattack, since any non-functioning in a technical field may cause human harm, economic harm, and

be a serious problem for the entire National security. In this regard, the former Secretary of Homeland Security of the U.S. Jeh Johnson at The White House Cybersecurity Framework Event on February 12, 2014, specifying the seriousness of the cyberattacks on electrical substations specifically, mentioned: *“What the public needs to understand is that today the disruption of a critical public service like an electrical substation need not occur with guns and knives. A cyberattack could cause similar, and in some cases far greater, damage by taking several facilities offline simultaneously, and potentially leaving millions of Americans in the dark”*¹.

The focus was on the electrical substations but it may refer to other sectors too: telecommunication, hospitals, libraries and federal departments courts and prisons. Any entity that is functioning with technology may be in a real attack risk.

The technological developments of the last century bring the automated industrial control systems as well as most Critical Infrastructure (CI), the list of which may vary from state to state but have similarities, under possible cyber-attack that may be fatal for national defense. The range of facilities on the list of CIs may include but not limited to nuclear industry, electricity, telecommunication, water supply, transport system on ground, sea and air, governmental buildings and their communication facilities, the financial and banking system, healthcare and defensive facilities etc. In 2017, the USA Department of Homeland security announced about its decision to include also election infrastructures into the list of Critically Important infrastructure for the State².

The cyber- defensive policy of states becomes an urgent issue and States are engaged in implementing special cybersecurity projects on national level to defend the CI of their countries.

¹The White House Cybersecurity Framework event of February 12, 2014, Remarks by the Secretary of Homeland Security Jeh Johnson, The White House, Washington DC. Available at <https://www.dhs.gov/news/2014/02/12/remarks-secretary-homeland-security-jeh-johnson-white-house-cybersecurity-framework> (Accessed at August 2, 2016).

²Homeland Security News Wire. *“DHS designate U.S. election infrastructure as a Critical Infrastructure Subsector”*. 9 Jan, 2017, Electronic Journal, available at <http://www.homelandsecurity-newswire.com/dr20170109-dhs-designate-u-s-election-infrastructure-as-a-critical-infrastructure-subsector>. Last accessed on March 9, 2017.

Many states, for instance the U.S., Russia, China, Germany, UK, France etc. are enriching their cyber arsenals and developing cyber security system for defensive operations for their countries. Not only states are engaged in national mechanisms but they also are involved in developing global cooperative platforms for better and clean cyber environment of the World. Specifically, it would be interesting to mention U.S. Russia, China cyber triangle and their input of cyberspace as a significant priority for a State development and Security. The countries are involved in various discussions and cooperation agreements to maintain cooperation and peace in cyberspace globally. Despite of ideological differences in cyberspace and the attitudes of maintaining the policy for it, however these three cyber powers found a common ground for mutual understanding and possible fundamental cooperation. United Nations (UN) Governmental Group of Experts is one of the examples of that which is currently the only platform that has united the U.S. Russia, and China with commonly acceptable norms and suggestions¹. Since the scope of interests in cyberspace includes all groupings of society including governmental and federal entities private and public sectors as well as common citizens on a national level, private supra-powers regulation beyond borders and being responsible for larger audiences, there is an urgent need to focus on cooperation and establishment of fundamental rights in cyberspace as well as mechanism to establish security in this sphere.

Conclusion

Can a cyber-attack pose a serious threat to national security?

With the clear majority of undergone, ongoing and possible cyberattacks and with the current defensive strategy of the states, the cyberwar is nothing than a real threat for states' national security as well as private sector. It enflames not only regular warfare which can cause as much harm as it is assumed to have by traditional approach of the war, it may also provoke ir-

¹ Krutskikh, A. V, «Нам удалось договориться в условиях конфронтации и санкций»

We succeeded in reaching agreements under conditions of confrontations and sanctions, "Kommersant", 08, October, 2015, available at <http://www.kommersant.ru/doc/2790234>, (accessed on August , 15, 2016).

regular warfare with the privilege of the equal information access and anonymity. The technological invention of twentieth century may be considered to be a disaster along with such scientific invention as atomic energy. It may give a good, but it may harm severely.

The difficulty of cyberwar falls also on the lack of common norms and definitions as well as specifically composed legislation equally acceptable for all states for peaceful and collaborative regulations of problematic issues on this field.

I do believe that cooperation on this issue is of great importance. Joint legislation, understanding and definition of conceptual ideas, common cooperative grounds will bring to a better and secure life, eliminating or declining the possibility of occurring private or non-state organizational subjects to be involved in irregular warfare destabilizing the peaceful cooperation of states and people on internet sphere for a good and productive will. The classical approach of war definition should be able to include a new sphere of violence before a certain violence occurs rather than defining right after it occurs, as mostly happens in historical approach. Aside from the traditional military spheres like land, sea, and air (added later), an epoch of adding a new sphere, cyberspace, has begun, in which technical capabilities do no less harm than in a traditional war.

Cybersecurity is an urgent, necessary strategy, which will lead to a secure sphere for cooperation, free and secure access to and sharing of information, and, due to its technical capabilities, to a more comfortable and economically developed way of life.

While Cybersecurity is an issue for the whole world, strategies for the development of cybersecurity may vary from state to state, in some cases occurring a national level, while in others limited to certain federal entities.

Cyberspace is very much like the environment; it is a digital environment, and just as a virus that penetrates a certain country is spread worldwide if not stopped, so is a computer virus. Just as pollution in one part of the world pollutes air or water that we all share, a cyberattack may cause a global problem. Networking, sharing information, and a global security approach are musts

for a safe and productive global cyber environment and maintenance of all roads for better digital development for the sake of humanity.

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MULTIPLE PSYCHOPHYSIOLOGICAL AND PSYCHOLOGICAL STUDIES OF THE APTITUDE OF MILITARY CADETS WITH THE USE OF A POLYGRAPH

*Karen Panchulazyan**

The psychical irregularities, provoked by specific physiological and psychological stress, connected with flight on aircraft are one of the main etiologies of air accidents, based on the human factor (HF). The violation of the psychological adaptation in military pilots in professional stress-causing situation develops as successive 4 stages of psychological crisis – difficulty, slowness, incompleteness and stall adaptation of personality to rapidly changing of extremal situation in form of desadaptive behavior deviation are manifested. The flying team of military aircraft in educational, training and especially combat flights are subjected to influence of psychophysiological dangerous factors (PPhDF), as the manifestation of limited opportunities or violation of the operation of individual psycho-physiological systems of organism, influence on psychological ensuring of the flight safety (PEFS) in general. When the action of PEFS reaches definite values, the military pilots react either by incorrect actions or a decrease in the efficiency that lead to aviation incidents. The prophylaxes of PEFS the professional reliability increases and reduces the possibility of negative manifestations of HF.

The positive flying motivation and normal psychological protective mechanisms counterbalance the negative impacts of emotional stress in flight [3]. The assessment of flight motivation – qualification, the relation of pilot to possible the dangers are balanced, his ability to cope with dangers, his psychophysiological reaction of extremal exo- and endogenic stimuli – is determined by the HF [1]. HF includes the physiological, psychophysiological, psychological, psychophysical, social characteristics of the organism, define abilities, re-

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serves, stable properties of personality in the process of military-flight activity [4]. As noted by the military expert of NATO, the victory in military conflicts of the 20th century will be achieved not only due to the military-technical superiority, but also thanks to the skillful use of psychological action and HF [12]. Professional selection of cadets based on study of individual-psychological features (IPF) and aptitude in armed forces of the Republic of Armenia (the RA AF), systematical multifaceted psychophysiological testing, training and psychological post-stress rehabilitation with use of multifunctional professional computer polygraph (CP) are necessary assurances that cadets will have all the necessary psychophysiological and moral-psychological qualities of a military pilot, ready to professional aircraft stress and combat in dangerous situations. In November – December, 2014 and February-March 2015, on the proposal of the leadership of the Ministry of Defense of the Republic of Armenia (the RA MD), and within the Programme of Psychological Security and Rehabilitation (PPSR) of the RA AF, the laboratory of psychophysiology of acad. L.A. Orbeli Institute of Physiology of the NAS RA conducted a multilateral psychophysiological aptitude study of individual biological features of two cadets of two courses of Military Aviation Institute of the RA MD (the RA MD MAI) with use of CP.

The study was conducted according to international standards adapted to military aviation specifics, proven psychophysiological, psychological and polygraph methods. The nonexperimental, experimental and expert methods of study were used. The correlation of psychophysiological status (PPhS) of the individual to uncovered types of identity, character and temperament, psycho-informational and physiological components are defined. The accuracy of verbal responses of the studied subjects was assessed by systems of integral methodology of complex integrated psychological survey (IPS) with use of CP, on the nonspecific physiological, psychovegetative, mimic and psychomotor reactions of organism [6 – 8]. The RA AF PPSR includes the triad of directions with semantically complementary components of integrated psychophysiological and psychological study of military cadets and prevention of PPhDF in flights with use of CP for: 1) finding out individual biological specifics of cadets on aptitude; 2) study and problem solving of HF in the PEFS

system; 3) psycho-correction of probable professional functional disorders of the nervous system and reactivation of immunity to extremely exo- and endogenous stimuli.

The purpose of the study included:

- Determination of individual continuous hereditary and acquired psychophysiological, psychological, psychophysical and psychosocial features of RA the AF MAI cadets with use of CP on professional suitability of 4 degrees by Klimov [2].
- Psychophysiological and psychological testing of biological components of organism with definition of PPhS of individual and psycho-training of positive military-flight motivation with use of CP.
- Preventive uncovering and psycho-correction of functional post-stress impact on cadets' nervous system (stresses, acute and chronic alarm state in the sky, nervousness of the different etiology) adapted to military-flight specifics and optimized for ethno-mentality by psychophysiological, psychological and polygraph methods.
- The integrated psychophysiological, psychological and polygraph studies and solution of HF problems in the RA AF on example of the RA MD MAI in system of PPSR. The establishment of the confidential personal databases (PD) of the RA AF MAI cadets in the performance of functional training responsibilities (FTR).

The tasks of study included:

- Maintenance of positive military-training flight motivation of cadets (military pilot-engineer) and post-stress psycho-emotional re-adaptation to action of specific stressful factors with use of CP.
- The formation of mobilization readiness to complex types of flights by technical, meteorological, educational – training character and increase of stress resistance under performing combat missions of military pilots.
- The study of intra- and interpersonal relations of cadets in staffing psychologically compatible military-flights crews in the system of PEFS.
- Prevention of negative HF manifestations in extremal situations and adaptation of immunity to extremal exo- and endogenic stimuli.

- Ensuring reliability of military-flight activities and flight safety in general, taking into account that absolute competence does not exist, because all people are unique and the same professional qualities are individualized by biological peculiarities of the personality.
- Professional orientation of the RA AF MAI command in selecting cadets based on aptitude of multifaceted definition of personal and intellectual competencies, required in a stress-inducing military-aviation operations of the RA AF.

The topicality of the study: currently the multifunctional possibilities of CP in applied psychophysiological study and psychological ensuring the security of the staffing strategy in strengthening defense capability of RA have not been fully implemented in the RA AF. The RA PSR scientific-practical program meets the requirements of the RA MD in solution of HF problems, implementation of HR and post-stress rehabilitation by operational methods of polygraph studies.

Material and Methods

Psychophysiological study (PPS), Psychological testing (PT), and CPO with use of CP the aptitude on Klimov [2] was implemented on 25 RA MD MAI cadets of two courses aged 18 – 23 years. Of them, 14 cadets were sophomores aged 19 – 23 years and 11 cadets were freshmen aged 18 – 19 years. As for technical equipment, the integrated study used CP LX-3000SW licensed companies Lafayette Instrument (Indiana 47903, USA) with programmed software Polygraph LX Software V.8.1.1 and POLYSCORE® results calculation algorithm which implements a quantitative analysis of physiological information based on the modern method of statistical comparisons OSS, run on Windows® operational system [14]. According to Applied Physics Laboratory (APL), Johns Hopkins University (USA), this algorithm provides over 99% reliability of the interpretation and allows the polygraph examiners to achieve practically full consensus in the accuracy assessment psychophysiological information (PPhI) [13]. Physiological signals from sensors and data collection unit (DCU) CP are digitized and stored on high density magnetic media. The OSS system of digital data processing repre-

sents the empiric foundation of the quantitative analyses results and confirms the accuracy of polygraph findings [9]. Also, the modified integral nonspecific vegetative reaction of organism in borders “norm – accentuation – pathology” in response of random verbal (semantic) and involuntary non-verbal (prosodic) stimulation was recorded [5]. IPF on fluctuation of 5 channels of physiological indicators of integral reactivity of organism was identified – the volume and frequency of pulses (cardiovascular reaction), electrocutaneous resistance (cutaneous-galvanic reaction CGR), thoracic and diaphragm breathing in process of CPO cadets. Physiological data, simultaneously displayed and registered in course of preliminary PPhS CP, were reproduced for quantitative analyses and interpretation of psycho-physiologist polygraph examiner [11]. The tests of PPhS, PT and components of CPO were adapted to the specificities of the military aviation, individual psychological, psychophysiological, psychophysical, psychosocial characteristic, ethno-mentality, independent/total hours flown and intellectual-professional level of each cadet – future RA AF military pilot- engineer.

Results and discussion

Processing, comparative analyses and summarizing the synthesis of received reliable experimental data on more 30 components of CPO, PT и PPhI with use CP 25 cadets of two courses MAI MD RA showed the significant results, differentiated on 4 degrees of professional “unsuitability”, “suitability”, “compliance” or “vocation” by Klimov. Summarizing the analyses of detected qualitative-quantitative correlations of individual biological and intellectual-professional data on cadets of the RA MD MAI justifies the conclusion of psycho-physiologist polygraph examiner about their professional fitness to military flights service in the RA AF.

An individual cadet requested psychological help for episodic interpersonal relations and situational neurotic psychosomatic disorders. Against the background of control PD of these cadets, cognitive-behavioral and “in sensu” psychophysiological correction of acute anxiety was carried out by verbal modeling of different on the psycho-emotional significance of interpersonal and educational-practical situations by methods of biological feedback (BFB), with registration of the organism’s CP physiological reaction [10]. This con-

tributed to the gradual conditionally-reflex adequacy of the excitatory-inhibitory balance and timeliness of physiological reactions on the arbitrary verbal exogenous stimuli, and as a result, the psychological regulation of nervous system and restoration of positive flight motivation. Individual psychological training of flight mobilization readiness and prophylaxes of verifiability and overcoming PPhDF of flight have been conducted, with a view to PEFS on the whole. All the cadets had taken the training on preventive methods of respiratory and somatic-respiratory autoregulation in prophylaxes of professional stress of different etiology.

The scientific objective results of the RA AF PPSR allow teachers, instructors and authorities of the RA MD MAI approach to each cadet individually and effectively in professional development of the RA AF military pilot-engineers, based on the control multi-purpose information of PD.

The results of multilateral psychophysiological and psychological study of individual features of the RA MD MAI cadets on aptitude with use of CP showed flight mobilization readiness and the need for action through the RA AF PEFS program in: 1) selection of cadets on stage of entrance examinations in the RA MD MAI; 2) maintenance of positive military-flight motivation; 3) individual/course scientific-practical preventive training of flight mobilization readiness; 4) replacement psycho-correction of professional post-stress states in the system of PEFS; 5) the study and solution of tasks of HF in military aviation and prophylaxes of PDF of fights; 6) identifying conflict zones and strengthening of interpersonal relation in solution of problems in conflict studies; 7) determining the inherent to cadets strong/weak qualities of the identity, which promote/hinder the execution of FTR; 8) the psycho-monitoring of dynamic of educational-practical and sportive lessons.

To preserve secrecy of confidential information, the RA MD MAI cadets' PD, scientific-experimental data, individual psychophysiological and psychological characteristics, specialized interpretation of reliable results of testing and scientific objective the conclusions of the multilateral study of military cadets on aptitude with use of CP were presented only the Leadership of MD RA, the command of the RA MD MAI and not reflected in this article. Training of professional competence, social-psychological and personal

growth with use of CP minimizes psychogenesis of PPhDF of flights and reduced reliability and interoperability of cadets with military-aviation equipment in the “military pilot – aircraft – environment” system. The specialized control of the RA MD MAI cadets’ PD allows maximizing productivity of workshops in training of military pilots-engineers. The systematic nature of scientific-practical multilateral psychophysiological and psychological study of biological features and timely regulation of nervous system of military cadets with use of CP on program of the RA AF PSR with high reliability provides predictability for changes of the functional state of organism, positive influence on HF, maintenance of positive military-flight motivation in the performance of (FTR) of future military pilot-engineers of the RA MD.

Conclusions

1. Computer polygraph is a multifunctional integral indicator with the measurability of bioenergetics of organism under integrated study of individual biological features of military cadets in the psychological support of the RA MD MAI.
2. The multilateralism of the psychophysiological and psychological study with use polygraph is the most reliable detection system correlation of individual biological features of military cadets on the aptitude and prophylaxes of psychophysiological dangerous factors of flights.
3. The registration by polygraph nonspecific physiological reactions of organism enables assessing the reliability of reported information, the significance of involuntary mimic, vegetative, psychomotor manifestations and accentuation of the nature of military cadets.
4. The multistage psychological testing with use of polygraph of adequate flights motivation and emotional reactions on the flights allows quickly identifying psychovegetative manifestations and carrying out psycho-correction of stressful state of organism by the method of the biological feedback.
5. The integrated psychological questioning, with use of polygraph allows to correct the conduct of individual and group psychological training and monitoring of military cadets with a view to maintenance of positive flights

motivation, personal growth, definition of the psycho compatibility of the flight crew.

6. The cooperation of continual components of psychophysiological study, psychological testing and integrated psychological questioning with use of Polygraph allows promptly deciding the tasks of research and applied value with high reliability.

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DIAGNOSIS OF THE INDEPENDENCE GENERATION: ISSUES OF SOCIAL EXCLUSION OF ARMENIAN YOUTH

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The end of the 20th century was distinguished by exceptional changes in the reality of the Armenian society, by the degeneration of value basis and directors of continuous reproduction and existence of the society, by the mutilation of corresponding social relations, meanings and symbolisms that seemed to be stabilized over years, as well as by the mutilation of basis and processes of the institutional reproduction of the society [1]. The reasons of the above-mentioned were the collapse of Soviet Union, the profound transformation of political management system, still existing consequences of Karabakh conflict and the earthquake of 1988, the transition from one economic system to the qualitatively different neoliberal market relations, where the interest and targeted competition without preconditions have an undeniable and permanent priority [2]. The logical consequence of the mentioned could be the social exclusion of different groups of the society, particularly the youth who are considered highly important for the existence and regular functioning of the society [3]. The mentioned especially refers to such components of social exclusion as the multivariate poverty of some groups of the youth, the lack of social, political and cultural participation and inactivity, etc.

Nowadays, the discourses of social and political sciences, public administration and law concerning significant issues such as poverty, security, migration, crime, etc. are rich in definitions and formulations of social exclusion, its separate, logical components, functional manifestations [4]. Thus, it is hard to

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choose the one that will be comprehensive and final. We can just mention, that when talking about social exclusion, the majority of definitions highlight the lack or absence of material, social, cultural and other resources among the potential excluded, risky or really excluded groups [5]. They also mention the inactivity of different groups of society including youth in social relations, in social, political and cultural spheres, the lack of participation, as well as the inaccessibility of social goods, public and private services.

Although such general and multidimensional definition may cause to several methodological problems, it is the basis for the following analytical multivariate operationalization. Thus, in our opinion the emergence of the complex social phenomenon of social exclusion could be related to the following components as a result of obvious or potential problems [6, pp 10, 87-95]:

- material resources,
- social resources,
- cultural resources,
- social participation,
- political participation,
- quality of life.

Before switching to the analytical results of the research, it is necessary to refer to the methodology. The required data and information for the analysis were taken from the database of Independence Generation: Youth Study 2016- Armenia, conducted by the Faculty of Sociology, Yerevan State University and Friedrich Ebert Stiftung.

Thus, combined cluster sampling was chosen as the correct approach for this large scale quantitative study; the permanent population of the Republic of Armenia—the base sample—was separated into internally heterogeneous, externally homogeneous subgroups of equal volumes called «clusters» (according to predefined numbers). Each of the clusters was composed of eight targeted «addresses», which were studied completely. Additional subsampling was not conducted within the selected clusters. Cluster sampling was conducted proportionate to the population size of all residential areas in Armenia, according to the country's ten administrative regions (Marzes) and

the eleven regions of Yerevan city. Sampling started with the first randomly selected residential area, where the first cluster to be studied was located, according to the step of sampling. The other residential areas containing the remaining clusters were also selected in the direction of accumulative distribution increase. Based on this approach, the selection of a given number of clusters in a certain residential area is directly proportional to the population of that same area. This ensures proportionate sampling, as well as proportionate representativeness of large residential areas, such as regional centers and the capital city in the selected sample. Moreover, systematic random sampling was conducted due to the absence of a complete and trustworthy list of addresses for each residential area. The starting point—first address—for each cluster was selected through simple random sampling of a concrete address from the residential area lists at the respective polling stations. Of the residents of the selected apartment/house aged 14 to 29, the one whose birth date was the closest to the interview date was questioned. 1,200 youth from various regions of Armenia—both rural and urban areas—participated in a survey (the margin of error for the sample being 3 per cent) conducted through standardized interviews. The youth were born from 1987 onwards. This cut-off is the year when the processes of independence had commenced, fuelled by the first anti-Soviet demonstrations in Armenia.

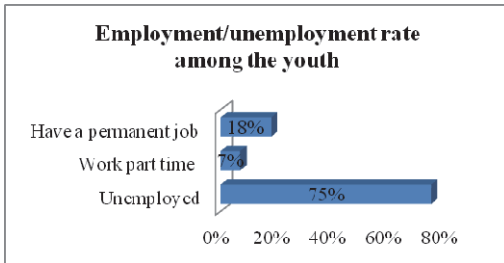
Thus, our respondents are people whose initial socialization took place during the periods leading to independence, the formation of independence, and its strengthening. And from this point of view, we are dealing with the generation of independence [7, pp 15-16].

Now let's look at the analytical results, the components of operationalization and their sequence.

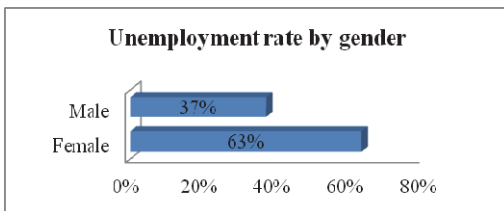
Material Resources

In the literature related to the issue one can find that problems related to material welfare and economic resources have primary role in the existence and deepening of social exclusion [8, 9, 10]. This indicator is proved in our research as well. The measurement of the latter was done through the indicators related

to work and material opportunities of the households. Thus, almost 75% of respondents are unemployed, 7% works part time or from time to time.



It should be mentioned that such high rates of unemployment firstly are related to the fact that a significant number of people under age of 18 who are not employed yet, were also included in the sample. Meanwhile, in case of people aged 18-29, the unemployment rate is also quite high (61.5%); nearly 31% of youth from 18 to 22 are unemployed. Such results can be interpreted by local characteristics. People in this age group are mainly undergraduate (bachelor) students. In the age range of 23 to 29, who are mostly graduates, every 3rd person is unemployed.



The problem has also gender bias. Among the female respondents regardless their age, 63% are unemployed, whereas only 37% of male respondents are unemployed.

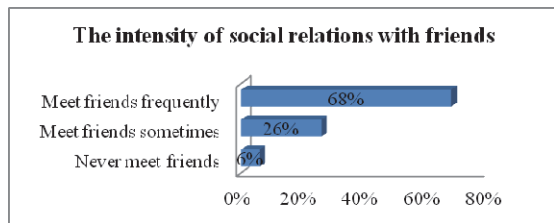
At the same time, 42% of the employed do not work in their field of study, by their narrow specialization. The mentioned situation indicates the loss of social and material direct or indirect investments on their education, the uncertainty of future plans of the youth, as well as the deep discrepancy between the social institute of higher education and labor market [11]. In such conditions, the economic pessimism of the youth is obvious as well. Each 4th person believes that the economic conditions of Armenia will worsen over the next 10 years. The mentioned pessimism is mostly specific to the age range of 26 to 29 and more than 53% of this subgroup thinks that the situation will worsen to some extent.

Referring to the material and economic well-being of the youth, it should be noted that every 3rd of the Armenian youth does not have a computer. More than 45% does not have a personal laptop. The households of nearly 45% of the youth do not own a car. Moreover, families of 45% of the youth can only afford to buy food, clothing, shoes, but extra expenses or any

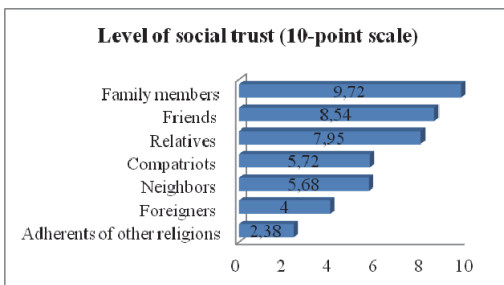
savings are not affordable. At the same time, nearly 3% of the youth lives in families, who do not have enough means for even food, 6% do not have means for clothing. Surprisingly, under such conditions only 15% of the youth has personal income and not surprisingly the absolute majority of the Armenian young people (66%) live off their parents.

Social Resources

In this research social resources are considered as some kind of manifestations of social capital [12]: the intensity of social relations particularly with friends [13], the level of trust towards several social groups and other subjects of relations, as well as towards social structures and institutes. Thus, nearly 68% of respondents meet their friends frequently,



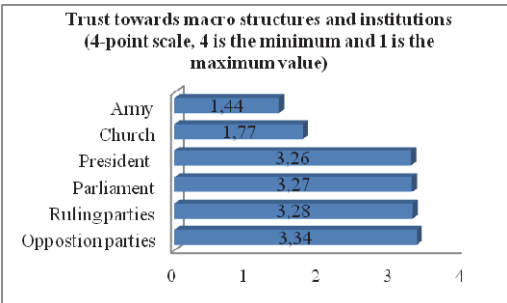
26.5% meet their friends sometimes. About 6% almost never meet their friends. There is also interesting data concerning the distribution of meetings according to the age groups of the respondents. The data shows that the number of meetings decreases as the age increases. About 15% of respondents from the age group of 26-29 do not meet their friends.



As to social trust, which was measured by a 10-point scale (1 is the minimum and 10 is the maximum level of trust), the youth mostly trust their family members (9.72 points in average). Then, they trust their friends (8.54 points) and relatives (7.95). The community based reproduction of society is becoming obvious in this context.

Related to the latter, it should be mentioned that the level of trust is comparatively low towards the compatriots (5.72) and neighbors (5.68). The Armenian youth has the least trust towards foreigners (4) and adherents of other religions (2.38). This pattern is the reflection of the extreme mono-ethnicity and high level of religious homogeneity of the Armenian society which were shaped historically.

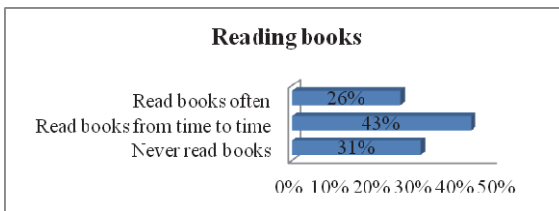
Switching to the trust towards macro structures and institutes, measured by a 4-point scale (4 is the minimum and 1 is the maximum value), the highest rate of trust is towards the army (1.44) and the church (1.77). The trust towards political institutes is relatively low. The trust towards the president is 3.26, and the parliament is 3.27. The youth has little trust towards both the ruling (3.28) and opposition parties (3.34).



Cultural Resources

In the context of this research, under cultural resources the participation in socially acceptable cultural events and activities such as reading, sports, TV and internet are considered.

More than 31% of the respondents never read books. About 43% of respondents read books from time to time.



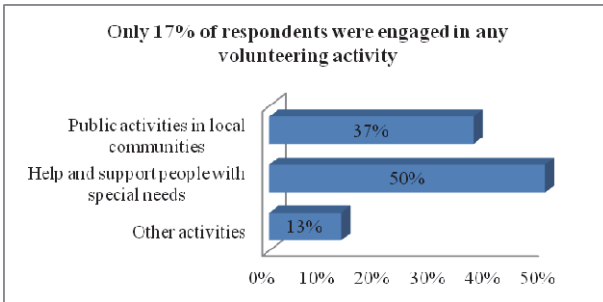
Almost 50% of the Armenian youth are not engaged in sports. Accordingly, more than 52% of women and 37% of men are not engaged in any sport activity.

Nearly 54% of youth watches TV often and 81% spend much time surfing the web. The youth regardless their age and gender use internet 4 hours a day in average. While men spend 30 minutes more on internet than women. The main purpose using the internet is to communicate with relatives and friends (40%). Every 5th person uses internet as a source for news.

Social Participation

When talking about social participation in the social life of the Armenian society, the indicators chosen for that are quite strange as they refer to volunteering and also emigration as a refusal from participation in the Armenian

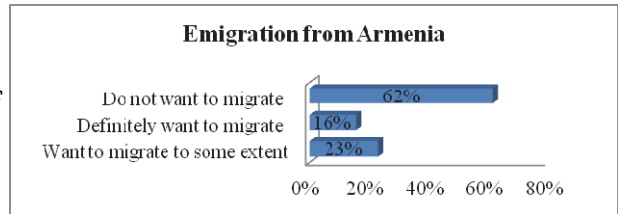
social life. It should be noted that the rates of volunteering are quite low among the Armenian youth.



Only 17% of respondents were engaged in any volunteering activity. 50% of the volunteers help and support people who have special needs. Nearly 37% is engaged in public activities in their

local communities. The commitment to help others (63%) was mentioned as the main reason for volunteering.

Referring to the emigration from Armenia, it should be noted that 61.5% of the youth does not want to migrate from the country yet. 15.5% definitely wants to

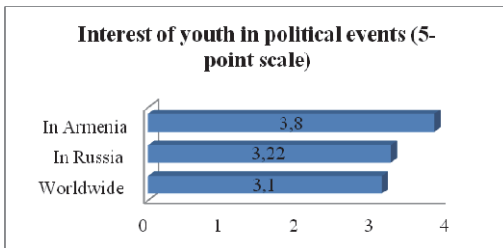


leave Armenia and that is why these people also refuse to directly be involved in the social life. The rest wants to leave Armenia to some extent. 19% of men and only 13% of women definitely want to emigrate from Armenia. In the age subgroups the age range of 23 to 25 has the strong desire to migrate (18%). The primary reasons for emigration are the improvement of their living conditions (35.6%) and job opportunities (30.8%).

Political Participation

For the analysis of the political participation some indicators were chosen concerning direct and indirect political participation and political position. Thus, to be politically active is trendy for 41% of the Armenian youth which, in fact, is a significant indicator. For the rest, to be politically active is more or less trendy. In addition to the mentioned, it should be noted that 54% of respondents do not follow any political debates programs on TV. At the same time, only for 36% of respondents participation in civic initiatives and similar social activities is

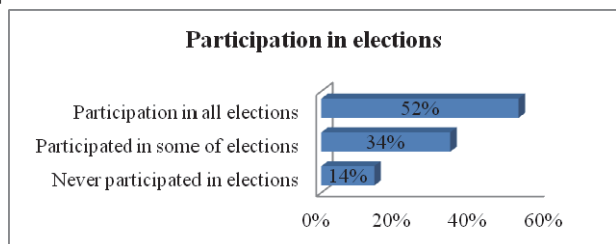
trendy. It is strange, but being politically active is trendy for 44% of female and for 37% of male respondents. 1/3 of youth does not discuss any political issue or event with their parents and every 10th person discusses that sometimes, which evidences that the Armenian youth is politically passive. However, the political stances of nearly 90% of the youth more or less coincide with ones of their parents, which evidence the high level of social homogeneity.



If we evaluate the interest of youth in political events with a 5-point scale (1 is the minimum and 5 is the maximum value), then we can state that the youth is firstly interested in issues and events in Armenia (3.8 in average),

secondly in Russia (3.22 in average), and then in worldwide (3.1 in average).

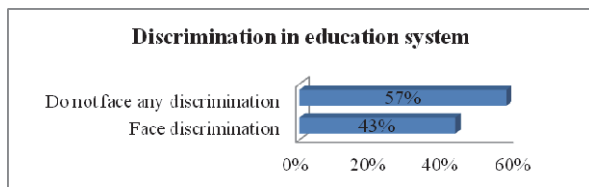
Referring to the participation in elections, it should be noted that more than half of the youth (52%) participated in all political elections since they got the right to vote. 14% of the respondents have never participated in the elections. Every 3rd respondent believes that their vote has no significance in the activities of Par-



liament and National Assembly. Moreover, about 44% is sure that their vote has no significance in political elections. Simultaneously, more that 34% of respondents are not satisfied with democracy in Armenia. It is remarkable that the main source of information for youth is the internet (45.6%) and then the TV.

The Quality of Life

To measure the quality of life indicators such as the existence of social and material goods, the availability of public and private services, and the absence of social discrimination in different spheres of social life were chosen. On the whole, we can state, that particularly in the education sphere 57% of respon-



dents do not face any discrimination. Unfortunately, the rest often faces discrimination. Despite the fact that overall gender

discrimination is quite low, 87% of men never faced gender discrimination, while the percentage of that for women is 78.

Referring to social goods and public services, particularly to education, the data shows that about 30% of respondents get education, 20% will continue their education, and more than 50% does not get any education at this moment. For financial reasons every 4th from the corresponding proportion cannot afford higher education. While every 3rd from those, who want to continue their education, just need the diploma, which is an opportunity for them to get a better job. The absolute majority of students from higher education institutes (58%) do not want to get postgraduate education. For the majority (62%) higher education is enough. At the same time, every 3rd respondent claims that additional education will not provide a better life.

Now let's switch to some material goods and opportunities. The majority of youth lives with their parents (73%). The absolute majority lives in a 3-room apartment (33%). 78% has private room in their apartment. The rest share the room with other family members.

Conclusion

When measuring social exclusion, such factors as material, social, cultural resources and social, political, cultural participation should be taken into account. In the context of the Armenian society which underwent social and political transformations after the collapse of Soviet Union and cannot overcome many of them and continues to face new challenges, the problem of social exclusion particularly of youth is becoming an urgent issue. One of the greatest problems that causes exclusion is unemployment. Moreover, the unemployment rate of women is much higher that of men. The latter deepens the exclusion of women from the labor market and the economic sphere. The other problem is that almost half of the ones, who are employed, do not work

in their field of specialization and which states the inefficiency of material investment in education. The abovementioned means that the youth lacks financial resources which assume that they cannot afford various services, goods and are dependent on their parents.

The next problematic factor which also is an indicator of social exclusion is the lack of trust towards various institutions. The Armenian youth trusts the army and church, but on the other hand there is a big distrust towards the president, parliament and political parties. The latter induces the youth not to be engaged in activities with the mentioned institutions.

The mere fact that the Armenian youth is not engaged in volunteering activities also indicates social exclusion from social life. Non-participation of youth is also apparent in civic initiatives and other social activities.

At last, the will to migrate to other countries for better future and employment indicates that the youth does not link their future with Armenia. The intention to migrate prevents them from participating in social, political and cultural spheres of society, thus being excluded from any activity.

To sum up, the abovementioned data evidences that in some spheres and with some indicators social exclusion as well as its existence and the high risk of its further development are obvious.

November, 2017

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DILEMMA OF SYRIAN ARMENIANS: QUANDARY BETWEEN REFUGEES AND REPATRIATES

Ani Davtyan^{*}

The eruption of the Syrian crisis in 2011 resulted in the outflow of refugees from Syria to different parts of the world. The biggest humanitarian crisis of the XXI century did not bypass Armenia for up to 20,000 Syrian citizens found refuge in Armenia¹. However, the case of Syrian refugees fleeing to Armenia is *sui generis* as on the one hand, the country primarily accepted Syrian nationals who were of Armenian origin². On the other hand, it was the decision of this specific number of the Syrian Armenians to resettle in their ancestral homeland rather than in any other country, which makes the phenomenon similar to repatriation. Hence, the aim of this research is to reveal whether the Syrian Armenians qualify under the status of refugees or repatriates. For this purpose, the study begins with a brief overview of the Syrian Armenian community. Furthermore, the research describes the actions taken by the Government of Armenia for identifying the status of the Syrian Armenians. Consequently, it looks at the international treaties on refugees and repatriation, as well as the Armenian legislation to find out the differences between these two notions.

Although the Armenians were historically present in Syria, the vast majority of nowadays the Syrian Armenians are the descendants of the 1915 Armenian Genocide survivors [1, p. 23]. Over a century ago, the Syrian authorities welcomed the Armenian refugees from the Ottoman Empire, which marked

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¹This number varies from 17,000 to 20,000. According, to Ministry of Diaspora and Ministry of Foreign Affairs the number of Syrian Armenians is around 20, 000.

²There are some Syrian Arabs, who fled to Armenia during the war. Nonetheless, the majority of them are from the mixed families. <https://www.opendemocracy.net/od-russia/mikayel-zolyan/refugees-or-repatriates-syrian-armenians-return-to-armenia>

the start of the emerging Armenian Diaspora in Syria. Importantly, the acquisition of the Syrian citizenship in 1924 facilitated the integration of the Armenian refugees into the Syrian society, as they became highly involved in social, political, economic and cultural life of the country [2, p. 11]. The most prominent center of the Syrian Armenian community has always been Aleppo, with estimated number of 50,000 the Armenians before 2011 [3, p. 23]. Nonetheless, there were also considerable number of the Armenians living in the capital of Damascus (10%), as well as other cities such as Latakia, al-Raqqqa, Qamishli, Deir al-Zour and Hassakeh (10%) [4].

Despite the fact that Syria was considered a dictatorship under al-Assad family reign, the Armenian community has been able to practice numerous minority rights, as long as their activities did not oppose or contradict the ruling party's (Baathist) ideology [5, p. 111]. One of the vivid proofs of this fact embed the several Armenian schools, societies, cultural institutions, as well as churches that were present in Syria. In addition, from time to time some ethnic Armenians were also elected to the Syrian parliament. Hence, the Syrian Armenians did not face persecution based on their ethnicity or religious beliefs, as such. For that reason, when the civil war erupted in Syria, many Armenians feared that any radical change in the regime could diminish their rights [3, p. 19].

After the Syrian war began, the Armenian districts, churches and schools were one of the targets of the rebel forces and terrorists. Obviously, the Christian minorities in Syria faced unprecedented persecution, due to which many of them became refugees in different countries. Taking into consideration the severity of the situation in Syria, starting from 2012 many Syrian Armenians decided to find refuge in Armenia. Apparently, one of the main reasons of this decision is connected with the strong ties that Armenia has always maintained with the Syrian Armenian diaspora even during Soviet Union times. It is noteworthy to mention that the Armenian diaspora in Syria is considered as the "mother community" [6]. Moreover, the discourse of the official stance treated the Syrian Armenians not as foreigners but rather "compatriots" living in a different country. For that reason, when the Syrian Armenians had just started to arrive to Armenia, the Government of Armenia

did not treat them as refugees but rather facilitated the immediate return of ethnic Armenians from Syria to their ancestral homeland. One of the urgent measures that Armenia undertook was the granting of Armenian citizenship to the ethnic Armenians holding Syrian passport. Importantly, according to the Government Decree of July 26 2012, the Syrian citizens of Armenian origins were able to receive Armenian citizenship at diplomatic representations or consular posts of the Republic of Armenia [7]. Consequently, in October 2012, the Government of Armenia issued another decree for exempting foreign citizens of Armenian descent who are fleeing from war-torn countries to apply for visas and residence permits [7]. Hence, Armenian authorities undertook the necessary measures to address the crisis.

However, the question remains open regarding the status of the Syrian Armenians in Armenia. In order to find out the answer, primarily it is important to look at the legal definitions in international treaties and documents. Undoubtedly, the UN 1951 Refugee Convention, which Armenia ratified in 1993, is the cornerstone international treaty to look for the definition of the refugee. According to the article 1 of this convention with 1967 amendments, in order to be considered as a refugee a person should have “a well-founded fear to be persecuted on the bases of race, religion, nationality, membership of a particular social group or political opinion is outside the country of his nationality and as a result of this persecution is unable or unwilling to return to his country” [8].

There is some documented evidence that ever since the civil war started, terrorist groups and rebel forces persecuted ethnic Armenians in Syria. For instance, the above-mentioned groups destroyed several Armenian churches in Syria [9]. The members of Armenian community in Syria also confirm that some factions within opposition groups have even anti-Armenian agenda [10]. Several states and international organizations, such as the EU, the US and Russia condemned the mass atrocities committed by the terrorist groups against Christian minorities. For instance, the European Parliament passed a resolution in February 2016 qualifying the actions carried out by ISIS towards Christian minorities and Yazidis in Syria and Iraq as genocide [11]. Moreover, Russian Foreign Minister Sergei Lavrov and the US former

Secretary of State John Kerry also considered that the actions of ISIS were genocidal [12, 13]. Thus, there is an existing evidence of persecution that Armenians as ethnic group were facing in Syria, which qualified them under the definition of refugees.

The dilemma concerning the refugee status of Syrian Armenians aroused when the Government of Armenia started to issue Armenian passports to Syrian nationals of Armenian descent. According to first article of the 1951 Refugee Convention, the latter ceases to apply in situations, if the person fleeing persecution “has acquired a new nationality, and enjoys the protection of his new nationality” [8, p. 15]. Thus, the Convention does not consider those Syrian Armenians as refugees who acquired Armenian citizenship. The situation is complicated even more for those Syrian Armenians, who have dual citizenship. In this case, the issue becomes debatable, as the Refugee Convention did not touch upon this question. After not finding the complete answer to the question in the most vital international treaty on refugees, it is important to look at the definition of repatriation in international treaties.

Currently, there is no international treaty on repatriation. Nonetheless, in 2004 International organization for migration (IOM) published a glossary on migration law, where it defines repatriation as “the personal right of a refugee or a prisoner of war to return to his/her country of nationality in accordance to various international legal instruments” [14]. Obviously, this definition is not applicable to the Syrian Armenians, as the word “nationality” in this context means citizenship rather than “ethnicity”. Similarly, the UNHCR perceives repatriation as one of feasible solutions of refugees for returning to their homes [15]. According to this definition, repatriation for Syrian Armenians would have meant to return to Syria, as Armenia is considered their ancestral homeland.

It is noteworthy to mention that in the Armenian legislation the definition of repatriation differs from the ones formulated in the documents of the international organizations. At the same time, the Armenian legislation has separate clauses on both refugees and repatriation. Thus, quite often the term refugee and repatriate overlap as a person’s willingness to resettle in Armenia might also coincide with his fleeing persecution in another country. Pres-

ently, the following core national legal documents regulate the issues connected with refugees and repatriation: 1995 Constitution (amended in 2015), 1995 Law on Citizenship, 1994 Law on Foreigners, 2008 Law on Refugees and Asylum. There is also a draft law on repatriation, which up until now Armenia's National Assembly have not adopted.

Initially, the Constitution of the Republic of Armenia has separate clauses both on refugees and on repatriation. On the one hand, article 19 of the newly amended Constitution stresses the importance of the strong ties with Armenian Diaspora and for achieving this end, the country is committing itself to adopt a policy, which will contribute to the preservation of Armenian identity and repatriation [16]. Moreover, article 47 gives priorities to people of Armenian origin to acquire citizenship of the Republic of Armenia upon settling in Armenia and through a simplified procedure [16]. On the other hand, article 54 states that "everyone subjected to political persecution shall have the right to seek political asylum in the Republic of Armenia" [16]. Furthermore, according to the article 13 of the 1995 Law on Citizenship, people of Armenian origin that have resided in the Republic of Armenia have the right to acquire Armenian citizenship [17]. Additionally, 1994 Law on Foreigners grants special resident status to the persons of Armenian origin [18]. Finally, as regards to the 2008 Law on Refugees and Asylum, it incorporated all the main clauses of the 1951 Refugee Convention, such as the definition of refugees, principle of non-refoulement, cases in which the law ceases to apply, etc. Importantly, article 23 of the law states that refugees granted asylum shall have the right to benefit from financial assistance and social services [19].

Taking into consideration the legal framework, Syrian Armenians have several options to choose from. Therefore, the legal status of Syrian Armenians varies depending on their circumstances. The severity of the conditions as a consequence of the war made some portion of Syrian Armenians to apply for refugee status. According to the State Migration Service of the Republic of Armenia, from the period 2012 to March 2017, 817 Syrian citizens received refugee status in Armenia [20]. On the one hand, the refugee status grants them some kind of protection to receive certain socio-economic benefits as it is prescribed by law. On the other hand, according to the UNHCR representa-

tive Anahit Hayrapetyan acquiring refugee status is beneficial for young men as they will be exempted from serving in the Armenian military [21]. This phenomenon also applies in cases when young Syrian Armenians decide to keep their Syrian citizenship.

However, still the majority of the Syrian Armenians either applies for the Armenian citizenship or acquires residency permit. According to the UNHCR data, there are currently 14,000 people from Syrian Arab Republic in refugee-like situations, which are referred as “displaced persons” [22]. The latter term refers to all categories of Syrian Armenians, such as Armenian citizens, Syrian citizens, refugees and asylum seekers.

Over the time Armenia started to present Syrian Armenians as refugees on the international level. For instance, in September 2015 during the 70th session of the UN General Assembly the President Serzh Sargsyan mentioned in his speech that Armenian received more than 16,000 refugees from Syria, which makes the country among the first refugee recipients in Europe [23]. A year later, Armenia’s Foreign Minister Edward Nalbandian reiterated at the 71st session of the UN General Assembly that Armenia accepted more than 20,000 refugees. At the same time, the international community also acknowledges Armenia’s efforts to accept refugees from Syria. The UN Secretary General Ban Ki-moon thanked Armenia for its efforts in providing refugees from northern Iraq and Syria with safe haven [24]. Nonetheless, up until now quite often Armenian internal political discourse refers Syrian Armenians as repatriates or displaced persons.

Conclusion

Evidently, neither international organizations nor governmental bodies can find consensus over the comprehensive status of the Syrian Armenians. Legally, the Syrian Armenians live under different statuses, while de facto their reasons why they left their country are similar. Analyzing the situation, this research concludes that even though the Syrian Armenians have different legal statuses in Armenia, de facto all Syrian Armenians can be considered as refugees for the following reasons. Initially, the phenomenon can be defined as forced migration, rather than repatriation, as the Syrian Armenians fled

conflict. Secondly, there is some evidence, which is also approved by the European Union, USA and Russia that Christian population of Syria faced persecution due to the conflict. Thirdly, even though the 1951 Convention of refugees ceases to apply in cases when refugees enjoy the protection of the host country, Armenia being a developing country cannot provide sufficient financial assistance to the Syrian Armenians fleeing the conflict. Besides analyzing international and national legislation, as well as governmental policies, it is also important to find out opinions of the Syrian Armenians regarding this situation. Thus, for the future, the study suggests to conduct survey among the Syrian Armenians in order to have more complete picture over their status.

June, 2017

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TEAM DEVELOPMENT AS BUILDING BLOCK OF QUALITY CULTURE IN HIGHER EDUCATION SYSTEMS

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Social capital formation and human capital formation with certain attributes could significantly contribute to the successful transition from hierarchic to learning organizations. This is specifically observable in the knowledge societies and economies. The gradual shift toward strategic based, proactive behavioral patterns and operations could be facilitated by the existence of multiple and multifaceted components (e.g. teams) that interact with each other and have an adaptive logic that is based on compound feedback system, making them responsive to change. The adaptation is influenced by a group or organization that has appropriate mechanisms and structures for knowledge management (Aktharsha and Anisa, 2011). Knowledge management in its turn balances out the progress of learning and sustains the continued change of individual learning (Aktharsha and Anisa, 2011). Ultimately, knowledge management enhances collaboration in return facilitating the sharing of best practices (Aktharsha and Anisa, 2011). Universities that conceptualize the need of facilitating organizational learning and organizing institutional teaching in ways to make the formation a continuous process with the development of the understanding that it is a lifelong endeavor are necessitated to revisit knowledge management practices, particularly the ones that deal with the pedagogical fundamentals that support teaching, learning, and assessment (TLA) methodologies. This is predicated by the veracity that the sustained and planned effort of learning more effective might be facilitated through a collaborative mode. Thus, making organizational and team learning makes the

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part and parcel of curriculum, and extra-curricular activities should lead to sustained individual learning, as well as organizational change.

From the perspective of organizational change, universities face a daunting task of gradually building the components of quality assurance that would lead to the formation of quality culture as part of institutional strategy. Most of the universities in western education systems and more particularly, the ones that aspire to play a leading role in European Higher Education Area have committed themselves to developing such models. However, the approaches vary greatly with most of them typologically taking the macro path that requires the establishment of accreditation mechanisms, institutionalizing the requirements of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG Guidelines). Certain institutions prefer highlighting the importance of educational program quality enhancement and the targeting of learning outcomes. However, they take the perspective of holistic qualifications that are measurable and comparable. In none of the cases, pedagogical approaches to the behavioral change as the axis of the transformation of the organizational culture and the enhancement of quality is considered a viable and important alternative to institutional macro and micro reform attempts and concepts. Nevertheless, there is ample evidence that teams have proven to have a positive correlation with the quality and in many educational organizations they have been used as basic units of curriculum delivery (Sallis, 2002). It is remarkable that teams have been embedded in the curriculum, but this has not been considered to be a useful tool to prompt institutional change via learned behavioral patterns that lead to higher order thinking skills development and knowledge management. Moreover, the research conducted up to this moment has not considered linking pedagogical practices in regard to team learning with the transformations at institutional level. In order for an organization to embed a large number of overlapping teams and to ensure adaptive, thus, well functioning operations (Sallis, 2002), the human resources management system of organization will have to incorporate team based learning practices that are infused as early as secondary education and become a strong part of the curriculum at tertiary level. Since it does not occur on its own and has to be revealed, it is then subject to meth-

odological fine-tuning. As Philip Crosby (1979) has said, “being part of a team is not a natural human function; it is learned.” This entails that team members will have to learn to work together (Sallis, 2002). In order for that to happen, teams, like people, need mentoring and as social learning theorists suggest scaffolding if they are to be able to manage the knowledge and to collaborate extensively (Sallis, 2002). Therefore, the pedagogy of team learning becomes instrumental to the process of team formation, development and enhanced individual learning, leading to strategic planning at institutional level based on gradual behavioral pattern management via team formation through the development of effective learning methodologies.

The recognition of the importance of team formation via learning as a carefully planned methodological practice should be considered as a basic unit in the long chain of quality control, management, enhancement, thus, becoming the forerunner of perpetual cultural change. Team development through teamwork is based on mutual trust and established relationships that stem from effective communication and learning (Sallis, 2002). Therefore, *trust* could be defined as a sustained combination of communication acts with certain limited probabilities that gradually develop a system of shortcuts, optimizing the time of communication and the utility of end product. Learning has to incorporate practices that make the communication efficient creating knowledge management modes of operation that would result in effectiveness of information transfer, which is correlated with trust building. This is possible, if teams develop their identity through a formation period that entails learning activities instrumental to their ability to function (Sallis, 2002). That is why teams need time to cultivate and take shape and have recognized cycles of development (Tuckman, 1965). Tuckman speaks of 4 stages of group formation that starts with the forming stage, then goes to the storming and norming stages, with the performing coming at the end and opening a possibility for a transformation. Tuckman's first, stage of group formation is all *about forming*. Initially, there is no team as such, it is rather a group of individuals that have a common task and purpose, but have not yet developed operational modes and rules to deliver efficiently and effectively the end products defined by the task at hand. This greatly hinders the concept of quality

control. The author indicates that there are a number of emotions associated with this stage, ranging from excitement, optimism, idealism, pride and anticipation through to fear, suspicion and anxiety. When coming to formation stage a team according to Tuckman exhibits signs of operational shortcuts, but is yet subject to distraction that could lead to the focusing of the attention on issues that are outside of group's mandate. This naturally creates a lot of frustration and waste of time and effort. These patterns of behavior are often seen as wasteful in time and effort. In fact, they are normal and necessary. However, Sallis argues that these are essential processes that any team must go through (Sallis, 2002). They correspond with the eighth and ninth of Deming's 14 points: drive out fear so that everyone may work effectively, and break down barriers between departments (Deming, 1986).

Right after the first stage, the teams come to the point of nadir in their pattern change process, when "members realize the scale of the task ahead and may react negatively to its challenges" (Sallis, 2002). It is the period of intense communication that requires a substantial amount of oversight and scaffolding on the part of the teacher that could be called as the team leader. This is the period when personal agendas are laid out and hostilities arise due to that, demanding more time for the accomplishment of specific tasks. This is the moment of non-optimal operations, when communication on how to communicate in order to deliver is being constructed. This becomes a subject of interest for pedagogical research in terms of understanding the logic of communication methodology and trust development that occurs through the building blocks that are defined as the shortcuts stated previously in the text. It is instrumental for the team leader to recognize the source of any conflict and diffuse it by assisting members to search for common ground (Sallis, 2002). There is a positive side to the storming stage. It is the period when members begin to understand each other, as well as humor and patience are important qualities for a team leader at the storming stage (Sallis, 2002). Once again, two of Deming's 14 points are pertinent at the storming stage. They are points one and two: create constancy of purpose, and adopt the new philosophy (Deming, 1986).

The next stage is called *norming*. This is when shortcuts are being created and are turned into rules of behavior and tailored methods for operation.

Learning at this point is instrumental to successful transfer to the final stage as defined by Tuckman. During the *performing* stage team already has an established identity according to the studies (Tuckman, 1965, Sallis, 2002), as it has a well established ownership of defined rules, a list of shortcuts that highly supports effective functioning. Deming's points five and seven of his 14 points exemplify the performing stage: improve constantly and forever the system of production and service, and institute leadership (Deming, 1986). Well-performing teams improve their performance over time and may reach the fifth stage, known as *transforming* (Deming, 2002). This is the stage when real improvements in quality are made. Deming believed that competition witnessed at this point is becoming a destructive force (Deming, 2002). He spoke of a non-zero sum game, where everyone could work together as a system, and developing modus of operandi characterized by cooperation. He argued that this would facilitate a transformation process with consequential new style of management (Deming, 2002). Nevertheless, once again with the new vision of operations without performance indicators and evaluation, the essential pillar of trust and its conceptualization through learning methodologies undertakes an outstanding role. Thus, it grows to be a matter of scholarly interest worthy of thorough examination.

Trust represents one of the most critical issues facing collaborative groups (Smith, 2010). Learning collaboratively often involves a dramatic shift in one's views of teaching and learning, changing perspectives on the nature of knowledge, roles of teachers and the roles of one's peers in the learning process (Smith, 2010). Studying the team formation and measuring the results of different interventions, clustering them into main typologies of learning methodologies could provide clues to knowledge management, quality improvement, cultural transformation and conflict minimization. Approaching quality culture from the perspective of pedagogy entails the perspective of furthering the advancement of trust related knowledge, leading to effective collaborative learning and work environments. At this point, much of the research on trust focuses on interpersonal behavioral issues that affect communication, problem-solving processes and group outcomes. Although the present focus is important and helpful to help understand the ways in which trust

can be facilitated and managed in collaborative groups, it largely ignores the epistemic issues and how they may affect trust (Smith, 2010).

Research Framework for Subject Field

Learners at earlier stages of epistemological development are unsure of their own ability to co-construct knowledge, have limited ability to shift through different perspectives that their heterogeneous groups represent, and they are unsure if the group can meet their learning needs (Smith, 2010C1). Trust issues through team formation that is mediated by the careful employment of tested and selected pedagogical techniques can constitute trust development, thus, leading to optimal operations and maximum satisfaction, liberating the educators and the managers from growingly ineffective measurement tools of performance evaluation and learning assessment that at times subvert the true mission of education or challenge organizational quality, establishing new types of bureaucracies that pull the leverages via qualifications and control quality assurance criteria. They overburden the system with exceedingly mundane tasks of self-evaluation, draining the human capital by distracting it from its main creative endeavor. Therefore, this research aims at the examination of the development of structures of trust via team formation, focusing its attention on the typological changes of communication acts within the groups. Within this framework, the main target of the study is to cultivate learning methodologies using the theoretical foundations of social constructivism. Trust in this case has little to do with individual group member behavior, but may reflect underlying epistemic issues that the learners import into the group (Smith, 2010).

For the purpose of this research, a number of hypotheses have been formulated that will be tested employing appropriate research methodologies. The first hypothesis (H1) states that team behavior impacts team cohesion and loyalty, when it first reaches a cooperative communication act and later one transforms into being a collaborative communication. From the perspective of constructivist learning theory, collaboration is a higher order concept, as it has a component of self-regulatory mechanism, when team members work towards the accomplishment of a certain clearly defined task or goal. Coop-

eration is being directed from outside, most commonly by the leadership or instructor, when team members most commonly do not have a clearly defined goals or a vision, but are asked to accomplished a specific task. Cooperation should be a transitory condition towards collaborative practices both in education, as well as management at organizational level. Moreover, if cooperation is the key mode of operations, then performance evaluations and learning assessments are the standard instruments in ensuring quality standardization and management. However, when one reaches the level of performance with prevalent collaborative practices trust takes center stage minimizing the need to perform above stated tasks in order to ensure the quality and provide for accountability. For the purpose of measuring this hypothesis the testing of cooperative and collaborative communication acts becomes the target with the following statements that need to be turned into experimental tools to be examined within the research:

Collaboration

1. The team within its operations feels the support of the team leader, teacher, leadership
2. The team concludes the job division within the set team mandate
3. The team members choose the job segments on voluntary basis taking into consideration their inherent and/or acquired strengths
4. The team members meet without the request of the team leader, teacher, leadership
5. The team members constantly and frequently communicate both orally and in a written form employing different communication tools and using various environments
6. The team members share most of created documents
7. The task at hand is clear for every team member
8. The team operations is transparent for all members

Cooperation

1. The team feels the support of the team leader, teacher, leadership
2. The team leader, teacher, leadership comes up with the job division within the given mandate

3. The team members get their share of the task from the team leader, teacher, leadership
4. The team leader, teacher, leadership summons regular meetings
5. The team leader, teacher, leadership sends messages to team members
6. The team leader, teacher, leadership sends out the created documents
7. The team work is not clear for everyone
8. The team work is not transparent for everyone

The next hypothesis (H2) states that team behavior impacts the trust. This hypothesis will be measured by examining the communication patterns that classify then into stages of team formation. The main question for this segment will be to identify the stage of formation. It requires the experimental assessment of the communication that would indicate that team members clearly understand the scope of work and the goals. There is a possibility that team members perform their tasks based on the close instruction of the team leader, teacher, and leadership and find them quite complex to deliver the end result required. During this stage, the measurement of communication acts that indicate the presence of serious disagreement among members is instrumental to determining the transitory typologies of shortcuts. Moreover, the vocabulary and certain synchronization will be a matter of focusing and measurement, indicating the level of rule development and transformation of the quality of communication. The volume of voluntary action and the amount of cross-support are stated to be the harbinger of effective operations of the team as a new identity in its totality of factors constituting a system.

The third hypothesis (H3) states that trust impacts the team loyalty and serves as a binding force leading to the formation of its identity. In this part, the research will address the communication specificities that highlight the atmosphere inside it and among the members. More specifically, the communication substantiating the level of cohesion, clarity of purpose, talking the problems that arise along the way would be targeted. Moreover, it will examine the communication acts that exhibit intension aiming at the best solutions sought and the fact of team members trying to suggest more efficient ways of

operation. Finally, this part will have to look at the evidence that supports the declining thread of disagreement, conflict, and communication.

The fourth hypothesis (H4) states that team perception of team support impacts its behavior, making the communication more coherent and increasing frequencies of it. This is supposed to lead to shortcuts that increase the efficiency of actions. The main questions in this section are the types of communication and risk management. The team leader, teacher, leadership sets the stage for cooperative mode by providing information about the final product and the scope of work, introducing division of tasks, transferring the required information and data, as well as supporting team members in performing their tasks and gradually constructing the bigger picture aiming at the formulation of clear vision through purposeful deliberation. When coming to risk management the team leader, teacher, leadership assigns joint tasks to various pairs within the group, defines the initial rules and quality standards, answers the questions and discusses the suggestions of team members what concerns the overall deliverable end product and team operations.

The fifth hypothesis (H5) claims that the team perception of team support impacts the trust. The core of this hypothesis is to understand to what extent the instruction and overall communication of the team leader, teacher, and leadership reaches team members and with what level of clarity? The spectrum of measurement ranges from clear messages to scaffolding based on the full understanding of the needs of each member. The final hypothesis (H6) attests that team perception of team support impacts team loyalty, where the main target examines main types of support. What kind of feedback is being given by the team leader, teacher, leadership in return to accomplished tasks? What advice is being given to team members? How useful these pieces of advice are? What are the patterns of appreciation and reprimand employed by the team leader, teacher, leadership? The classification and semiotic analysis of these communication patterns will allow understanding the signs of trust development, opening the second stage of research for creating effective pedagogical interventions that would lead to collaborative action and sustained transformation.

The above stated scheme exhibits the main hypotheses and links, the analysis of which would allow dissecting the communication structure by providing typologies of formation and the semiotics of transitory stages. The crux is depicted by HI hypothesis link, which indicates two types of teamwork. One is the collaborating, when team members are clear on why they are performing a certain task as they have a full grasp of the scope and the broader goals. The sharing of the vision is scuffled by the team leader, teacher, and leadership via effective communication. The other one is the rather instructed mode of operations, that in this research is called cooperation, when team members clearly understand their task ahead of them, but they have to full sight of the vision and broader goals.

Methodology and Data Organization

For the purpose of elucidating the above stated hypotheses, the core methodology should be the application of experimental design. This means that a research course at master's level will be the foundation for the research. A quantitative method with survey design will be used to collect periodic data from experimental and control groups. The frequency of application of survey will be equal to the phases of transition in the process of team formation. Along with that, logging of each class and out-of-class contact will be conducted as part of the observation technique, which will be combined with the periodic application of individual interviews of a selected sample of respondents both from the experimental and control groups. The collected information classified though different methodologies of research will create a database of numerical, quantifiable and descriptive data. The numerical data and standardized "concept" data sets will be further filtered in order to create statistical correlations, applying triangulation and comparison of various sets of variables in order to generate the information, explaining the main hypothetical statements.

The data collected from individual interviews will be used to create charts by filtering the quantifiable data, as well as by applying discourse analysis, trying to identify the main types of communications for each cir-

cumstance and stage of development. The pedagogical interventions applied in-class and out-of-class cases will be meticulously recorded based on the use of epistemological theoretical foundation will be linked with the timing of logged interview and observations of team behavior via individual interviews in order to identify the communication acts that constitute the most efficient methodologies of learning. Over the period of two years the laboratory will serve as an experimental ground for conducting this research. The first year will be the pre-testing of the research methodology and calibration of applied tools in order to fine tune it to the research framework described in the proposal. The second year will help to collect a better quality data of a richer spectrum. The sorted data will then conclude the analysis of concepts and formulation of judgments based on the evidence from the experiment.

Conclusions

Trust development through team formation applying pedagogical interventions in the form of learning methodologies will hopefully advance the research on epistemic issues and how they affect trust. It will hopefully shed light on what types of communication strengthen the structures of trust by creating shortcuts that optimize the timing of operations and the standardization of end result addressing one of the main issues of total quality management, i. e. frequency of limited range variation of deliverables while decreasing the need to evaluation performances and assess the achievement.

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WAS THE CUBAN MISSILE CRISIS THE MOST DANGEROUS EPISODE OF THE COLD WAR?

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Introduction

Academics and politicians have often described the Cuban Missile Crisis (CMC) of 1962 as the moment when the human race came closest to a nuclear war. This article will seek to answer two questions related to that crisis, the 55th anniversary of which is observed this October. The first question is as follows: What particular developments in the course of the U.S.-Soviet confrontation of October 1962 increased chances of the so-called nuclear exchange between the two superpowers? The second question is as follows: Were the chances of a nuclear war greatest during CMC or was there any other incident during the Cold War that made a nuclear conflict between the U.S. and U.S.S.R. even more likely?

Brief History of the Cuban Missile Crisis

The origins of the events - that later became known as the Cuban Missile Crisis in America and Caribbean Crisis in Russia – can be traced to the Soviet Premier Nikita Khrushchev’s decision to secretly send nuclear missiles to the island of Cuba, which is located less than 90 miles from Florida. Khrushchev did so after the U.S. had unsuccessfully tried to remove the Cuba’s Communist leader Fidel Castro from power and placed America’s Jupiter nuclear missiles in Turkey, from which they could reach the Soviet Union. By placing their R-12 and R-14 missiles in Cuba, the Soviet leadership had hoped to narrow the so-called “missile

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gap” – at the time the U.S.S.R was lagging behind United States in terms of the number of missiles capable of reaching the opposite side’s territory¹. Khrushchev was also hoping that the deployment of these short-term and medium-range missiles would also help to prevent the U.S. from attacking Cuba to overthrow its Communist leadership². With Castro’s consent, these missiles were secretly brought from the U.S.S.R. to Cuba by Soviet civilian cargo ships and construction of launch pads for them commenced on this island in August 1962. It was not until October 14, 1962 that an American spy plane, U2, photographed the construction sites and U.S. intelligence analysts then identified them as launch pads for R-12 and R-14 missiles³. President John F. Kennedy was briefed on the findings on October 16, 1962, which was the day that many American and foreign historians now describe as the first day of the Cuban Missile Crisis. The U.S. government confronted the Soviet government with these findings. Moscow at first denied there were any Soviet nuclear missiles in Cuba, but Washington pressed on. While putting pressure on Khrushchev, John Kennedy also put the U.S. armed forces on high alert, known as DEFCON 3, and ordered a naval blockade of Cuba⁴. He also shared his knowledge of the Soviet missiles in Cuba with the American public in a public address. In that address, which was broadcast on TV on October 22, 1962, he demanded that the Soviets withdraw missiles from Cuba. This public pressure, combined with the U.S. government’s private promise to the Soviet government that the U.S. Jupiter missiles would be withdrawn from Turkey, convinced Soviets to withdraw the missiles. The Soviet

¹ These reasons are elucidated in a book edited by Len Scott and R. Gerald Hughes. Scott, Len, and R. Gerald Hughes, eds. *The Cuban Missile Crisis: A Critical Reappraisal*. Routledge, 2015. Available at https://books.google.com/books?id=UJEGCAAQAQBAJ&pg=PT261&dq=Khrushchev%27s+rational+for+missiles+in+Cuba+missile+gap+and+Castro&hl=en&sa=X&ved=0ahUKEwib_ZyS5MrUAhUHJsAKHRHBDQM6AEIMDAB#v=onepage&q=Khrushchev's%20rational%20for%20missiles%20in%20Cuba%20missile%20gap%20and%20Castro&f=false

² These reasons are given in the book edited by Len Scott and R. Gerald Hughes. Scott, Len, and R. Gerald Hughes, eds. *The Cuban Missile Crisis: A Critical Reappraisal*. Routledge, 2015. Available at https://books.google.com/books?id=UJEGCAAQAQBAJ&pg=PT261&dq=Khrushchev%27s+rational+for+missiles+in+Cuba+missile+gap+and+Castro&hl=en&sa=X&ved=0ahUKEwib_ZyS5MrUAhUHJsAKHRHBDQM6AEIMDAB#v=onepage&q=Khrushchev's%20rational%20for%20missiles%20in%20Cuba%20missile%20gap%20and%20Castro&f=false

³ “World on the Brink. John F. Kennedy and the Cuba Missile Crisis. Thirteen Days in October 1962.” John F Kennedy presidential library and museum. Undated. Available at <http://microsites.jfklibrary.org/cmcc/>

⁴ Ibid.

premier Khrushchev announced that the R-12 and R-14 missiles would be withdrawn on October 28, 1962 on condition that Americans promise not to invade Cuba¹. Historians now describe that day as the final day of the 13-day crisis, although it took longer for the Soviets to withdraw R-12s and R-14s from Cuba and Americans didn't start withdrawing Jupiters from Turkey until 1963².

Review of the Literature on Dangers of the Cuban Missile Crisis

The authors' review of the literature on the Cold War reveals that the view – that the Cuban Missile Crisis has been the most dangerous episode in the Cold War – is not uncommon. First of all, participants in the events themselves viewed CMC as a very dangerous moment. President Kennedy wrote that the odds of a U.S.-Soviet nuclear war during CMC were “between one out of three and even”³ and that 200 million could have died in that war⁴. John Kennedy's assistant Arthur M. Schlesinger agreed with his boss. “The missile crisis was not only the most dangerous in the Cold War. It was the most dangerous moment in all history,” Schlesinger wrote⁵.

Retired Russian general Viktor Yesin, who was actually a participant in the crisis because he was sent by the Soviet defense ministry to Cuba at that time as a young officer, also believes CMC was the most dangerous moment in

¹ Letter from Chairman Khrushchev to President Kennedy, October 28, 1962, John F. Kennedy Presidential Library and Museum. Available at <http://microsites.jfklibrary.org/cmc/oct28/doc1.html>.

² “The Cuban Missile Crisis, October 1962,” U.S. State Department, undated. Available at <https://history.state.gov/milestones/1961-1968/cuban-missile-crisis>

³ Powaski, Ronald E. *The Cold War: The United States and the Soviet Union, 1917-1991*. Oxford University Press, 1997. Available at https://books.google.com/books?id=u9uWII7W_BcC&pg=PT161&dq=between+one+out+of+three+and+even%E2%80%9D+and&hl=en&sa=X&ved=0ahUKEwihgoqL78rUAhULAcAKHVUKBVUQ6AEIKDAA#v=onepage&q=between%20one%20out%20of%20three%20and%20even%E2%80%9D%20and&f=false

⁴ Glover, Jonathan. *Humanity*. Yale University Press, 2012. Available at https://books.google.com/books?id=fivCnCPiPm0C&pg=PA220&dq=Robert+Kennedy+200+million+people+died+Cuban+Missile+Crisis&hl=en&sa=X&ved=0ahUKEwjWgM_M7srUAhUnJ8AKHSPXC aQQ6AEINTAC#v=onepage&q=Robert%20Kennedy%20200%20million%20people%20died%20Cuban%20Missile%20Crisis&f=false

⁵ Schlesinger, Arthur Meier. *A thousand days: John F. Kennedy in the White House*. Houghton Mifflin Harcourt, 2002. Available at <https://books.google.com/books?id=JsqBEdFx-fQC&printsec=frontcover&dq=Cuban+Missile+Crisis+%E2%80%9Cthe+most+dangerous+moment+in+human+history.%E2%80%9D.&hl=en&sa=X&ved=0ahUKEwiAyJjgx8rUAhWDNz4KHxb1CdIQ6AEINzAD#v=onepage&q=the%20most%20dangerous%20moment%20in%20human%20history.%E2%80%9D.&f=false>

the Cold War¹. A number of American and Russian scholars have also expressed views that CMC was the most dangerous of all Cold War episodes. For example, John Hershberg has referred to this crisis as “most dangerous passage of the Cold War” in his foreword to a transcript of a meeting that John F. Kennedy’s brother Robert and Soviet ambassador Anatoly Dobrynin held on October 27, 1962². American political scientist Graham Allison has also referred to the events of October 16-28, 1962, as “the most dangerous moment in recorded history.”³ A number of Russian scholars also believe that CMC ranks first in the list of dangerous episodes of the Cold War. For example, former Russian deputy defense minister Andrei Kokoshin has also argued that the crisis was “most dangerous in the history of the Cold War when the two superpowers, the Soviet Union and the United States, came very close to a full-scale war involving nuclear weapons.”⁴

What Made Cuban Missile Crisis So Dangerous and Did U.S. and U.S.S.R Come Closest to a Nuclear War during that Crisis?

Several elements of the Cuban Missile Crisis made it extremely dangerous, making nuclear war likely. To begin with, both sides made ‘routine’ moves in the course of the October 1962 crisis that could have been misinterpreted by the other side as either preparation for a nuclear strike or even beginning of such a strike. On the U.S. side, the DEFCON 3 alert - that President Kennedy announced on October 22, 1962 – required some of American warplanes to begin patrolling skies with nuclear missiles onboard. Some of these nuclear armed warplanes came very close to engaging in a dogfight with Soviet fighters when the latter tried to intercept a U-2 spy plane that flown into the So-

¹Yesin, Viktor I. “The Cuban Missile Crisis: Debatable Issues, Instructive Lessons.” Article, Belfer Center for Science and International Affairs, Harvard Kennedy School, October 16, 2013. Available at <http://www.belfercenter.org/publication/cuban-missile-crisis-debatable-issues-instructive-lessons>

²Hershberg, Jim. "Anatomy of a Controversy: Anatoly F. Dobrynin's Meeting with Robert F. Kennedy, Saturday, 27 October 1962." *Cold War International History Project Bulletin* 5 (1995): 75-80. Available at http://nsarchive.gwu.edu/nsa/cuba_mis_cri/moment.htm

³Allison, Graham. “50 years after Cuban missile crisis: closer than you thought to World War III.” *Christian Science Monitor*, October 15, 2012. Available at <http://www.csmonitor.com/Commentary/Opinion/2012/1015/50-years-after-Cuban-missile-crisis-closer-than-you-thought-to-World-War-III>

⁴Yesin, Viktor I... “The Cuban Missile Crisis: Debatable Issues, Instructive Lessons.” Article, Belfer Center for Science and International Affairs, Harvard Kennedy School, October 16, 2013. Available at <http://www.belfercenter.org/publication/cuban-missile-crisis-debatable-issues-instructive-lessons>

viet airspace on October 26, 1962¹. One can only imagine what the Soviet response would have been if one of these American warplane had fired a nuclear missile during that confrontation. It cannot be ruled out that this response included firing a nuclear missile back at the American planes in what would have started a nuclear war.

The U.S. military also made other pre-planned 'routine' moves during the crisis, which increased chances of a nuclear war. For example, the U.S. military test-fired a missile from the Vandenberg Air Force base in California on October 26, 1962. The missile was not carrying a nuclear warhead because it was a test launch, which had been planned before the crisis. However, the DEFCON 3 alert, which President Kennedy announced during the crisis, required that base to actually arm all of its intercontinental ballistic missiles (ICBMs) with nuclear warheads². Had the Soviets known about that DEFCON 3 requirement, they could have misinterpreted the October 26 test-launch as a beginning of a surprise strike and rushed to launch their own missiles from Cuba so that the U.S. strike would not destroy them. It should be noted that the Americans themselves misinterpreted events during the crisis. For instance, the operators of a U.S. radar station in New Jersey reported on October 28, 1962 to their superiors that they had detected missiles launched from Cuba towards Florida. This report caused the U.S. commanders to consider how to retaliate. Fortunately, it was quickly discovered that a "test tape simulating a missile launch from Cuba was inserted in the computers to run a check on the software and displays at the radar facility," according to David Wright of the Union of Concerned Scientists³.

The Soviets also had routines, known as standard operating procedures (SOPs) that increased probability of a nuclear war during the crisis. The most dangerous of these SOPs was the Soviet leadership's decision to grant commanding officer of each of the several Soviet submarines, which were sent to

¹ Philips, Alan FMD. "Mishaps that Might have Started Accidental Nuclear War." Nuclearfiles.org. Undated. Available at <http://nuclearfiles.org/menu/key-issues/nuclear-weapons/issues/accidents/20-mishaps-maybe-caused-nuclear-war.htm>

² Wright, David, "Six Close Calls During the Cuban Missile Crisis," Union of Concerned Scientists, October 30, 2015. Available at <http://blog.ucsusa.org/david-wright/six-close-calls-during-the-cuban-missile-crisis-941>

³ Ibid.

waters off Cuba in 1962, the right to launch nuclear weapons if three conditions were met. The first condition was that the submarine's commanding officer concluded that either his ship or other Soviet ships were under attack by Americans. The second condition was that he could not establish a radio contact with the Soviet Naval headquarters at the time of the attack. The third condition was that the boat's commanding officer, his second-in-command and political officer all voted in favor of launching a nuclear weapon¹. That was exactly the view that commanding officer of Soviet submarine B-59 Valentin Savitsky developed on October 26, 1962 in waters off Cuba. At that time his diesel submarine had no contact with the Soviet naval headquarters. Therefore, Savitsky ordered his crew to intercept U.S. radio broadcasts, and the crew caught a broadcast by a commercial Miami radio station. "On Miami radio it's descriptions of the flotilla offshore. It's descriptions of total mobilization," American historian Thomas Blanton wrote of what Savitsky and his crew must have heard². Shortly afterward, Savitsky's boat was detected by the U.S. Navy warships. One of these American warships started to drop signaling charges to try to force Savitsky's submarine to surface. Savitsky – whose submarine had no contact with the Soviet naval command at that time - did not know that those were signaling charges³. Rather, he thought these were actual bombs that were being dropped on his boat because a war had broken out. Savitsky believed the submarine should respond by launching a nuclear torpedo, and, proposed that the three top officers of B-59, including himself, his second-in-command Vasily Arkhipov, and the submarine's political officer Ivan Maslennikov vote on whether to do so, according to a book on CMC ed-

¹ Wilson, Jim. *Britain on the Brink: The Cold War's Most Dangerous Weekend, 27-28 October 1962*. Pen and Sword, 2012. Available at <https://books.google.com/books?id=JK4J2a12n-YC&pg=PT130&dq=Savitsky++special+weapons++nuclear+war.&hl=en&sa=X&ved=0ahUKEwjAlOHijM3UAhVIXD4KHTEXDScQ6AEIPzAE#v=onepage&q=Savitsky%20%20special%20weapons%20%20nuclear%20war.&f=false>

² Genzlinger, Neil, "Same Cuba Crisis, Different Angles: 50 Years Later Cuban Missile Crisis Revisited on PBS," *New York Times*, October 12, 2002. Available at <http://www.nytimes.com/2012/10/23/arts/television/cuban-missile-crisis-revisited-on-pbs.html>

³ Wilson, Jim. *Britain on the Brink: The Cold War's Most Dangerous Weekend, 27-28 October 1962*. Pen and Sword, 2012. Available at <https://books.google.com/books?id=JK4J2a12n-YC&pg=PT130&dq=Savitsky++special+weapons++nuclear+war.&hl=en&sa=X&ved=0ahUKEwjAlOHijM3UAhVIXD4KHTEXDScQ6AEIPzAE#v=onepage&q=Savitsky%20%20special%20weapons%20%20nuclear%20war.&f=false>

ited by Priscilla Roberts. An argument broke out between Savitsky and Arkhipov, who did not want to launch the nuclear torpedo. Arkhipov won that argument, the torpedo was not launched and the submarine came to the surface, according to the book¹.

The CMC episodes listed above clearly demonstrate that CMC was a very dangerous episode of the Cold War. In fact, in the view of the authors of this article, it was the most dangerous of such episodes. Yes, the Cold War saw several other “close calls” later on. For instance, in 1960 North American Aerospace Defense Command (NORAD) issued a false warning that Soviet missiles were minutes away from continental United States, but it was quickly discovered that some of its satellites mistook a rising moon for Soviet missiles². More than 20 years later NATO exercise Able Archer sent alarms ringing in Moscow that this U.S.-led Western alliance was planning a nuclear first strike against the Soviet Union³. During that 1983 exercise the world “had, without realizing it, come frighteningly close—certainly closer than at any time since the Cuban missile crisis of 1962,” according to KGB officer Oleg Gordievsky, who defected from U.S.S.R to West with top secret documents⁴. However, in contrast to CMC, the U.S. and Soviet forces were not actually put on high alert during the Able Archer episode, according to historian Stephen J. Cimbala. Therefore, “no immediate nuclear scare captured the imagination of

¹ Roberts, Priscilla. *Cuban Missile Crisis: The Essential Reference Guide*. Abc-clio, 2012. Available at <https://books.google.com/books?id=3-WoO0V6rRMC&pg=PA14&dq=Cuban+Missile+Crisis+Savitsky+and+Maslennikov+nuclear+torpedo&hl=en&sa=X&ved=0ahUKEwjVlKaUv6fUAhWnx4MKHXpJDJkQ6AEIQDAE#v=onepage&q=Cuban%20Missile%20Crisis%20Savitsky%20and%20Maslennikov%20nuclear%20torpedo&f=false>

² Busch, Nathan E. *No end in sight: the continuing menace of nuclear proliferation*. University Press of Kentucky, 2015. Available at <https://books.google.com/books?id=NZsfBgAAQBAJ&pg=PA58&dq=in+1960++NORAD+attack+moon&hl=en&sa=X&ved=0ahUKEwjLq82W68rUAhVjIMAKHUeAAEYQ6AEIKDAA#v=onepage&q=moon&f=false>

³ Jones, Nate. *Able Archer 83 : the Secret History of the NATO Exercise That Almost Triggered Nuclear War*. New York, The New Press, 2016. Available at <https://books.google.com/books?id=qNExDQAAQBAJ&printsec=frontcover&dq=Able+Archer&hl=en&sa=X&ved=0ahUKEwidk8z35crUAhUBWBQKHS0TAHoQ6AEIKDAA#v=onepage&q=attack&f=false>

⁴ Andrew, Christopher M., and Oleg Gordievsky. *More Instructions from the Centre: Top Secret Files on KGB Global Operations 1975-1985*. Abingdon, Taylor and Francis, 2012. Available at <https://books.google.com/books?id=uN1TU0vrsr0C&printsec=frontcover&dq=Instructions+from+the+Centre:+Top+Secret+Files+on+KGB+Global+Operations&hl=en&sa=X&ei=6cADU9PLOGSyAHb6YGYAw#v=onepage&q=Cuban&f=false>

leaders in Washington, Moscow or Brussels,” according to Cimbala¹. That year also saw another dangerous episode occur. The Soviet officer Stanislav Petrov made an ultimate judgment in September 1983 that report of an U.S. nuclear missile attack was a false alarm. Petrov was a software engineer serving in the Soviet Space Defense Forces at the time and he was responsible for fine-tuning the Soviet military’s “Oko” (Eye) early warning system, which was designed to detect American missile launches. Petrov was on duty on September 26, 1983 when one of Oko’s nine satellites – that were watching nuclear missile launch pads in the United States - sent a signal that five American Minuteman intercontinental ballistic missiles (ICBMs) had taken off from the continental United States and were headed toward U.S.S.R. The alerts were automatically sent to the Soviet military command, but it was up to Petrov to make an ultimate judgment whether there was really an American nuclear attack underway. The officer had ten minutes to come up with an answer and he actually decided that it was a false alarm². Had Petrov decided otherwise, the Soviet Union might have launched a nuclear strike on the United States, according to American scholar of Cold War David Hoffman³. This September 26, 1983 episode was, indeed, very dangerous, but it was just one episode. Therefore, this episode overall carried lower risks of leading to a nuclear war than the Cuban Missile Crisis did if only because CMC included an entire series of ‘close calls,’ each of which could have led to a nuclear war, in the authors’ view. As General Yesin wrote: “The bilateral relationship has had its ups and downs: one need only look at the tense situation around Able Archer in fall 1983. Yet the superpowers never again came so perilously close to the

¹ Cimbala, Stephen J. "Nuclear Crisis Management and "Cyberwar". *Strategic Studies* 117 (2011). Available at <http://www.au.af.mil/au/ssq/2011/spring/cimbala.pdf>

² Hoffman, David. *The Dead Hand: The Untold Story of the Cold War Arms Race and Its Dangerous Legacy*. Anchor, 2009, 11. Available at https://books.google.com/books?id=JQGHqScEFtoC&printsec=frontcover&dq=The+Dead+Hand:+The+Untold+Story&hl=en&sa=X&ved=0ahUKEwiOgvq_6crUAhVG1xQKHXTzCVkQ6AEIJjAA#v=onepage&q=Petrov&f=false

³ Hoffman, David. *The Dead Hand: The Untold Story of the Cold War Arms Race and Its Dangerous Legacy*. Anchor, 2009. Available at https://books.google.com/books?id=JQGHqScEFtoC&printsec=frontcover&dq=The+Dead+Hand:+The+Untold+Story&hl=en&sa=X&ved=0ahUKEwiOgvq_6crUAhVG1xQKHXTzCVkQ6AEIJjAA#v=onepage&q=Petrov&f=false

danger of full-scale nuclear war as they did during the Cuban Missile Crisis.”¹
The authors cannot agree more with this statement by General Yesin.

Conclusion

This article sought to answer two questions: (1) What particular developments in the course of the U.S.-Soviet confrontation of October 1962 increased chances of the so-called nuclear exchange between the two superpowers; and (2) were the chances of a nuclear war greatest during CMC, or was there any other incident during the Cold War that made a nuclear conflict between U.S. and U.S.S.R even more likely. The article answered the first question by highlighting which of the military ‘routines’ on both sides could have led to a nuclear war on a number of occasions in the course of that crisis. The article answered the second question by contrasting how these multiple occasions were fraught with risks, that if summed up, made the probability of a U.S.-Soviet nuclear war higher than any of the other “close calls” reviewed above. It is the authors’ hope that both leaders of U.S. and Russia as well as other nuclear powers will always remember the grave dangers of CMC in mind and avoid nuclear brinkmanship that can lead to a war kill not only much of the population of their countries, but also cause deaths of hundreds of millions more all over the world².

October, 2017

¹ Yesin, Viktor I. “The Cuban Missile Crisis: Debatable Issues, Instructive Lessons.” Article, Belfer Center for Science and International Affairs, Harvard Kennedy School, October 16, 2013. Available at <http://www.belfercenter.org/publication/cuban-missile-crisis-debatable-issues-instructive-lessons>

² “It would require only in the neighborhood of 10 to 100” super bombs yielding 100 megatons of fission each to destroy humankind, according to recently declassified document by scientists at America’s Los Alamos nuclear laboratory. Bienaime, Pierre, “Here's How Many 'Super Nukes' American Scientists Thought It Would Take To Destroy The World In 1945,” December 16, 2014. The document is available at <https://ia802303.us.archive.org/26/items/ManhattanDistrictHistory/MDH-B8V02P01-LosAlamos-Technical.pdf>

PERCEPTION OF CHINA'S "ONE BELT, ONE ROAD" IN RUSSIA: "UNITED EURASIA" DREAM OR "IRON CIRCLE" OF CONTAINMENT?

Larisa Smirnova^{*}

Introduction

Since President Xi Jinping's accession to power and following his unprecedented, for a Chinese leader, personal friendship with Vladimir Putin of Russia, it has become almost commonplace in the media discourse to closely associate "Russia and China" and to position this "couple" in opposition to the so-called "West" and/or "the United States and their allies." Arguably, this association largely contributed to the public communication success that the Chinese project of "One Belt One Road" enjoyed globally in the initial months after its' unveiling on March 28, 2015¹.

The Chinese project, that likely got its aspiration from an earlier American concept of the New Silk Road², was immediately described by epithets of "ambitious," "grandiose," "far-reaching," and the like. Whereas the Chinese narrative cautiously stressed the economic infrastructures as well as, more recently, "information"³ aspects, the image of President Xi attending the military parades next to the proven warrior Vladimir Putin added credibility to the Chinese assertiveness. Promptly, it led the bewildered public imagine the

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¹Government of China. (2015, March 28). 经国务院授权 三部委联合发布推动共建“一带一路”的愿景与行动 (*Jīng guówùyuàn shòuquán sān bùwěi liánhé fābù tuīdòng gòng jiàn "yīdài yīlù" de yuàn-jǐng yǔ xíngdòng*) "One Belt, One Road" official blueprint . http://www.gov.cn/xinwen/2015-03/28/content_2839723.htm

²On the US vision of the New Silk Road, see, for example: McBride, James. Building the New Silk Road. Council on Foreign Relations. <http://www.cfr.org/asia-and-pacific/building-new-silk-road/p36573>

³Xu Wei and Mao Weihua, Information Silk Road given lift. China Daily, September 20, 2016.

return of the “Grand Age of Empires” and the possible advent of the finally united Eurasia, a dream that has haunted European history for millennia.

The Chinese discourse¹ is structured around the pledge to provide development instructions without challenging the power leverage of local elites in developing countries. The Chinese government is indeed known for opposing the violent regime changes, especially the bottom-top “color revolutions”². At a point when the Western methods of economic and political reforms came under attack as having led to the unprecedented, in the post-Cold war era, the rise of security-related tensions around the world, it is understandable that the Chinese message, thus presented, has proved appealing³. Being a non-Western country, China managed to absorb the Western development methods while maintaining the liberty to select and adapt them to its own cultural preference.

As it appears clearer now, however, the international popularity of the concept likely surpassed the expectations of the Chinese ideologists of the project. Originally the Chinese policy-makers might have been more preoccupied by domestic policy concerns than by any international ambitions. Among the goals they pursued there was certainly one that diverted the attention from the pressure for political reform by driving their own populations’ conscience towards exaltation and aspirations for the revival of ancient glory⁴.

Be it as it may, once launched, the “One Belt One Road” quickly became a subject of domestic speculations in many countries, especially in the crisis-hit Russia. Based on the analysis of the discussion of “One Belt One Road” in the Russian media, this paper argues that whereas the conceptual launch of the plan was a tremendous success, the Chinese narrative has kept but a limited impact on the content of the Russian debate about it by now. The debates continue to unfold among the Russians who made the Chinese initiative an instrument in

¹ The official information portfolio: Belt and Road Initiative. Xinhua News Agency. <http://www.xinhuanet.com/silkroad/english/index.htm>

² Ai Jun. Why hasn’t there been a color revolution in China? Global Times, July 17, 2016. <http://www.globaltimes.cn/content/994793.shtml>

³ Russian, Chinese Officials Discuss Color Revolutions.

<https://sputniknews.com/world/201609131045247958-russia-china-color-revolution/>

⁴ On the internal political crisis in China at the start of the Xi Jinping era, see the article: Smirnova, L. Fighting Corruption and Political Reform in China: International Experience and Chinese Model. *International Affairs*, 2014 (8). <https://interaffairs.ru/jauthor/material/1119>

the articulation of their own concerns, much similar to those in China, such as their reflections on the international Great Power role of Russia.

Terminology

The term “One Belt, One Road” (Russian: “odin poyas i odin puti”), which is a literal translation of the Chinese official name for the project “一带一路” sounds unnatural in Russian. It is only employed as a “professional jargon” by the Chinese specialists. The journalists and experts targeting wider audience generally refer to the “Silk Road” (Russian: “sholkovy puti”), a historic term that does not carry an explicitly Chinese connotation.

Understanding the Nature of the Russian Media

The aim of this study is to focus on the media that have influence over the Russian decision-making. Such media as well as their core messages need to be correctly identified among the voluminous information flow. Especially since the worsening of Russia’s relations with the West over Ukraine, everything related to China has received an unprecedented degree of interest and attention. The full coverage of the Silk Road by the Russian media and expert community consequently accounts to dozens of thousands of articles.

The traditional view of the Russian (as well as of the Chinese) media in the West is that, due to the lack of freedom of speech, the information that they confer is unreliable. The Sino-Russian relations have been routinely referred to, in official discourse, as the “most positive throughout their history”¹. It is true that, in the context of positive official relations, both the Russian and Chinese media, to a large degree, avoid negative coverage of each other.

Historical examples reveal that similar things also happened in the West, for example, during the two World Wars era. As John J. Mearsheimer points out in the “Tragedy of Great Power Politics,” “during the late 1930s many Americans saw the Soviet Union as an evil state <...> Nevertheless, when the United States joined forces with the Soviet Union in late 1941 to

¹ Razov, Sergey (former Russian Ambassador to China). 60 years of Russia-China Relations: Some Lessons. People’s Daily (Russian website). September 30, 2009. <http://russian.people.com.cn/31521/6773845.html>

fight against the Third Reich, the US government began a massive public relations campaign to clean up the image of America's new ally and make it compatible with liberal ideas"¹.

However, the hypothesis is that, unlike sometimes believed, in this atmosphere the real information does not disappear from the media discourse but starts to be conveyed by other means, that is to say in an indirect or disguised manner. Conveying information in an indirect manner is in no case a Russian or a Chinese invention but rather a feature of any repressive, crisis, or unsafe societies.

There is a body of literature, a part but not all of it military, on the use of "cyphers" and "codes". As Helen Fouché Gaines writes in her study on "Cryptanalysis", for the first time published in 1939, "it is true that trained cryptanalysts are not greatly in demand in peacetime. <...> In time of war, the cryptographic service is suddenly expanded to include a large number of new men many of whom know nothing whatever of cryptanalysis"².

Conveying any information in a meaningful manner requires skills, but the set of skills required in free mass media is different from the set of skills required for secret information transmission. The former includes logic, structure, convincing argumentation; the latter includes metaphors, hints, insinuations, Aesop language, and may look, to an unprepared reader, extremely strange, unpersuasive or pseudo-scientific.

Even if most information published in the Russian media, on China or with regard to other subjects, would certainly not amount to a "code", the term "esoteric" seems rather appropriate to describe it. The word "esoteric" is defined by Oxford Dictionary as "intended for or likely to be understood by only a small number of people with a specialized knowledge or interest".

In his excellent recent book "Philosophy between the Lines: The Lost History of Esoteric Writing," Arthur M. Melzer suggests a similar interpretation: "Through a slow act of collective amnesia, a well-known phenomenon

¹ John J. Mearsheimer. *The Tragedy of Great Power Politics*. W.W. Norton & Company, New York and London. Updated Kindle Edition, location 663.

² Helen Fouché Gaines. *Cryptanalysis: a study of ciphers and their solution*. Dover Publication. New York, 2014 (first printed in 1939). Kindle edition, location 223.

has quietly been dropping out of awareness: the philosophic practice of esoteric writing. By this is meant the practice of communicating one's unorthodox thoughts primarily "between the lines", hidden behind a veneer of conventional pieties, *for fear of persecution or for other reasons*" (the italics are mine – LS)¹.

Esoterism has even become trendy since Russia's involvement in the wars in Ukraine and Syria. Exercising free speech in Russia has been notoriously dangerous: the violent death of journalists who had the courage to take the risks provide convincing evidence in this regard. Before the recent crises, however, it was accepted on the values level, even if not necessarily achieved, that the objective was to make the Russia's mass media progress towards more freedom and openness as the society evolves towards more safety. Since the society actually failed to become safer, nowadays, the well-foundedness of this principle appears to be questionable in its nature.

Besides deliberately disguising information – a process that can vary from self-censorship through the use of hints and insinuation to actual encoding – people writing under stress or pressure might conceal their true thoughts unintentionally. Looking from the angle of cognitive science, which originated from the writings of Ivan Pavlov, Sigmund Freud and more recently Noam Chomsky and Steven Pinker, and combines elements of linguistics with psychology and brain science, humans possess conscious and unconscious mind.

It is therefore plausible that computerized artificial intelligence may be helpful in detecting consciously or unconsciously disguised information, for example, by statistically identifying key words in the documents. One of the methods used for this is SEO (search engine optimization) text analysis.

Hence, the methodology combines qualitative reading and elements of computerized text analysis. I submitted sixteen articles (a total of 116026 words, their full list provided in Addendum 1) to SEO text analysis², a process in which the key words in the text are identified by the computer. These articles come from the following three publications that have influence on Russia's decision-

¹ Arthur M. Melzer. *Philosophy between the Lines: The Lost History of Esoteric Writing*. Chicago University Press. Chicago and London. 2014. Kindle edition, location 59.

²The function is available at: <https://text.ru/>

making and reflect the two extremes of the Russian political spectrum as well as Vladimir Putin's pledge to "unify" or "balance" the two of them:

1. Newspaper "Vedomosti"¹: Russia's pretended version of "Financial Times", printed alike on light salmon pink paper, foreign-launched and focused on quality journalism, circulated in Moscow's busy coffee shops, and popular among the liberal camp. The writing style of the publication is straightforward and easily understandable.
2. Newspaper "Agrumenty nedeli"² (The Weekly Arguments): a tabloid written and widely read by the so-called "siloviki", a composite term for the employees of various security forces. It is roughly an equivalent to China's 《四月网》 (April Web)³, which was formerly known under an explicit title of "Anti-CNN". The writing style is much more "esoteric", characterized by the abundance of symbolic expressions and metaphors that assume a high degree of cultural awareness from the readers and are only fully comprehensible to insiders.
3. Analytics pages of the "Valdai Club"⁴: a favorite think-tank of Vladimir Putin that he personally launched in 2004. The writing style is policy-suggestions oriented.

It can be added that China directly runs a number of Russian-language media that publish official information regarding the "One Belt One Road". The most successful of them is the Russian website of the "People's Daily"⁵. However, due to poor quality of writing and unattractive design, if not necessarily to the nature of the arguments presented, they have little if any convincing power for the general public. Their audience is therefore limited to China specialists who are looking for official news and bureaucratic interpretations of events.

¹ <http://www.vedomosti.ru/>

² <http://www.argumenti.ru/>

³ www.m4.cn/

⁴ ru.valdaiclub.com/

⁵ <http://russian.people.com.cn/>

Main Findings

1. The Russians view a China-led “Silk Road” as a challenge to Russia’s great power status but demonstrate openness to cooperation on the basis of equality

The Chinese plan, that comprises a continental (“One Belt”) and a maritime (“One Road”) parts, was initially intended to only concern Russia to a limited extent. The outline divulged at the Boao Forum on March 28, 2015 described several connection routes between Asia, Europe, and Africa, but only mentioned Russia as part of one of them: “from China through the Central Asia and Russia to Europe (the Baltic Sea).” The maritime part of the plan was supposed to primarily focus on the South East Asian countries with a potential extension deeper into the Pacific Ocean¹.

The Russian strategic thinkers, however, perceived this as an attempt to downgrade Russia to the position of a “regional” rather than “global” power: a position they firmly regard as premature and unacceptable. The first “Weekly Arguments” reaction to the Chinese communiqué of March 28, 2015 was a publication of a brief statement by Vice-premier Igor Shuvalov². The friendly title of the article “Russia is ready to join efforts with China” is followed by an extension in the synopsis that Russia “welcomes the Chinese initiative”, and that the joint work on it should be carried out “in the format of the Eurasian Economic Union” (EEU), a Russian-dominated project.

According to the Russian International Affairs Council, great powers are those countries with “the ability to project the might of the state (*and not always in a destructive way*) anywhere in the world” (italics are mine – LS)³. As Sergey Ryazanov, an author for the “Weekly Arguments” points out, “Many people got nervous about the advancement of the Chinese infrastructural projects <...>. Some people even called the Great Silk Road a blow to the Eurasian Economic Union and “an insult to Putin”, as the Chinese had not solicited his opinion in advance”⁴.

¹ Government of China. Op. Cit.

² <http://argumenti.ru/politics/2015/03/393796>

³ The Russian International Affairs Council. Arctic Players in the Arctic. Working Paper no. 26 of 2016. P. 6. <http://russiancouncil.ru/common/upload/asia-arctic-report26-en.pdf>

⁴ Terentiev, Denis. Everything goes through Baikal–Amur Mainline (BAM) railway”. Weekly Arguments No. 30 (521). November 12, 2015. <http://argumenti.ru/toptheme/n513/423132>

In light of the above and as I have previously pointed out¹, the Putin-Xi “Declaration on the cooperation between the EEU and the China-initiated Silk Road Economic Belt”, eventually signed on May 8, 2015, should be considered as a significant diplomatic breakthrough. Achieved in the atmosphere of patriotic fervor on the grounds of the Second World War memories, it essentially put the two projects on the grounds of equality as opposed to the earlier treatment of the Chinese plan as an “initiative” within the Russian framework. It is worth an observation, in brackets, that the Declaration was still bilateral and did not solicit the opinion of any other concerned Eurasian countries, an attitude that belongs to a wider debate on the destinies of big and small countries in international politics².

2. The Russians are interested in Chinese investments but have strong security concerns

The Chinese, famous for their materialistic thinking also branded as “practical” or “pragmatic”, stress that their plan will bring economic prosperity. Whereas it sounds like an irrefutable argument that China was successful in tremendously improving the welfare of its population over the three past decades, the assumption beneath proposing it as a recipe to follow by other countries is that other people, too, primarily strive to increase their material comfort. Specifically, the recipe consists in improving accessibility of the geographically insulated regions by infrastructure development with the premise that it will boost local economic activities.

The Chinese model works perfectly in regions with high population density and few natural resources. It correctly assumes that entrepreneurial potential of the people will develop once they have the opportunity, through improved connectivity, to reach out to the outside world. Long before the Chinese economic miracle, this model was sketched by the Hakka merchants of the Southern Chinese provinces. This model, moreover, seems to correlate

¹ Smirnova, L. Three scenarios for Russia-China relations in 2016. *Russia Direct*. 2015. № 25. http://www.cemi.rssi.ru/publication/e-publishing/index.php?ELEMENT_ID=9261

² Gabuev, A. *Peresopriajenie ot uspehov* (roughly translates as “Too much tensions over successes”). “*Vedomosti*” No. 4095 of June 15, 2016.

<http://www.vedomosti.ru/opinion/articles/2016/06/15/645351-peresopryazhenie-ot-uspehov>

with increased cultural homogeneity as people need to cooperate to maximize their profits.

The Russian and Central Asian economies, however, are based on the exploitation of natural resources and already manage to provide to their populations material life standards that range from tolerable to comfortable, if not opulent, but that are always above the subsistence level. **Figure 1** presents a cloud tag of keywords from sixteen articles in the sample: it clearly demonstrates the weight of natural “resources,” especially of “oil” and “gas,” in the Russian media discourse surrounding the “One Belt One Road.”

The natural resources-based economic model makes the Russians develop a kind of “forbidden city” mindset. Indeed, the Russian business attitudes are often deemed unreliable because of their expectations of huge profit margins. Yet it is far from evident whether improved connectivity would help the Russian businesses maximize profits or, vice versa, only create more competition for the control over resources.

There is a body of literature mostly from the economic field on the so-called “natural resource curse” that identifies the richness in natural resources tends to correlate with a highly factional mentality¹. It was traditionally perceived as a negative trend because it manifests itself in “oligarchy” and constant risks of “ethnic strife.” Looking positively from a recently popular angle of “diversity”², it could also be viewed as one of the sources thereof.

Be it as it may, whereas the whole “Russia’s pivot to the East” concept shows that the Russians are interested in attracting Chinese investors, the “One Belt One Road” is a case when potential profits come with obvious security concerns. The Russian military experts estimate that, taking into account the 10 times differences in population sizes in favor of China, the Chinese-Russian border is not defensible by conventional weapons³. The Chinese penetration into the Central Asia would dramatically increase the length of

¹ Mohammad Reza Farzanegan and Friedrich Schneider. Factionalized democracy, oil and economic growth in Iran: Where is the curse? http://www.econ.jku.at/members/Schneider/files/publications/LatestResearch2010/Factionalism_Iran.pdf

² Mojtaba Mahdavi & W. Andy Knight (editors). *Towards the Dignity of Difference: Neither ‘End of History’ nor ‘Clash of Civilizations’*. Routledge, London & New York, 2016.

³ Kashin, V. The sum of all fears. *Russia in Global Affairs*. May 1, 2013. <http://www.globalaffairs.ru/number/Summa-vsekh-strakhov-15961>

miliov on the so-called “passion” of nations (Russian: *passionarnosti*)¹. Gumiliov’s theory explains the drive for military conquest through the prism of a would-be high psychological energy of nations with abundant young populations living in the areas with constrained resources.

In the esoteric narrative, the figure of Genghis Khan (Temujin)², the notorious Mongolian leader of the Middle Age, is especially symbolic. On the surface, for the collective imagination of the Russians and the Chinese, this character evokes the fear of a foreign conquest. The Mongolian conquest, it is to be noted, was perceived as much more humiliating by the Russians, where it was “cross-racial”, than by the Chinese, who adopted the view of the Mongolian rulers as one of the Chinese dynasties (Yuan dynasty).

On deeper levels, however, Genghis Khan evokes more than anger. Much like Napoleon who, besides his image of a conqueror (though, unlike the Mongolians, defeated), is romanticized by the Russians as a symbol of the most acknowledged ‘European integration’ that Russia experienced throughout its whole history, the figure of Genghis Khan is associated with the achievability of the “Eurasian dream.”

Indeed, the Mongolian empire was the only successful unifier of Europe and Asia that, though for a short while, simultaneously controlled the territories of Russia, China, and India. Moreover, the Western Mongolians who controlled Russia and ended up adopting Islam, are referred to as Tatars. Their descendants are now an influential ethnic group in Russia. This latter detail is particularly important for the understanding of Russia’s historically complex relations with the Muslim world: the futurologists predict, parenthetically, that, due to the high birth rates among the Muslim minorities, the role of Islam in Russia’s politics will keep on increasing in the coming decades³.

¹ Luzhkov Yu. M. “Yellow Dragon” Benefits from the Europe – Russia Dissent, or Geopolitical Risks of the Strategic Alliance between Russia and China. *Weekly Arguments* No. 5 (446) of February 12, 2015. <http://argumenti.ru/politics/n474/388673>

² Terentiev, Denis. The Party of Genghis Khan: Will Russia Preserve its Influence over the Central Asia? “*Weekly Arguments*” No. 30 (521). August 4, 2016. <http://argumenti.ru/toptheme/n550/461769>

³ Laruelle, Marlene. How Islam Will Change Russia. September 13, 2016. <https://jamestown.org/program/marlene-laruelle-how-islam-will-change-russia/>

4. The Russian thinkers have presented such alternatives to the Chinese projects that consider Russia's security interests

The Russian thinkers further reacted to the Chinese initiative by proposing their alternative plans for the Silk Road. On the surface, it might look like the Russians are not at all paying attention to the content of the Chinese suggestions, but only show interest towards attracting the Chinese funds to support the Russian-designed alternative projects. The argument is that the Russian plans are an attempt to canalize the Chinese investments towards those projects that have been tested by the Russians and are estimated to be safer for them.

For example, between the alternative railway routes that could link China to Europe, the Chinese favor the Central Asian variants and the Russians prefer to stick to the trans-Siberian ones¹. The two Siberian railways (Transsib and BAM) were historically built at a cost of a huge stretch of human and economic resources, and, taking into account harsh climate and low density of population-related factors, their modernization is highly unlikely to pay off economically. However, the successful Chinese test of the train from China to Georgia that travelled to Tbilisi through Kazakhstan and Azerbaijan bypassing Russia in December 2015, much increased the disguised strategic uneasiness in the Sino-Russian relations².

The Russian thinkers also have their alternative plan for the Maritime Silk Road: the Northern Sea Route that runs through the Russian Arctic. Not at all taken into account in the original Chinese plan and recently labelled "Russia's Arctic Obsession" by the Financial Times³, the Russian idea actually has strategic implications. If it is true that a Great Power is a country that is able to project its influence to any part of the Globe at any given time, the Arctic is one region where Russia is more powerful than China and likely exercises more control than the United States.

¹ Terentiev, Denis. Everything goes through Baikal–Amur Mainline (BAM) railway". Weekly Arguments" No. 30 (521). November 12, 2015. <http://argumenti.ru/toptheme/n513/423132>

² Window to Europe: How China Launched the Silk Road Bypassing Russia. Russian Business Consulting (RBC) Daily. December 15, 2015. <http://www.rbc.ru/politics/15/12/2015/56703a6d9a7947f88a89ae7d>

³ Kathrin Hille. Russia's Arctic Obsession. October 21, 2016. <https://ig.ft.com/russian-arctic/>

The Russian view of the Central Asian part of the Silk Road involves three major components:

1. regional integration within the framework of the Eurasian Economic Union;
2. combination of economic and security cooperation within the framework of the Shanghai Cooperation Organization;
3. military coordination within the Collective Security Treaty Organization, a formal though loose military alliance between Russia and five former USSR states.

Among the three, the Russians view the Shanghai Cooperation Organization (SCO) as the main platform for coordination with China as it is the only one that includes China as a member¹. The SCO was designed as a security organization but, having bumped into the lack of trust and common understanding between the participants, expanded to include other aspects, such as research and development (the so-called SCO University).

Importantly, the Russian experts point out that the security-related incidents in the Central Asia are on the rise. Timofei Bordachev, an analyst influential within the Valdai Club circles, in his report “Russia and China in the Central Asia: a Win-Win Game”, refers to the July 5, 2016 shootings in Aktobe city, Kazakhstan, and comments that “the incident incited the external observers to suggest that the situation in Kazakhstan, which had been regarded as a perfect example of stability in the southern part of the post-Soviet space, could tighten significantly”².

In light of this situation, more voices in the security circles advocate that a joint military or peace-keeping force is necessary in the Central Asian region to tackle terrorism and political instability³. The only way that China could take

¹Luzianin S.G., Matveev V.A., Smirnova L.N. (Editor-in-chief Ivanov I.S.) Shanghai Cooperation Organization: Model 2014-2015. Russian International Affairs Council Working Paper No. 21/2015. russiancouncil.ru/en/paper21

²Timofei Bordachev. Russia and China in the Central Asia: the Win-Win Game. Valdai Paper No. 50, June 2016.

<http://valdaiclub.com/a/valdai-papers/russia-and-china-in-central-asia-the-great-win-win-game/>

³Andrei Uglanov. A Chinese elephant in our porcelain shop (a Russian idiom meaning: out of place). “Weekly Arguments” No. 25 (466) of July 9, 2015. <http://argumenti.ru/politics/n495/406728>

part in such a force would be to do it within the SCO framework. Since the SCO military drills have already involved China, it is theoretically plausible that a cooperation format could take a more permanent basis. If that happened, it could become a reasonable scale test of sincerity of peaceful intentions behind the Sino-Russian alliance and a major trust-boosting initiative in the areas of operational cooperation as well as joint research and development.

5. The computerized reading reveals that the Russians aspire to develop a full scale economic union in Eurasia

To further verify the findings, I have submitted sixteen articles (6 from “Vedomosti”, 6 ones from “Weekly arguments”, and 4 ones from “Valdai Club”, a total of 116026 words), all of them dated after the official launch of the “One Belt One Road” initiative on March 28, 2015, to the computerized SEO keyword search. Confirming the hypothesis that the “Vedomosti” and “Valdai Club” articles tend to be more straightforward, in most of the articles that appeared in these publications the computer was able to identify not only key words but entire key phrases. The full results of the computer analysis are presented in **Addendum 1**.

These are the key ideas identified by the computer:

- G20 is currently the world’s most important organization
- A comparatively long peaceful period inside the Central Asian region in the absence of serious conflicts opens opportunities for the development of new technologies
- The USSR completely exhausted the main resource of industrialization – countryside youth
- Russia is still not making use of opportunities for economic integration within the Shanghai Cooperation Organization
- In 2015, the total Chinese foreign direct investment (FDI) in the Commonwealth of Independent States (CIS) countries amounted to 27 bln USD; of this sum 23.6 bln went to Kazakhstan
- The leaders of the Eurasian Economic Union countries started direct dialogue with Beijing, which was evaluated in Moscow almost like a betrayal

After noting down these and other computer-identified keywords, I have resubmitted the entire keyword list to another round of SEO analysis. The squeezed result is presented in **Figure 2**. Rearranged into a sentence, it reads optimistically: *“in the rich in oil and gas region of Central Asia, the coordination between the Eurasian Economic Union and the Silk Road Economic Belt as well as the Shanghai Cooperation Organization should lead to a full economic union”*.

Figure 2

Results of SEO analysis of sixteen sample articles

+ belt eurasian economic union silk road economic	3
+ silk road economic belt	3
+ eurasian economic union	3
+ road economic belt	3
+ shanghai cooperation organization	3
+ silk road economic	3
+ a lot of	2
+ oil and gas	2
+ silk road	6
+ central asia	4
+ of the	4
+ cooperation organization	3
+ economic belt	3
+ economic union	3
+ eurasian economic	3

Certainly, the representativeness of this computerized reading is limited, first of all, because this sample is too small. So said, taking into account the relatively small number of the Russian experts who write on Chinese affairs, the opinions expressed in other publications largely overlap with those in the selection. Therefore, the sample should be encompassing enough to correctly reflect the mainstream debates. An even deeper understanding could be obtained if Big Data technology is applied to analyze a more extensive sample of articles from a greater variety of publication sources.

6. If the coordination plans fail, an increasingly unsafe Central Asian region might turn into an impassable buffer zone between Russia and China

So, what if the Eurasian dream fails? The lack of trust in the Central Asia is based on serious grounds. Besides the Central Asia being regarded as a military bridge-head to Eastern Russia, it is to be noted that Russia's interests and the interests of the Central Asian countries do not necessarily coincide but often contradict with each other. First, the Central Asian countries are, like Russia, exporters of natural resources, especially gas, to China, and therefore Russia's direct competitors. Second, following the abundance of historic ties, the Russian companies have large stakes in the Central Asian natural resources exports¹.

Another often disregarded but important factor is competition for the human resources. The Central Asian population is the main source of low-skilled labor in Russia. It is true that, as some Russian experts present it², remittances from migration are currently a significant revenue income for the Central Asian countries. However, the Central Asian migrants became the most discriminated group in Russia where they are referred to by the German term "gastarbeiter" that sounds denigrating in the Russian language. The economic development of Central Asia would put them into a much stronger position vis-à-vis their Russian employers or lift the necessity to work abroad altogether.

Overall, the nature of the differences between Russia, China, and the Central Asian nations are somewhat comparable to the situation in the former French colonies in Africa: the arrival of the Chinese companies has the advantage of boosting the confidence of the locals by challenging the excesses of the old monopolies. Yet, at the same time, it is feared as potentially leading to a new form of imperialism.

At this point, the argument between domestic and international politics again becomes circular, and the "Great Game", as the regional politics used to

¹ Terentiev, Denis. The Party of Genghis Khan: Will Russia Preserve its Influence over the Central Asia? "Weekly Arguments" No. 30 (521). August 4, 2016.

<http://argumenti.ru/toptheme/n550/461769>

² Ryazantsev, Sergey. Labor Migration from the Central Asia to Russia in the Context of Economic Crisis. Valdai Papers, No. 55, August 2016.

<http://valdaiclub.com/a/valdai-papers/valdai-paper-55-labour-migration-from-central-asia/>

be called in colonial times, turns into a tripartite exercise between Russia, China, and the “West”. With regard to the West, it is certainly true that an earlier argument that democracies can evolve beyond geopolitical interference in the affairs of others has by now lost much of its credibility. Many regimes in Central Asia, looking for a balancer to the Russians and being non-democratic in nature, might initially find the Chinese more empathic to their internal constraints than the Americans. Still, in the long term, the perception of the Chinese domestic politics as repressive and not enlightened, could either again tip the scale in favor of the West or, even likelier, in an ultimate move of desperation, in favor of Islamic extremism.

The most pessimistic scenario would be that an increasingly unsafe Central Asia follows the destiny of the Ukraine by becoming an impassable buffer zone between Russia and China. Sergey Tsypliaev of the Russian Presidential Academy of National Economy and Public Administration points out in the “Vedomosti” that, if the Russia-China cooperation fails, the “Silk Road risks to become a ‘iron circle’ for Russia.”¹ Taking into account that the awareness of the Chinese cultural and literary references among the Russian writers is swiftly improving, the “iron circle” here could be a deliberate metaphor for the “containment of Russia”. A similar reference is made in the Chinese classic novel “The Journey to the West” where a band was placed on the head of the rebellious main character the Monkey King by the Buddhist divinity Guanyin. The Russian thinking, it is known, tends to be rather extreme.

March, 2017

¹Tsypliaev, Sergey. West or East: Where Should Russia Pivot? Vedomosti No. 4037 of March 21, 2016. <https://www.vedomosti.ru/opinion/articles/2016/03/21/634337-zapad-vostok>

Addendum 1

*Computer-identified key words in a sample of 16 articles (116026 words)
published in three Russian publications*

Date	Title	Tags (if any)	SEO keywords
Daily Newspaper "Vedomosti"			
January 15, 2016	China prefers Kazakhstan		In 2015, the total Chinese foreign direct investment (FDI) in the Commonwealth of independent states (CIS) countries amounted to 27 bln USD; of this sum 23.6 bln went to Kazakhstan
February 19, 2016	Eurasian Economic Union and Shanghai Cooperation Organization: in search of growth resources		Russia is still not making use of opportunities for economic integration within the Shanghai Cooperation Organization
March 20, 2016	West or East: Where should Russia pivot?		Industrialization; equipment; internal factors of development; USSR completely exhausted the main resource of industrialization – countryside youth
June 15, 2016	Peresopriajenie ot uspekhov (roughly: Too much tensions over successes)		The leaders of the Eurasian Economic Union countries started direct dialogue with Beijing, which was evaluated in Moscow almost like a betrayal

Date	Title	Tags (if any)	SEO keywords
Daily Newspaper “Vedomosti”			
June 21, 2016	Syria could become an important international trade center		Silk road economic belt; great powers; oil and gas; Syria war; international trade; Qatar; Saudi Arabia; Iraq
September 2, 2016	G20 is more important than G8		G20 is currently the world’s most important organization
Weekly newspaper “Weekly Arguments”			
July 9, 2015	A Chinese elephant in our porcelain shop (a Russian idiom meaning: out of place)	SCO; BRICS; summit; Ufa	USA; India; former USSR; interstate alliances
September 10, 2015	Attending a Chinese business class	Beijing; China, forum	The Gate of Heavenly Peace (TianAnMen); military parade; penetrate their system; chairman Xi
November 12, 2015	Everything goes through Baikal–Amur Mainline (BAM) railway	Kremlin, Baikal–Amur Mainline and Trans-Siberian railway reconstruction	Trans-Siberian railways reconstruction; channel capacity; (natural resources) fields; tariffs; Soviet
December 24, 2015	There is a lot of oil at the place where there are a lot of mosquitos	Yakutia; senator; interview	Diamonds; gold; local population; permanent frost; federal budget subsidies
April 28, 2016	Dao of “no-love” (here means: the Silk Road that brings discord)	Pivot to the East; The Power of Siberia (a gas pipeline); failure	Gas exports to China; Chinese investments; oil suppliers; borders; reduce the quota of the Chinese farmers

Date	Title	Tags (if any)	SEO keywords
Weekly newspaper “Weekly Arguments”			
August 4, 2016	The Genghis Khan party: will Russia preserve its influence in the Central Asia?	Central Asia; Russia; politics	Gas (three times more; Turkmen gas; visa regime; “father of the nation”
Think Tank “Valdai Club”			
December 2, 2015	Eurasian Modernization Model for Russia	Russia; Europe; Asia; ASEAN; Silk Road; World Trade Organization (WTO); oil; economy	Oil and gas resources; industrial development model; economic regulatory system; financial stability; deepening economic cooperation
March 23, 2016	Flow of the Future	Eurasian integration; Russia; China; Europe	A comparatively long peaceful period inside the Central Asian region in the absence of serious conflicts opens opportunities for the development of new technologies
March 24, 2016	Russia and China: Asymmetry or Harmonization of Relations?	China; Russia; coordination; conference; Asia Pacific Region, Shanghai Cooperation Organization; Silk Road; Economic Belt Eurasian Economic Union	Silk Road Economic Belt; Russia, Central Asia; China; building high speed railways; Moscow – Beijing (transport) corridor
June 24, 2016	More China	Russia; China; coordination; USA; Eurasia; Central Asia; Silk Road	Great powers; international systems; foreign policy; internal politics

RETHINKING RUSSIA'S RETURN TO GLOBAL POLICY¹

*Mher Sahakyan**

Introduction

In the first decade of 21st century Russia managed to get out of the economic crisis, restore its military strength, and took the course to become a sovereign political pole. To understand the entire scope of Russia's reaction to difficult foreign challenges and to analyze its probable steps, it is important to investigate its foreign policy strategy.

On November 30, 2016, the Kremlin adopted the "Foreign Policy Concept of the Russian Federation" (hereinafter referred to as Concept), which was signed by President Vladimir Putin. In the future, Russian diplomacy will continue its operations within the framework of this document as one of its main legal pillars.

This Concept argues that Russian foreign policy aims to ensure security, independence and territorial integrity of the state. It must contribute to the development of the democratic and juridical institutions of the country, and also be used for the further growth of the Russian economy [1, p. 1-2].

It is worth mentioning that due to the Concept, one of the main aims of Russian foreign policy is making Russia one of the most influential centers in the modern world [1, p. 2]. This clause of the Concept describes that in the future, Russia will be more actively involved in international politics. It will try to create new spheres of influence and find new allies and supporters, with whom it will be able to defend its national interests and reap benefits from different international developments.

¹This Paper was presented during "Clashing Visions: Russian Foreign Policy in the Age of Xi and Trump" conference on May 26, at St. Antony's College, University of Oxford.

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It is worth mentioning that Russia has powerful levers to implement the aforementioned aims; the following circumstances can be mentioned:

1. Russia is a permanent member of the United Nations Security Council (UNSC). This factor provides Moscow with an opportunity to make its voice heard on the main platform for creation of international law. The permanent membership gives Russia veto power, which means that the other parties of the UNSC cannot adopt any resolution without Russia's agreement. Thus, Russia remains in the group of main players in world affairs. It is the main reason why the new Foreign Policy Concept of Russia mentions that Russia will make efforts to strengthen the role of the UN.
2. Even after the collapse of the Union of Soviet Socialist Republics (USSR or Soviet Union), Russia still possesses the second most powerful military arsenal in the world, strengthened by modernized nuclear weapons. Only Washington surpasses Moscow with its military capabilities. To strengthen and modernize its military capabilities, Russia plans to invest \$700 billion before 2020 [2, p. 24].
3. Russia possesses tremendous sources of energy and other natural resources that provide Russia with an opportunity for further development. Even during recent years, when prices on energy resources have drastically decreased, this factor has still played a significant role in Russia's foreign policy, as Russia gets some economic and political influence in the countries it supplies with its energy resources.
4. Russia's geographic location also has its impact, as it provides great opportunities to the Russian navy and air force to maneuver from East to West. This geographic advantage also gives Russia wide economic prospects, as it is a unique bridge connecting Europe to Asia.

This paper aims to analyze and answer the following questions: Which directions will the "Russian bear" move towards? Which tools and sources will be employed by Moscow for implementation of its foreign policy? Which kinds of developments will take place in the era of Russia's return to big policy?

***From the Commonwealth of Independent States (CIS)
to the Eurasian Economic Union (EAEU)***

In the section on regional priorities of the Foreign Policy Concept of the Russian Federation, it is stated that Russia's main aim is to develop bilateral and multilateral relations with the CIS member-states and foster implementation of integration projects within this organization with Russia's involvement [1, p. 22-23]. In the 51st clause of the Concept, it is written that in the framework of the Eurasian Economic Union, it is very important to develop relations and implement joint projects with Armenia, Belarus, Kazakhstan and Kyrgyzstan [1, p. 23].

The main purpose of this ambitious plan is to unite the former republics of the USSR, not yet integrated in other economic or political unions, into one political and economic union. Firstly, it regards republics, which after the collapse of the USSR, could not adapt to challenging modern world developments. These states have not yet found the pathways to their due economic and political roles that could make them interesting for the world's other main players, and as a result their economies have been destabilized and contracted greatly. These states are in deep political and economic crises, and they have also security problems, as they are not able to secure their countries without the help of third parties. In this regard, in 2005, the Russian President Vladimir Putin mentioned that the disappearance of the USSR was a "major geopolitical disaster" [5, pp. 30-38]. Indeed, it was a disaster for the most of the USSR's former member states and for its main allies. One day the citizens of the USSR slept in the one of the most powerful countries in the world, and the next day they woke up in a field state with a difficult political and socio-economic situation. In some of the former USSR republics, interethnic clashes were initiated. It seems that Post Soviet states would be also very interested in integration with the EAEU, but the situation is much more complicated, because of the many conflicts acquired as a result of the USSR's collapse. These unresolved issues create problems for integration processes in the Post-Soviet space.

The second main obstacle to integration developments in this space is the stance of the West, which tries not to allow possible "reconstruction" of the USSR. The Ukrainian revolution, which was fully supported by the West, can be considered the main argument for this second hypothesis. As a result of

this political turmoil in Ukraine, Kiev broke its ties with Moscow, and did not join the EAEU, which is led by Moscow. Additionally, the clashes between the Ukrainian military forces and the Russian population in East Ukraine create barriers between the two Slavonic nations, which are connected to each other by various historical and cultural ties.

In addition, the economic situation in Russia was heavily damaged by the Western sanctions and the decreasing price of energy resources. Regardless, even in this challenging situation, Russia could have some success in Syria, where Bashar al-Assad was able to get out of a troublesome situation and start his counterattack with the help of Russian air forces. In East Ukraine, Pro-Russian forces also keep a huge territory under their control.

The Russian Bear Tries to Save its Burned Middle Eastern Hives

From a Russian perspective, the resolution of the Syrian conflict is possible via the restoration of the territorial integrity of the Syrian Arab Republic [1, p. 33]. By the way, Russians can agree with Turkey and Iran on ridding Aleppo of terrorists and the so-called Syrian moderate opposition, and afterwards on the return of this strategically important city to Assad's regime¹. It is worth mentioning that this unique triangle (Russia-Iran-Turkey), composed of such different states, could come to a conclusion without making an agreement with the US on this issue. As Sergey Lavrov, the Russian Foreign Minister, mentioned, the last agreements with Washington were declined because of the US. At the last one, they were unable or unwilling to make a distinction between so-called "Moderate opposition groups" and "Islamic State" ISIS, "an-Nusra" and other fundamentalist terrorist organizations. He added, that Russia will continue its cooperation with Ankara, Tehran and other regional powers in the Syrian crisis².

In the Foreign Policy Concept of the Russian Federation, it is mentioned that international society must jointly fight against terrorists and prevent

¹ Интервью С.В. Лаврова агентству «Интерфакс» 27 декабря 2016, <http://www.russia.org.cn/ru/news/intervyu-s-v-lavrova-agentstvu-interfaks/>

² Интервью С.В. Лаврова агентству «Интерфакс» 27 декабря 2016, <http://www.russia.org.cn/ru/news/intervyu-s-v-lavrova-agentstvu-interfaks/>

creation of dangerous organizations such as ISIS. Additionally, the Russians offer to create a coalition which will battle against terrorism and operate based on an agreed-upon legal framework.

Russia's tough stance on the Syrian crisis and its main aim to finally destroy radical Islamists, who are spreading their ideology worldwide, formed partly because Russia has millions of Muslim citizens, and by struggling against Islamic fundamentalism in Syria, Russia is trying to stop the proliferation of this "dangerous disease," which is called "the Ideology of ISIS", on its own territory.

Being one of the Permanent Members of the United Nations Security Council (UNSC), Russia plays a significant role in the resolution of the Iranian nuclear issue. On the Iranian diplomatic "front," international society could achieve some success due to the constructive role played by Russia and other partners. It is worth mentioning that Russia perennially had disagreed with the US on regime change in Iran under the shadow of the struggle against nuclear proliferation [7]. Russia was against solving this problem by military means and also against unilateral sanctions imposed by the West and its partners to bring Tehran to its knees, as those sanctions were not approved by the UNSC. Playing a constructive role, Russia offered to solve the Iranian nuclear issue using a step-by-step method, which later formed the basis for success in multilateral negotiations with Iran [8, p. 20].

Modern Russian-Turkish relations can be described as a series of ups and downs, but it is a fact that both sides exert importance on bilateral economic and political relations. The main argument of the aforementioned hypothesis is that the crisis of the Russian-Turkish relations was very short. This crisis started when Turkish forces shot down a Russian military jet along the Syrian border. Nevertheless, there is now a new political situation in the Middle East. As the US is trying to leave or showing that it would like to leave this region, it is possible that a new Russian-Turkish confrontation will emerge to divide spheres of influence, and of course, Iran will also participate in this struggle to protect its own national interests.

The Russian Far Eastern Vision or the Russian Bear Looks towards Beijing

In the Foreign Policy Concept of the Russian Federation, it is mentioned that the world's potential is clearly being concentrated in the Asia-Pacific region, and consequently the West is gradually losing its historical role as a political and economic leader of the world [1, p. 3]. In this context, the emerging Far Eastern superpower China is worthy to note, because through its "Silk Road Economic Belt" and the "21st-century Maritime Silk Road" programs (The Belt and Road), it is trying to enlarge the scope of its influence [9, p. 43]. It is interesting that the Russian President Putin does not view the new Chinese initiative as a threat; on the contrary, he believes that the EAEU and the Belt and Road must be combined¹.

It is apparent that in these circumstances, as a result of aggravated relations between Russia and the West, Moscow will deepen its relations with Beijing. It is also mentioned, in the 84th clause of the Concept, that Russia will increase its political and economic cooperation with China [1, p. 31]. But it is important to mention that China is unable to close the gap in the Russian economy, which emerged after the worsening of Russian-US and Russian-EU relations, alone. As Stanford University Professor Stephen Kotkin mentioned, "A ballyhooed 'strategic partnership' with China, meanwhile, has predictably produced little Chinese financing or investment to compensate for Western sanctions" [4, p. 7].

Unlike economic relations with slow growth, Russia and China have succeeded in forming close political cooperation. As a result of close political cooperation, Russia and China try to act as partners during negotiations on resolution of the Iranian and DPRK nuclear issues, as well as the problem of the South China Sea and Syrian crisis. In this regard, it is also worth mentioning the tough Sino-Russian position² against the decision of the US and South

¹ Владимир Путин принял участие в пленарном заседании юбилейной, 70-й сессии Генеральной Ассамблеи ООН в Нью-Йорке, 28 сентября 2015 года, <http://kremlin.ru/events/president/news/50385>

² Zhang Yunbi, "Beijing Urges Caution as Seoul Considers THAAD Missile System," China Daily, 13 January 2016, from [http://www.chinadaily.com.cn/world/2016-01/13/content_23075032.htm?mk_t_o_k=3RkMMJWWff9wsRous6rIZKXonjHpfsX66eotXaG%2BIMI%2FOER3fOvrPUfGjI4jSsprI%2BSLDwEYGJlv6SgFSrnAMbBwzLgFWhI%](http://www.chinadaily.com.cn/world/2016-01/13/content_23075032.htm?mk_t_o_k=3RkMMJWWff9wsRous6rIZKXonjHpfsX66eotXaG%2BIMI%2FOER3fOvrPUfGjI4jSsprI%2BSLDwEYGJlv6SgFSrnAMbBwzLgFWhI%2B)

Korea to place THAAD systems (Terminal High Altitude Area Defense) next to the border with North Korea, making them capable of destroying missiles fired from Russian and Chinese territories as well as North Korean.

Russia is against the proliferation of nuclear weapons on the Korean peninsula. As in the case of Iranian nuclear issue, Russia does not wish to see new turbulence in the Korean peninsula due to the DPRK nuclear issue, and favors a peaceful solution to this issue through political and diplomatic efforts and negotiations [1, c. 32]. From my point of view, Moscow has agreed to follow China's lead on the DPRK nuclear issue in the UNSC, in exchange for China following Russia's lead on the Iranian nuclear issue.

It is worth mentioning that Iranians attempted to derive benefits from Sino-Russian cooperation in the UNSC. In this regard, Hassan Rouhani said, "We knew that if we could turn Russia to our side, China would also stand next to us [15, p. 220]."

Closing, but Still Unclosed Doors to the West

Although it is mentioned in the Concept that Russia will continue implementation of the reduction and limitation of its strategic offensive arms, which it is undertaking due to Russian-American agreements, [1, p. 11] it must be mentioned, that the current escalation of tensions in Russia-US relations may complicate the possible conclusion of new arms-reduction agreements. Moreover, in this situation, there is the risk that both sides may abandon the agreements reached previously and start a new arms race, like that which existed during the Cold War. The Concept also condemns NATO and EU policies in the Euro-Atlantic region. In this document, Russia deems the policies being implemented by these two Western organizations expansionism.

It is mentioned that the idea to create a "European Common Security Framework" has remained on paper, and the main reason behind the escalation of tensions in relations between Russia and the West is the joint strategy of the US and its Western partners to contain and isolate Russia [1, p. 25].

After the collapse of the USSR, when the former members of the Warsaw Pact started to join NATO, Russia tried to understand on which levels these processes helped or contradicted the national interests of Russia. It is

worth mentioning that from 1988 to 1999, Russia reduced its army's personnel from 5 mln. to 1 mln. people [10, p. 98].

As a Russian researcher Aleksandr Barsenkov mentioned, in the early 90s, the Russian President Boris Yeltsin announced that Russia was ready to begin integration into NATO—one of Russia's long-term goals in its foreign policy. After several years Yeltsin added that Russia is against NATO enlargement without Russia [10, p. 87]. Furthermore, when Yevgeni Primakov was appointed as the Russia's Minister of Foreign Affairs, he announced that Moscow was against NATO's enlargement, because it was a threat to the Russians; due to NATO enlargement, soon Russia would be left alone, surrounded by NATO members. As Yevgeny Primakov mentioned in his book about negotiations on the enlargement of NATO, "on July 30, 1996, during my meeting with Malcolm Rifkind, the Secretary of State for Foreign and Commonwealth Affairs of the UK, I mentioned that there are two red lines regarding NATO's enlargement which Russians will not allow to be crossed. The vertical red line means that Russia is against the placement of NATO infrastructure next to Russian borders by drawing in new members, and the horizontal one means that Moscow will never approve of the Post-Soviet Baltic or post-Soviet States joining NATO [11, p. 226]."

This stance remains one of the most important pillars of Russian Foreign policy regarding the enlargement of NATO, and because of this foreign policy priority, Russia has tried to express its disagreement by presenting a tough reaction to Georgia's and Ukraine's desire to join NATO.

High-level Russian officials are convinced of the idea that NATO has an anti-Russian orientation. The main argument for this hypothesis may be Russian President Vladimir Putin's speech in the General Assembly of the UN. He stated, "Sadly, some of our counterparts are still dominated by their Cold War-era bloc mentality and the ambition to conquer new geopolitical areas. First, they continued their policy of expanding NATO – one should wonder why, considering that the Warsaw Pact had ceased to exist and the Soviet Union had disintegrated."¹ It appears that NATO is the West's main lever for deterring Russia, and also the West's unique watchdog, used to topple regimes

¹ Владимир Путин принял участие в пленарном заседании юбилейной, 70-й сессии Генеральной Ассамблеи ООН в Нью-Йорке, 28 сентября 2015 года, kremlin.ru/events/president/news/50385

which are not playing according to Western rules.

This Russian-American confrontation also takes place in cyberspace. The countries are engaged in a *real* warfare there. On the American side, with the help of Russian hackers, information about Hilary Clinton's official electronic correspondence was spread worldwide, which had an influence on the results of presidential elections in the US. As a result, Clinton lost votes. Because of these Russian-American clashes in cyberspace, the Obama administration deported Russian diplomats from the US, accusing them of involvement in cyberattacks perpetrated against the US. Putin did not respond to this measure with an equally aggressive answer, and instead announced that he had no wish to fall to the level of "kitchen diplomacy." With this step, he did not participate in the burning of the Russian-American "last diplomatic bridge". He confirmed once again that he is ready to cooperate with Donald Trump, elected president of the US, and that he did not want to escalate the situation.

The main reason for the recent Russian-American clashes is described in the following statement of Professor Feodor Lukyanov, head editor of the *Russia in Global Affairs*. He said, "The era of bipolar confrontation ended a long time ago. But the unipolar moment of US dominance that began in 1991 is gone, too. A new, multipolar world has brought more uncertainty into international affairs. Both Russia and the US are struggling to define their proper roles in the world [5, p. 31]."

However, it is also important not to forget that the Russia's economy is equal to only 1/15th of the US economy [4, p. 3] and while in 2016, Russia was able to keep its balance and avoid economic collapse, in the future, confrontation with the West may become more harsh and dangerous.

After the referendum on the status of Crimea, when Crimea was integrated into Russia, both the US and EU adopted sanctions against Russia. In June 2016, during the St. Petersburg International Economic Forum, President Putin offered several proposals for normalization of Russia-EU relations to European Commission President Jean-Claude Juncker, but in 2016, the EU prolonged sanctions on Russia¹. Further development of Russia-EU relations

¹ Кортунов Андрей, Внешняя политика России 2016. Достижения и неудачи. Российский Совет по международным делам, 31 декабря 2016, russiancouncil.ru/inner/?id_4=8543#top-content.

also highly dependent on the US foreign policy under Donald Trump, because up to now the US decisions have had profound influence on the generation of EU foreign policy.

Taking into consideration the fact that nowadays, the EU's main leader is Germany, from my point of view, the political developments that have taken place in Ukraine can be placed within the framework of Russian-German historical clashes, but now in a new confrontation. Throughout history, the German political elite were interested in the East, where it clashed with Russia several times, and as a result was forced to retreat. Until 1945 the Germany's eastern policy consisted of trying to conquer Eastern Europe by military means, but this strategy failed. It appears that the German political thought has made new calculations, and now it tries to spread its influence not with weapons, but using its economic leverage—Soft Power. As a result of this new “Eastern Policy,” the majority of Eastern European countries have already joined the EU.

Because of the new Russia-West confrontation, Ukraine has been divided into two parts. On one hand, Western Ukraine has started cooperating with the West and set integration into the EU as its long-term political goal. On the other hand, Crimea and Sevastopol have been integrated into Russia, and Eastern Ukraine is still controlled by pro-Russian military groups.

It is worth mentioning that the annexation of Crimea by Russia was seen as a possibility by the Ukrainian political elite long before 2014. Back in 2007, the former Ukrainian Prime Minister Yuliya Tymoshenko wrote in “Foreign Affairs” that Russia must not be permitted to use Kosovo's independence from Serbia as a precedent to promote secessionist movements, most importantly a Crimean secessionist movement, in attempt to destabilize national governments [12, p. 28].”

However, the Russian Foreign Minister Sergey Lavrov mentioned that Russia has no intention to continue confrontations with the US, EU and NATO. As he stated, the best option for defense of the interests of the European continent's population may be the creation of a single economic and humanitarian space, which would be extended from the Atlantic to the Pacific

Ocean. He added that the newly established EAEU could become the best bridge for integration processes between Europe and the Asia-Pacific¹.

Non-Traditional Forms of Classical Diplomacy: New Directions

It is mentioned in the Concept that soft power must be one of the most important tools of the Russian foreign policy, and must be widely used by Russian diplomats [1]. The “Gerchakov Fund”² and the “Russian World” foundation³ actively atc towards the improvement of the Russia’s reputation and the creation of a network of supporters worldwide. They grant scholarships and organize special courses to represent the Russian language, as well as the Russian culture, history and policy. In the new Concept, the Russian diplomacy places high value on the preservation of Russian communities and Russian identity around the world [1]. It is worth mentioning that Russia has started to place importance on the involvement of the Russian Diaspora in its foreign policy. It means that Russian diplomats plan to use public diplomacy to achieve their main goals.

The 48th clause of the Concept states that Russia must take steps to use the potential of Russian researchers in its public diplomacy by activating contacts between the Russian and foreign scholars [1]. Currently Russia executes many powerful analytical centers, for instance: the Russian Council on International Relations, the PIR Center, the Valdai International Discussion Club, and others, which, with the help of modern technologies, distribute their publications in both Russian and English.

Conclusion

It is worth mentioning, that Russia acknowledges its responsibility for the maintenance of security on both regional and global levels in the 21st and 22nd clauses of the Concept. This document mentioned that throughout its history Russia has always played a unique role, balancing international relations and

¹ Лавров Сергей, Историческая перспектива внешней политики России. Россия в глобальной-политике, 3 марта 2016 года, http://www.mid.ru/web/guest/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/2124391

² “Gerchakov Fund,” <http://gorchakovfund.ru/>

³ “Russian World” Foundation, <http://www.ruskiymir.ru>

contributing to the development of civilization [1, p. 8]. Professor Stephan Kotkin does not agree with this idea; as he mentioned, “Until Russia brings its aspirations into line with its actual capabilities, it cannot become a ‘normal’ country, no matter what the rise in its per capita GDP or other quantitative indicators is [4, p. 6].”

Because of the West’s attempts to isolate and deter Russia, the country started to implement aggressive policy to defend its national interests and break the potential blockade. As a result, Russia reunited with Crimea and Sevastopol. As Dmitri Trenin, Director of the Carnegie Moscow Center, mentioned, the “annexation of Crimea was an exercise in historic justice for most of the Russian public [2, p. 29].” A similar opinion was also expressed by Fyodor Lukyanov. He mentioned, “Russians had always viewed Crimea as the most humiliating loss of all the territories left outside of Russia after the disintegration of the Soviet Union. Crimea has long been a symbol of post-Soviet unwillingness to fight for Russia’s proper status. The return of the peninsula righted that perceived historical wrong [5, p. 35].”

By retaking Crimea and maintaining Assad’s regime, Russia ruined the West’s plans, due to which Russia could have been ousted from two seas, the Mediterranean and the Black. In short, due to its support of Assad, Russia extended its military bases in Syrian Latakia, and by reconquering Crimea, it kept the dominant strategic stance of the Russian navy on the Black sea.

After the collapse of the USSR, during the Syrian crisis and Ukrainian political turmoil, Russia has demonstrated that it is capable of defending its national interests, not only via declarations and negotiations, but also by exerting its influence and projecting its power on a global scale by combining its military and economic strength.

It is worth mentioning, that after the reunion of Crimea and Russia, Putin’s approval rating immediately bumped up, and as of February 2016, it had remained over 80 percent for 23 months [14, p. 44]. This fact once again argues that Russian foreign policy receives approval from the larger part of the Russian population. Which developments will take place in the era of Russia’s return to big policy?

If Russia unites most of the Post-Soviet States in one economic and political block, it could form a new strong pole, which could become an alternative to the US and China's political models. Russia chose the so-called Eurasian ideology for uniting different Eurasian nations under the umbrella of the EAEU. Indeed, this ideology can provide an opportunity to various states which were not brought into the EU or other integration programs projected by the West to join EAEU. The other argument is that if Russia and China will be able to harmonize the EAEU with the Chinese "One road, One Belt" program, they can form a very strong pole, and thus they will irreversibly change the unipolar world order, which was created at the end of the Cold War.

Russia's return to global big politics means that the role of the UN will be strengthened. If, in the recent past, the US underestimated the role of UN, and many times made several steps without waiting or consulting with the UN, now it will be obliged to, because Russia and China can keep them in the same manner. As a result, international society will face dangerous chaos. Thus, Russia's return to "global big politics" will bring balance to the world affairs. The development of the EAEU will provide an opportunity to improve the economic situations of the Post-Soviet states, which are not in good political, social and economic condition.

The process of integration into the EAEU will provide opportunities for development to most of the Post-Soviet states which are still mired in political turmoil and economic hardship. The only predicament with Russia's return to global big politics is that it can lead to new political crises in the world, arms races, a continuation of the so-called Cold war, wars, and victors and losers, if this return is seen by western capitals as a great threat.

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THE LAST DECADE OF GERMANY'S RUSSIA POLICY: CHANGES THROUGH THE PRISM OF OFFICIAL DOCUMENTS AND SPEECHES (2005-2016)¹

David Sarkisyan

Introduction

The “neglected phenomenon” (Holsti, 2016) of change and restructuring in foreign policy has greatly increased in relevance against the background of recent years’ swift redirections in policy courses of a number of countries.

One of the most significant changes has occurred in Germany’s Russia policy. The relationship has collapsed from the strategic partnership level to the application of economic sanctions. Though the sanctions policy towards Russia holds for several consecutive years, cooperation between Moscow and Berlin continues on a number of issues, including the economic ones. Thus it’s difficult to fit the reality in the narratives of purely confrontational or cooperative discourses.

Therefore, this paper traces the levels of change in Germany’s foreign policy towards Russia during the chancellorship of Angela Merkel. There will also be focus on the crises of 2008 and 2014 and try to explain why they had radically different effects on German foreign policy towards Russia.

To answer these questions, Hermann’s conceptual scheme (1990) is applied, as well as comparative case study analysis of the two crises for each decision stage identified in the scheme.

In this context, the official domestic and bilateral political documents serve as a litmus paper, which identifies the prevailing tendencies of the bilat-

¹The paper was presented at the 75th Annual Midwest Political Science Association Conference, Chicago 2017, Panel Session: Text as Data in Foreign Policy: Op Code and Content Analysis.

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eral relationship. Therefore we will supplement the theoretical analysis with empirical evidence from the textual data.

The main themes of Germany's official political discourse towards Russia and their dynamics throughout the chancellorship of Angela Merkel, since November 2005 until April 2016, will be analyzed.

The methodology of the empirical part of the research involves traditional document analysis and quantitative content analysis. Among the studied textual sources are:

- The election manifestos of the five largest German parties: Christian Democratic Union/Christian Socialist Union (CDU/CSU), Social-democratic party of Germany (Sozialdemokratische Partei Deutschlands - SPD), Free Democratic Party (FDP), the Greens and the Left, as well as the three coalitional agreements from 2005, 2009 and 2013¹.
- 564 documents related to the Russo-German relations of 2005 November-2016 April period (archived in the electronic repository² of the Ministry of Foreign Affairs of the Russian Federation).
- 193 speeches of Merkel³, delivered since the annexation of Crimea throughout the period of 2014 March – 2016 April were used to determine the micro-dynamics of the foreign policy change caused by the Ukrainian crisis.

¹ *CDU, CSU and SPD*, Working together for Germany with Courage and Compassion: Coalition Agreement between the CDU, CSU and SPD, Berlin, 2005, from http://bundesregierung.de/Content/EN/Artikel/2004_2007/2006/01/_Anlagen/coalition-agreement951220.pdf?_blob=publicationFile&v=1, Oct. 10, 2016.

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CDU, CSU und SPD, Deutschlands Zukunft gestalten: Koalitionsvertrag zwischen CDU, CSU und SPD, Berlin, 2013, from: <https://www.cdu.de/sites/default/files/media/dokumente/koalitionsvertrag.pdf>, Oct. 10, 2016.

² *Министерство иностранных дел Российской Федерации*, Внешняя политика. Двусторонние отношения. Федеративная Республика Германия. From <http://www.mid.ru/maps/de/?currentpage=main-country>, Accessed: Oct. 10, 2016

³ *Die Bundesregierung*, Reden, from https://www.bundesregierung.de/SiteGlobals/Forms/Webs/Breg/Suche/DE/Nachrichten/Redensuche2_formular.html?nn=391814&doctype.HASH=08c66c768cd5cb24e3d&path.HASH=e8e874fa01e22e8f2512&searchtype=news&path=%2Fbpainternet%2Fcontent%2Fde%2Frede*+%2Fbpainternet%2Fcontentarchiv%2Fde%2Farchiv17%2Frede*&doctype=speech&searchtype.HASH=ec0d611f8a232224ded3, Accessed: Oct. 10, 2016

The paper will proceed as follows. In the first part, there will also be discussion of the conceptual framework of foreign policy change developed by Hermann. Afterwards it will be applied to Germany's Russia policy under Merkel in 2005-2016. The levels of foreign policy changes will be determined and the time span will be classified into sub periods divided by them. In the following parts the outlined foreign policy change levels will be tested against the textual data from the key domestic and bilateral policy documents of the examined period. Next, there will be the examination of the different effects of geopolitical crises of 2008 and 2014 on Germany's foreign policy change levels applying Hermann's scheme of 7 phases in the decision process of a major foreign policy change. Finally, there will be the illustration of the micro-dynamics of framing the new image of Russia, according to the new problem/goal change in the German foreign policy, using the results of the content analysis.

The concluding part will sum up the discussion and outline the contributions to the literature.

A Conceptual Scheme of Foreign Policy Change

Hermann identifies "four graduated levels" of major foreign policy change: *adjustment changes, program changes, problem/goal changes and international orientation changes*. While the initial level merely implies quantitative variation in effort, the second level requires a qualitative change in methods serving a given foreign political goal. Problem/goal change deals with the replacement/forfeiting of a problem or a goal itself. Finally, the ultimate level of international orientation change signifies a total reorientation in world affairs.

Hermann also introduces the taxonomy of four change agents: *leader, bureaucratic advocacy, domestic restructuring and external shock*. Leader-driven change is conditional on the "conviction, power and energy" of the head of executive to force the government to alter the course. The second agent implies some governmental group advocating for a change in foreign policy. In case of domestic restructuring, a societal segment, whose support the regime crucially relies on, acts as the driver of change. Finally, "dramatic international events", the external shocks, can also act as a trigger of change.

The impact of each of these change agents does not have to take place in isolation; rather there may be an interaction between the four with one activating the other.

Finally, Hermann identifies 7 phases of a major foreign policy change that a decision process proceeds through. There will be the discussion of these phases as applied to Germany's Russia policy later in this paper.

Change and Continuity in Germany's Russia Policy under Merkel

There is argument in this paper that Germany's Russia policy under Angela Merkel can be divided into four main periods.

1. 2005-2008,
2. 2008-2012,
3. 2012-2014,
4. 2014-2016

The first phase, which started with Merkel taking the post of the chancellor in the end of 2005 and lasted approximately until the August war of 2008, has been mostly characterized by continuity of the Schroeder's era policies. There were several minor corrections to the overall course. E.g. Merkel was more prone to criticize Russia on the lack of progress in democratization and on the situation with the human rights than her predecessor. The rhetoric of the strategic partnership has also been toned down in comparison with the Schroeder's period (more on that in the next chapter). However, all these amendments were carried out at the *adjustment level* with no major policy change. The economic cooperation was on the steady rise and political collaboration continued. The main agent behind the adjustment changes was the *leader* herself. Unlike Schroeder, who had a personal friendship with Putin, Merkel introduced a more business-like, pragmatic atmosphere in the German-Russian relations. Other factors were the *domestic restructuring and bureaucratic advocacy* which took the form of social-democrats (SPD) losing their ground to Christian Democratic Union/Christian Socialist Union (CDU/CSU) as the result of the elections in 2005. CDU/CSU was generally more critical of

Russia than the SPD, which is reflected in its last three pre-election manifestos and key speeches of the politicians.

In 2008-2012, until the return of Vladimir Putin to presidency, the German-Russian relations underwent much more significant changes. Applying Hermann's taxonomy, the observed alteration of policy is argued to be at the level of *program change*. Namely, the new instrument of Partnership for Modernization was introduced; stronger emphasis was placed on enhancing liberal contacts and other means of engagement. However, the initial *goal*, which the policy addressed, i.e. enhancing cooperation with Russia and making it cooperate in return, remained unchanged. There were two *external shocks* in this period: the Georgian War and the transition of presidency to Medvedev. The latter *shock* was a positive one, and resulted in a more active engagement approach (*program change*) on the German side, while Medvedev was considered to be a more liberal and Western-oriented leader than Putin. In its turn, the Georgian War did not spark a negative change in Germany's Russia policy.

In 2012-2014, since the beginning of Putin's third term as the president, the general trends laid in the previous period had not been reversed until the Ukrainian crisis. Though Putin's return and the accompanying consolidation of authoritarianism in Russia were negatively received in Berlin, the Partnership for Modernization was not cancelled. This was partly due to the *degree of institutionalization* factor (the extent of government's commitment to a policy) mentioned by Goldmann (1988, p. 44). Some researchers (Forsberg, 2016) see the roots of current alteration of Germany's Russian course in 2012; however, no major policy change occurred in 2012-2014 period, rather a number of adjustments, with positive rhetoric in the official speeches and documents being toned down once again.

Finally, the most profound shift in Germany's Russia policy, argued to be at the level of *problem/goal change*, occurred in the aftermath of the Ukrainian crisis. The Russian aggression in Ukraine constituted a totally new *problem* for German foreign policy. Economic sanctions, as well as a series of political measures, like cancelling the EU-Russia annual summits, were

adopted at the *program change* level to address the solution of the new *problem/goal*. Siddi argues (2016) that no “major reconsideration of German foreign policy” towards Russia has occurred, because the engagement approach and Ostpolitik have not been abandoned altogether. However, despite the abovementioned *program changes*, which already constitute a *major foreign policy change* in Hermann’s interpretation of the term, a containment dimension was added to the overall Russia policy. The new *goal* of containing Russia has been mixed with engaging it in a conengagement approach propagated by Ischinger (2015). The primary reason for this change was, of course, the *external shock* of the annexation of Crimea and the support for the separatists in the East of Ukraine. At the same time, this *external shock* (unlike the Georgian war) caused a significant *domestic restructuring* both among the political parties (Adomeit, 2015) and the general public (Stokes, 2015) which in its turn affected the *leader* (chancellor). Summing up this brief historical excursus, it can be noted that there were two *major changes* (in Hermann’s understanding of the term) in Merkel’s foreign policy towards Russia in 2008 and in 2014, and both of them were connected with *external shocks*. However, the effects of these shocks on foreign policy were radically different.

In the following parts of the paper evidence from textual data is presented to support the abovementioned arguments that German foreign policy towards Russia underwent adjustment changes in 2005-2008, program change in 2008-2012, more adjustment changes in 2012-2014 and a major goal/problem change in 2014-2016.

Germany’s Russia Policy in the Three Coalition Agreements: Comparative Analysis

This discussion starts with the comparative analysis of the three coalition agreements of 2005, 2009 and 2013. In the 2005 agreement there is only one paragraph devoted to Russia. It starts with a sentence on Germany’s intention to work towards a strategic partnership with Russia together with the European partners. The term “strategic partnership”, which was a heritage of Schroeder’s era, has been subsequently eliminated from the two following

agreements. Germany has also expressed its interest in Russia's modernization process through increased political, economic and societal cooperation. "A Russia which prospers and which – guided by the values to which Europe is committed and taking into consideration its traditions – successfully completes its transformation into a stable democracy" has been proclaimed as the aim of this modernization¹. The agreement of 2009 points out the German willingness to assist Russia in reducing shortcomings in the areas of human rights, the rule of law and democracy². The mentioning of the shortcoming in the abovementioned aspects of Russian domestic politics was initiated during Merkel's chancellorship and it did not occur during Schroeder. In 2005 CDU/CSU, FDP and the Greens³ mentioned the problems in the spheres of democratic development and human rights in Russia in their election programs. However, these points were not included in the coalition agreement probably because of SPD's opposition which has never touched upon these issues in its election manifestos in 2005-2013. Parallel to the strengthening of CDU/CSU's positions these points were included in the subsequent coalition agreements. These were expressions of the abovementioned adjustment changes of 2005-2008 period in Germany's Russia policy, while no major measures like sanctions for human rights violations were adopted by Berlin.

The sentence on the expansion of economic ties and creation of "long-term, reliable energy partnerships without one-sided dependencies" has practically been pasted into the 2009 agreement from the coalition agreement of 2005. This implies continuity in the economic policy regardless of the junior coalition partner (SPD or FDP). Another constant of Germany's Russia policy is embedded in the repetition of the thesis on the importance of cooperating with Russia when it comes to the solution of a number of regional and global problems.

¹ *CDU, CSU and SPD, Working together for Germany with Courage and Compassion: Coalition Agreement between the CDU, CSU and SPD*, Berlin, 2005, from http://bundesregierung.de/Content/EN/Artikel/2004_2007/2006/01/_Anlagen/coalition-agreement951220.pdf?__blob=publicationFile&v=1, Oct. 10, 2016.

² *CDU, CSU and FDP, Growth, Education, Unity: Coalition Agreement between the CDU, CSU and FDP*, Berlin, 2009, from https://www.fdp.de/files/565/2009-203_en_Koalitionsvertrag_2009.pdf, Oct. 10, 2016, p.171

³ *CDU, CSU, Deutschlands Chancen Nutzen: Wachstum, Arbeit, Sicherheit. Regierungsprogramm 2005-2009*, Berlin, 2005, S. 37

FDP, Arbeit hat Vorfahrt: Deutschlandprogramm 2005, Berlin, 2005, S. 49

Die Grünen. Wahlprogramm 2005. Berlin, 2005, S. 51

An interesting point of 2005 agreement was the offer to support Russia in creating better conditions for a political solution to the Chechen conflict. The concern regarding the acceptable political solution of this conflict was expressed in the pre-election manifestos of FDP and the Green party¹. Subsequently, this thesis lost urgency and was excluded from the next agreements.

The point on the common neighbors of Russia and Germany deserves a special mention. The 2005 agreement contained the following phrase: "We want to shape our relations with Russia in a way that includes our common neighbors in a spirit of friendship and trust". It was borrowed from the election program of CDU/CSU². In 2009, however, a more firm and assertive formulation was used: "We **will** take into consideration the legitimate interests of our neighbors in our bilateral relations with Russia." The Russo-Georgian war of 2008 and the exclusion of SPD (the main advocate of Russian actions during the war³) from the coalition of 2009 had an influence on the German attitude towards Zwischeneuropa (the geopolitical space between Russia and the EU), which was resembled in a more alert phrase. This was indeed indicative of a program change directed at more active engagement of Russia to prevent further acts against the interests of common neighbors.

The 2009 election manifesto of SPD contained a critique of American plans on installation of anti-missile shield in Europe. It also supported the construction of a common security zone from Vancouver to Vladivostok that would encompass NATO members and Russia. This was practically a reiteration of Medvedev's proposal. Russia itself was characterized as a responsible partner. All these points were not included in the coalition agreement of the new, more "atlanticist" government, which did not include SPD.

The last coalition agreement of 2013 has some remarkable differences from the two preceding ones. With the return of SPD to the coalition and parallel to Russia's growing role in the world politics, as well as due to the "Partnership for Modernization" between EU and Russia, the volume of text

¹ FDP, Arbeit hat Vorfahrt: Deutschlandprogramm 2005, Berlin, 2005, S. 49

Die Grünen. Wahlprogramm 2005. Berlin, 2005, S. 51

² CDU, CSU, Deutschlands Chancen Nutzen: Wachstum, Arbeit, Sicherheit. Regierungsprogramm 2005-2009, Berlin, 2005, S. 37

³ Sarkisyan D., Diplomacy-Power Ratio in European-Russia Relations, "Global Studies Journal" 8/3, 2015.

devoted to Russia has greatly increased. It was entitled “Open dialogue and broader cooperation with Russia”. Russia is described as “the largest and most important neighbor of the European Union”. A willingness to expand the modernization partnership is expressed together with the mention of different attitudes to a modernization partnership, hinting at insufficient attention to political modernization (democratization) from the Russian elite. This implies that the core program of “Partnership for Modernization” remained intact but some adjustment changes were made in Germany’s perceptions of Russia’s intentions. The term “strategic partnership” used in the election program of SPD was probably blocked by CDU/CSU and there was only a mention of “modernization partnership” in the coalition agreement.

CDU/CSU’s critique of Russia’s domestic politics filters into the coalition agreement in a milder form, compared to the 2009 agreement. “Russia is called upon to adhere to the democratic standards of a state under the rule of law”, however shortcomings were not mentioned, which was probably the result of FDP’s exclusion from the coalition. Critique of human rights situation in Russia occupied one third of the text volume devoted to Russia in the election manifesto of FDP. Again this is indicative of only adjustment changes in period of 2012-2014.

In 2013 agreement a paragraph on visa liberalization was added, which was a consensual point present in the manifestos of CDU/CSU, SPD, FDP and the Greens. For the first time, Germany’s willingness to advocate for greater coherence in EU’s policy towards Russia is mentioned. This became the harbinger of Germany playing the role of EU leader during the Ukrainian crisis. At the same time the need for a new partnership agreement between EU and Russia is noted. A great importance is attached to deepening the trilateral dialogue between Germany, Russia and Poland. Regarding the thesis on mutual neighbors, the intensity of “alert” approach is slightly toned down with the phrase “we **will** take into consideration...” replaced with “we intend to take account of the justified interests of our common neighbors”. The term “legitimate” has also been substituted with a less binding word “justified”. This lies in the realm of adjustment changes with no major qualitative change.

The last but not the least, the concluding paragraph on Russia contains the following statement: “Security in and for Europe can only be achieved **with** Russia and **not against** it”. This point, which is closest to the SPD’s position, was borrowed word-by-word from FDP’s election manifesto and repeated by Merkel in her speech from 2015¹. I.e. there was an inter-party consensus on this issue. It is interesting to trace the radical shift in the rhetoric in the “White Paper” of the Bundeswehr, published in June 2016. It is unequivocally stated that: “Without a fundamental change in policy, Russia will constitute a challenge to the security of our continent in the foreseeable future”. Such diametrical shift is obviously placed in the problem/goal change spectrum.

The Fluctuations of “Strategic Partnership”

Another indicator of the general level of Germany-Russia relations and Germany’s Russia policy, in particular, is the fluctuation of the frequency of using the term “strategic partnership” in the official high-level bilateral documents, statements and speeches.

In 2005, chancellor Schroeder remarked that the Russians and the Germans have never been so unified and they were unified by the strategic partnership. In this chapter we will trace the dynamics of the frequency which this term was used with in the bilateral Russo-German official documents throughout the chancellorship of A. Merkel.

First of all, it is noteworthy that the discourse on strategic partnership has significantly declined in 2005-2008, when the chancellor of Germany was Angela Merkel and the president of Russia was Vladimir Putin. This was a result of negative adjustments in Germany’s foreign policy towards Russia in the mentioned sub period. After 2008, in 2009-2011, the period of Medvedev’s presidency, the usage frequency of “strategic partnership” rises again. This coincides with the progressive developments in the Russo-German relations. Namely, Partnership for Modernization between Germany and Russia started in 2008, which turned into the Partnership for Modernization between EU

¹Merkel, A.. *Rede von Bundeskanzlerin Angela Merkel anlässlich der 51. Münchner Sicherheitskonferenz*. 2015. <https://www.bundesregierung.de/Content/DE/Rede/2015/02/2015-02-07-merkel-sicherheitskonferenz.html>, Accessed: March 13, 2016

and Russia in 2010 (the abovementioned program change). In 2012, when Putin was reelected as the president of Russia, intensity of the strategic partnership discourse has once again declined to the level of 2007-2008 which is indicative of the negative adjustment changes mentioned above.

Table 1 In 2014-2016, because of the Ukrainian crisis and the resulting goal/

Year	Frequency
2005	8 ¹
2006	27
2007	8
2008	6
2009	16
2010	15
2011	12
2012	8
2013	7
2014	2
2015	1
2016	0

problem change in Germany's Russia policy, the strategic partnership discourse decays even further. In 2014, Russia's minister of foreign affairs, Sergey Lavrov, used the term only once on February 14, i.e. before the annexation of Crimea and the escalation of the crisis in the East of Ukraine. The term was used one more time on June 9, before the adoption of sectorial economic sanctions, in a commentary by the Department of Information and Press on the occasion

of trilateral meeting between the minister of foreign affairs of Russia, Germany and Poland.

Throughout the year of 2015, Lavrov used the term strategic partnership only once, and in 2016 (up to May) the term was not used at all in any of the bilateral documents and speeches related to the Germany-Russia relations. In 2014-2016 the term was not used by the German side at all.

Problem/Goal Change as Reflected in the Russian Themes of Merkel's Speeches

The speeches of the chancellor, the tonality and the scope of the Russia-related themes are another important indicator of Germany's Russia policy.

¹Data for 2005 involves November 22-December 31 period, i.e. after Merkel assumed chancellorship. If 8 repetitions are averaged per this 40 days for the whole year, the result will be 72 repetitions.

To illustrate the problem/goal change in Germany's foreign policy towards Russia, we shall proceed with the content analysis of the thematic composition of Merkel's speeches delivered in 2014-2016. Out of 193 speeches of the chancellor that span through the March 2014 to April 2016, the topic of Russia was spoken about in 54 of them (approximately 28%).

Logically enough since the outbreak of the Ukrainian crisis the largest portion in the Russian themes was occupied by those of "annexation of Crimea", "breaches of the principles of international law" and the application of "sanction". They occur in 15.6%, 14.5% and 13% of all speeches correspondingly.

An intermediate theme between the confrontational and cooperative discourses was the narrative of "the importance of dialogue/negotiations with Russia", which was present in 10.9% of the speeches.

The theme of "cooperation/partnership/good relations with Russia" was subdued against the background of the Ukrainian crisis but still present in 4.7% of the speeches. It is worth mentioning that in none of the 193 speeches Merkel used the term "strategic partnership". At most she talked about partnership, cooperation and the willingness to have good relations with Russia.

Among the other themes are "development of good relations with Russia and the EU by the neighbors following the model "both...and" not "either...or"" (3.6%), "cooperation with Russia on Iran and Syria" (2.6%), the abovementioned possibility to achieve European security "with Russia and not against it" (1.6%).

In 1.6% of her speeches Merkel touched upon the issue of lowering the dependency on Russian energy carriers. Though Germany has decreased the proportion of Russian gas in the overall energy consumption, the low intensity of this theme even in times of the Ukrainian crisis is explained by the long duration of this process.

Micro-Dynamics of Problem/Goal Change - Narratives and Reality

In this chapter, tracing the thematic micro-dynamics of Merkel's speeches and the variables of their political and economic background, there will be discussion of the new image of Russia that has been framed in Germany's foreign

policy towards Russia. This new perception provides evidence for the argument of the foreign policy change at the problem/goal level.

Applying crosstabulation method an associative link has been discovered between the variables of theme of “decreasing energy dependence from Russia” and the price of oil. Each month in the period 2014 March – 2016 April was treated as an observation. The abovementioned narrative was coded as a binary variable with the value of “1” if the topic was raised during a month and “0” otherwise. Average monthly oil prices were classified into the categories of 1 (\$1-\$30), 2 (\$31-\$60), 3 (\$61-\$90) and 4 (more than \$90).

It was established that the issue of decreasing the dependency from Russian energy imports was raised during the high oil prices, more than \$90 per barrel.

Table 2

Decreasing energy dependence from Russia and Brent oil price

Count		OilGroup				Total
		1	2	3	4	
Energy	0	24	5	11	11	51
Dep	1	0	0	0	3	3
Total		24	5	11	14	54

Sig. 0.028

Another peculiarity of Merkel’s Russian discourse was the connection between the sanctions narrative and the conflict intensity in the East of Ukraine. The aggregated monthly data on the casualties of the Ukrainian army and paramilitary troops published by the Information-Analytical Center of the National Security and Defense Service of Ukraine¹ were used as a proxy variable for the intensity of conflict. Concerning the authenticity of the data, we would like to note that the author does not exclude the possibility of the figures being diminished by the Ukrainian party to the conflict. However,

¹ Информационно-аналитический центр Национальной безопасности Украины, Новости, from <http://mediarnbo.org/?lang=ru> Accessed: Oct. 10, 2016

there was not that much interested in the precise absolute values but in the dynamics of the casualty rate or change in its relative values. Suppose that the Ukrainian authorities report daily casualty figures twice lower than the actual ones. In this case the model is still able to trace the change in the intensity of the conflict, while we assume that on average the figures for all days in the observed time span would be decreased proportionally.

The monthly casualties' variable was divided into four categories: 1-100 (casualties), 101-200, 201-300 and more than 300.

The sanctions discourse turned out to be most intensive during the medium intensity of the conflict: 101-200 casualties per month. It makes sense since negotiations are prioritized during the low intensity of the conflict, while diplomatic solution may seem more likely, while excessive threats of sanctions may be counterproductive. On the other hand, with the casualty rate higher than 200 soldiers per month, i.e. under the conditions of a full scale war, when deterrence has already failed, threatening sanctions and hoping for success becomes useless.

Table 3

Sanctions theme and casualty rate

Crosstab						
Count						
		Casualties grouped				Total
		1	2	3	4	
Sanctions	0	14	4	3	1	22
	1	6	13	5	0	24
Total		20	17	8	1	46

Sig. 0.024

The next variable of interest is the narrative of cooperation, partnership and/or good relations with Russia. There will be the examination of its connection with the indicators of Russia's economic development and Brent oil price. A statistically significant link has been established between lower GDP growth in Russia and the cooperative discourse. Russia's quarterly GDP growth in 2014-2015 ranged from -1.31% to 0.49%. The data for quarterly GDP growth come from the Federal Service of State Statistics of the Russian

Federation. 78% of Merkel's statements on cooperation were made during Russia's negative GDP growth of -0.74% and lower.

Table 4

Cooperative discourse and Russia's GDP growth

		RusGDP							Total
		-1.31	-1.16	-.74	-.64	-.57	.14	.49	
Cooperation, partnership, good relations with Russia	0	0	9	9	4	5	1	9	37
	1	3	2	2	0	2	0	0	9
Total		3	11	11	4	7	1	9	46

Sig. 0.013

Table 5

Cooperative discourse and Brent oil price

		Oil Price				Total
		1	2	3	4	
Cooperation, partnership, good relations with Russia	0	20	2	9	14	45
	1	4	3	2	0	9
Total		24	5	11	14	54

Sig. 0.023

At the same time, while the Russian GDP is highly correlated with the oil price, a statistically significant link has been established between the abovementioned cooperative narrative and Brent oil price. Parallel to the decline in oil price the frequency of such statements rose.

Thus, scrutinizing the interplay between the background variables and content analysis variable, a new image of Russia was framed. Russia can be expected to be cooperated with when it's weak, it should be a concern when it's strong and it should be deterred during the medium intensity of the conflict to prevent further escalation. This is in line with the thesis outlined in the "White Paper" that Russia constitutes a challenge for the European security.

Two External Shocks and Their Impact at Different Phases of Decision Process

In this chapter I will apply Hermann's conceptual framework of decision making stages in foreign policy change to explain why the geopolitical crises of 2008 and 2014 had different effects on the German policy towards Russia.

Phase 1 and 2: Initial Policy Expectations and External Actor Responses and Other Environmental Stimuli

Hermann argues that in case policy expectations fail to fulfill, policymakers either change their expectations or blame the failure on some external conditions (Hermann, 1990, p. 15).

Those external conditions, the geopolitical context in which the crises unfolded, were different in 2008 and 2014. Prior to the Russo-Georgian war NATO completed its fifth enlargement in 2004, the membership of Ukraine and Georgia was discussed at the Bucharest summit in 2008, and on top of that the installation of anti-missile shield in Europe has added fuel to the controversy between Russia and NATO.

Besides that, the shorter the time period between the start of a policy implementation and the object's action, the more likely are the policymakers to perceive it as a cause and effect relationship. In 2008 Russian aggression may have been interpreted in Berlin as a protective response to the immediate geopolitical prelude, while German leadership was not happy either with Bush's plans of integrating Ukraine and Georgia in NATO at a stepped-up pace. In 2014 there were no such immediate geopolitical developments that may have been interpreted as a cause for Russia's defense reaction¹.

Phase 3: Recognition of Discrepant Information

External shocks arguably have more chances to be recognized provided they employ large amounts of resources, remain intact for longer time periods and are strengthened by other events of a kind. The Ukrainian crisis has lasted for years unlike the brief Georgian war, as well as became much more resource-consuming for Russia. Furthermore, recidivism of aggression has also contributed to a shift in German policymakers' perception of Kremlin's intentions.

¹ Libyan crisis and outbreak of war in Syria both occurred well in advance, in 2011.

Phase 4: Postulation of a Connection between Problem and Policy

Shorter time frame separating the policy implementation and failure to reach the goal contributes to better perception of policy's insolvency. On the eve of the August war in 2008 there was a lack of effort on the side of Germany and EU to engage Russia politically. A whole range of abovementioned instruments and programs was developed after the crisis. In sharp contrast, the Ukrainian crisis broke out at the peak of Germany's engagement approach to Russia, which testified for its preventive inefficiency.

Phase 5: Development of Alternatives

At this stage sensitivity to contextual information is important for proposing alternatives to the existing course. Besides the broader geopolitical mosaic, transition of presidency in Russia was also part of the context. Medvedev, as a more cooperative Russian president (Spechler, 2010), may have contributed to portraying the "defender" type of Kremlin strategy (using Treisman's (2016) taxonomy) that should be tackled with engagement and not containment. However, in 2014, after the return of hardliner Putin to presidency, a more "imperialist" (Treisman, 2016) image of Russia (that should be countered with containment) was projected.

Phase 6: Building an Authoritative Consensus for New Options

Norms and ideology shared by policymakers are crucial at this stage for reaching a consensus. The two crises may have also looked differently from the point of view of democratic norms, deeply entrenched in the post-WWII Germany's foreign political identity. Tbilisi heavily relied on military force (including its usage against civilians (Independent International Fact-Finding Mission, 2009)) ignoring the prospects for peaceful regulation and nations' right for self-determination. Of course, it does not justify the Russian actions that went as far as bombing and invading Georgian cities located far from South Ossetia, but it ameliorated the negative perception of Russian response in the eyes of German foreign policy establishment. This was reflected in Steinmeier's (2008) and Merkel's (Deutsche Welle staff, 2008) remarks. Annexing Crimea, however, by taking advantage of political instability in Ukraine and supplying armaments to non-peaceful separatists looked like an outright aggression.

Phase 7: Implementation of New Measures

Finally, specific formulation of expectations for the new policy, as well as follow-up and review work is important for the successful realisation of the new course. In the Ukrainian case the goals of sanctions were specifically outlined, and permanent monitoring of the situation has been established with subsequent prolongations of sanctions because of lack of progress on Minsk agreements or Crimean issue.

Conclusion

German foreign policy towards Russia during the chancellorship of Merkel has mostly been endogenously continuous. This is in line with both theoretical and empirical literature on foreign political stability of parliamentary democracies and studies on post-Cold War Germany's foreign policy.

Some aspects of Germany's Russia policy and their change have been reflected in the coalition agreements of the last three German governments, bilateral high-level documents and statements, as well as chancellor's speeches.

Accounting for foreign policy change and its levels there might be 4 main sub-periods in the last decade of Germany's Russia policy: 2005-2008 – adjustment changes, 2008-2012 – program change, 2012-2014 – adjustment changes and 2014-2016 goal/problem change. Thus there were two major foreign policy changes.

The *external shocks*, though with varying effects, were the main causes of change in the observed period. The two crises had significant dissimilarities that translated into different reactions by German policymakers almost at all stages of foreign policy decision process.

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