A WARFARE PERSPECTIVE ANALYSIS OF THE RUSSIAN-UKRAINAN WAR: SEMANTIC, SCENARIOS AND IMPLICATIONS

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Introduction

Why semantic is important to understanding the nature of war? Semantic matters: Words define – and ultimately determine – the magnitude of wars.

A war is not limited to the soldier's action in the battlefield but a combination of military and non-military methods instrumentally used as a weapon. It is, therefore, critical to qualify this combination with words. At its essence, the goal is not the elimination of the enemy but an act of force to compel him to do your will and limiting the damage on both ends. Thus, the outcome of every decision matter including the death of people. There is no benefit in a Pyrrhic's victory that comes with great losses or unacceptable costs. Consequently, the semantic relevance of almost-every-sentence words has become essential to have a clear understanding of conflict's nature.

The ongoing Russian-Ukraine War (RUW) is an example of how the multi-domain warfare has emphasized the importance, in the national defense strategy level, of the **Cognitive** and **Psychological** integration to the five: **land**, **Maritime**, **Air**, **Space and Cyber-** traditionally domains of the military services. A domain is generally understood as "the operational environment that has physical characteristics requiring unique doctrines, organizations and equipment for military forces to effectively control and exploit in the conduct of military operations¹". Basic examples of domains organizations are: The Army, Navy, Airforce, Special Forces, Information and Psychological Operation Units.

Thus, the purpose of this article is to contribute to the understanding nomenclature and meaning of warfare typologies in which armed conflict occurs. Lastly, we conclude this article with an analysis of likely scenarios and implications in the Russian-Ukraine War.

¹ Micheal P. Kreuzer, Cyberspace is a Strategy, not a Domain, in "The Strategy Bridge", July 8 2021. https://thestrategybridge.org/the-bridge/2021/7/8/cyberspace-is-an-analogy-not-a-domain-rethinking-domains-and-layers-of-warfare-for-the-information-age

1. Fragmented Fourth World War or Special Military Operation

On 24th February 2022, Russia announced the beginning of a "Special Military Operation" or "special operation" to describe its campaign in Ukraine with most Western mass media and governments understanding the term to be simply a euphemism for military invasion and war². It is common belief that RUW will be the Third World War, but this war ended with the conclusion of the Cold War on the 25th December 1991 with the dissolution of the Soviet Union³. Hence, it is more appropriate the use of the term Fourth World War instead⁴.

Today, the Post-Communist Russia is an entirely different country and the actors in this new war have distinct positions. In Soviet times, the KGB was the operative arm of the Communist Party, which ran the country. Now United Russia Party is run by KGB veterans. On the other hand, NATO of post-Cold War is no longer the organization existed in the period of presidents Truman, Eisenhower, Kennedy, Johnson, Nixon etc., but has enlarged membership gradually to include some of the former adversaries in the Warsaw Pact: Poland, Romania, Hungary, Bulgaria, Slovakia, Czech Republic and Baltic countries of the ex-Russian empire (Estonia, Latvia and Lithuania)

The expansion of NATO's membership to Baltic states could provoke a "vigorous and hostile" Russian response as stated by the current president of USA, Joe Biden, on a speech made at the Atlantic Council of the US on June 18, 1997. Despite the warning, Biden's prediction eventually came true⁵. Today, the battlefield is no longer the German land or Italy's frontier (Vallo Alpino in Trentino Alto Adige and Gorizia) of the II World War, but Kiev in Ukraine.

NATO's policy on Russia's invasion of Ukraine is clearly opposite to the response of Soviet's invasion in the time of Hungarian and Czech revolution. Despite public requests for assistance from the rebels, they did not send weapons or military equipment to uphold its right of self-defense. From Cecenia in 1991, Georgia 2008 to Crimea in 2014, Russia's prior

² Roger N McDermott, Charles K. Bartles, *Defining* the "*Special Military Operation*", in "Russian Studies Series", n. 5, 2022.

³ Enrico Franceschini, *L'ammainabandiera dell'URSS*, in "La Repubblica", December 20 2021.

⁴ Sergio Rossi, 25 *Dicembre 1991. La bandiera rossa non sventola più sul Cremlino*, in "Striscia Rossa", December 24 2021.

⁵ Federico Giuliani, *La profezia di Biden si e' avverata*, in "Il Giornale", March 10 2022.

invasions have confirmed Putin's leadership. Today, however, the war made Putin's position more precarious.

The war is now stalled and four consequent outcomes are:

- 1. Victory
- 2. Defeat
- 3. Ceasefire agreement
- 4. Global expansion

Victory:

Currently, the first outcome is least likely to happen since a Pyrrhic victory that comes with great losses is not worth winning to both ends. Indeed, in the case of Russia's victory, NATO will be at the borders of Ukraine and civilians could eventually start local rebellions. Furthermore, Russia's control over Ukraine could not be handled the same way Soviets did in Afghanistan. In that time, Soviets' mission was the suppression and submission of ethnic groups with different culture and lack of military equipment. Today, soldiers describe a crisis in morale and complain about strategic blunders leading to a termination of their military contractor or desertion. Consequently, Putin decided to engage Chechen troops and recruit mercenaries to overcome this crisis. The Wagner Group is the most well-known mercenary group but there are many others: the Slavonic corps that appeared in Syria or groups like Shchit (Sheild) or Patriot.

Evidence of this concern about Russia's troops crisis is pictured in an interview (16/9/2022) on the broadcast channel Bundeswehr of Christian Freuding, general of German brigades. He reported an episode of "dozen tanks with the engine on in the battlefield abandoned by Russian soldiers⁶" The episode, however, was likely a tactic move since the tank has been disarmed by Russians soldiers prior the withdrawal of the troops.

On the other hand, in the time Chechen troops were in Gostomel, a city near Ukraine capital Kiev, to assist the Russian Army, the Chechen Leader Kadyrov, also known as "the butcher," made a more persuasive warning: "Surrender or we will destroy you". He, however, was in Grozny, the Chechen capital, and not in Gostomel in that time⁷.

⁶ Limes" nr.9/2022 pg.7 nota a piè di pagina nr.1 dell' Editoriale Walzer per nessuno

 $^{^7}$ Oriana Catini, Svelato il bluff di Kadirov, "il macellaio" ceceno, non e' a Kiev, ecco dove si trova, in "Urban Post", 16th march 2022.

Defeat:

The victory of Ukraine over Russia would be a catastrophic damage to Russia resulting in a global geopolitical instability. This scenario could trigger a series of events that will destabilize the country. First off, the removal of Putin's and its powers will urge the need of a new political system. Secondly, Putin's replacement could raise extreme reactions in the country.

For instance, if Putin could be overthrown the successor will be able to control all domestic process?

Nevertheless, this outcome would also create a vacuum where a lack of ideological backbone could eventually undermine popular support and weaken consensus for the Kremlin's actions. Consequently, Putin's departure might hamper potential protests and riots or, in extreme case, an ethnic civil war like the Bolshevik Revolution in 1917-1921.

In Russia, however, there is an increasing popular dissensus on Russia-Ukraine war, especially in the cities near European border. As a result, growing number of Russians are leaving the country especially men as they fear being called up to fight in Ukraine. This exodus includes many educated young people of the middle class that will have an impact on Russia's next generation.

Despite dissensus exists in limited zones across the country, millions of Russians still support Putin's policy and his core ideological constituents: God, State and Family.

Vladimir Putin, just like Benito Mussolini, has the illusion to "sit down at the negotiating table and talk about peace with just thousands of people deaths".

Currently, president Zelensky would only negotiate with Russia's next president, not Vladimir Putin. This resolution, however, is not likely to happen in a post-soviet Russia that does not rely on an executive committee, also known as Politburo, any more. Hence, Vladimir Putin will not end up as Krusciov, who was compelled to retire and spent the rest of his life in Crimea. As a matter of fact, a law signed by Putin established an internal military force named **National Guard of the Russian Federation** in 2016, comprising an independent agency that reports directly to him. This Federation numbered approximately 380,000 personnel and 84 units across Russia and includes ex operating units of the Ministry for Internal Affairs. Ceasefire Agreement:

The likelihood of a negotiated ceasefire agreement is very unlikely although Russia's interest is stronger than Ukraine. A ceasefire scenario would be probably celebrated as a victory by President Putin and positively perceived in the population. Undoubtedly, the extension of Russian borders in Crimea (2014), Donbas, Lugansk (partially under the control of Russia prior the war), Kherson and Zaporizhzhia will increase the popularity of Putin in the country. These areas, however, are not entirely under the control of Russia as Ukraine troops presided and attacked limited zones in these territories during the conflict.

Moreover, the loss of such rich areas will not be an acceptable deal by Zelensky, even with public acknowledgment of Crimea annexation to Russia.

Currently, the repeated threats to use nuclear weapons in Ukraine is a defensive deterrent strategy to compel Ukraine to capitulate to Russia's demands and to deter the extremist groups in the territories. Lastly, a series of so-called referendums have taken place in occupied parts of Ukraine which predictably show a resounding majority voting (96-98%) to vote Russia. The results of these referendums could be used as a pretext for nuclear strikes and subsequent annexation of those territories. In fact, the annexation of these areas to the Commonwealth Independent State will give Russia the right to condemn Ukraine for the occupation of these lands and draft 300,000 reservist, who have combat experience, to support its military campaign in Ukraine. These referendums, however, were illegal according to Ukraine, USA and Western nations.

The number of reservists has been given by Defense Minister Serghej Sojgu⁸ and could potentially increase gradually to a million in the next stages of the war.

At this point a natural question would be:

Who is a reservist?

In order to answer this question a description of the Russian mobilization system is needed.

The mobilization system has two principal components:

- 1. Not active reserves mobilizations (obiliciacionnyi liudskoj resurs) of human resources. It is equivalent to the unlimited military temporary leave.
- 2. Active reserves mobilization (obiliciacionnyi liudskoj reservs). It is

 $^{^8\,}$ Mirko Mussetti, Dopo la disfatta Putin punta tutto sul Generale Inverno, in "LIMES", n. 9 2022, p.79.

equivalent to the selected military reserve.

In the first one the leave is compulsory and includes all the conscripts, volunteers and man over 27 that avoided military service. The reasons for exclusion are:

- a. Employees of army industries required for a continuous supply.
- b. Medical conditions
- c. Father of family with 4 sons aged under 16 years.
- d. Eldest son with no father and 4 brothers aged under 8 years.

The Active reserves regards any volunteer that did the Not Active service at least for a day. The service period lasts three years with possible extensions and includes 30 days up to 54 days of training activities in a year. In the case of mobilization, the qualified reservists should go to destination without public notice.

Putin requested the action of only Active reserves as confirmed by public speech of general Soigu. The decision has been taken after a recruitment campaign promotion in the army with a salary of 3,200 euros and freedoms to prisoners who fight. In fact, the reward of prisoners fighters engaged over three or six months service (in case of serious offences: Prisoners in Tula's jail) was a full cancellation for their criminal records. In Tambow, 400 prisoners were sent straight to the training military camps such as the one in Torez for the first armed force of Donec'k⁹ It is worth noting a shortening of officials mainly due to "fragging" (murders of superiors by their soldiers)¹⁰ In fact, many cadets that did not complete training replaced experienced officials in the war like the case of Italy in the First and Second World War. The fragging phenomenon is not a new practice. A remarkable episode is described by Francesco Rosi in the movie "Uomini Contro" based on the novel "Un anno sull'altopiano" (1938) by Emilio Lussu. The book is based on true events and tells the story of an official murder in the army.

At this stage, the interested reader would ask:

Why did Putin recruit only Active reserve in the war?

To understand the reason for such decision we may need a basic introduction of an essential member of the Russian Military Force: General Gerasimov.

 $^{^9}$ Nicola Cristadoro,
 $Putin\ mobilita\ un\ popolo\ in\ smobilitazione,\ in\ "LIMES", 9/2022, p. 97.$

¹⁰ Peter Bush, *The Hard truth About Fragging*, in "Hysorynet.com", 28 July 2010.

Gerasimov is a discussed Russian Army general serving as the Chief of the General staff of the Russian Armed Forces, now in charge of the war in the Donbass region of Ukraine. The European Community and many other countries, such as Canada, Australia and even Liechtenstein, Switzerland (plausible residence of Putin's girlfriend and other Oligarchs), condemned Gerasimov for crimes against Ukraine when he was commander of the 58th force of North Caucasus. Perhaps, the popularity of this general is partially due to the expression "special military operation" used to describe the invasion of Ukraine, just like McNamara used the term of "quarantine" to define the USA naval blockade of Cuba in 1961. Most importantly, however, the memory of Gerasimov is mainly due to his military-doctrine, the so-called Gerasimov's doctrine.

In 2013, General Valery Gerasimov published his famous article "The Value of Science Is in the Foresight" often cited in the West as "Gerasimov's Doctrine" for the way Russian forces conducted its operations¹². However, the so-called Gerasimov Doctrine was neither by Gerasimov¹³, nor was it doctrine¹⁴. Gerasimov published his article in the journal Military-Industrial Courier (Vovenne-Promyshlennyv Kuner) as his intended audience was not the Russian armed forces but "Russia's Senior political leadership"15. In this article, he was not presenting "an expanded theory of modern warfare" or a new Russian "vision of total warfare", rather, he was outlining the need for adequate investment in the development and modernization of the Russian military, its weapons and capabilities, in the context of an increasing belief among Russian political leadership that conflicts can be fought and won without the military¹⁷. Moreover, Gerasimov does not expect the partial or total mobilization of Not-active armed force in a "special military operation." Consequently, Putin requested initially soldiers with fighting experience or volunteers.

¹¹ Robert Coalson, The Value of Science Is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations," in "Military Review", Jan-Feb 2016, pp. 23-29.

¹² Mark Galeotti, Hybrid War or Gibridroya Voina?, Lulu.com, 2016

¹³ Ofer Fridman, Russian "Hybrid Warfare", C Hurst & Co., pp. 127-136

 $^{^{14}}$ Mark Galeotti, $I\!\!/m$ Sorry for creating the Gerasimov Doctrine, in "Foreign Policy",

 $^{^{15}}$ Chalres K. Bartles, $G\!etting~G\!erasimov~Right,$ in "Military Review" 96(1), p. 31.

¹⁶ James Brown, "Japan Woos Russia for its Own Security", in "Nikkei Asian Review", December 2017.

 $^{^{\}rm 17}$ Bartles, Getting Gerasimov Right...

¹⁸ Nicola Cristadoro, La Dottrina di Gerasimov, Il Maglio, 2022.

After the beginning of the conflict, he soon realized that more soldiers were needed in the front line and involved most of the armed forces in the war. This decision had important consequences.

In fact, the engagement of conscript soldiers led to episodes of lack motivation, intentional destruction of military equipment and fragging. The fragging practice consists of the officials murders or sub officials by their soldiers. Consequently, the death rate of officials in the army became considerable. Thus, Russia's mobilization of hundred thousands of young man that cannot turn them into effective fighters and the deaths of experienced officers reduce the offensive line to basic light-infantry units lacking armored vehicles. In fact, the initial limited use of specialized weapons and vehicles in basic operations did not help Russia to overcome Ukraine resistance. The tanks T-14 and anti-craft BMPT Terminator were used only later. The reasons are basically two:

- 1. Underestimation of Ukraine response.
- 2. Use in case of war escalation.

After Ukraine troops destroyed more than 1600 Russian tanks, old tanks were used in the conflict such as the T-62, also known as "motorized metal coffin". These tanks were used in the invasion of Czechoslovakia in 1968.

2.Hybrid War

Perhaps, the most misunderstood aspect of Gerasimov's article is the idea of "indirect and asymmetric methods" that has been interpreted by the West as hybrid War¹⁹. The Hybrid War is a neologism, first proposed by Frank Hoffman²⁰, that includes several activities aimed to destabilize the opponent country as part of flexible strategy with long-term goals that includes as final solution the military action. Essentially, it is a flexible strategy that mixes different typology of wars: diplomatic, economic, mediatic, psychological, irregular, cybernetic and traditional with the potential use of nuclear weapons, biological and chemical in case of single murders or tactical purposes.

¹⁹ Fridman, Russian "Hybrid Warfare"...

²⁰ Frank Hoffman, Conflict in the 21st Century: The Rise of Hybrid Wars, Potomac Institute, 2007.

The objectives are basically three:

- Surrender
- Stalemate
- Nuclear escalation and potential global thermonuclear war.

2.1 Hybrid war time progression

The first step in a Hybrid war is diplomatic action that triggers exaggerated protests for irrelevant or not real episodes, unacceptable requests, diplomats' eviction, attempts to isolate the enemy from his allies, international denigration, doubts about state and financial stability, taking advantage of minor episodes to justify the "humanitarian intervention of minority ethnic groups".

Other concurrent activities operate in the politic environment: illegal funding for political parties and consequent corruption aimed to influence the political decisions or get reserved information. These activities are also supported by foreign country companies in terms of financial operations, such as the acquisition of national Defense companies or other strategical assets that could influence the economic stability. The objective is to control the production environment and access the computer networks or data bases to get information of classified information and recruits spies to sneak in the Internal Affairs.

Furthermore, the attacks to the political system of a country are not just limited to the internal affairs but also includes criminal organizations that blackmail politicians, journalists, public officials, army employees, police, etc., with the purpose to destabilize the trust in public institutions. Moreover, the authority of public institutions is also attacked by social or political organizations promoting a surrendering to the enemy by stopping the supply of weapons to help the resistance troops in the war. This activity also includes all the allies involved in the conflict.

In this general setting plays an important role the financial support of independent, extremists and terroristic groups to raise riots, insurrections, bombing and other violent activities. The instability of national security is also mined by least evident actions such as the use of fake news to discredit officials and to help spread misinformation, wherein violent struggle is encouraged and create a general feeling of insecurity in the population. This mediatic action is part of a high-level strategy, known as "tension strategy", designed by specialists of digital and public media, wherein journalists, celebrities and other subjects spread misinformation.

The main means are: Commercial TV Broadcast channels and Internet. For instance, email-fishing is an example where people broadcast scams and fake news to generate a feeling of fear and concern in the population, such as the lack of food supply or other needs. Consequently, the effects of an over demand impact the supply-chain logistic and reduce the efficiency in the production system.

The identification of these activities is often analyzed in a more general framework known as "Psychological Warfare".

2.2 Psychological Warfare

The Psychological Warfare involves the planned use of propaganda and other psychological operations to influence the opinions, emotions, attitudes and behavior of opposition, neutral and allied groups to accomplish specific tasks. These actions are ongoing activities that operate whether there is a war or not and is often "universal" (no physical borders), and "global", meaning that includes man, woman, young, educated and low socioeconomic population. In fact, it is an effective weapon to use everywhere against anyone²¹.

The real power and effectiveness of this warfare is based on intangible techniques such as persuasion, ideas, emotions by means of symbols (words, images and music) to awaken ideological instincts.

The term propaganda is used to indicate a systematic campaign to spread information, ideas, or doctrines with the purpose of manipulate other people's beliefs and achieve direct or indirect advantage.

A propaganda campaign depends on the type of source and is often classified as: white, grey and black²².

- The white propaganda sources are: state, military or public institutions, etc.
- The black propaganda source is typically a "false" source. For instance, a false notification or press release.
- The grey propaganda source is not clear and often generate confusion. For instance, anonymous messages.

There is often confusion about the distinction between source and mean of information. A source of information is the subject that generated

²¹ Gagliano Giuseppe, Guerra Psicologica, disinformazione e movimenti sociali, Aracne 2012.

²² A. Atzeni, *Lezioni di arte militare*, Accademia Guardia di Finanza, 1981

the information whilst the mean is simply the way an information is communicated to the audience. For instance, it's common to hear people saying "I've heard this news on the radio" or "This news has been broadcasted on TV". In the past, the common belief was that radio and TV were reliable means of information as they were state assets and therefore source and means were indistinguishable. In Italy the E.I.A.R (Ente Italiano per le Audizioni Radiofoniche) and R.A.I (Radioaudizioni Italiane) used to be the only two communication means, now the communication includes a variety of communication channels for each mean and the discerns between mean and source is harder

In the last decades the mediatic world has extended the traditional means of communication (radio, television, cinema, press) to a new dimension, that is internet. This dimension includes several means such as: social media, electronic mail, digital marketplace and "Dark Web". A concrete example is when we see a "pop alert" or "banner" that attempts to convince the recipient to spread the information to other recipients. Although the simplicity of this example, a chain letter grows exponentially and is therefore an effective mean to make propaganda. Additionally, an important source are the search engines. The results of a search may show up first the links of websites owned by people that acquired advertisement slot. Similarly, websites with free accounts of electronic mails shows customized banners or News sections based on criteria that match the user's preferences or his search history. For instance, the users want to be constantly updated on the deaths of Russian generals or commanders in Ukraine. In this regard a relevant matter is what "mega data" and "profiling" are in the context of a "cyber warfare".

Lastly, other basic means are military, civil and religious ceremonies as well as flyers, posters, meetings, conferences, slogans, and jokes.

So far, we illustrated and described activities aimed to mine the enemy's moral but a Psychological warfare can also convince people to believe that the enemy is not ruthless but have feelings and possibly change their liking by promoting an appearance of a friendly partner. A remarkable example is the case of the cartoons "Masha and the Bear" and "Mikey Mouse and Donald Duck".

The popular "Mikey Mouse and Donald Duck" series has been for years the iconic representation of the "American way of Life" in the post World War time. Every character in this series has an important position in the social life. Mikey Mouse and Donald Duck both live in a typical European chalet with backyard garden and have girlfriends (Minnie and Daisy). The close friend Goofy and Uncle Scrooge, are an example of trusted-allied, Goofy and Uncle Scrooge have Scottish and British origin, respectively. Lastly, the characters Morty and Fredy as well as Huey, Dewey and Louie in the young marmots group. The marmots group resemble the allied states Organizations of NATO and SEATO. It's worth mentioning that Donald Duck typically wears a sailor shirt and cap with bow tie.

The "Mikey Mouse" series became a masterpiece that now is more popular oversea than in the USA. In Italy, this series, known as "Topolino", is still on press and sells thousands of copies whilst in the US is out of print. This iconic cartoon has also been a character to celebrate the 150 years of Italian Republic (Topolino nr. 2883 2011).

The series "Masha and the Bear", known in Russia as "Medved", is the Russia response to the American Propaganda of the Disney company. It is a Russian preschool comedy with characters inspired by folk story of the Russian tradition. The series was created by Oleg Kuzovkov, Andrei Dobrunov and Dimitry Loveiko in 2009 using 2D and 3D computer-animated rendering techniques produced by Animaccord Animation Studio. The series includes 93 episodes of 6 and 9 minutes duration broadcasted in 16 countries with almost 4.5 billion views and a million of DVD sold in 2012. The original series has been organized in three spins off: Masha Tales (26 episodes), Masha Tales of Fear (26 episodes) and The songs of Masha (13 episodes). Starting from 2009 this series is broadcasted on the Russian national channel Rossija 1, the same channel that broadcasts a popular propagandistic talk show directed by Vladimir Solovyov, a presenter that worked in the Soviet time for the second national channel.

The plot is simple. The Bear is a retired circus acrobat that act as a human and performs arts like playing 80's music with guitar, cooking, expert in modelist-making and bricolage, skating. He is in love with a female bear and adopted an orphan pinguin that lives in Antarctica and visits occasionally. A close friend of him is a rabbit that steals carrots in his vegetable garden.

Masha is a 4-year-old girl whose parents never appear in the series and lives in a house near a railway station (Mosca-Perchino or Transiberian). She is portrayed as naughty and hyperactive friend of the Bear who is the father-like figure. In fact, he is very patient but sometimes scolds her and send the young girl to the corner as a punishment.

Her close friend is a Panda from China that competes with Masha but sometimes is a great ally. Lastly, secondary characters are two starving wolves that live in an old ambulance. All the characters in this series portrays the typical Russian family with tradition and values. Masha is a metaphorical illustration of a neo-Russia willing to evolve in a modern society but rooted to traditional costumes (she wears a traditional folk dress). The Bear portraits the paternalistic Russian or Soviet attitude, that is no longer on duty but keep an eye on the new Russia to give protection, advise and values. A significant episode is when the girl searches with curiosity among the old objects of the Bear and find a war helmet of a tank soldier to wear or a hat like the one border guards used in the Cold-War or the image of a navy officer with a striped sailor shirt in case of thaw and the Spenatz, Russian Special Force. A heartbreaking moment is when the Bear set in order the old trophies and medals that awarded when he was a young soldier. As for the starving wolves, where do they live? In the Western version they live in abandoned ambulance that resembles a First Aid Army Ambulance used during the Soviet time, known as Wolf-Vehicle. This series is essentially a great work of propaganda that initially was not ideological but later became a perfect mean to spread the idea of a friendly iconic picture, the old Russian Bear, of a protective father-like figure rooted to the national traditional values. On the other hand, the recent sad propagandistic Russian short-cartoon, Vanya and Mikola, supporting the military action in Ukraine is a source of misinformation that gives the idea of a Russia still in the Soviet era to distract people's opinion and hide the real propaganda oriented to attack specific groups. Two episodes of misinformation are about the statements of Lavrov, Russian Minister of Foreign Affairs, about the Hebrew origin of Hitler and a retired Russian colonel on channel Russia 1 not supporting the military action in Ukraine. Despite the public apology of President Putin to the Prime Minister of Israel, the consequence of Lavrov's action was a failed attempt to negotiate the war in Israel as a neutral country. The other episode pretended to be an action that communicate a climate of democracy on Russian TV.

So far, we discussed about the sources and means of communication in a Psychological Warfare but there is still missing the analysis of the techniques used in this stage to make people believe about the propaganda and other psychological operations. We may summarize this stage with the word "receptivity", in the sense of people's willingness to accept ideas or messages by others.

People's receptivity is not a single step process but takes three levels:

- 1. Make a first contact and keep it. (ex. Send a military first aid hospital with a few doctors and many soldiers).
- 2. Earn the trust of others and make them believe you.
- 3. Make people believe they control their decisions or actions although influenced indirectly by others.

To achieve these results a propaganda must have the following characteristics:

- 1 Realistic
- 2 Persuasive
- 3. Suggestive

The last point emphasizes the importance to make your ideas appealing to the emotions of your audience (for example the new Russia is a reliable good father-like figure who cares about his children) that believe all the actions supporting these ideas reflect the general will of people and are, therefore, necessary. Consequently, actions like human massacres, sabotage or espionage would be justifiable because there is a more important purpose.

The type of propaganda depends primarily on the size of the audience and can be classified in three types:

- Strategic: the target audience are populations or military divisions in the ally, enemy or neutral side.
- Tactic: the target audience is limited to small-medium groups living in specific areas.
- Strengthening: the target audience are populations living in areas under the control of military troops. The intention is to get the collaboration or at least the submission of people in that area.

The accomplishment of a successful psychological warfare campaign depends also on a deep understanding of the audience characteristics. This activity involves an intense collection of information about people:

- 1. Data on the current population.
- 2. Data on the past and current psychological condition of the target audience.
- 3. Data on the defensive actions used by the enemy to discredit the propaganda campaign.

The objective is to identify the weak points in the target audience and design

an effective plan to influence the moral of people or collective groups. This collection of data must be a real or potential picture of the current situation and ready when the troops attack the target audience. It must be consistent with the goal (ex: disarming, desertion or rejection to join military action) and has to be used before any event changes the situation in the area.

To summarize, the psychologic warfare in the past was merely a supporting activity to the traditional military action but in modern times is a resolutive act of force to compel the enemy to do your will and limiting the deaths of people. Consequently, the primary scope of a war is psychological: convince the enemy to do your will with no fighting or not significant resistance. As we said: "there is no advantage with a Pyrrhic victory".

2.3 Cybers and Electronic Warfare

There are two further types of warfare:

- Cybernetic Warfare
- Electronic Warfare

The Cybernetic Warfare is about the use of computer technology, "cyber domain", to disrupt the activities of a state or organization. On the other hand, the Electronic Warfare involves the use of the electromagnetic spectrum or direct energy.

As indicated in the introduction section of this article a domain is "the operational environment that has physical characteristics requiring unique doctrines, organizations and equipment for military forces to effectively control and exploit in the conduct of military operations" [Micheal P. Kreuzer].

The six main characteristics of a domain are²⁴:

- 1. Requirements of specific or unique abilities to operate.
- 2. Must be a disjoined domain (logically and physically).
- 3. Possible interaction with allies or enemy forces.
- 4. Power to have control or influence activities.
- 5. Possible synergies with other domains
- 6. Asymmetric actions across domains.

To summarize, a domain is the sphere of interest or influence (ex, sea,

 $^{^{23}}$ Kreuzer, Cyberspace...

²⁴ Stato Maggiore Della Difesa, Ambienti e Domini delle Operazioni

air, space, land, information, cybernetic) wherein selected people and equipment (boats, airplanes, satellites, tanks, interception, and espionage abilities, experienced informatic personnel, servers, etc.) for military forces to effectively control and exploit in the conduct of military operations against existing enemies forces in the domain. These objectives are also achieved with activities of other domains (ex. The combination of bombing site factories and informatic bombing website with viruses, trojans and etc.) that contribute to get asymmetric advantages on other domains (Disable the missile launch codes with hacking activities or penetrate the electronic guiding system of planes to make them vulnerable). Essentially, the term "domain" is basically a "battlefield" in the sense of a place where all the actions take place.

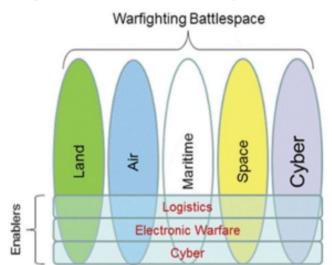
Hacking activities are part of the cyber warfare, whilst radio interceptions or radar disfunctions using electromagnetic impulses are activities of the electronic warfare but they have an impact on the cybernetic domain as well. For example, we might have noisy channel in the communication system due to electromagnetic impulses that could have consequences in the network transmission of significant data.

The electronic warfare takes place in all domains (land, sea, air, space and cybernetic) whilst the cybernetic warfare operates only in the informatic domain. For example, the activities of acquisition, corruption and deletion of data or informatic infrastructures (software and hardware) are typical of the informatic domain.

The cyber and electronic warfare have in common the use of electronic and communication systems whilst the cyber warfare is the only one to have informatic weapons such as viruses, trojans etc.

The cybernetic warfare operates mainly with five methodologies:

- 1. Attack of critical infrastructures, to be precise the computers that control any critical infrastructure (Electric or Water Power plants, communication systems, civil or military transportation networks).
- 2. Attack of websites, servers, or internet domains to get data or corrupt, delete any sensitive information.
- 3. Blocking or disturb the communication of data between computers and satellites.
- 4. Retrieve of sensitive data hacking the firewall of informatic networks.
- 5. Propaganda activities in the social media, email, and TV broadcast channels in the enemy network.



The general Warfare Framework is pictured below:

Figure 1 Warfare Framework²⁵

In this general framework we can finally give a more detailed description of the so-called hybrid warfare as conceptualized by Gerasimov. He made a speech in 2013 about what he called 'non-linear war'²⁶. In the 21st century he said 'we have seen a tendency toward blurring the lines between the states of war and peace. Wars are no longer declared and having begun, proceed according to an unfamiliar template'. He talked about the way in which 'a perfectly thriving state can, in a matter of months and even days, be transformed into an arena of fierce armed conflict, become a victim of foreign intervention, and sink into a web of chaos, humanitarian catastrophe, and civil war'. And this is achieved through a mixing combination of diplomatic, psychological, criminals and cultural, technological (cybernetic and electronics), informatics and military factors that integrates the traditional doctrine of "deep war".

²⁵ Anthony Ween, et all., Framing cyber warfare: an analysist's perspective, in "Journal of Defence Modelling and Simulation: Applications, Methodology, Technology" Vol. 16(3), 2019.

²⁶ Valerij Gerasimov, The value of science in prediction, in "Military-Industrial Kurier", February 27, 2013. Retrieved May 9, 2023, from https://inmoscowsshadows.wordpress.com/2014/07/06/thegerasimov-doctrine-and-russian-non-linear-war/.

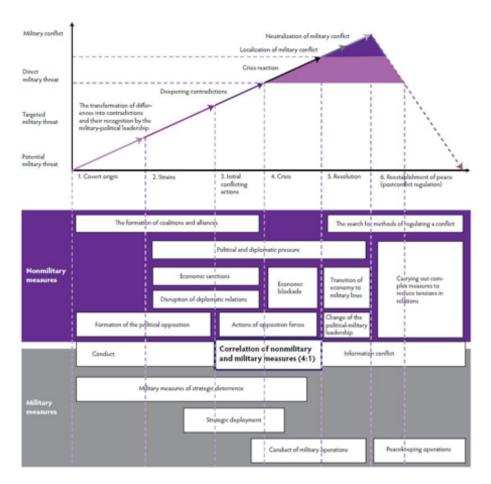


Figure 2 Graphic from Gerasimov article in Voyenno-Promyshlennyy Kurier, 26 Februrary 2013, translated by Charles Bartles

As the graphic in Figure 2 illustrates war is conducted by a roughly 4:1 ratio of non-military and military measures, indicated in the middle box "Correlation of nonmilitary and military measures (4:1)". The main point of Gerasimov's article, however, is basically that while the West considers the nonmilitary measures as ways of avoiding war, Russia considers these measures as war. In this framework there are basically three levels: tactic, operational and strategic. The scope is the destruction, elimination, and disorientation of the enemy on the "front line" and "deep penetration". This process involves two basic phases:

1. Deep strategic battle: It is a combination of land-air attacks and includes parachutists, helicopters, air force and navy troops.

2. Take the advantage of any victory of the land troops in the back lines (deep battle operations) to destroy the enemy logistic chain.

Moscow leverages also denial and deception, or maskirovka, as part of its conventional operations. The term maskirovka commonly refers to Russian tradition of covert warfare and military deception and it has recently reemerged to describe Russian politics toward Ukraine.

Military deception is defined in American joint doctrine as follows:

"Military deception is actions executed to deliberately mislead adversary military, paramilitary, or violent extremist organization decision makers, thereby causing the adversary to take specific actions (or inactions) that will contribute to the accomplishment of the friendly mission" (United States Joint Chiefs of Staff 2012, p. vii).

There is significant overlap between this definition of military deception and the Russian concept of "reflexive control". Snegovaya describes reflexive control as causing "a stronger adversary voluntarily to choose the actions most advantageous to Russian objectives by shaping the adversary's perceptions of the situation decisively"²⁷. Deceptions operations supporting the annexation of Crimea began with cyberattacks on communication networks in Ukraine. They were paired with ongoing efforts in online media to spread confusion regarding the conflict²⁸. and espionage attempts to compromise journalists' computers and networks²⁹ This activity was supported by statements from the Russian government denying the presence of Russian troops in Ukraine.

Although these models may be useful analyzing past actions, they should be used carefully for predicting the nature of future Russian operations. In Gerasimov's own words, "Each war represents an isolated case, requiring an understanding of its own particular logic, its own unique character³⁰. In other words, there is no model for understanding the operational environment or the exercise of national power in every war scenario. An An enlightening perspective on the RUW is given by Kaldor An enlightening

 $^{^{27}\,}$ Maria Snegovaya, Putin's information war in Ukraine: Soviet origin of Russia's hybrid warfare, Institute for the Study of War, 2015.

 $^{^{28}}$ Emilio J. Iasiello, Russia's improved information operations: from Georgia to Crimea, Parameters, vol 47, no 2, 2017, pp. 51-63.

²⁹ Morgan Maier, A little masquerade: Russia's evolving employment of Maskirova, School of Advanced Military Studies United States Army Command and General Staff College Fort Leavenworth, Kansas 2016.

³⁰ Coalson, The Value of Science...

perspective on the RUW is given by Kaldor³¹. She dubs the RUW as 'new war'³². What she calls 'new wars' are "wars in which the aim is not winning or losing but rather creating a situation in which numerous armed groups both (state and non-state) can establish local fiefdoms often associated with ethnic or religious identities and financed through revenues generated from violence". It's a kind of militarized neoliberalism, she argues that "winning for Putin is not necessary taking control of Ukraine; rather it involves keeping the war going and thereby weaking Ukrainian democracy and contributing to long-term fragmented conditions". This scenario in effect becomes a forever war that carries the challenge to contain the proliferation of weapons of mass destruction. As argued by Prof. Luigi Bonanate the duration of war is debatable and extends longer than expected since both parties in the conflict cannot achieve the goals for which they were undertaken³³. In the next section we will discuss the RUW's scenario.

2.4 Gerasimov's doctrine in action

In the Ukraine-Russia war, general Gerasimov involves many parachutists and special troops. The initial attack was unexpected and the troops were progressing in the front lines but later the soldiers have been an easy target of the Ukraine troops that probably were ready for a potential guerrilla against Russia. It is not realistic to believe that a general citizen might become an expert soldier ready for a guerrilla but I am not surprised about the reaction of Ukraine population. As a matter of fact, Ukraine has been in war against independent filo-Russian groups for years in the region of Donbass and Transnistria and almost 14,000 people died.

At this date (19th March 2023) three experienced Russian generals have been killed:

The general Vitalij Petrovich Gerasimov, nephew of the chief-staff, died in Charkiv on the 7th March 2022. Andrey Sukhovetsky, general of the parachutist's division and spenatz, died in Mariupol on the 28th February 2022. Not many people know that Soviet Troops had stopped the Ukraine

 $^{^{31}}$ Mary Kaldor, Commentary on Kogler: Analysing the Ukraine war through a 'new wars' perspective, in "European Journal of Social Theory" DOI: 10.1177/13684310231168807

³² Mary Kaldor, Elaborating the 'new war' thesis, in I, Duyvesteyn, J. Angstrom (ed.), Rethinking the nature of War, London 2005, pp. 210-24.

³³ Luigi Bonanate, Il Futuro della Guerra e le guerre del futuro, in "XXI secolo", Treccani.it, Roma (2009).

guerrilla in the past during the 50's just 10 years later of the Second World War against Nazis. These troops were possibly related to the Ukrainian SS Division, also known as UPA force led by S.Bandera. Consequently, the Russia's propaganda about the process of denazification in Ukraine is based on this historical event. Russians have many qualities and defects but they surely have a good memory: "The Russian Bear have an elephant memory". In this general setting we need to explain the reasons of Russian's invasion in Ukraine. Why did old Russian Bear awaked and attacked?

2.5 The Reasons of War

Essentially, President Putin's requests are:

- 1. Acknowledgment of independence for the annexed Donbas regions of Lugansk and Transnistria, as well as the regions of Kerson and Zaporizhzhia.
- 2. Acknowledgement of Crimea annexation to C.S.I.
- 3. The demilitarization and neutrality of Ukraine.
- 4. Make an agreement with NATO that exclude Ukraine in the membership.
- 5. Move NATO back to the borders of Warsaw Pact.

The first two points are facts and the initial response of president Zelensky was only the negotiation conditions of non-Russians population but then he made up his mind. He wants all the occupied regions back and does not want to negotiate with Putin anymore.

The third point is essentially a way to keep Russia safe by any possible invasion using Ukraine as buffer state with these three characteristics:

- 1. Space
- 2. The tactic of "burned land"
- 3. The so-called "Winter General".

These characteristics might be understood recalling the historically events of the Napoleonic campaign in Russia and German defeat in II World War. Napoleon conquered Moscow that was on fire but later he had logistic problems due to the long distances for the supply of new resources and difficulty to get food or other goods in loco. Similarly, in the Second World War the German troops were close to the Kremlin but they had to face logistic problems and the outnumber of Russian soldiers.

The consequence was lots of room to move around and retire of the German troops from the following areas: Poland, Leetonia, Estonia, Lithuania, Belarus, and Ukraine and in the Third World War (Cold War), Hungary, Bulgaria, Romania, Czechoslovakia and Poland of Varsaw's Pact. Today,

this security border line does not exist anymore but NATO in 2016 has settled antimissile systems, the "Aegis ashore", in the city of Develesu (Romania) and Redizikowo close to Slupsk (Polonia). Lastly, Finland, attacked by Soviets in 1939 and defended successfully by the field Marshall Mannerheim, wants to join NATO as well as Norway. Finally, the neutral position of Ukraine in war since 2014.

The fourth point is to avoid any misunderstanding about the position of Ukraine in the Warsaw's Pact. In fact, the Warsaw's Pact states that all the nations must be part of URSS whilst in NATO the nations make a request to be a member.

The last point is not realistic and undermined by Russia's violation of the Budapest Memorandum, formally entitled *The Memorandum on Security* Assurances in Connection with Ukraine's Accession to the Treaty on the non-proliferation of Nuclear Weapons³⁴. The origins of the Budapest Memorandum lie in the protracted Russian, US and UK bargain with the newly independent Ukraine to persuade Kiev to transfer to Russia the Soviet-made nuclear weapons that it had inherited from the USSR and offer various security assurance to Ukraine's independence. Russia violated its Budapest Memorandum commitments to respect Ukraine's 'territorial integrity' and 'existing border' in March 2014 when it annexed Crimea. It appears that Russia signed the memorandum when security interests were a priority and disregarded it when it posed an obstacle to other political and strategic priorities. These priorities may include controlling not only Crimea but also Sevastopol and adjacent Ukrainian territories that constitute military assets as evidenced by Russia's increased investments in its Black Sea Fleet, its recently established Mediterranean Task Force, and the improvements in Crimea's air defenses and strike forces³⁵. Putin argued that Russia had several justifications for its action regarding Crimea: that Soviet leaders had committed an "outrageous historical injustice" in placing Crimea and other historically Russian territories under Ukrainian rule; that Russian-speakers and Russian citizens in Ukraine were victims of efforts 'to deprive' them of their historical memory, even of their

 $^{^{34}}$ The Budapest Memorandum for Ukraine may be found in United Nations documentations: https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_1994_1399. pdf

³⁵ Thomas R Fedyszyn, The Russian navy rebalances to the Mediterranean, in "US Naval Institute Proceedings Magazine" 139:12, Dec. 2013, https://www.usni.org/magazines/proceedings/2013/december/russian-navy-rebalances-mediterranean; Russian Military Reform, 6 March 2014, https://russiamil.wordpress.com/2014/03/06/the-role-of-the-black-sea-fleet-in-russian-naval-strategy/

language and to subject them to forced assimilation; etc. Furthermore, many highly educated Russians seem to support Putin's aggression in Ukraine and some are not afraid to make their position known repeatedly and unequivocally. This is illustrated, for example, in a recent New York Times interview by the once-respected Dean of the Faculty of World Economy and International Relations at the Moscow School of Economics (HSE), Sergei Karaganov, under the telling title "Why Russia Believes it cannot Lose the War in Ukraine"36. Karaganov is close to both Putin and his foreign minister, Sergei Lavrov, and he formulated many of the ideas that led to the war in Ukraine. In a 1992 speech that laid out what became known as the "Karaganov doctrine", he hypothesized that ethnic Russians living in newly independent countries such as Ukraine, Belarus and the Baltic states would become the prime guarantors of Moscow's political and economic influence over its neighbors after the fall of the Soviet Union. He prophesied that Moscow might one day feel compelled to use force to protect them, and thus its interests, in the former USSR³⁷. At the time, Karaganov's ideology was not embraced by Mr. Yeltsin's Kremlin, but it has become the foreign policy mainstream ideology in Putin's Russia after 2012 – all in the name of protecting Russian speakers.

A strong emphasis on the relations with the post-Soviet republics is also contained in the so-called Kazyrev doctrine³⁸, proclaimed by the then Russian Foreign Minister Andrei Kozyrev in a speech to Russian diplomatic representative in the Commonwealth Independent States (CIS) and Baltic states in January 1994³⁹. Its most substantial feature lies in its' declaring the near abroad area (Russian: blizhneye zarubyezhe), indicating today the area of the CIS and the countries which did not join the CIS (i.e the Baltic states, formerly in U.S.S.R), to be an area of exclusive Russian interests, and in the implication that if Russia ever felt that this region was threated it would have the right to take all steps to defend it. He affirmed the need for a Russian military

³⁶ Serge Schmemann, Why Russia Believes it cannot Lose the War in Ukraine, in "The New York Times", 2022 https://www.nytimes.com/2022/07/19/opinion/russia-ukraine-karaganov-interview.html

³⁷ Mark Mackinnon, Sergei Karaganov: The man behind Putin's pugnacity, in "The Globe and Mail", 30 March 2014. https://www.theglobeandmail.com/news/world/sergey-karaganov-the-man-behind-putins-pugnacity/article17734125/

 $^{^{38}}$ B. Litera, The Kazyrev Doctrine – A Russian Variation on the Monroe Doctrine, in "Perspective", No. 4, Winter 94-95, pp. 45-52.

³⁹ Alexander A. Sergunin, Russian Post-Communist Foreign Policy Thinking at the Cross-Roads: changing Paradigms, in "Journal of International Relations and Development", Vol 3.No 3, September 2000.

presence in this area and advocated the idea of dual nationality.

The consequences of Russia's actions, the annexation of Crimea and further intervention in Ukraine, provoked considerable discussion about the implication for international order and security. They also include stimulus to nuclear proliferation and a deeper dampening of prospects for nuclear force reductions and disarmament⁴⁰.

Nevertheless. Russia suspended its implementation of the CFE treaty (Conventional Armed Forces in Europe)⁴¹ since July 2007 and refused to provide data on its military forces or to allow inspections on Russian bases/military sites⁴². The 1992 Treaty on Conventional Armed Forces in Europe (CFE)⁴³ limited key armaments from the Atlantic Ocean to the Ural Mountain between NATO and the Warsaw Treaty Organization. Material ceilings ensured that each group of States Parties had no more than: 20,000 tanks; 20,000 artillery pieces; 36,000 armored combat vehicles; 6,800 combat aircraft and 2,000 attack helicopters. The 1996 "Flank Agreement" removed one Ukrainian and several Russian regional districts from the flank zone, thus diminishing the effective arms ceilings in these areas. In 1998, "Agreement on Adaption of the Treaty on Conventional Armed Forces in Europe"44 attempted to revise the original CFE treaty to take into account the extinction of the Warsaw Pact and Germany division (West and East Germany). Russia demanded and received flexibility to position far more equipment in the Caucasus region than the treaty initially allowed but in return had to agree to NATO demands that it end its illegal military presence in Moldova and Georgia. The adapted Treaty, however, has never been ratified and Russia took issue with the fact that the Baltic states, now NATO allies, were covered neither by the original agreement after leaving the Soviet Union, nor the adapted version.

We want to be clear that this analysis does not give the right to Russia to

 $^{^{40}}$ David S. Yost, The Budapest Memorandum and Russia's intervention in Ukraine, in "International Affairs", 91, 2015, pp. 505-538.

⁴¹ Flank Document Agreement to the CFE treaty may be found: https://www.congress.gov/105/cdoc/tdoc5/CDOC-105tdoc5.pdf

⁴² Mika Hayashi, Suspension of Certain Obligations of the CFE Treaty by NATO Allies: Examination of the Response to the 2007 Unilateral Treaty Suspension by Russia, in "Journal of Conflict & Security Law", vol.18, no.1, 2013, pp 131-50.

⁴³ United Nation Office for disarmament affair document: https://treaties.unoda.org/t/cfe

⁴⁴ Treaty on Conventional Armed Forces in Europe (CFE) – Agreement Adaption. U.S Department State. 19 Nov 1999: https://2009-2017.state.gov/t/avc/trty/115588.htm

invade Ukraine. In fact, if you want to win the war you must know the enemy. Considering this analysis, we can move on the factors that could stop the conflict.

2.6 The determinants and ending war scenarios

Let us start with the most obvious observation. Putin cannot lose the war because he will lose credibility in the Kremlin and could be easily replaced. This war was not existential for him when he began it, but it is now. The prospect of defeat might increase the likelihood of Russian escalation, perhaps even the use of nuclear weapons, which Moscow has already threatened. President Vladimir Putin has twice warned the West not to intervene in Ukraine or face "consequences that you have never faced in your history"⁴⁵.

CIA Director William Burns has said that "none of us can take lightly" the prospect that Putin might resort to the use of "tactical" nuclear weapons⁴⁶. Tactical nuclear weapons are often called "battlefield" or "theater" weapons to distinguish them from much more powerful strategic nuclear weapons, but they are far more destructive than conventional weapons. They are considered "low-yield" only because other nuclear weapons have become unimaginably powerful. The explosive power of "low-yield" nuclear bombs can range from 50 kilotons (one kiloton is equivalent to 1,000 tons of TNT) to 20, 10 or 1 kilotons⁴⁷. "Little Boy"⁴⁸⁴⁹⁵⁰", the nuclear weapon the U.S. dropped on Hiroshima on Aug. 6, 1945, and the first weapon of its kind used in combat, had a yield of 15 kilotons and killed an estimated 66,000 people and injured 69,000 more⁵¹. Russia has

 $^{^{45}}$ Interview Sky News retrieved from: https://news.sky.com/video/if-you-try-to-stop-us-youll-face-consequences-that-you-have-never-faced-in-your-history-12550243

⁴⁶ CIA director: US. Can't "take lightly" Russia nuclear threat in Ukraine, in "Axios", April 15, 2022. Retrieved from: https://www.axios.com/2022/04/15/cia-director-russia-nuclear-weapons-ukraine

⁴⁷ What exactly is a low-yield nuclear weapon?, in "Medill News Service". Retrieved from: https://www.axios.com/2022/04/15/cia-director-russia-nuclear-weapons-ukraine

 $^{^{48}}$ Los Alamos Laboratories document retrieved from: https://www.census.gov/history/pdf/fatman-littleboy-losalamos natllab.pdf

 $^{^{\}rm 49}$ Marco Valli, L'Atomica come, dove e perché, Edizioni Culturali Internazionali, 2020

 $^{^{50}}$ Marco Valli, Scienziati europei per la bomba atomica: dall'Europa ad Hiroshima, realizzazione ed uso, Phd thesis.

⁵¹ Alex Wellerstein, Counting the dead of Hiroshima and Nagasaki, in "Bulletin of the Atomic Scientist", August 4, 2020.

its nuclear arsenal thousands of small warheads and multiple different systems that can deliver those warheads in shorter and intermediate range₅₂. Reportedly, the smallest tactical weapon in the Russian nuclear arsenal has a yield of about one-third the size of Hiroshima, or equivalent to about 5 kilotons of TNT. These weapons come in many forms: gravity bombs, short-range missiles, air-to-air and air-to ground missiles, antiship, and anti-submarine torpedoes and even demolition devices or mines. Tactical nuclear weapons have never been governed by a formal nuclear arms control treaty between the U.S. and Russia⁵³. Consequently, Putin could choose a nuclear "demonstration" as a warning – usually described in the nuclear parlance as "escalate to deescalate (ETD)⁵⁴" – to halt further American and European military aid to the Ukraine.

Type of Strike	Type of Target
Demonstration	Single strike in area with no personnel, or very few.
Intimidation-Demonstration	Single strike of logistics, engineering, reduction of invading force/enemy efficiency.
Intimidation	More than one stroke aimed at a sector of the conflict to alter the balance and/or to eliminate breakthrough.
Intimidation-Retaliation	Multiple strikes on enemy's theater of operation's force groups, to fundamentally or resolutely alter the balance and breakthrough of a defensive line.
Retaliation-Intimidation	Mass strikes on enemy armed forces to rout and destroy – a radical change is the goal.
Retaliation	Mass strikes all over the theater of operations, maximum use of force coordinated with strategic nuclear forces.

Table 1 ORIGINAL DE-ESCALATION OF ARMED CONFLICTS (ETD) CONCEPT BY Levshin, Nedelin and Sosnovsky.

⁵² Russia's Nuclear Weapons. Doctrine, Forces, and Modernization, Congressional Research Service. April 21, 2022. Retrieved from: https://sgp.fas.org/crs/nuke/R45861.pdf

⁵³ Nonstrategic Nuclear Weapons. Congressional Research Service, March 7, 2022. Retrieved from: https://sgp.fas.org/crs/nuke/RL32572.pdf

⁵⁴ Glantz M. Ph.D: Is Russia Escalating to De-Escalate?, Retrieved from: https://www.usip.org/publications/2022/10/russia-escalating-de-escalate

Levshin et al. wrote what is the only unclassified guide to what Russian's ETD strategy may look like today⁵⁵. The table above is an overview of the EDS as conceptualized by Levshin.

Assuming the economic crisis, the weakening of the country's forces, lack of semiconductors or special equipment and the inferiority in conventional high-precision weapons as a fact, the authors envisaged the need for Moscow to "consider nuclear weapons as the main instrument for guaranteeing the military security to Russia and its allies". Thus, in order to avoid defeat, if faced with conventional aggression, Russia could have initiated a nuclear escalation that would include the tactical use of low-yield nuclear weapons capable of inflicting disproportionate costs on the potential aggressor, thus forcing him to withdraw to avoid further losses. This view rests on the concept of "tailored damaged", i.e. a cost so unacceptable to the adversary that it exceeds the benefits that the aggressor expects to obtain through the use of armed forces.

In other words, detonation of a tactical nuclear weapon by Russia is entirely thinkable

Furthermore, President Vladimir Putin's announcement last March 2023, that it would suspend Russia's participation in its major nuclear arms treaty with the US, known as the 2010 New Strategic Arms Reduction Treaty (New START, Measures for the Further Reduction and Limitation of Strategic Offensive Arms)⁵⁶, further worsen the situation. New START limits Russia and the US to 1,550 strategic warheads each.

Moscow's large nuclear arsenal thus became the main option for facing NATO's conventional superiority on the battlefield. Furthermore, Russia's nuclear deterrence strategy has been revisioned by President Vladimir Putin in a recent document entitled "On Basic Principles of State Policy of the Russia Federation on Nuclear Deterrence" published in June 2020⁵⁷.

⁵⁵ V.I. Levshin, A.V. Nedelin and M.E. Sosnovsky, On Employing Nuclear Weapons to De-Escalate Military Operations, in "Military Thought", May-June 1999, 34-37. Table taken largely from James T. Quinlivian and Olga Oliker, Nuclear Deterrence in Europe: Russian Approaches to a New Environment and Implications for the United States, Rand, 2011, p. 30, hereinafter "Russian Approaches."

 $^{^{56}}$ Shannon Bugos, Russia Suspends New START, Arms Control Association, March 2023. Retrieved from: https://www.armscontrol.org/act/2023-03/news/russia-suspends-new-start

⁵⁷ On Basic Principles of State Policy of the Russia Federation on Nuclear Deterrence, retrieved from: https://hansdevreij.com/2022/03/06/basic-principles-of-state-policy-of-the-russian-federation-on-nuclear-deterrence/

Is Putin's intention just to intimidate Ukraine and the West or a real threaten?

Prof. Matthew Bunn, who tracks nuclear policy at Harvard University in Cambridge (Massachusetts), said his best estimate is that there is a 10 percent to 20 percent likelihood that Russia might use a nuke, which is "intolerably high" when it comes to nuclear weapons⁵⁸. However, Bunn notes that "one problem with using nuclear weapons, especially if you detonate them on the ground where they suck up a bunch of dirt and rock into the air, is the place where you use them ends up being uninhabitable because radioactive fallout".

If this comes to pass, which site could be targeted and how should the West and U.S. respond?

There are few ways that a tactical nuclear weapon and possibly a strategic nuclear weapon could be used. Here are four possible scenarios:

- 1. A demonstration nuclear bomb in the Black Sea maybe targeting a small island with the only purpose to show a potential threaten. We believe that this option is unlikely to happen because it would be simply an atomic test that will not push NATO to react. The only consequence could be a statement of NATO to use atomic bombs or push Ukraine to seek an atomic bomb to be used in the war. It is worth mentioning that Ukraine used to have soviet nuclear weapons after the Second World War. On the other hand, USA has confirmed that in the case of an atomic action they will respond with conventional weapons. This action could be a missile attack to the launching platforms including the navy fleet in the Black Sea. We believe that a possible location for this atomic test could be the Snake Island. This island extends for 0,7 Km² and is 40 km away from Odessa. At the end of June, Russian troops retires from these areas to signal some sort of peace action, but Ukraine believes they could not supply goods to the troops. Ukraine soldiers conquer backs this area and settle navy blocks. The least likely scenario would be a small atomic bomb (maybe 1 Kiloton) with the intention to test USA reaction.
- 2. The use of a tactic atomic bomb supporting their claims to justify the use on Ukraine. Putin might detonate a tactical nuclear warhead against military or logistics targets in Ukraine, the agriculture lands between Lviv

⁵⁸ How likely is a Russian nuclear strike in Ukraine?, in" Kera News" Retrieved from: https://www.keranews.org/2022-10-04/how-likely-is-a-russian-nuclear-strike-in-ukraine

(Leopoli) and Kyviv (Kiev), for instance. This will only raise the tension with no advantage.

- 3. A more dangerous demonstration would be an atmospheric, ultra-high-altitude, detonation of a strategic bomb over Kyiv. In a 1962 test, the U.S. detonated a 1.4 Megaton (1,400 kiloton) H-Bomb in the mid-Pacific, 250 miles above the Earth, affecting the lighting and telephone service in Hawaii, 900 miles distant. The atmospheric explosion of a strategic bomb would result in an electromagnetic pulse that could knock out street lights and communication service and other electronics, impacting also nearby NATO member countries and Russia.
- 4. The explosion of a "Dirty Bomb" attributable to the enemy. A "Dirty Bomb" is a weapon that combines explosives like dynamite and radioactive material like uranium. It is often referred to as a weapon for terrorists as it is designed to spread fear and panic more than eliminate any military target. The conventional explosive in a dirty bomb may only flatten or damage a few buildings and the radioactive material would be spread over a few square meters. Not long time ago General Soigu mention the risk of a "Dirty Bomb" used by Ukraine to give the fault to Russia⁵⁹.

A target could be the Nuclear Plant of Zaporizhzhia. This Nuclear plant is managed by Ukraine people and controlled by Russians. There is not even a need to bomb this site but it just needs to stop the supply of electric energy for a time necessary to block the reactor cooling pumps that will make the Nuclear Plant collapsed as the case of Chernobil. The blocking of energy will be clearly attributable to the enemy. In other words, a pseudo atomic bomb already exists: The nuclear plant of Zaporizhzhia!

5. Explosion of an atomic bomb in the outer space.

This option will start a new era of Nuclear War in the space. The Russia's Nuclear Deterrence Strategy⁶⁰. expects the "development and deployment of missile defense assets and strike systems in the outer space". On July 15 2020, Russia reportedly conducted a "non-destructive test of a space-based anti-satellite weapon" by releasing a "projectile" into orbit

⁵⁹ What is a dirty bomb and why is Russia talking about it?, CNN: https://edition.cnn.com/2022/10/25/europe/dirty-bomb-russia-ukraine-explainer-intl-hnk/index.html

⁶⁰ On Basic Principles of State Policy of the Russia Federation on Nuclear Deterrence – retrieved from: https://hansdevreij.com/2022/03/06/basic-principles-of-state-policy-of-the-russian-federationon-nuclear-deterrence/

from its Cosmos 2543 satellite⁶¹. The consequences of a nuclear test in the outer space could be the deaths of few people (the astronauts in the International Space Station) and serious damage to telecommunication systems especially the Starlink satellites of Elon Musk that are currently used by Ukraine troops in the battlefield (identification of Russian troops or officials/generals to be notify to Ukraine snipers). It is remarkable the attempt of Elon Musk to stop the war with the proposal to Zelensky to give up the Crimea and going back to the ante-bellum situation. President Zelensky, however, rejected this option. Elon Musk was in somehow surprised by the decision of Zelensky but the most surprising fact is the intervention of an entrepreneur to stop an international war.

The advantages of a space option are the following:

- 1. Not many deaths or maybe not at all.
- 2. Elimination of the cybernetic and electronic supremacy of Ukraine.
- 3. The Space does not have jurisdiction and, therefore, it will not be an attack to any country but a simple test. Despite Article IV of the Outer Space Treaty (OST) bans testing weapons on celestial bodies, it does not prohibit testing elsewhere⁶². The use an atomic bomb in the space is not comparable to the consequences of an atomic test on the earth.
- 4. There will not be any offensive response in the space and it would be meaningless.
- 5. There will not be any nuclear or conventional reaction on the Earth.
- 6. An atomic escalation could happen only in the case Putin is nearly close to an end of the war. In this situation, the troops will mutiny with a possible military coop.

At the end of this analysis, we exclude the possibility of a final nuclear option. Perhaps an atomic demonstration action. Specifically, we believe that the option of a "Dirty bomb" and "Space bomb" are the more likely in the technical perspective.

The basic reason is that the responsible for the action of a "Dirty Bomb"

⁶¹ Russia has tested an anti-satellite weapon in space, US space Command says, Retrieved from Space. com: https://www.space.com/russia-tests-anti-satellite-weapon-in-space.html

⁶² U.S. Department of State, Treaty on Principles Governing the Activities of States in the Exploration and use of Outer Space, Including the Moon and Other Celestial Bodies. Retrieved from: https://2009-2017.state.gov/t/isn/5181.htm

will not be identified and USA cannot react because.

1. The risk to appear badly on the public opinion since there is no clear responsible for the "Dirty bomb".

In fact, the Russian propaganda can easily show that the real invaders are Ukraine and USA. This is exactly President Putin's plan: he wants to justify the use of a tactic bomb to stop the invaders and revenge the death of so many innocent soldiers.

2. Lack of objectives: They cannot identify a place where to start an insurrection because the bomb has not been launched but left and there is no responsible for it.

The third factor is about the size of Russia. It is a big continent with 12 different time zones and, therefore, it is almost impossible to invade physically and economically because they will find the resources to go on and survive in the war.

The fourth factor is about the financial, economic, political, and industrial sanctions. They have an impact on the Russian population but these sanctions will only enforce the authority of Putin and raise hate towards the Western countries. In fact, the riots of the young middle class or intellectuals on the streets will not affect the authority of Putin across Russia especially in the rural population where the majority of families have male fighting in the front lines.

Moreover, the action of blocking all the bank accounts of Russian oligarchs to make them react to the Putin's regime is just unpractical theory. The wealthiness of these people depends on Putin and their status is not the result of any individual ability. In other words, they are not the revolutionists who killed the zar, neither the Soviet members that compelled Krusciov to retire and not even the high members of "Gran Consiglio" who deposed the Dux Benito Mussolini.

The fifth factor is about the raw materials. Russia will always have access to gas and petrol and blocking the market of Russian resources can have a bad impact exclusively on the European nations. Moreover, Europe is not the only demand on the market since China and many other countries in the Pacific area have neutral position on the war and, therefore, are new potential buyers that replace the European demand. China factories have gas and petrol supplies from Russia that must sell on the market for cheaper price because they are now the only big client. The high inflation

of the national currency on the international exchange market does not have an impact on the internal market since Russia has compelled to pay the oversea debts with the national currency. The decrease of transactions with credit cards and use of cash or lack of internet connection and social media is not relevant for the life of Russian population. In concern of the public opinion about Western people, it can be easily summarized with the words of ex-president Medvedev:

".. we have already faced a similar situation in the past when we invaded Georgia and Crimea. What was the reaction of western countries in that time? The young generation of Western countries are weak. They will start with economic sanctions but then come back to have deals with Russia again⁶³."

In other words make war "not by tanks but banks" with Russia.

2.7 Key to solving Russian-Ukraine war

The only solution that no one want to talk is the intervention of a third actor in the war.

Who is the third actor?

The first objection is that this action could basically start a World War if the third actor is NATO. This is true only if the military troops were exclusively under the control of NATO and do not respond to the control of their respective countries on behalf of ONU's flag as the case of Korea in 1949. In that time, before the flight interdiction South Korean airplanes controlled by Americans and Western volunteers' pilots had a fight with North Korean airplanes controlled by Russian and Chinese pilots. Even when Chinese volunteers with Chines military equipment took part in the battle no Third World War started and was essentially a conflict among North Korea, China, and ONU.

President Putin will put an end to the war only after the achievement of the objectives (Ukraine conquer and a trusty government) or when the ONU will act in the war. Lastly, if Putin will be successful in the war the next Russia's target could be Finland and then Sweden as well as Belarus, although is already under the influence of the Russian regime.

There is, however, another key actor in the RUW, i.e. China. Currently,

⁶³ Putin scommette sul Business as usual? ISTI, 10/3/2022.

China would be simply an observer since the US defeat or Russia's troops withdraw will not impact China's interests directly⁶⁴.

After many years the same dilemma raised at the beginning of the II World War is back again: "Shall we die for Danzica?"

Today: "Shall we die for Kiev?"65

⁶⁴ Un'intervista con il Prof. Luigi Bonanate sulla crisi Ucraina, Storia, analisi, previsioni, 23 Feb 2022. Retrieved from Liberi di Scrivere: https://www.nuovarivistastorica.it/un%E2%80%99intervista-conil-prof-luigi-bonanate-sulla-crisi-ucraina-storia-analisi-previsioni/

⁶⁵ Marcel Deat, Mouir pour Dantzig, 4th May 1940.