Benon Zbigniew Szalek¹

THE COMMON SECURITY AND DEFENCE POLICY OF THE EUROPEAN UNION – IN THE CONTEXT OF ‘HYBRID WARFARE’, ‘NETWORKS’, ‘SWARMING’ AND ‘CONSOLIDATED HYBRID DEFENCE’

Keywords: common security and defence policy, European Union, hybrid warfare, networks, netwarfare, swarming, consolidated hybrid security, consolidated hybrid defence

ABSTRACT: The aim of this paper is to present some praxiological remarks on the so-called Common Security and Defence Policy (earlier: The European Security and Defence Policy) of the European Union in the light of such terms as ‘hybrid warfare’, ‘networks’, ‘swarming’. The paper emphasizes the problem of consolidated hybrid security and defense.

INTRODUCTORY REMARKS

The problem of the ‘Common (earlier: European) Security and Defence Policy’ (The Lisbon Treaty, 2009) is not new (cf. the fiasco of the Western European Union (an allegedly defensive alliance established in 1954 and abolished in 2011)).

It is not my intention to recall here the evolution of activities within the framework of security and defence – the relevant literature is abundant

¹ Benon Zbigniew Szalek, Professor Ordinarius, University of Szczecin, Faculty of Humanities, Institute of Political Science and European Studies, Chair of Praxiology, Heuristics and Political Marketing.

enough (e.g.: Heyman, 2011; Betka, 2011; Merand, Hofmann, Irondelle, 2011; Dyson and Konstadinides, 2013; Koziej, 2015; Whitman, 2016; Faleg, 2016; Eilstrup-Sangiovanni, 2017).

My intention is to present some praxiological remarks on numerous discrepancies connected with this problem in the context of such trendy terms as ‘hybrid warfare’, ‘networks, netwar, netwarfare’ and ‘swarming’.

HYBRID WARFARE

The idea of ‘hybrid warfare’ is not a new one – it already appears in the work of Sun Tzu, *The Art of War*, written in the 5th century BC (Sun Tzu, 1963).

According to Sun Tzu, a Chinese strategist, victory can be achieved by a combination of conventional and unconventional means and activities.

Certain aspects of hybrid warfare are discussed in *Military Methods of the Art of War*, the work of his grandson, Sun Pin (Sun Pin, 1998), and in *Arthashastra*, the work of Kautilya (Kautilya, 1992).

At present, ‘hybrid warfare’ has many definitions. According to the most popular approach, hybrid warfare comprises any activities leading to success in war (Szalek, 2015). These activities can be grouped according to military, financial, economic, information (e.g. secret services), demographic, ethnic, ecological, religious, health, energy, purely political, etc. spaces/sectors (Edwards, 1997; Szafranski, 1997; Poznański, 2000, 2001; Song Hongbing, 2012; Kieżun, 2013; Lichocka, Polko, 2014; Błasiak, 2014; Nouzille, 2015; Rachoń, Lenczowski, 2016; Kościelny, 2016; Estulin, 2016; Formicki 2016; Wojtaszak, Jartyś, Krawcewicz, 2016; Collett, 2017). As for ‘modus operandi’, tricks and techniques, one could mention here blackmail, menace, destabilization (e.g. by massive immigration), corruption, disinformation/intoxication (e.g. ‘pacifism’, political correctness, propaganda, agents of influence, harmful ‘concepts of governance’ (eg: ‘there are no strategic sectors in economy’)), unequal proportions (giving less than taking), infiltration (spies), harassment, ‘accidents’ and ‘incidents’ (e.g. the Smolensk affair)).

Identification of hybrid war may be difficult – hostile activities can begin in one or a selected group of spaces (e.g. the first hostile activities can be connected with financial or cyberspace).

Hybrid war in numerous spaces requires coordination and synchronization – in other words – a central steering. Much depends on the system of values accepted/adopted by the steering centre.

The problem is that hybrid war is regarded by numerous analysts/experts as a problem between two states (aggressor and the attacked state; the problem of hybrid defence is traditionally neglected). In reality, a state can be attacked by means of hybrid activities by more than one centre. Moreover, non-state actors (perhaps: players?, gamblers?), such as G. Soros, can develop their own activities in one or a few selected spaces against one or more states/societies – simultaneously.

As for the problem of efficiency: much depends on symmetry or its lack (is the attacked state capable to create a reliable/compatible hybrid defence?). In case of more than one steering centre, it is necessary to organize a holistic hybrid defence on the grounds of adequate information about the whole mechanism/system of steering centres and their activities in the interconnected spaces.

NETWORKS AND NETWARFARE

At present, networks are something obvious. They appear in numerous sectors/spaces (eg.: energy, finances, information, trade/economy, civil society/philanthropy, terrorism, organized crime, etc.) (The Zapatista, 1998; Zanini, Edwards, 2001; Fellman, Wright, 2003; Thacker, 2004; Barabasi, 2004; Merand, 2011).

Networks can be classified according to various criteria:

- 1) structure (eg: chain or line network, star or hub network, all-channel or full-matrix network, where every node is connected to every other node) (Arquilla, Ronfeldt, 1996; Edwards, 2000),
- 2) positeveness/negativeness,
- 3) rationalism/irrationalism,

- 4) legal, illegal, half-legal,
- 5) profit and non-profit,
- 6) social and pseudosocial,
- 7) local, regional, global (terrorists, organized crime, finances, trade; cf. networks and meganetworks).

It is necessary to emphasize the existence of 'multilevel networking' and 'multifunctional/multidirectional networking' (eg: one secret service 'supports' two fighting against each other sides; one family of bankers (for instance the Rothschilds) finances two fighting sides; double spies).

The term 'netwar' is said to have been developed by RAND researchers J. Arquilla and D. Ronfeldt (Arquilla, Ronfeldt, 1996, 2001). According to them: '...the term netwar refers to an emerging mode of conflict (and crime) at societal levels, short of traditional military warfare, in which the protagonists use network forms of organization and related doctrines, strategies, and technologies attuned to the information age' (Arquilla, Ronfeldt, 1996, p.6).

Networks can be involved in mutually hostile activities (let us imagine two situations: 1) networks fight against hierarchies; 2) networks fight against networks).

J. Arquilla and D. Ronfeldt point out the problem of 'blurring and blending the lines between offence and defence' understood as defying and cutting across: 'standard boundaries, jurisdictions, and distinctions between state and society, public and private, war and peace, war and crime, civilian and military, police and military, and legal and illegal'.

According to J. Arquilla and D. Ronfeldt, 'hierarchies have a difficult time fighting networks' and 'it takes networks to fight networks'. And they add one more praxiological rule: 'whoever masters the network form first and best will gain major advantages' (Arquilla, Ronfeldt, 1996, p.5).

In reality, one country/political structure can be attacked by multiple (allied) networks (network alliances).

At this point it is useful to pay some attention to 'astroturfing' – a network-like trick of manipulation (Walker, 2014; Astroturf, 2017; Astroturfing, 2017).

Astroturfing belongs to the cluster of such concepts as the ‘Overton window of political possibilities’, spin, groupthink, hybrid warfare and swarming (Szalek, 2013a).

Political Dictionary defines it as: ‘An artificially – manufactured political movement designed to give the appearance of grassroots (spontaneous – B.Zb. Sz.) activism... Unlike grassroots campaigns which are people-rich and money-poor, an astroturf campaign tends to be the opposite, well funded but with little actual support from voters’ (Astroturf, 2017).

According to another source, astroturfing denotes campaigns ‘that appear to be naturally occurring (e.g. voices of support from everywhere – B.Zb. Sz.), but are actually being defined by a company’ (in general – a centre (e.g. one man or a group of people controlling thousands of accounts on the Facebook; B.Zb. Sz.)) (Astroturf, 2017). In other words, astroturfing means ‘sowing fake grass’ (‘the grass is a fake’).

SWARMING

The Zapatista movement provides an example of ‘social network’ and ‘swarming’ of a ‘multitude of civil society activists associated with a variety of nongovernmental organizations... electronically as well physically – from the United States, Canada, and elsewhere into Mexico City and Chiapas’ (The Zapatista, 1996).

According to E. Thacker: ‘Swarms can be considered philosophically in terms of a potential contribution to a political ontology of networks’ (Thacker, 2004, p.2). And he adds: ‘The concept of the swarm is predominantly a biological concept – its roots are to be found in the study of ethology (animal behaviour), and can be traced back to 19th century natural science’ (Thacker, 2004). Animal swarming can be observed in the case of birds, locusts, bees, ants, bacteria, quadrupeds, fish (flocking, shoaling/schooling, herding etc.) (Morse, 1963; Wilson, 1980; Reynolds, 1987; Allison, Hughes, 1991; Bona-beau, Dorigo, Theraulaz, 1994; Mach, Schweitzer, 2003; Miller, 2010;

Carillo, Fornasier, Toscani, 2010). In his opinion: 'a key lesson of these studies (concerning army ant swarming, wasp nest-building etc. – B.Zb. Sz.) is that global patterns emerge not from a central control, but from aggregates of localized interactions and decisions' (Thacker, 2004; Bona-beau, 1999). However, it is obvious that animal swarming is very differentiated. For example, there is at least one difference between 'insect migration' and 'bird migration'. In the first case the ants that migrate in one direction may not return. Swarming of birds may be neutral, whereas swarming of army ants or locusts is, as a rule, 'hostile'.

In short, according to some researchers, animal swarming is not based on central planning, but on simple individual rules. C.W. Reynolds distinguishes 3 rules of animal swarming ('move in the same direction as your neighbours, remain close to your neighbours, avoid collisions with your neighbours'), and 3 'zones' (zone of repulsion, zone of alignment, zone of attraction') (Reynolds, 1987).

Numerous researchers regard the term 'swarming' as 'heuristically creative' and try to adapt and develop the concept elsewhere.

It may be useful to distinguish some types of swarming:

- 1) fast, slow swarming,
- 2) large-, small scale swarming,
- 3) natural (spontaneous), artificial (directed) swarming,
- 4) animate (biological: animal, human), inanimate swarming.

Various combinations of the above cases yield a more realistic picture of these problems.

In the case of hybrid warfare we can distinguish several spaces/sectors of activity (eg: military, political, energy, information, finances, economy, health, ethnic, religious, etc.).

For space reasons let us illustrate the problem with some examples of military swarming.

History offers a number of examples of 'human swarming' (Davies, 1997; Turnbull, 2003; Kennedy, 2002):

- 1) invasions of the Peoples of the Sea (13th and 12th centuries BC) on the coasts of the eastern part of the Mediterranean Sea (outcome: destruction of the kingdom of Ugarit, decline (and in longer perspective – the fall) of Egypt);

- 2) invasion of the Huns (under the command of Attila) on Europe (5th century AD);
- 3) migrations of some Germanic tribes (e.g. the Visigoths, Vandals, Ostrogoths; the Wandering of Peoples) in Europe and North Africa; 4–6th centuries AD);
- 4) invasions of the Muslim Arabs (Near East, North Africa, South Europe; since the 7th century AD);
- 5) raids of the Vikings (from the 8th century AD);
- 6) invasions of the Turkish tribes (Asia Minor, Europe; 11th – 17th centuries AD);
- 7) invasion of the Mongols (Asia, Europe; from the 13th century AD).

Comparison of these examples of ‘swarming’ with current understanding of ‘military swarming’ suggests that present military theoreticians treat this term very liberally (Arquilla, Ronfeldt, 2000; Edwards, 2000, 2003; Dorigo, Birattari, 2007; Shannon, Tsyppkin, Arquilla, 2008; Parikka, 2008; Scharre, 2015; Majumdar, 2017).

For example, according to J. Arquilla and D. Ronfeldt: ‘Swarming occurs when the dispersed nodes of a network of small (and perhaps some large) forces can converge on a target from multiple directions’ (Arquilla, Ronfeldt, 1996, p.15). According to these authors: ‘Swarming is a seemingly amorphous but deliberately structured, coordinated, strategic way to perform military strikes from all directions. It employs a sustainable pulsing of force...’

According to another researcher, E. Thacker: ‘A swarm is an organization of multiple, individual units with some relation to one another... a swarm is a particular kind of collectivity or group phenomenon that may be dependent upon a condition of connectivity’ (Thacker, 2004, p.5). And he adds: ‘The model of army ant swarming has been a model for the U.S. military for some time...’

S. Edwards is more precise: ‘Swarming occurs when several units conduct a convergent attack on a target from multiple axes’ (Edwards, 2005, p.XVII). Such an attack may be opportunistic or pre-planned. S. Edwards emphasizes the problem of ‘pulsing’. ‘Pulsing’ comprises: 1) rapid convergence of units on a target; 2) attack; 3) re-dispersement. This sequence of stages can repeatedly occur as a cycle. According to S. Edwards: ‘military

swarming involves the use of a decentralized force against an opponent, in a manner that emphasizes mobility, communication, unit autonomy and coordination or synchronization' (Edwards, 2003, 2005).

A similar opinion presents P. Scharre: 'Swarm warfare... combines the highly decentralized nature of melee combat with the mobility of maneuver and a high degree of organization and cohesion, allowing a large number of individual elements to fight collectively' (Scharre, 2015, p.7).

The concept of swarming also appears in publications on drones (Scharre, 2015; Martin, 2017; Baraniuk, 2017; Mizokami, 2017). However, P. Scharre stresses the difference between animal (animate) and robot (inanimate ?) swarming: 'The most important difference ... is that robot swarms are designed while swarm behaviour in nature has evolved' (Scharre, 2015). And he adds: 'Swarms in nature have no central controller or 'common operating picture'. Robot swarms, on the other hand, ultimately operate at the direction of a human being to perform a specific task' (Scharre, 2015, p.4).

A question arises: and what about the natural swarming of the Sea Peoples, Huns, Muslim Arabs, Mongols, Muslim Turks, etc?

D. Martin regards 'autonomous drones "the biggest thing in military technology since the nuclear bomb"' (Martin, 2017). In particular, 'robot swarms' offer the possibility of (Scharre, 2015):

- 1) coordinated attack and defence,
- 2) dynamic self-healing networks,
- 3) distributed sensing and attack,
- 4) deception,
- 5) 'swarm intelligence' (improvement of target identification and resilience to spoofing).

It is obvious that these definitions have little in common with 'animal swarming' (in the case of 'animal swarming' there is no central coordination).

SOME REEMARKS ON THE DISCREPANCIES WITHIN THE FRAMEWORK OF THE COMMON SECURITY AND DEFENCE POLICY OF THE EUROPEAN UNION

First of all, the so-called ‘Common Security and Defence Policy’ is designed by politicians selected (and not elected) by influential crypto-crats – accordingly to the interests of such powers as Germany and France. It is they who decide what is understood by ‘common policy of the EU’ (Howorth, 2007; Heyman, 2011; Dyson, 2013; Koziej, 2015; Carrasco, Muguruza, Alamillos, 2016; Whitman, 2016; Van Ham, 2016; Faleg, 2016; Angelini, 2016; Bond, Besch, Gostyńska-Jakubowska, Korteweg, Mortera, Tilford, 2016; Menon 2017; Eilstrup-Sangiovanni, 2017; Betka, 2017).

The Security and Defence Policy is not ‘common’. For example, Denmark, a member state of the European Union, has an opt-out regarding this policy. Another example offers the United Kingdom, a close military ally of the USA.

On the one hand, the UK’s security and defence policy could hardly be described as compatible with the Security and Defence Policy of the European Union (read: of Germany and France) (Whitman, 2016).

On the other hand, Germany’s sympathies seem to have been connected with the Russian Federation. I. Bond and others believe that: ‘the UK has always advocated pan-European solutions to security threats’ (Bond et al., 2016, p.11). However their opinion does not correspond with the fact that in the past Muslim terrorists (inter alia: those connected with al-Kaida) could find asylum in the United Kingdom (Estulin, 2016) in exchange for peace in the British territory. Brexit hardly illustrates common interests of the United Kingdom and the European Union (practically directed by German and French cryptocrats). Moreover, Brexit does not mean the possibility of a common security and defence policy within the network of the member states. The nodes (member states) of this network have more or less differentiated interests (e.g. Germany, France – Poland, Hungary). This means not only certain tensions in mutual relations but also open blackmail (cf. the question of structural funds, fines (relocation

of hundreds of thousands of immigrants)). The present situation can be described as a netwar within the European Union.

It is striking that the concept of 'Common Security and Defence Policy', elaborated by the European Commission, is incompatible with the invitation (by the Federal Chancellor, supported by the European Commission) of hundreds of thousands of Muslim immigrants to the European Union – without any real possibility to control the inflow.

It is possible that the consequences of this swarming of Muslims will be deplorable, as it is impossible to verify their real identity and past. Their values (koranic law, sharia) and behaviour (terrorist attacks, rapes and other criminal activities) suggest that the European Commission wants to assure security by supporting the swarming of at least partly hostile Muslims and their relocation in the member states.

Of course, this swarming cannot be described as 'spontaneous', for it follows the invitation by the German Chancellor. It is difficult to find a sound reason for this invitation (Szalek, 2013).

On the other hand, one cannot exclude that some (thousands?) of the Muslim immigrants

are simply jihadists, terrorists sent by ISIS or other organizations of this sort. This possibility directs our attention at two new aspects of human swarming – in comparison to animal and military swarming discussed above:

- 1) infiltration of a swarm by extremely dangerous entities and networks,
- 2) multiple steering centres (e.g. a politician like A. Merkel, leader(s) of terrorist structures/networks).

The present Muslim swarming is supported by the network of Open Society foundations designed, financed and commanded by G. Soros (Szalek, 2016a, 2016b). In fact, we have to do with a tangle of networks. However, the reality is much more complex – such networks are only a fragment of real mechanisms connected with swarming.

For example, thousands of Muslim mosques and various terrorist networks in the European Union are partly financed within the framework of Muslim charities from such oil and gas exporting countries as Saudi Arabia, Qatar, Kuwait etc. In other words, we have to do with peculiar

feed-backs: considerable amounts of money paid for Muslim gas and oil are used for Muslim religious, anti-Western propaganda and terrorist activities in the European Union.

The Muslim swarming is not the only one in contemporary Europe. Let us pay some attention to such member states of the European Union as Poland. It is estimated that at present there are about 2 million Ukrainian immigrants in Poland. The problem is that a number of them may be in fact Russian spies – practically undetectable. Moreover, this swarming may (in future) jeopardize the security of Poland – as certain Ukrainian politicians/revisionists claim a right to some territories in the east-southern part of Poland.

The problem of networks can be associated with ‘hybrid warfare’, or, in other words, with various spaces and synchronized activities conducted in order to win (e.g. networks of spies, agents of influence, energy (gas, oil), mass media, etc.).

The question is whether such hybrid activities can be and are:

- 1) based on a sound reasoning (reasonable targets/aims/challenges, reliable and sufficient information),
- 2) coordinated,
- 3) based on appropriate resources/potential.

INSTEAD OF CONCLUSIONS

The above remarks shed some more light on the problem of ‘Common Security and Defence Policy of the European Union, as well as on such terms as ‘networks’, ‘netwar’, ‘swarming’, ‘hybrid warfare’, ‘consolidated hybrid security’ and ‘consolidated hybrid defence’.

It is obvious that it is advantageous to analyse the situation on the grounds of hybrid and not only conventional warfare.

For example, Poland lost hundreds of billions USD (220–340 billion USD in the years 1990–1999; let us recall the present claims for reparations from Germany for the Polish losses during the Second World War: c. 850 billion euros) in the course of the economic transformation (based on such preposterous slogans as: there are no strategic sectors in the economy of

a modern country; we must attract/invite foreign capital/investors at any cost (Kieżun, 2013; Poznański, 2000, 2001). Absence of military activities does not mean that other hostile activities are absent (cf. the permanent problem of German lies about 'Polish death camps' during the 2nd World War). In order to illustrate the situation one can recall the activities of the Russian Federation directed at the European Union and Poland (energy (Nord Stream 1 and 2, Opal), the wreck of Tupolev 154 (Smolensk, 2010), Russian embargoes regarding Polish meat and vegetables, etc.).

Such an analysis must be: holistic/global (based on general systems theory), dynamic (not static), multivectoral, synchronic and diachronic, comparative, unbiased (Wysocki, 2016).

Simplistic (e.g. limited to one network, to one case of swarming, etc.) and static definitions of such terms as 'network', 'swarming', 'hybrid warfare' must be replaced by definitions that are realistic and dynamic.

At present, the Common Security and Defence Policy of the European union is full of discrepancies. It is not 'common' (e.g. the problem of the Muslim immigration). Individual countries (such as Germany, France) try to dominate (cf. the attempts to blackmail in re 'relocation' of Muslim immigrants) other member states and impose (in order to achieve their aims) unnecessary problems and 'solutions' (e.g. the 'swarming' of Muslim immigrants – destabilization in Germany, France, Belgium, and attempts/efforts to relocate them within the European Union) (Cukiernik, 2016).

Thanks to the European Commission (read: German and French cryptocrats), the United Kingdom, one of the strongest states with modern military forces leaves the EU (Brexit).

According to some experts, this weakening of the European Union offers certain advantages (sic!) regarding the Common Security and Defence Policy (Bond et al., 2016; Angelini, 2016).

However, the interior of the European Union is full not only of various discrepancies but also of absurdities. For example, the so-called Battle Groups are not designed to fight (besides some of them comprise units sent by neutral (sic!) states) but to fulfil the so-called Petersberg (humanitarian, etc.) missions.

From the viewpoint of praxiology this situation requires a new approach.

BIBLIOGRAPHY:

- Allison, C., Hughes, C. (1991). Bacterial swarming: an example of prokaryotic differentiation and multicellular behaviour. *Science Progress*, 75, pp. 403–422.
- Angelini, L. (2016). *Brexit is an opportunity for EU defence policy*. Downloaded from: <http://euobserver.com/opinion/134256>.
- Arquilla, J., Ronfeldt, D. (1996). *The Advent of Netwar*. Downloaded from: http://www.rand.org/pubs/monograph_reports/MR789. Santa Monica: RAND.
- Arquilla, J., Ronfeldt, D. (2000). *Swarming and the Future of Conflict*. Downloaded from: http://www.rand.org/pubs/documented_briefings/DB311.html.
- Arquilla, J., Ronfeldt, D. (2001). *Networks and Netwars: The Future of Terror, Crime, and Militancy*. Downloaded from: http://www.rand.org/pubs/monograph_reports/MR1382. Santa Monica: RAND.
- Astroturf. (2017). Downloaded from: politicaldictionary.com./words/astroturf.
- Astroturfing. (2017). Downloaded from: <http://www.bigcommerce.com/ecommerce-answers/what-is-astroturfing>.
- Barabasi, A.-L. (2002) *The New Science of Networks*, Cambridge: Perseus Publishing.
- Baraniuk, Ch. (2017). *US military tests swarm of mini-drones launched for jets*. Downloaded from: <http://www.bbc.com/news/technology-38569027>.
- Betka, T. (2017). *WPZiB i EPBiO od Maastricht do Lizbony*. Downloaded from: http://uniaeuropa.org/unia/index.php?option=com_content&view=article&id=624&catid=99&Itemid=78.
- Błasiak, W. (2014). *Plan szokowej terapii Sorosa w wersji Sachsa pod nazwiskiem Balcerowicza*. Downloaded from: <http://jow.pl/plan-szokowej-terapii-sorosa-wersji-sachsa-nazwiskiem-balcerowicza/>.
- Bonabeau, E., Dorigo, M., Theraulaz, G. (1999). *Swarm Intelligence: From Natural to Artificial Systems*, Oxford: Oxford University Press.
- Bond, I., Besch, S., Gostyńska-Jakubowska, A., Korteweg, R., Mortera-Martinez, C., Tilford, S. (2016). *Europe after Brexit: Unleashed or Undone?*, Centre for European Reform, April.
- Carrasco, C.M., Muguruza, C., Alamillos Sanchez, R. (2016). *Case Study: Common Security and Defence Policy (CSDP)*, Brussels: European Commission, 31 May.
- Carrillo, J., Fornasier, M., Toscani, G. (2010). Particle, kinetic, and hydrodynamic models of swarming. *Modeling and Simulation in Science. Engineering and Technology*, 3, pp. 297–336.
- Collett, E. (2017). Destination: Europe. Managing the Migrant Crisis. *Foreign Affairs*, March/April, pp.150–156.
- Cukiernik, T. (2016). Dotacje narzędziem szantażu. *Polska Niepodległa*, 27.4–10.5, p.9.

- Davies N. (1997). *Europe. A History*, London: Pimlico.
- Dorigo, M., Birattari, M. (2007). Swarm intelligence. *Scholarpedia* 2(9).
- Dyson, T. (2013). Balancing Threat, Not Capabilities: European Defence Cooperation as Reformed Bandwagoning. *Contemporary Security Policy*, 34 (2), pp. 387–391.
- Dyson, T., Konstadinides, T. (2013). *Understanding the Limitations of the EU's Common Security and Defence Policy*. Downloaded from: <http://www.e-ir.info/2013/09/26/understanding-the-limitations-of-the...>
- Edwards, S. (1997). The Threat of High Altitude Electromagnetic Pulse (HEMP) to FORCE XXI. *National Security Studies Quarterly*, 3 (4), Autumn.
- Edwards, S. (2003). *Military History of Swarming. Conference on Swarming and Network Enabled Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance*, (C4ISR) Virginia: McLean.
- Edwards, S. (2000). *Swarming on the Battlefield: Past, Present, and Future*, Santa Monica: RAND.
- Eilstrup-Sangiovanni M. (2017). *What Future for Europe's Security and Defence Policy?* Downloaded from: <http://www.e-ir.info/2017/01/03what-future-for-europes-security-an...>
- Estulin, D. (2016). *In the Name of Allah*, Katowice: Wydawnictwo Sonia Draga.
- Faleg, G. (2016). *The Implications for the Common Security and Defence Policy*. Centre for European Policy Studies (CEPS), Brussels. Downloaded from: <http://www.ceps.eu/publications/implications-brexit-eu%u2019s-c...>
- Fellman, PH., Wright, R. (2003). Modeling Terrorist Networks – Complex Systems at the Mid-Range, Complexity Programme. Complexity, *Ethics and Creativity Conference*, Sept.
- Formicki, T. (2016). Technologie informacyjne stosowane w rewolucjach politycznych XXI wieku. *Mysł Polska*, 28.2–6.3, pp.16–17.
- Heyman, Ch. (2011). *The Armed Forces of the European Union*, Casemate Publishers.
- Howorth, J. (2007). *Security and Defence Policy in the EU*, Houndmills: Palgrave.
- Kautilya. (1992). *The Arthashastra*, (editor and translator) L.N.Rangarajan, London: Penguin.
- Kennedy, H. (2002). *Mongols, Huns, and Vikings*, London: Cassell.
- Kieżun, W. (2013). *Patologia transformacji*, Warszawa: Poltext.
- Kościelny, R. (2016). Gaslighting. Jak służby manipulują opinią publiczną, *Gazeta Warszawska*, 29.7–4.8., pp.23–26.
- Koziej, S. (2015). *Reflections on the Common Security and Defence Policy ahead of the EU Summit meeting – Europe needs a quality and realistic security strategy*, Warszawa: Fundacja im. Kazimierza Pułaskiego.
- Lichocka, J., Polko, R. (2014). Trzeba być przygotowanym na wszystko, *Gazeta Polska*, 19.3, pp. 26–27.

- Mach, R., Schweitzer, F. (2003). Multi-Agent Model of Biological Swarming. *Advances in Artificial Life. Lecture Notes in Computer Science*, 2801, pp. 810–820.
- Majumdar, D. (2017). U.S. Military Successfully Tested Its Latest Super Weapon: ‘The Swarm’, *The National Interest*, Jan.9. Downloaded from: <http://nationalinterest.org/blog/the-buzz/us-military-successfully-teste...>
- Martin, D. (2017). *New generation of drone set to revolutionize warfare*. Downloaded from: <http://www.cbsnews.com/news/60-minutes-autonomous-drones-set-to...>
- Menon, A. (2017). *Security and the Brexit Effect. E-International Relations*. Downloaded from: <http://www.e-ir.info/2017/01/17/security-and-the-brexit-effect/>.
- Merand, F., Hofmann, S., Irondelle, B. (2011). Governance and State Power: A Network Analysis of European Security, *Journal of Common Market Studies*, 49(1), pp.121–147.
- Miller, P. (2010). *The Smart Swarm: How understanding flocks, schools, and colonies can make us better at communicating, decision making, and getting things done*. London: Penguin.
- Mizokami, K. (2017). *The Pentagon’s Autonomous Swarming Drones Are the Most Unsettling Thing You’ll See Today*. Downloaded from: <http://www.popularmechanics.com/military/aviation/a24675/pentago...>
- Morse, R.A. (1963). Swarm orientations in honeybees. *Science*, 141, pp. 357–358.
- Nouzille, V. (2015). *Les Tueurs de la Republique*, Paris: Librairie Artheme Fayard.
- Parikka, J. (2008). Politics of Swarms: Translations between Entomology and Biopolitics. *Parallax*, 14 (3), pp. 112–124.
- Poznański, K.Z. (2000). *Wielki przekręt. Kłęsa polskich reform*. Kraków: Towarzystwo Wydawnicze i Literackie.
- Poznański, K.Z. (2001). *Oblęd reform. Wyprzedaż Polski*, Warszawa: Ludowa Spółdzielnia Wydawnicza.
- Ronfeldt, D., Arquilla, J., Fuller, G.E., Fuller, M. (eds.). (1998). *The Zapatista Social Netwar in Mexico*, Santa Monica: RAND.
- Rachoń, M., Lenczowski, J. (2016). Czy Smoleńsk to akt wojny? *Gazeta Polska*, 20.07, pp. 14–15.
- Reynolds, C.W. (1987). Flocks, herds and schools: A distributed behavioral model, *Computer Graphics*. 21(4), pp. 25–34.
- Scharre, P. (2015). *Unleash the Swarm: the Future of Warfare. War on the Rocks*. Downloaded from: <http://warontherocks.com/2015/03/unleash-the-swarm-the-future-of...>
- Shannon, W.D., Tsypkin, M., Arquilla, J. (2008). *Swarm Tactics and the Doctrinal Void: Lessons from the Chechen Wars*, Monterey: Naval Postgraduate School. Downloaded from: <http://www.dtic.mil/cgi-bin/GetTRDoc?Location-U2&doc=GetTRDDoc.pdf&AD=ADA483607>.
- Song Hongbing. (2012). *Wojna o pieniądź*, Kobierzyce: Wektory.
- Sumliński, W. (2017). *ABW. Nic nie jest tym czym się wydaje*, Warszawa: WSR.

- Sun Pin. (1998). *Military Methods of the Art. of War*, New York: Barnes and Noble Books.
- Sun Tzu. (1963). *The Art of War*, Oxford: At the Clarendon Press.
- Szafranski, R. (1995). A Theory of Information Warfare: Preparing for 2020. *Airpower Journal*, Spring, pp. 56–65.
- Szałek, B.Zb. (2013a). Some praxiological reflections on the so-called ‘Overton Window of Political Possibilities’, ‘framing’, and related problems. *Reality of Politics*, 4, pp.237–257.
- Szałek, B.Zb. (2013b). *Problem wielopoziomowego zarządzania (Multi-Level Governance) w Unii Europejskiej w świetle prakseologii i heurystyki*. In: J.Ruszkowski, L. Wojnicz (eds), *Multi-Level Governance w Unii Europejskiej* (pp.61–86). Szczecin-Warszawa: IPE US, IE UW.
- Szałek, B.Zb. (2015). Geopolitics, Political Topology and Hybrid Warfare. *Reality of Politics*, 6, pp. 86–97.
- Szałek, B.Zb. (2016a). The Blurred Problem of Foreign Funding of Civil Society Organizations in the Light of Political Marketing, Praxiology and Hybrid Warfare, *Reality of Politics*, 7, pp. 195–211.
- Szałek, B.Zb. (2016b). Problem ‘społeczeństwa obywatelskiego w świetle marketingu, heurystyki i prakseologii’. In: A. Wojtaszak, A. Krawcewicz (eds.). *Współczesny wymiar społeczeństwa obywatelskiego* (pp.25–46), vol.1, Szczecin: WN WH US Minerva.
- Thacker, E. (2004). *Networks, Swarms, Multitudes*. Downloaded from: <http://www.ctheory.net/articles.aspx?id=423>.
- The Lisbon Treaty (2009). Brussels.
- Turnbull, S. (2003). *Mongol warrior 1200–1350*, Oxford: Osprey Publishing Ltd.
- Van Ham, P. (2016). *Brexit: Strategic Consequences for Europe. A Scenario Study*, NIIR, The Hague: Clingendael Report, February.
- Walker, E. (2014). *Grassroots for Hire: Public Affairs Consultants in American Democracy*, Cambridge: Cambridge University Press.
- Whitman, R.G. (2016). The UK and EU Foreign Security and Defence Policy After Brexit: Integrated, Associated or Detached? *National Institute Economic Review*, 238, pp. R1–R8.
- Wierchołowski, G. (2017). Raport potwierdza: groźne choroby uchodźców. *Gazeta Polska*, 26.7., p.8.
- Wilson E.O. (1980). *Sociobiology*. Harvard: Harvard University Press.
- Wysocki, K. (2016). Zebrać w całość wszystkie sprawy obronne. *Gazeta Polska*, 10.8, pp. 16–17.
- Zanini, M., Edwards S. (2001). The Networking of Terror in the Information Age. In: J. Arquilla, D. Ronfeldt (eds.), *Networks and Netwars: The Future of Terror, Crime, and Militancy* (pp.29–60). Santa Monica: RAND.