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FROM THE EDITORIAL COMMITTEE

We are giving you the next 29th 1 (2022) issue of the Scientific Journal of the Faculty of Management at the Rzeszow University of Technology entitled "Humanities and Social Sciences".

The aim of the Publisher is to raise the merits and the international position of the quarterly published by the Faculty of Management, that is why we are still developing the cooperation with foreign team of reviewers, as well as an international Scientific Council. The Editors have also attempted to apply for international databases; currently the quarterly HSS is indexed in **Index Copernicus Journal Master List, The Central European Journal of Social Sciences and Humanities (CEJSH) ERIH PLUS, DOAJ and EBSCO**.

The Journal has been also included in the list of projects qualified for funding under the **"Support for scientific magazines program"**.

The articles published in this publication are devoted to the broader issues of the humanities and social sciences. They are the result both of theoretical and empirical research. The subjects covered vary considerably and reflect the interdisciplinary nature of the Journal. We do hope that the papers published will meet your kind interest and will be an inspiration to further research and fruitful discussions.

On behalf of the Editorial Board of "Humanities and Social Sciences" we would like to thank the Authors for sending the outcomes of their research. We would like to express particular gratitude to the Reviewers for their valuable feedback that greatly contributed to increasing values of the scientific publications.

With compliments
Editorial Committee

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Anna BARWIŃSKA-MAŁAJOWICZ[1]

GENERATIONAL AFFILIATION AS A DETERMINANT OF CHARACTERISTICS AND ATTITUDES TOWARDS PROFESSIONAL AND SOCIAL LIFE

During the 20th century, dynamic economic, social, political, historical, and technological changes led to the separation of new generations. Generational affiliation is one of the variables that define human attitudes, and this paper focuses on the problem of generational diversity. The paper includes an attempt to capture the traits of the generations born in the 20th century. Its purpose is to identify the characteristics, values, and attitudes of generations born in the 20th century in relation to professional and social life and provide an overview.

The paper studies the subject literature and utilizes desk research, descriptive statistics, and the collective case study method.

Keywords: generational change, generations born in the 20th century, labor market, features, attitudes.

1. INTRODUCTION

Studying the generational change refers to the differences between two consecutive generations with regards to their attitudes, views, values, motivations and aspirations, whereas the conceptual category is of an interdisciplinary nature and *inter alia* draws from scientific disciplines such as economics, sociology or psychology. The generational change becomes visible through an analysis of features characteristic to individual generations. Dynamical changes of economic, social, political, historical and technological nature, taking place in the 20th century, have led to the separation of new generations. These generations are characterized by different attitudes, preferences, worldview, values and methods of communication. This in turn translates to different expectations, attitudes, commitment and motivations towards the labor market and social life.

The purpose of the study is to identify characteristics, values and attitudes of generations born in the 20th century in relation to professional and social life. The subject literature review indicates intergenerational differences, *i.e.*, variations in the characteristics of a given generation compared to others. The objective was achieved with the application of the subject literature studies, the desk research method, descriptive statistics method and the collective case study method.

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2. GENERATIONAL CHANGE – GENERAL COMMENTS

Within every society the generation gap is shaped by the socioeconomic and cultural events which bear a transforming impact on human life. In the modern world there are several generations that differ in many attributes (for example, attitude to work, attitude towards the employer and co-workers, value systems, motivation, perception of the path of their own professional development or loyalty to their organization)[2].

A review of the literature on the subject allows us to distinguish four generations operating in the modern labor market and five generations in the consumer market. Without entering into considerations on the legitimate use of the conceptual category "generation" (which in the sociological sense has a precise definition (Świda-Ziemba, 2010) this study refers to a division based mainly on demographic criteria (Murzyn, Nogieć, 2015), (Table 1). Notably, this is a conventional division which finds no clear definition in the literature. It also does not reflect a direct generational replacement (about every 20–25 years), but it refers to people born at a similar time and shaped by similar events and experiences, although in the instance of Generation X growing up in Poland this thesis seems to be rather debatable.

The subject literature does not present a uniform opinion on strict dates of birth of individual generations' representatives. For instance, in Polish literature, Hysa (Hysa, 2016) specifies that those born between 1945–1964 are Baby Boomers, Generation X are those born between 1965–1980, while Generation Y are people born between 1981–1994. According to Bombiak (Bombiak, 2016) the bottom birth year threshold of people belonging to Generation X is the year 1964, Generation Y fits between 1980 and 1994, while people born after 1995 are Generation Z. Whereas, Aniszewska recognizes that Generation X covers those born between 1961–1985 (Aniszewska, 2015).

A study of international subject literature also indicates the mobility of birth ranges of individual generations. Berkup (Berkup, 2014) considers that Generation X includes people born between 1965–1979, and Generation Y those born between 1980–1994, while Generation Z are those born after 1995. Meanwhile, Howe and Strauss (Howe, Strauss, 2007) assume the following birth dates: the BB generation: 1943–1960, Generation X: 1961–1981, Generation Y: 1982–2005, and Zemke, Raines, Filipczak (Zemke, et al., 2000) are of an opinion that the BB generation include the birth years between 1943–1960, Gen Xers: 1961–1980, and the Nexters (Generation Y): 1980–2000, while O'Neill (O'Neill, 2010) places Baby Boomers within the range 1946–1964, Generation X in 1965–1978 and the Millennials in years 1977–1997. The time frames covering the time of birth of the representatives of individual generations are variable, depend on an analyzed country, local conditions and the adopted division.

The subject literature review indicates intergenerational differences, *i.e.*, variations in the characteristics of a given generation compared to others (Lipka, 2017), yet, it also points to the differences in the features and attitudes of the members of the same generation, depending on their geographical allocation. This is the case, for example, between the Baby Boomers (BB) generation from Poland and the USA. The baby boom representatives' approach to work and their perception of the world definitely bears a mark of the time of their up-bringing, which was the communist era. They are characterized, among other things, by suspicion, distrust, lack of tolerance for differences, creation of a "grey civic

[2] In the instance of generations X or Y, although they are not constituted as generations, one can hardly talk of their actual common value system of a common identity (Jasiewicz, 2020/2021).

mass", justice understood as equality of wealth distribution, climbing up the career ladder gradually without skipping any levels etc. (*Alfabet pokoleń*, http). In contrast, the priorities of the BB generation in the US include work and subsequent promotions. They are incurable career-oriented materialists. The political and social determinants in which they grew up resulted in their strong focus on individual needs, with a propensity to optimism and idealism. Work and personal sacrifice were their path to their financial success (*Zarządzanie pokoleniami w organizacji,* http; Twenge, et al., 2010; Glass, 2007).

The circumstances in which the members of different generations were becoming adolescents cannot be ignored in an analysis of their attitudes, behaviors and motivations. Poland developed at a completely different pace than the Western Europe countries or the United States. Therefore, comparing the attitudes of a US boomer with a Polish boomer may lead to overplaying, a distorted image being generated, it may even seem grotesque. Additionally, most of the terms regarding the division of generations have been derived from Western sociology.

The findings of research conducted by INSEAD Emerging Markets Institute, Universum and the HEAD Foundation on the representatives of three generations: X, Y, Z are evident of the fact that people considered to be the members of one generation but functioning in two different countries simultaneously may (to a greater or lesser extent) differ in terms of views, behaviors and attitudes as well as their features and preferences (Bresman, Rao, 2017). Furthermore, it is important to be aware that the diversity within generations also arises from the individual characteristics of its members.

3. GENERATIONS BORN IN THE 20TH CENTURY – DIVERSITY OF FEATURES, VALUES AND ATTITUDES

It is important to understand the phenomenon of generations and the differences among them because those generations, featuring diverse features, "clash" in the modern world (on the labor market, on the consumer market, etc.), which is a great challenge for numerous organizations, it is reflected in work relationships, affects the scale and the structure of demand for specific goods and services. Notably, due to the complexity of this problem, the characteristics hereinbelow are presented in a simplified form and may not be applied to identify individuals representing various generations.

The **Generation of Traditionalists** (Silent Generation, Veterans, Seniors, Matures or Radio Babies) was highly affected by the historical period of their professional activity (the time of the second world war and the post-war changes of a political, cultural, social and economic nature). This generation functioned in the conditions which strongly determined how they perceive work, professional career and the value system. The members of this generation are perceived as "one organization people", their professional paths usually involved one workplace, and the work style was based on discipline, while the fundamental business life principle involved respect for the boss and fulfilling work commands in a subordinate manner (Crampton, Hodge, 2009). It is a subpopulation to whom work itself constituted a value, a generation with respect for legal and organizational norms, strongly devoted to tradition and authority as well as attached to ethics and moral principles. The Silent Generation prioritized sense of safety, particularly in financial terms (Berkup, 2014; Sprague, 2008), conscientiousness, loyalty to tradition, commitment, strong sense of obligation, acceptance of a formal work style (Maksymowicz, Mamak-Zdanecka, 2014).

Generation BB is a generation of demographic explosion, also rather focused on a professional career at one company than a mobile professional path. A review of available literature shows that this group employees display recognition for authorities, firm attitudes and behaviors, patience, responsibility and weighing their words (Hysa, 2016), as well as seeking to provide themselves with stability and safety of employment (Smola, Sutton, 2002; Hart, 2006; Polus, 2019). Their immense advantage is a very strong level of work commitment, in accordance with the principle: "live to work" and their slogan is "Thank God it's Monday" (Berkup, 2014). Moreover, literature describes this group as idealistic, optimistic and most loyal as well as attached to their organization (Hart, 2006; Becton, et al., 2014). They are capable of sacrifice and disciplined. They have no interpersonal communication problems (Kuczerska, Smoląg, 2018).

As already mentioned earlier, there are marked differences between the BB generation functioning in a country such as Poland (a country subjected to the communist dictatorship following the second world war) and the USA. We shall inspect in a more detail some of those differences primarily arising from diverse political and economic conditions in both countries, at the time of greatest activity of this generation. Members of the Polish BB generation were brought up and were adolescents at the time when work was an autotelic value, at the time when work ethos created by socialism prevailed. After the collapse of this system, they continued to be professionally active, thus participating in the system transformation and the market economy formation (Sytek, 2013). Focused on continuous activity and professional development, they sought stability and a regular salary. Due to the fact that they gained their professional experience during the communist period, they are driven by a great need to create a safe living area. At the same time, they are perfectly aware of their efforts to achieve success. They demonstrate efficiency and capability of overcoming difficulties. They always put a lot of effort in their tasks and are able to follow technological advancements for this purpose, which is also forced by the fact that the time of their professional activity coincides with the industrial society evolving into a post-industrial society and the society of knowledge. The BB generation employees demonstrate regard and respect for the hierarchic order of an organization, the position and professional status as well as professional and academic titles (Maksymowicz, Mamak-Zdanecka, 2014). They were often forced to redefine their professional roles in the face of the expectations and the requirements of the modern labor market, however they tend to be less creative than the younger generations, which sometimes impedes pushing their professional interest forward. By way of comparison, among the traits commonly observed among the BB generation operating in the USA, it is also important to mention hard work, aimed at making a living ("they were born to achieve the American dream and they tried to make it happen" (*Who are the Baby Boomers?,* http)), while the American conditions in which the cult of work formed were very distant from the socialist conditions familiar to the Polish boomers. Many American BBs grew up in very disciplined and well-organized households, which taught them respect for work and shaped their present identity. Moreover, independent thinking, self-confidence built on hard work, a need to be successful due to time and effort committed to build a career are typical to them. In addition, they are resourceful, ingenious, target-oriented, disciplined, they can settle many problems on their own. They are willing to observe social norms and at the same time they are capable of expressing their opinions firmly if they decide that something breaches their personal values or perspectives. Their operations are driven by self-improvement and personal development and their attitudes and views were shaped by the events and processes including the Vietnam War

(1955–1975), civil rights movements (1954–1968), cold war, fast technical progress, space exploration (*Who are the Baby Boomers?,* http; *8 Important Characteristics Of Baby Boomers eLearning Professionals Should Know*, http).

Generation X is defined by the socioeconomic determinants typical to the period of economic uncertainty, high unemployment rates, inflation, redundancies or high divorce rates (Becton et al., 2014; Lyons et al., 2007). The most important trait of Generation X is great uncertainty, in effect representatives of this generation, regardless of their location in the world, appreciate stabilization and gathering resources. This corresponds with their attitude towards work, as what they appreciate most is continuous and stable employment, while the main factor motivating them to work is the level of remuneration, although a good atmosphere at work is also important. People representing Generation X value highly independence and free time (Ryś, http). As already mentioned, they find stabilization highly valuable, which does no mean they do not accept changes. On the contrary, they usually cope quite well, yet, they prefer working in peace. They also appreciate teamwork and knowledge. They often work many years at one company and identify with it. They are ambitious and professional, they put a lot of emphasis on family and professional success achieved with their hard work. On the one hand, this generation is characterized by a sense of meaningless, skepticism, pessimism void of illusions, uncertainty, fear of losing the positions achieved, isolation from social affairs, lack of trust in the state and aversion to politics; on the other hand, they are characterized by workaholism (the generation working from dawn to dusk, although rejecting the rat race and excessive consumerism), a strong work ethic and loyalty to their profession (Wojtaszczyk, 2016; Smolbik-Jęczmień, 2014). They tend to be called outsiders. Notably, while personality and identity of Gen Xers growing up in the USA or Western Europe was shaped by commercials, this generation in the socialist countries (such as Poland at that time) did not have access (or had a very limited access) to many goods and services or new development trends, which created in them a sense of inferiority and triggered a plethora of complexes (Wojtaszczyk, 2016) (such as "inferiority complex towards the West. Everything coming from there was automatically better") (Godziński, http).

The *Gen X Today* project[3] shows that Gen X described in the 1990s as rebellious, lost, vain, with no future, gained in confidence, broke free from the burden of expectations and created a meaningful life. And in the past two decades its representatives pioneered vast social changes. As regards the research context Generation X (constituting a fourth of global population) was mostly ignored in the past two decades, the research focused rather on the generations entering the labor market, *i.e.,* Y or Z.

Generation Y is a generation born in the 1980s and who grew up in the world of globalized economy, surrounded with mobile phones and the Internet. Most Young people in this generation cannot imagine life without those inventions. They are often described as having a lot of self-confidence which, together with a high level of consumption needs, makes them perceived as demanding. They are typically quick to learn and open to changes, highly mobile, reserved towards authorities and prefer flexible working time and a work-life balance.

A characteristic feature of Generation Y is a different way of approaching work than it was the case with previous generations. Representatives of this generation do not prioritize

[3] The project included research with 1,200 adult respondents living in 21 countries all over the world (Kurz, Guerrier, 2016).

work. They treat it rather as a means to achieve other, more important goals, among which they list having a happy family, self-development and following their passions. They want to work, but not throughout their entire life. They have a very well-developed art of auto-presentation. They set up their own business eagerly. Innovation, ease at accessing information and a task-oriented attitude are their typical characteristics. They are able to obtain any necessary information from various sources simultaneously. As mentioned earlier, they pay particular attention to private life, expecting a lot of freedom and flexible working hours.

The Generation Y representatives are able to perform a task within a shorter period of time than the previous generation representatives would need (with equal work quality maintained) and they spend the saved time to fulfil their passions and develop their interests. Good command of technology (the Internet and mobile phones) bears a positive impact on their efficiency. They can multitask. They appreciate good work atmosphere and they are uncomfortable when they need to face the “rat race”. Despite being teamwork-oriented, they also value individual approach. Their higher efficiency is also affected by reluctance to chat at work, therefore they are able to perform their tasks faster, they treat their superiors as equals who hold a broader range of competences.

Generation Z is a generation well acquainted with new mobile technologies (the Internet, mobile applications, virtual reality). They are also referred to as Generation C. The name is derived from the word connected – representatives of this group are online all the time. This term can also be associated with other epithets, *i.e.,* content-centric, computerized, community-oriented, changing. Members of this group are characterized by strongly developed digital skills and a pragmatic approach to life. They display an entrepreneurial spirit and at work they value independence, mobility and availability of remote work. Their distinguishing features are: creativity, versatility or flexibility, but on the other hand also low motivation to work, uncompromising nature and idealism (Cichorzewska et al., 2015). They value acting with transparency, autonomy and personal freedom and those elements are non-negotiable when they engage in work (Bascha, 2011). At the same time they are pragmatic and realistic, they are aware of their own limits, they do not posses an unreserved belief in themselves.

The characteristics of the five generations, mainly oriented at the attitudes and behaviors within professional life, was compiled in Table 1 as key words, however, it does not constitute a closed catalogue of traits typical to individual generations.

Table 1. Generations born in 20th century and selected features within their professional life

Feature	**The Silent Generation (Traditionalists, The Greatest Generation)**	**Baby Boomers (Bb)**	**Generation X (Post Boomers, Slackers, Lost Generation)**	**Generation Y (Millennials, Generation Net)**	**Generation Z (C, Digital Natives, Post-Millennials)**
Birth year	Before 1945	1945-1960	1961-1980	1981-1995	After 1995
Aspirations/ Motivations	home ownership / conformity, traditional family values	employment stability and safety / flexibility	work-life balance / autonomy	freedom and flexibility / development-oriented	security and stability / goal-oriented

Table 1 (cont.). Generations born in 20th century and selected features within their professional life

Feature	The Silent Generation (Traditionalists, The Greatest Generation)	Baby Boomers (Bb)	Generation X (Post Boomers, Slackers, Lost Generation)	Generation Y (Millennials, Generation Net)	Generation Z (C, Digital Natives, Post-Millennials)
Main motivators stimulating activity	want to feel needed; strive for financial security	fear of losing job, financial motivation	professional development potential, atmosphere at work	providing feedback, good atmosphere at work, familiarity with a task goal	seeking diversity, escaping routine
Attitude towards work and professional development	Jobs are for life; Work itself is a value; career involving single workplace	Organizational – careers are defined by employers; oriented at professional career at a single company, rarely at a mobile career path	proponents of traditional career; work itself is a value; patiently await promotion or pay rise; loyal towards a profession, not necessarily towards employer	expect fast career; career without boundaries; work is realization of passions and interests and enables further development, as well as private life and work-life balance	desire for immediate, effortless professional career
Employee traits	commitment and attachment to an organization; high sense of duty and responsibility for task performance; attachment to ethic and moral principles; conformity; conservatism	commitment to work; high loyalty towards employer; preference for individual work or cooperation (not rivalry); disciplined; resourceful; goal-centric; need recognition; priority: more important is employer's interest and what they can contribute	humbleness and respect for work; conscientious workers, able to appreciate what they have; need a feeling of sense of undertaken operations; cooperation-oriented,	less loyal towards employers; committed to work if it meets their expectations and satisfies their needs; poor work ethic; no patience, self-discipline; poorer decision-making, demanding and difficulty with direct contact	do not care about stability at work; no loyalty towards their employer; seek diversity; prefer group work; multi-tasking, frequent job changes;
Communication preference	personal interactions, face-to-face, formal letters	Face-to-face, if necessary - telephone or e-mail	Text messaging or e-mail	Online and mobile (text messaging), cloud-based technology	iPhone , facetime

Table 1 (cont.). Generations born in 20th century and selected features within their professional life

Feature	The Silent Generation (Traditionalists, The Greatest Generation)	Baby Boomers (Bb)	Generation X (Post Boomers, Slackers, Lost Generation)	Generation Y (Millennials, Generation Net)	Generation Z (C, Digital Natives, Post-Millennials)
Influencing factors / environment	Office workers; respect for legal and organizational norms	Traditional media, mainly TV; influenced by experts or documented evidence	Personal computer; influence of boss, practicians	digital culture is their natural environment; they cannot function without the Internet, smartphones and tablets; peer influence	nano-computing, 3-D printing, driverless car; prone to influence of celebrities as well as acquaintances (community forums)
Authority	Generation brought up to respect authorities; great worship of authorities and tradition	Respect for authorities and hierarchy	aversion towards authorities, but recognition for supervisors' authority	resistance to authorities' influence, seek "impermanent authorities"	value mentors; respect information more than authorities

Source: Own study based on [Barclays (2013); A. Smolbik-Jęczmień (2014); Fazlagić (2008); Gursoy, Maier, Chi (2008); *What are the traits…*; Kurz, Li, Vine (2018); *8 Important Characteristics…*; https://extension.missouri.edu/extcouncil/documents/ecyl/meet-the-generations.pdf; Gaidhani, Arora, Kumar Sharma (2019); *Encyklopedia Zarządzania…*; Polański (2014); *Pokolenie Y…*].

4. CONCLUSION

A review of the literature on the subject allows us to distinguish four generations operating in the modern labor market and five generations in the consumer market. These generations (Generation of Traditionalists, Baby Boomers, Generation X, Generation Y, Generation Z) are very different from each other. Each generation has participated in different historical, political, economic, and social events. They have also been participant in more or less advanced technological transformations. Each generation is characterized by different expectations, values, attitudes, motivations, aspirations, skills or way of communication. Representatives of different generations would like to feel satisfied with their work, work in an atmosphere of understanding and functioning in a corporate culture that corresponds to their values and beliefs. Knowing and understanding intergenerational differences determines not only an effective working life, but also a satisfying social life.

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INFLUENCE OF CULTURE ON THE ENGLISH LANGUAGE – PRESS AS A CREATOR OF NEW IDIOMATIC EXPRESSIONS

Language and culture are two elements that predominate in our existence. According to Grzegorczykowa, language is like air. It is needed in order to create and depict culture. It is a form of behaviour, a way of thinking and understanding the world around us. The language versatility and resourcefulness means that it can convey everything we contemplate. Therefore, its role in the linguistic system is of unparalleled importance. It performs a generative and cognitive function, and as a social phenomenon it plays a socialising role. Moreover, if the elements of culture are reflected in the language then press using written word as a tool in presenting news can be credited with coining new terms related to these cultural elements. The aim of the article is to present the influence of press in forming new idiomatic expressions.

Keywords: culture, language, idioms, press.

1. LANGUAGE AND CULTURE

Language and culture are two elements that dominate our existence. According to professor Grzegorczykowa, language is like air; it is necessary to create and present elements of culture. It is a way of social behaviour, a form of thinking and understanding the world around us. The universality of language means that we can convey everything we have thought of. Therefore, in the linguistic system, it performs a generative and cognitive function, and as a social phenomenon it plays a cultural and socialising role. The question has always been whether the language shapes the way we think (Sapir) or is it the other way round, and the culture influences the language (Malinowski).

It began with Humboldt's bold declaration that different languages mean different ways of seeing the world. This statement, later known as the Linguistic Worldview, was soon considered and somewhat elaborated by other scholars, out of which the most recognised were Boas, Sapir and Whorf. However, even though the scholars fully acknowledged the relationship between language and culture, the direction of this relationship, i.e. language → culture or culture → language, differed among them. Boas rejected the view that the language dominated culture,

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> It does not seem likely […] that there is any direct relationship between the culture of the tribe and the language they speak, except in so far as the form of the language will be moulded by the state of culture, but not in so far as a certain state of culture is conditioned by morphological traits of the language (Boas, in Underhill, 2009).

In Sapir's view,

> The fact of the matter is that the 'real world' is to a large extent unconsciously built up on the language habits of the group. […] The worlds in which different societies live are distinct worlds, not merely the same world with different labels attached (Sapir, in Underhill, 2009).

Whorf, in agreement with Sapir's view, stated, "[…] the structure of a human being's language influences the manner in which he understands reality and behaves with respect to it" (Whorf, 1956).

Over the years, other linguists recognised or denied the influence a language has on culture. Wittgenstein affirmed, "The limits of my language are the limits of my cognition" (Riegler, Peschl, Stein, 2007). Likewise, Krąpiec declared, "The limits of language are the limits of culture" (Krąpiec, 1983). Alternatively, Polish anthropologist Malinowski opposed language dominance, stating that culture influences the language as culture is simply a way for people to address their needs which consecutively is reflected in the language (see: Malinowski, 1944).

Culture can be regarded as a set of behaviours, values, norms, evaluations and social attitudes. It is an open, evolutionary and self-organising system in which the language is used to verify and code cultural content, allows access to the world, and is created by our needs. Since the language system changes more slowly than culture (Algeo and Butcher, 2013) and the elements of the past view of the world, old beliefs, remnants of ancient knowledge are captured and preserved in it.

As rational creatures, humans learn from mistakes, can draw conclusions, notice certain regularities, and change the surrounding reality. Depending on how important it is in a given community, it is / or is not reflected in the language. For example, is there a need in the Polish language for two shades of blue[2] (Winawer, Witthoft, Frank, Wu, Wade, Boroditsky, 2007); a hundred terms for snow or thirteen words for rice? (Harley, 2001). On the contrary, perhaps in northern countries with a different climate, such an extensive range in the snow distinction and a variety of blue may find its applications.

Moreover, man is a creature relatively consistent in his intentions, rapidly learns routine. From my prospective routine is an inseparable part of our life. Since early childhood, it is engraved in us the meal times, responsibilities connected with the school, responsibilities attached to being a part of a family. Performing varied tasks routinely tends to increase the pace of life, which is mirrored in the culture. Our behaviour, e.g. our reactions are faster; values – the things that make our lives easier are valued higher. The change of the components of culture leads to linguistic changes. The language becomes faster, more illustrative and more concise.

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[2] E.g. Russian makes an obligatory distinction between lighter blues ("goluboy") and darker blues ("siniy").

Wittgenstein maintained that communication problems arise because each of us has a different mental image when presented with an utterance (e.g. "a ball" while one person may think of a football, someone else may imagine a tennis ball as that is his or her favourite pastime). In a way introducing linguistic abbreviations such as OMG and LOL or emoticons and emoji to the language allows for a faster and more accurate communication transfer.

As presented by Anusiewicz, Dąbrowska and Fleischer, the creators of the cultural worldview expression, the Linguistic Worldview, the notion introduced by Wilhelm von Humboldt, constitutes just one of the elements of the cultural worldview. The other elements named by the authors were as follows: language and gestures, behaviour, believes and ideologies (Głaz, Danaher, Łozowski, 2013).

2. IDIOMATIC EXPRESSIONS

Phraseology is regarded as one of the determinants of the Linguistic Worldview. Idiomatic expressions are considered fixed word combinations that show some irregularity, which requires that they be remembered in their entirety. Idiomatic relationships are the rarest examples in phraseology. Their meaning does not stem from the meanings of their component elements. Bussmann (2006) defines language as

> a vehicle for the expression or exchanging of thoughts, concepts, knowledge, and information as well as the fixing and transmission of experience and knowledge. It is based on cognitive processes, subject to societal factors and subject to historical change and development.

Thus, language possesses evolving characteristics. Also, since idioms constitute a part of a language, they express the same features. They draw on cultural knowledge of a society in that they focus on a particular cultural characteristic and convey simple and everyday facts in a fixed meaning representation.

They are evidence of belonging to a particular culture, e.g. cockney rhyming slang. They play a complementary role to the language dictionary system and multiply synonymous resources. They should not be regarded as an addition to the language. With their help, the speaker can express emotions and his attitude to the subject of the conversation. They are an art of allusion, metaphor, and the ability to use language indirectly.

Definition of an idiom fluctuates amongst the scholars, as do their classifications. For some of them, the expression covers all fixed phrases, formulaic speeches, slang expressions, proverbs, clichés and even single polysemic words (Cooper, 1998; Hockett, 1958; Katz and Postal, 1963). While others, for example, Moon (1998), consider idioms in a more limited context, stating that the term only refers to "fixed and semantically opaque or metaphorical" expressions (Moon, 1998). Grant and Bauer's positions are even more restrained, excluding the metaphorical idiomatic expressions altogether from the definition of the term idiom (Grant & Bauer, 2004). However, as Tabossi and Zardon (1993) maintain, idioms can be regarded as "multifaceted objects (…) not only complex but also in many ways elusive". Wood assumes that (an) "idiom is a complex expression which is wholly in non-compositional meaning and wholly non-productive in form" (Wood, 1986). According to the scholar, these two conditions must be met for an expression to be deemed an idiom.

Although Wood's description of an idiom seems to be the most accurate one, it is not free of problematic aspects. Owing to the categorial indeterminacy of language, the linguistic categories often overlap as they are not clear-cut. Consequently, it may be challenging to decide whether a phrase belongs to the idiom category or retains the status of a collocation.

Even though the definition of an idiomatic phrase differs among linguists, there are some elements that they agree on. Generally, idioms display certain unique features regardless of sharing many characteristics with other forms of non-literal language. These traits incorporate alternation of grammatical rules, word order, the conventionalism of phrases and figurativeness. Although English holds a very structured form, its idiomatic expressions have become widely accepted and frequently used by all native and foreign speakers alike.

3. MECHANISMS OF IDIOM FORMATION

Numerous sources influence idiom formation. Devices such as metaphor, analogy, metonymy, synecdoche, alliteration, aphorism, allusion and cliché are the prominent contributors to figurative language.

Many linguists believe that a significant number of idioms are motivated by deeply entrenched conventional metaphors. Scholars such as Lakoff and Johnson point out the omnipresence of metaphor in everyday life, in our thoughts and actions. "Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature" (1980), but it is something we are unaware of. Quite the reverse,

> In most of the little things we do every day, we simply think and act more or less automatically along certain lines. Just what these lines are is by no means obvious. One way to find out is by looking at language (Lakoff & Johnson, 1980).

Conceptual metaphor theory[3] (Lakoff & Johnson, 1980), presents a metaphor not simply as a poetic device in language but as an abstract instrument needed for structuring, restructuring and creating reality. Our languages, thoughts and actions are constructed based on conceptual metaphors. Hence, it is an essential cognitive mechanism, which contributes to creating the meaning extension of idioms (Zhang & Bai, 2015).

Lakoff and Johnson (1980) uphold that "our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature" (1980). Furthermore, the scholars add that "the English expressions are of two sorts: simple literal expressions and idioms that fit the metaphor and are part of the normal everyday way of talking about the subject" (Lakoff and Johnson, 1980).

When a metaphor is applied for the first time, it feels "novel and fresh" (Glucksberg, 2001), and people have to think past that image to understand what it communicates. However, persistent use can link the expression to its content faster and more automatically, without thinking why a given phrase conveys what it does. The process is lengthy and slow, and people are not aware of the change that is happening. In the words of Zhang and Bai, "Metaphor mechanism provides the conceptual motivation and cognitive operation mechanism for the formation of the extended meaning of this idiom. In this process of metaphorical mapping, the literal meaning functions as the source domain, while the extended meaning is the target domain" (2015).

Likewise, another researcher Mäntylä (2004), also discerns that metaphoricity is one of the most frequently recognised features of idioms. The roots of metaphoricity often stem from real situations or images that connect the idiomatic phrase and its meaning. She adds

[3] It understands one domain of experience in terms of another.

that the reason why idioms are sometimes recognised as "dead", is that the connection between the origins and the meaning of a phrase has been forgotten or the literal context tricky to discern (Mäntylä, 2004).

As pointed out by Gibbs (1993):

> Idioms are partially compositional, and their rich figurative meanings are motivated by the metaphorical knowledge people possess of the domains to which idioms refer. These metaphorical mappings between source and target domain knowledge often are conventionalised in the sense that they are so much a part of our everyday cognition as to be unconscious and automatic.

In general, the idiom is a colloquial metaphor that entails specific knowledge, experience, or information that can be effectively used within a culture of origin. "It can be said that idioms that are derived from physical human experiences are, in general, culturally equal" (Thyab, 2016).

Alternative sources that influence idiom formation such as analogy, metonymy, synecdoche, alliteration, aphorism, allusion and cliché all draw on a concept of metaphor.

Plato theorised about analogy, calling it a "shared abstraction"[4] (Cameron, 2003). The comparing entities reveal a shared idea, a concept, theory, or effect, and the analogy abetted in explaining this mutual trait. The analogy does not just "draw our attention to observable features of things in the world, but at least one part of analogy depends on an additional metaphor" (Klein, 1997). In the Old English, a different yet prevalent form of analogy was kenning – a metaphorical recreation of a familiar concept. Kennings are compound word structures, a poetic circumlocution for a word that already exists.

Metonymy not only has a referential function as it allows language users to apply one entity in place of another[5]. However, it also serves the function of providing understanding, "Metonymic concepts allow us to conceptualise one thing by means of its relation to something else" (Lakoff & Johnson, 1980). Metonymic concepts structure not only human language but actions, thoughts and attitudes. All of these mechanisms are grounded in our experience, just like metaphorical ones. In reality, the grounding is more discernible than metaphoric concepts since it generally involves direct physical or causative associations.

When it comes to the conceptual system of culture, it is metaphorical. For example, symbolic metonymies are crucial links between everyday experience and the logical metaphorical systems that characterise religions or cultures[6]. Symbolic metonymies grounded in our physical experience present a vital means of comprehending many concepts (Lakoff & Johnson 1980).

Oxford English Dictionary Online describes the process of alliteration as:

> The commencement of adjacent or closely connected words with the same sound or letter; an instance of this; spec. (in Old and Middle English and other Germanic

[4] Plato's shared-abstraction theory states that: "An analogy may be drawn between an individual and a city because they both share in a third thing, namely an idea of justice. This idea is an abstract property that applies to both the individual and the soul" (Cameron, 2003).

[5] As much as conceptual metaphor maps across different domains, conceptual metonymy maps within the same domain. A particular case of metonymy is synecdoche, where the part stands for the whole.

[6] In Christianity, there is the metonymy 'dove for Holly Spirit'. It is grounded in the conception of the dove in Western culture and the conception of the Holy Spirit in Christian theology.

poetry) the commencement of certain accented syllables of a verse with the same consonant or consonantal group or vowel sounds.

Alliteration has existed in the English language for hundreds of years, (e.g. works of Shakespeare). Frequently, their origins can be traced to the same material, i.e. the poems. Alliteration was a figure of speech that functioned similarly as rhymes do today. Dupriez (1991) defines ‘alliteration’ as “multiple repetitions of an identical sound”. Therefore, it is often used as a form of rhetoric in addition to a literary trope. These qualities determine frequent use of alliteration in the formation of idioms since it gives an idiom a natural rhythm and makes it easy to remember, for instance, *part and parcel*, *kit and caboodle* and *leave it the lurch.*

Just as with the alliteration, aphorisms have been extensively exploited over the years in literature. There were very common in the works of Shakespeare. However, while the popularity of alliteration can be accredited to the rhyming trait, the popularity of aphorisms lies in their ability to communicate some fundamental truths.

Baldic (1996) states that aphorism is “A statement of some general principle, expressed memorably by condensing much wisdom into few words”, for example: “*A bird in the hand is worth two in the bush”.* It can often take a form of a definition. Aphorisms are found in the literature of many different cultures. Many authors have incorporated them into their works to present universal facts, e.g. *The Canterbury Tales* by Geoffrey Chaucer (*The Merchant’s Tale*) “*For love is blind*”.

Another typical device used while forming idiomatic expressions is an allusion. Dupriez (1991) defines ‘allusion’ as “a reference by means of an evocative utterance, to something implied but not stated”. Respectively, allusion can be: an implied, indirect, or passing reference to a person or thing; any reference to someone or something (also symbolic); the action or process of making such a reference; a play on words, a pun, or an illusion[7]. Therefore, it can refer to a real or fictional person, event, expression, situation or quote. Due to the reader’s previous knowledge of the object, allusions can add emotional significance. Most allusions employ the source material as a reference for new purposes. Additionally, they are used intentionally; however, the meaning is lost if the reader cannot make a connection to the reference. Therefore, it can be said that allusions are a test of cultural literacy, e.g. “*15 minutes of fame*”[8] or “*back to square one”*[9] as they draw on general knowledge, cultural aspects and facts. Absence of familiarity with needed comprehension results in a person not being able to fathom the allusion.

When considering the term ‘cliché’ in linguistics, Bussmann describes it as a phrase or expression regarded as unoriginal due to overuse, adding that it is a “pejorative term taken from printers’ language, generally used to refer to a commonly occurring utterance that is used schematically” (2006). Therefore, clichés demonstrate a lack of originality from the speaker or writer.

As stated by Cacciari and Tabbosi (2014), “The study of idioms is significant not only in terms of understanding how people learn and comprehend figurative language, but also

[7] *Allusion*, https://www.oed.com/view/Entry/5520?redirectedFrom=allusion#eid

[8] In “1968”, artist Andy Warhol remarked that everyone will be famous for fifteen minutes.

[9] A numbered grid system published by the BBC in the 1930s allowed commentators to indicate where the ball was on the pitch, i.e. square one was the goalkeeper’s area. Back to square one means back to the beginning (Jack, 2005).

because idiomaticity reveals some dramatic insights into the relationship of language and thought". English as a language is exceptionally rich in idiomatic phrases. Literary works of Carroll[10], Shakespeare[11] or Dickens[12] produced idioms based on metaphor (Jack, 2005). Metonymy and synecdoche are mainly responsible for idioms originated from everyday life. As much as alliteration may be considered a thing from the past (i.e. Old English poetry), the play on words exploiting rhyme is still present, e.g. cockney rhyming slang. Idioms fashioned on analogy use devices such as a metaphor, a simile or an allegory in order to create a comparison between two objects, while clichés are overused expressions[13]. An anaphor also uses metaphor to create concise and pithy sentences containing some kind of truth, a maxim[14]. Finally, since allusion-based idioms refer to someone or something or somewhere, they frequently contain elements of culture. Consequently, possessing some cultural knowledge assists the comprehension process.

4. IDIOMS WITH HIGH CULTURAL REFERENCE – EXAMPLES FROM THE PRESS

In the doctoral thesis *Idioms – a Look into Culture. The Formation of English Idioms in the Framework of British Culture (1945–2020)*[15] a research was conducted into idiom application by British press. The two research subjects chosen represented quality press (*The Guardian*) and popular press (*The Mirror*). The aim of the research was, first of all, to determine the ratio of frequency of idioms appearing in tabloid newspapers to the frequency of idioms used in quality press in the years 1945–2020, secondly, to try and determine whether the coinage of idiomatic phrases reflected changes in the economic and political situation. Since this article is intended to present how British press can be credited with coining new idiomatic phrases with cultural background, only the results of the qualitative research are stated and specific examples provided.

On April 5, 1945, an article was published in *The Times* (London) where the *expression V-Day* (Victory Day) was applied for the first time in the UK's newspapers "To-day the battle still rages with loss and peril in Europe. On V Day it will still go on over great stretches of land and water in the Far East"[16]. Previously to that event in July 1941, *Newsweek* (New York) published in one of its articles, "Encouraged by the success [of the V propaganda campaign], Britain proclaimed July 20 as 'V Day'". The expression was subsequently exploited in 1942 by *Time* (New York) "We at Hercules are eager to learn of any new material, process, or equipment…which can enable us to create more employment after V-Day". In September 1944, *Washington Post* established new terms for the two victory days, i.e. V-E Day (Victory in Europe) and V-J Day (Victory in Japan).

[10] E.g. the Mad Hatter, a character from *Alice in Wonderland*, describes an insane person (*as mad as a hatter*).

[11] E.g. *at one fell swoop*, meaning in a single movement. First time used by Shakespeare in Macbeth (1966).

[12] E.g. Artful Dodger, a character from *Oliver Twist* novel, was quickly adopted by the Victorian public to describe any crafty rascal, or doubtful, risky situation or a thing, (*a little bit dodgy*).

[13] E.g. *I lost track of time*; or *play your cards right*.

[14] E.g. *a bird in the hand is worth two in the bush*; or *a rolling stone gathers no moss*.

[15] Coombs-Hoar (2021). *Idioms – a Look into Culture. The Formation of English Idioms in the Framework of British Culture (1945–2020).* Uniwersytet Rzeszowski.

[16] *V-Day,* https://www.oed.com/view/Entry/220871?redirectedFrom=V+day#eid16064605.

V-Day, referencing WW2 victory, is frequently applied figuratively to one's success or triumph. Moreover, throughout the years British press devised similar expressions based on the term *V-Day* and its implication. *The Guardian*, in the article "All systems go for the euro", January 4, 1999, employed the term *E-Day* to describe the beginning of the Euro as a common currency in Britain.

An example of a different idiom with high cultural reference is *Watergate*'s 1972–1974 US scandal during President Nixon's administration. Certain officials were caught trying to bug the national headquarters of the Democratic Party stationed in the Watergate building in Washington, DC. The press quickly chose the name for the scandal that originated from where the event had happened. As stated in *Oxford English Dictionary* online, "The suffix - gate has since been used, preceded by the name of a person, place, etc., to denote a scandal comparable with or likened to Watergate"[17]. On September 1, 1997, *The Mirror* presented an article titled "Haunted by the image of fame", where the expression *Camillagate tape* was applied to describe precedence where tapes with private phone calls between Camilla Parker-Bowles and Prince Charles came to light. Still, it is not the only time the suffix-*gate* has been used to denote a scandal or an incident. For example, *Murdochgate* (2011) denotes to *News of the World* phone-hacking scandal[18]; *Elbowgate* (2016) refers to Justin Trudeau accidentally hitting with an elbow an MP in the parliament[19]; or *Pizzagate* (2004) describes an incident during which the Manchester United manager Alex Ferguson was struck with a slice of pizza by an opposition player following a league game against Arsenal[20].

Throughout the years, the suffix -*gate* has been extensively used on many occasions in order to signify a scandal or an incident (the most recent – *partygate* – from *Daily Mail* online, 18.03.2022[21]). Nevertheless, not knowing the origins of the phrase *Watergate* and what it denotes leads to confusion and misperception of the newly devised phrases such as *partygate* or *pizzagate*[22].

A different example of an idiom worth pointing out is *Brexit.* The expression refers to the withdrawal of the United Kingdom from the European Union and the political process connected with it. *The Oxford English Dictionary* online maintains that P. Wilding created the term in 2012 blog "Stumbling towards the Brexit: Britain, a referendum and an ever-

[17] *Watergate,* https://www.oed.com/view/Entry/226192?rskey=0QvUnu&result=3&isAdvanced=false#eid.

[18] *The Guardian*,03.08.2011, "Academics at the fore of hacking debate", https://www.theguardian.com/media/2011/aug/03/media-studies-academics-phone-hacking

[19] *The Guardian*, 19.05.2016, "Justin Trudeau apologises again as 'elbowgate' darkens 'sunny ways' image", https://www.theguardian.com/world/2016/may/19/justin-trudeau-apology-elbowgate-canada-parliament-critics

[20] *The Guardian*, 15.09.2006 "Pizzagate: a slice of strife", https://www.theguardian.com/football/2006/sep/15/newsstory.sport1

[21] *Daily Mail* online, 18.03.2022, "Has Boris survived the plot to oust him over Partygate? PM's allies increasingly confident after leading rebel backs down as coup would be an 'indulgence' during the Ukraine crisis", https://www.dailymail.co.uk/news/article-10625357/Plot-oust-Boris-Johnson-Leading-rebel-backs-time-crisis-Ukraine.html

[22] The expressions mentioned above, i.e. *Camillagate tape*, *Murdochgate, elbowgate*, or *pizzagate*, can be regarded as pressdioms [Coombs-Hoar *Idioms – a Look into Culture. The Formation of English Idioms in the Framework of British Culture (1945-2020)*] since they were devised by the press using pre-existing idioms as templates.

closer reckoning”[23]. Later on, the term was applied again in *Christian Science Monitor* “Why would the EU consider special economic and trading privileges for Britain after its ‘Brexit’”. Subsequently, the *Financial Times* in 2014 used the term again “In many cases, the US banks are as worried about the eurozone’s impending banking union as they are about Brexit”. After that, in 2016, *Daily Mirror* exploited the expression in one of the articles, “A soft Brexit would see us maintain access to the single market and the customs union and accept some EU rules. A hard Brexit would see us quit the single market and the customs union in return for control of our borders”[24].

The noteworthy fact is that the suffix – *exit* has become productive. The expression *Brexi*t has led to devising such terms as *Grexit* – Greece’s possible withdrawal from the Eurozone; *Frexit* – hypothetical French withdrawal from the European Union; or *Megexit* (*Megxit*) relates to Meghan Markle and Prince Harry stepping down as ‘senior’ members of the Royal Family and relocation to the United States.

V-day, Watergate or *Brexit* are not deemed typical types of idiomatic expressions as most definitions maintain that the idiom should comprise of minimum two items. Nevertheless, these are pretty recent entities, and as language continuously evolves soon, there may be more such expressions consisting of a single item. Since pure idioms are considerably older, their origins are often unknown. Consequently, we cannot be sure how they evolved in time to become what they are now. For example, the idiom *meets one’s Waterloo*, referring to The Battle of Waterloo in 1815 in Belgium, which meant the final defeat of Napoleon Bonaparte. Initially, only the word ‘Waterloo’ was used regarding the event:

- In 1816 Ld. Byron *Let.* December 5 in T. Moore *Life Ld. Byron* (1851) 329/1 It [*sc.* the Armenian alphabet] is..a Waterloo of an Alphabet.
- In 1842 J. Aiton *Clerical Econ.* ii. 48 If there must be a Waterloo, let it be a conflict for all the minister's rights so that he may never require to go to law in his lifetime again[25].

The phrase *meet one’s Waterloo* has been applied from 1961:

- In 1859 W. Phillips *Lesson of Hour* 11 Every man meets his Waterloo at last.
- In 1902 *Washington Post* May 3 8/6 Five favourites and a heavily played second choice won, and ‘getaway day’ proved a Waterloo for the books.
- In 1961 C. McCullers *Clock without Hands* iii. 67 I felt right then and there I had met my Waterloo.
- In 2002 *US News & World Rep.* October 28 53/2 HRT has not met its Waterloo. Despite the headlines, the estrogen-progestin regimen did not flunk 'massively'[26].

As presented above the terms *Watergate, V-day* or *Brexit,* are productively applied as templates for creating new idiomatic phrases.

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[23] *Brexit*, https://www.oed.com/view/Entry/54763375?redirectedFrom=brexit#eid

[24] *Brexit,* https://www.oed.com/view/Entry/54763375?redirectedFrom=brexit#eid.

[25] *Meet one's Waterloo,* https://www.oed.com/view/Entry/226234?redirectedFrom=meet+your+waterloo#eid15062851.

[26] *Meet your Waterloo,* https://www.oed.com/view/Entry/226234?redirectedFrom=meet+your+waterloo#eid15062851.

5. CONCLUSIONS

Idiomatic expressions reflect our ever-changing society at the utmost. They exhibit new values, ideals, and views while capturing the major historical events, incidents and affairs. A small body of an idiom is a sea of information that offers facts, details, and elements connected to the culture. Therefore, their significance for the language is undeniable and irrefutable.

Nowadays, the well-established and widely recognisable idiomatic phrases but partially altered are frequently exploited by the press[27]. Moreover, such idioms are used as a template for creating new terms. Substituting a part of such an idiom to contain the new idea or a fact has led on numerous occasions to the creation of new idiomatic phrases. Our shared knowledge of the prototype aids us to recognise it for what it is, i.e. a well-known idiom revealing some new cultural elements.

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[27] E.g. *Willy-come-lately*, or *Oval the moon.*

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Dariusz CZEKAJ[1]

A SOCIOLOGICAL ANALYSIS OF THE PERCEPTION OF THE 21ST PODHALE RIFLEMEN BRIGADE AS A SOCIAL INSTITUTION BY MEMBERS OF THE LOCAL COMMUNITIES OF THE PODKARPACKIE REGION

Civil-military relations have constituted one of the areas of research in the field of military sociology for a number of years. It is all the more justified as the military, being a social institution, operates in a given local community at the mezzo-sociological level, creating not only a national security protection system but also a social security system for residents of the towns and cities with military home stations. The non-military nature of the relationship is one of the most important elements between the military and members of a local community. The integrating activities carried out in the places where the military units are stationed became the basis for conducting research on the perception of the 21st Podhale Riflemen Brigade in this role by the inhabitants of Rzeszów, Przemyśl, Jarosław, Nisko, and Kłodzko. The research was carried out by means of a diagnostic survey using a questionnaire and the analysis of available documents. The results obtained can be used to better understand the role played by military units in local communities and to establish an appropriate information policy.

Keywords: army, local community, civil-military relations, uniformed public services.

1. INTRODUCTION

The 21st Podhale Riflemen Brigade (hereinafter referred to as 21st PRB) has been part of the landscape of the Podkarpackie region for over a quarter of a century, and as a result of organizational changes, also of the Dolnośląskie Province. Established in 1993 on the basis of the 9th Dresden Mechanized Division, it was initially stationed only in Rzeszów. The subsequent inclusion of the sub-units of the 14th Armoured Brigade in its composition extended the area of its stationing to other towns – Jarosław and Przemyśl (Karp, 2000). In the following years, the 22nd Mountain Infantry Battalion from Kłodzko was included in its composition, and then the 16th Tczew Engineering Battalion from Nisko. After all the changes, the Brigade is stationed in five locations, four of which are in the Podkarpackie region and one in Dolny Śląsk (Lower Silesia). The specific symbolism of the Podhale region, expressed in uniforms and signs, makes the soldiers of the 21st PRB easily noticed and recognized by the civilian community. The time of its existence, especially in the

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periods of numerous significant changes in the society, gives the basis for the conclusion that the relations between the army and the inhabitants were established at that time. It is important to analyze this issue from the point of view of the local community, which is a very important partner of the armed forces. Soldiers, both the commanding staff and the rest of the military, operate in these communities and undoubtedly become part of them.

It should be noted that in many armies in the world, guidebooks and instructions are issued for commanders of military units regarding their relations with the external environment, especially in case of exercises with the use of firearms, artillery, armour, helicopters and airplanes that are burdensome for members of local communities, their everyday peace and may also lead to specific damage to private property. Such guidebooks and instructions are intended to help commanders of military units in creating proper relations with a given community. (*Commander's Guide*, 2012).

The aim of this study is to analyze the civil-military relations in the area of non-military influences that occur between the 21st PRB as a social institution and members of local communities, cities and towns where military units have their home stations.

Therefore, a research question is posed in this study, which is: how are the civil-military relations of an institutional nature manifested between the soldiers of a given military unit and the members of the local community, and what are the opinions of members of local communities about such activities? Thus, this is determined by the layout of the study, which consists of two separate yet closely related parts.

2. 21ST PODHALE RIFLEMEN BRIGADE AS A SOCIAL INSTITUTION

The research on the perception of civil-military relations was carried out in 2018 in all the locations of the 21st PRB home stations. A total of 1064 members of local communities and 843 soldiers from all the units of the Brigade participated in the study, but due to editing restrictions, all data on the studied population and research procedures are included in the monograph titled “Between the army and the local community. A Sociological Study” (Czekaj, 2021).

In order to answer the first part of the research question, the following hypothesis has been formulated: Civil-military relations of an institutional nature, between military units and the local environment, are manifested in various local undertakings, important for both partners in the relations.

In support of this hypothesis, it should be noted that the units of the 21st PRB, unlike most brigades in the Polish Army, are located in many places all over the Podkarpackie region, not concentrating only in the region of Rzeszów. Each battalion of the Brigade is a separate military unit, characterized not only by a defined military specialization, but also having its own banner, i.e. an element that distinguishes them from other units of the Brigade. Such a dislocation is undoubtedly conducive to integration with local communities, although the message that units of the Polish Army “grow into” a given community and feel strongly associated with it is also important.

Therefore, Chart 1 presents the level of satisfaction of the members of the local communities, cities and towns where the unit is stationed, with the presence of a given military unit in a municipality or a county (in polish: powiat).

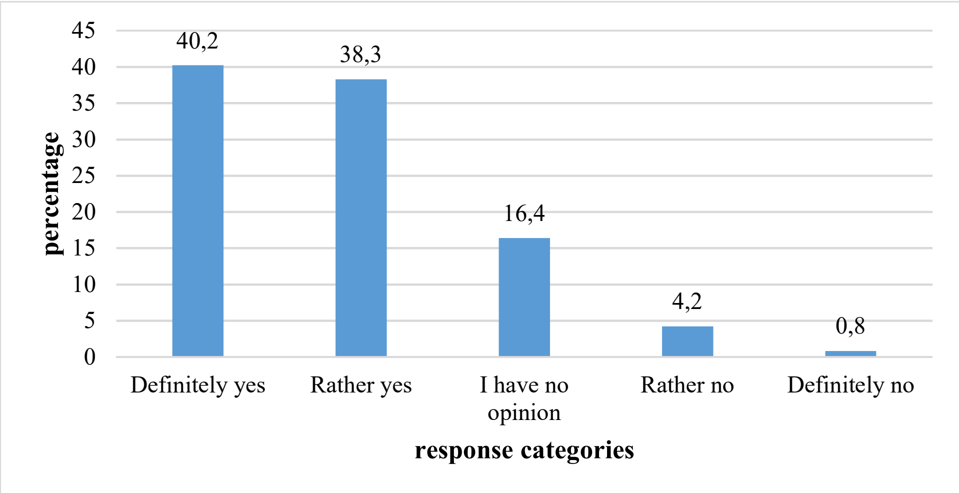

Chart 1. Level of satisfaction with the presence of a military unit in the municipality/county

Source: 2018 own research, civilians (n = 1,064).

The results of the research indicate that the inhabitants of the garrison towns of the region have a positive attitude to the presence of the military in their social environment. Among all the respondents, the vast majority, 78.5%, positively assess the presence of the military in their localities. There are 5% of people expressing a negative opinion about the presence of soldiers of the 21st PRB, and 16.4% of the respondents do not have a clear opinion on this issue. Thus, it allows to maintain the statement that military units, as neighbours, are positively perceived by members of the local communities in which they are stationed.

But for the soldiers' own view on the subjects, this analysis would not be complete. Their opinions in this respect make it possible to build a fuller picture of the surrounding reality and mutual relations or relationships. Therefore, the surveyed soldiers were asked a question regarding their beliefs about how they are perceived by the civilian population. The answer to this question, on the basis of the received feedback, allows to see whether these civil-military relations are authentic or merely institutional, formalized. The answer to this question is presented in Chart 2.

As the presented data shows, the individual feelings of soldiers regarding the perception of the army in local communities indicate a very high rating. As many as 94.1% of the surveyed soldiers expressed a positive opinion on this subject, and only 0.5% of the surveyed had negative experiences in this regard. This confirms the positive opinions of the members of the local community. The most positive responses regarding the perception of the army by given inhabitants were expressed by soldiers from Nisko – 98.6%, soldiers from Rzeszów – 96.9% with positive opinions, from Przemyśl – 94.1%, from Kłodzko – 90.5% and from Jarosław – 88.5%.

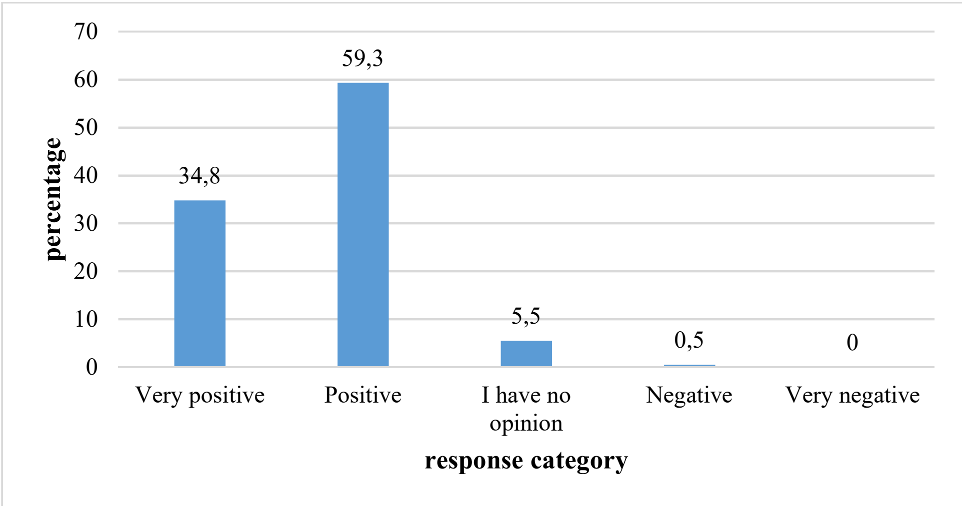

Chart 2. Assessment of the perception of the army by the local community in the opinion of soldiers

Source: 2018 own research, soldiers (n = 843).

The above presented observations may indicate an important role played by the military in the society, and in case of the local community, they can be clearly expressed in relation to the definition of a social institution, both in its narrower sense as an organized and established set of human activities, assuming the existence of the main principle (the goal of an institution), personnel, norms, material resources, functions and actual activity, aimed at satisfying specific needs. It can also be expressed in a broader context as a permanent system of socially established ways and rules of behaviour, sanctioned by social norms (Olechnicki, Załęcki, 1998). The term "institution" itself has several meanings. It can be treated as the basis of order or social order, or as separate, organized types of activity undertaken in order to satisfy the needs of individuals and entire communities. It can also be understood as a reference to forms of social organization that are characterized by a clear and specific order, and in particular are designed to subject people's behaviour to special rigors (Skąpska, Ziółkowski, 1998). Marina Nuciari confirms these observations, writing about the military, and points to:

> discipline, obedience to formal norms, formal authority, rationale division of roles and attributes, competence, and loyalty to an impersonal legitimate power, in a word, the typical bureaucratic organization, are all tools provided by Weber in the consideration of the military as a social institution (Nuciari, 2006).

On the other hand, Jonathan Turner points to the attachment of this set of roles and values to specific social structures (Turner, 1997). He believes they ensure the possibility of survival, both as an individual and as a group, being its member (Turner, 1998).

When analyzing the 21st Podhale Riflemen Brigade as a social institution, first of all, attention should be paid to the fact that each of the battalions forming it constitutes a separate military unit, and their commanders act as garrisons commanders and are obliged to cooperate with local authorities and communities. The research of individual local communities and soldiers was limited to the localities of individual battalions and squadrons in order to make an assessment in the area where mutual contact and relations are direct. Nevertheless, the results are presented in relation to the entire Brigade and the entire community in which individual units operate.

As a result of all the personnel and structural changes that have taken place in recent years, the territorial range of the Brigade covers the five garrisons of: Rzeszów, Przemyśl, Jarosław, Nisko, Kłodzko. In four of them, the garrisons commanders are brigade officers.

The Rzeszów garrison covers the counties of Dębica, Jasło, Krosno, Ropczyce-Sędziszów, Rzeszów, Strzyżów, and towns with county rights: Rzeszów and Krosno. The command headquarters is in Rzeszów, and it is commanded by the Commander of the 21st Podhale Riflemen Brigade. The command and staff of the 21st PRB, the 21st Headquarters Battalion, the 1st Podhale Riflemen Battalion and the 21st Logistics Battalion are stationed in the garrison.

The Przemyśl garrison covers the counties of Bieszczady, Brzozów, Lesko, Przemyśl, Sanok, and Przemyśl town. The command headquarters is in Przemyśl, and it is commanded by the Commander of the 5th Podhale Riflemen Battalion. The 5th Podhale Riflemen Battalion in Przemyśl and the 1st Tank Battalion in Żurawica are stationed in the garrison.

The Jarosław garrison covers the counties of Jarosław, Lubaczów and Przeworsk. The commander's office is in Jarosław, and it is commanded by the Commander of the 14th Self-Propelled Artillery Squadron. The 14th Self-Propelled Artillery Squadron and the 21st Anti-Aircraft Artillery Squadron are stationed in the garrison.

The Kłodzko garrison covers the counties of Dzierżoniów, Kłodzko, Nysa, Strzelin and Ząbkowice. The commander's office is in Kłodzko, and it is commanded by the commander of the 22nd Mountain Infantry Battalion. The battalion's forces are stationed in the garrison.

The 16th Tczew Engineering Battalion is stationed in the Nisko garrison. The 3rd Engineering Battalion is located in this garrison, commanded by the commander of the garrison.

In total, the garrisons commanded by officers from the Brigade cover 14 counties and 3 cities with county status in the Podkarpackie Province; additionally one is located in the Nisko county and 5 counties of the Dolnośląskie Province.

Garrison commander is a kind of connector between military units, local authorities and the garrison community. His competences lie within the framework of crisis management, combating natural disasters and eliminating their effects, and co-participating in organizing projects with the engagement of the Polish Army sub-units. He cooperates with governmental and self-governmental administration bodies in the maintenance of memorial sites, cemeteries and military graves. He manages the participation of military honorary assistance in state, patriotic and religious ceremonies and funerals. He is authorized to cooperate as a representative of the military with non-governmental organizations and other social partners as part of activities for the defence of the state.

It should be mentioned that local communities also identify with the Brigade units, both those stationed in their area and others. An example of this is the foundation of banners by the societies of individual cities and towns in the Podkarpackie region, both for the commands and for units of the Brigade. It is an expression of commitment, trust and identification of the society with the military unit. At the same time, it obliges the military to support the communities that launch such initiatives. The banner of the 21st Podhale Riflemen Brigade was the first to be funded by the society of the City of Rzeszów. The handing over was made on May 22, 1994 in the Rzeszów Market Square. The banner was awarded by the President of the Republic of Poland, Lech Wałęsa, and the handing over was made by the Commander of the Kraków Military District, Maj. Gen. Zenon Bryk (Karp, 2000).

The banner for the 1st Podhale Riflemen Battalion was funded by the inhabitants of the Sądecki Region and combatants of the 1st Podhale Riflemen Regiment. The award was made on December 8, 1996 in the Nowy Sącz Market Square. The battalion directly inherits the traditions of the 1st Podhale Riflemen Regiment, which was stationed until 1939 in Nowy Sącz (Karp, 2000).

The banner for the 5th Podhale Riflemen Battalion was funded by the Krosno society and awarded on September 30, 1995 in the Krosno Market Square. On behalf of the President of the Republic of Poland, Lech Wałęsa, the banner was presented by Brig. Mieczysław Karus. During this period, the battalion was stationed in Rzeszów (Karp, 2000).

The banner for the 21st Headquarters Battalion was funded by the inhabitants of the Boguchwała municipality and awarded on June 22, 1997 in Boguchwała. On behalf of the President of the Republic of Poland, the banner was presented by the Secretary of State in the President's Office, assisted by the Deputy Commander of the CMD Brig. Gen. Piotr Makarewicz (Karp, 2000).

The banner of the 1st Tank Battalion was funded in 1996 by the inhabitants of Żurawica. The banner of the 14th Self-Propelled Artillery Squadron was taken over by the squadron after the disbanded 14th Jarosław Rocket Artillery Squadron. This, in turn, was funded by the community of Jarosław and Radymno, and awarded in 1997. The banner for the 21st Anti-Aircraft Artillery Squadron was funded by the Strzyżów community and awarded on April 19, 1998 in the Strzyżów Market Square. The banner for the 21st Logistics Battalion was funded by the community of the Sanok region and awarded on October 5, 2012 at the Galicyjski Market Square in Sanok (Surmacz, 2001).

The cooperation of military units with the civilian environment is not limited only to participation in state ceremonies or providing aid in the event of flood. These are important activities, but they do not cover the entire range of activities carried out at the interface between the army and society. A specific category of these activities is cooperation with non-governmental organizations and other social partners. An example is the support of uniformed classes and units of the “Strzelec” organization by the Brigade units. The cooperation is carried out on the basis of a formal agreement signed by unit commanders with the institution, and the details are annually included in the Plan of cooperation of the military unit with non-governmental organizations and other social partners.

On August 22, 2013, the Commander of the 5th Podhale Riflemen Battalion signed a cooperation agreement with the School Complex in Bircza. As part of the agreement, the unit supports the uniformed class, which was created for the first time in the 2013/2014 school year starting from September. The cooperation assumes that the interest in military service will increase and that it will contribute to the development of patriotic and civic attitudes based on combat traditions and the history of the battalion. The battalion, in turn, supports education in the field of military subjects. One day in each month of the school year, soldiers conduct classes with students of the uniformed class.

The 5th Podhale Riflemen Battalion carries out regular cooperation with the Rifle Unit No. 2009 of the Józef Piłsudski “Strzelec” Rifle Association under the agreement concluded on May 21, 2014. The cooperation includes supporting all initiatives related to cultivating the tradition of the Polish Army, developing patriotic attitudes among the members of

"Strzelec", helping organizations in organizing training in military disciplines, exchanging experience, and preparing members for military service (Surmacz, 2001). The cooperation means both joint activities and participation of shooters in patriotic and military celebrations.

The Brigade Command cooperates on the basis of relevant agreements with the Rzeszów University of Technology in order to promote the acceptance of the state defence policy, shape the image of the Armed Forces and recruit candidates for military service. One of the tasks carried out jointly is the integration of the military community and the university students.

Therefore, there is a trend of increasing interest of social partners in establishing cooperation with the military. This is especially visible during anniversaries, national holidays, or other celebrations, when the army adds splendour to such celebrations, and members of the local communities can meet "their soldiers", familiarize themselves with military equipment, talk to soldiers, slightly get to know the military environment. This is also visible in other activities. One of them is schoolchildren, because often the main beneficiaries of civil-military relations are educational institutions, which is related to the interest of young people in learning in the so-called "uniformed classes" (Sirko, Kozuba, Piotrowska-Trybull, 2019).

To sum up, as regards this part of arguments, it can be indicated that the analysis of the presented data shows that in fact the civil-military relations of an institutional nature between military units and the local environment are manifested in various local undertakings, important for both partners of this relation.

3. THE IMPORTANCE OF SOCIAL INSTITUTION IN THE OPINION OF MEMBERS OF LOCAL COMMUNITIES

In order to answer the second part of the research question, the following hypothesis was formulated: The opinions of members of local communities as regards the civil-military relations are positive, the more so as they are fostered by both relationship partners and relate to situations connected with their everyday life.

The military, as a social institution, carries out various activities not limited to satisfying its own organizational needs, but fulfilling a specific social role. It cannot act on its own, but performs specific tasks in order to meet the needs of the entire community and is inextricably linked with it by mutual relations. As Herbert Spencer pointed out, this role is assigned to a given institution as an organ in the human body (Szacki, 2002). Searching for the basic role of the army as an institution, one can, following Jonathan Turner, pay attention to the sources of the emergence of social institutions, which he identifies with "structures that arise to solve basic problems of people and organizations" (Turner, 1998). From this point of view, the primary and most important role of the military is to ensure security. Anthony Giddens identifies institutions with those elements of society that are responsible for ensuring the continuity of the functioning of societies (Giddens, 2006).

A lot of local residents still find the history of World War II and the post-war period to be alive. These memories create the lack of security and constant uncertainty about their future. Hence, the location of the units is, in a sense, a kind of "guarantor" of security for local communities. The residents identify with the units in their region. This is confirmed by the results of research, which indicate that ensuring safety is the category that the respondents rated the most. As many as 84.2% of the respondents considered this category important from the point of view of the local community, while the lack of such a role of the military is mentioned by only 2.1% of respondents, which indicates their marginal percentage, and thus allows to maintain the hypothesis about the significant influence of the military on this area of social functioning.

The analysis of the influence of the military on the selected elements of the functioning of the local community is illustrated in Chart 3.

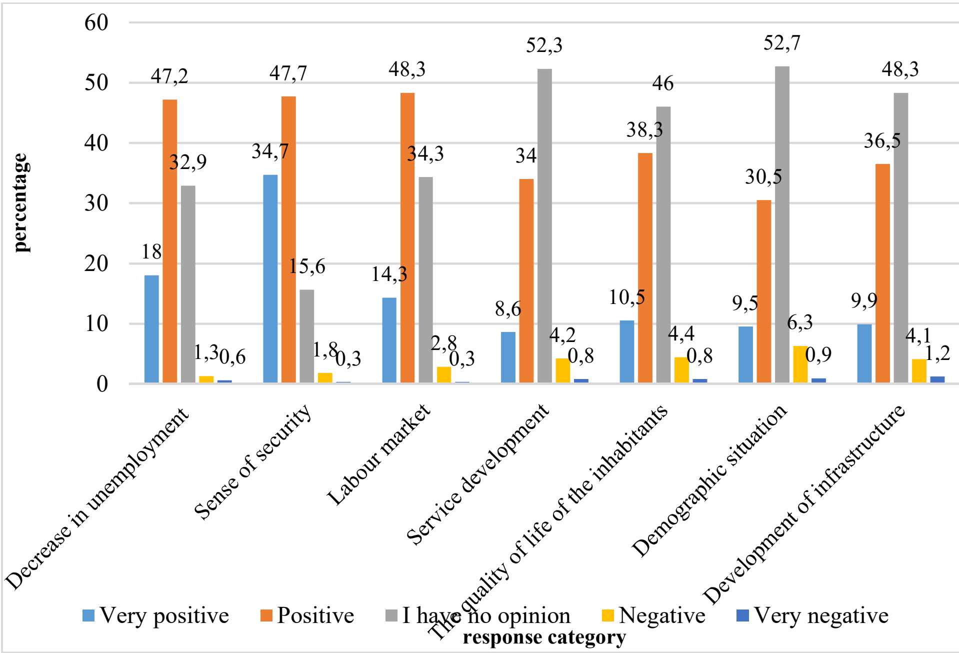

Chart 3. The influence of the military on the selected elements of the functioning of the local community

Source: 2018 own research, civilians (n = 1,064).

Apart from the main role assigned to the military, it also performs a number of other functions that have been developed over the years and which result from its organization. These include the impact that a military unit exerts on the labor market, including unemployment, the services market, the demographic situation and the development of infrastructure. Although these categories are not directly related to national security (state defense), nevertheless all the aforementioned factors create a social security system that ensures stability in the social, economic and economic areas. It should also be noted that the security guaranteed by the military, presenting its readiness to repel acts of external enemies, is related to economic security, which in everyday pragmatics affects the functioning of individuals and social groups living in a given local community.

The Brigade as a whole and its individual units is a significant employer in the Podkarpackie region. The Brigade is composed of over 4,000 soldiers and civilian employees. Most of the soldiers serving in it, especially non-commissioned officers and privates, come from the region, and the remaining staff often settle in the Podkarpackie region for the period of their service. While for the capital of the province these several thousand jobs do not change the situation diametrically, in smaller towns such as Przemyśl, Nisko, Jarosław or Żurawica the military is often the second or third largest employer. Due to the organization of the military, the largest part of the Brigade personnel are privates and junior non-commissioned officers. As a rule, they are young people, with the average age of about 30 years of age for privates, who have recently completed their education. For many of them, the service is a chance to stay in their homeland, when plenty of their peers leave the province or leave the country in search of work.

Also, an important role of a military unit in a given location is to stop the trend of the outflow of young people from a given area. Stopping the outflow of young people and providing them with conditions for development provides both personal human resources for units and augmenting their manning positions. Furthermore, from the perspective of local communities, it ensures development and stops the social aging process of the local communities concerned, which can be observed in many localities that cannot offer jobs for the young. Therefore, such an important aspect of the functioning of military units is building a system of social ties with given residents, because members of the local community are directly related to the military as an institution and represent both the military and the local community in it. The assessment of the impact of the stationing of the military unit on stopping the outflow of young people is shown in Chart 4.

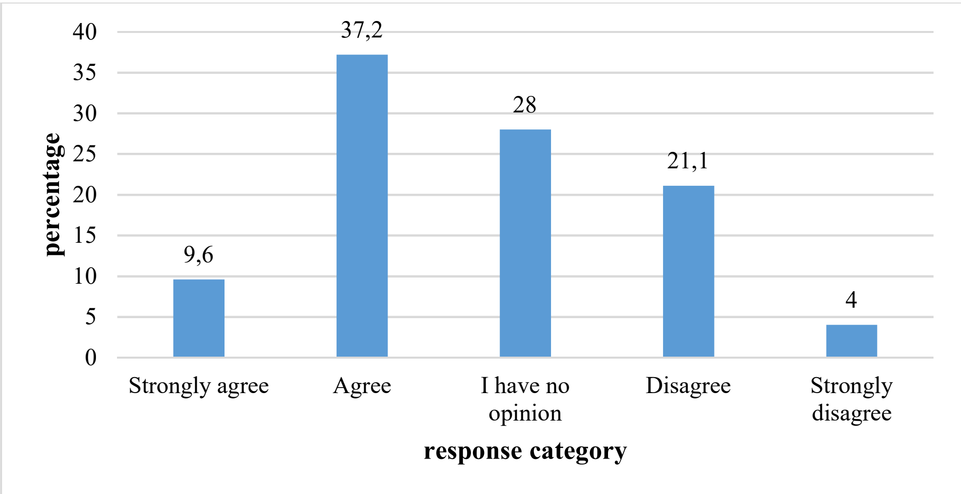

Chart 4. Assessment of the impact of the stationing of the military unit on stopping the outflow of young people

Source: 2018 own research (n = 1,064).

As the presented data indicate, in the opinion of 46.8% of the respondents, the stationing of the military in their place of residence has a positive impact on counteracting the outflow of young people. On the other hand, 25.1% of respondents do not see the direct impact of the presence of the military on the outflow of young people to larger urban centers. The attitude of the residents to military service as a potential workplace changed depending on the age of the respondents, which may be associated with the expectations of young people towards the place of future work and its conditions. The lowest positions in the military service are intended for people with a relatively low professional preparation, and better educated people will look for a job in line with the field of study, hence the offer of the military will naturally be directed to people less competitive on the labor market. The results of the research in individual age groups are as follows: a) group 18–24 years: 41.7% of positive responses, 35.5% of negative responses, b) group 25–34 years: 39.4% of positive responses, 28.2% of negative responses, c) age group 35–44: 51% of positive responses, d) age group 45–54: 50% of positive responses, e) age group over 55: 55.7% of positive responses.

A clear decrease in the range of 25–34 years of age shows that people who have either completed their studies or already have achievements and professional experience look for employment in other areas. With the increase in age, positive opinions in this respect grow above 50%, and negative opinions remain around 20%. This can be interpreted as the need for stability and guarantee of safe future related to starting a family.

The economic factor related to the dislocation of the Brigade units is of significant importance for local communities. The military community consists not only of soldiers, but also their families, and it can be assumed that the military community is about 10,000 people, which is a large percentage of the population. This group supplies local economies by spending their income on daily living, buying housing and other goods. They pay taxes and local fees. Despite the centralization of some purchases for the military, many of them are carried out by local companies and enterprises that not only supply food products, but also provide various types of services, e.g. transport. After joining the military, many young people complete their education by starting their studies. They constitute a large group of students of local universities.

The assessment of the importance of a military unit for the conditions of economic development of a given local community is presented in the Chart 5 below.

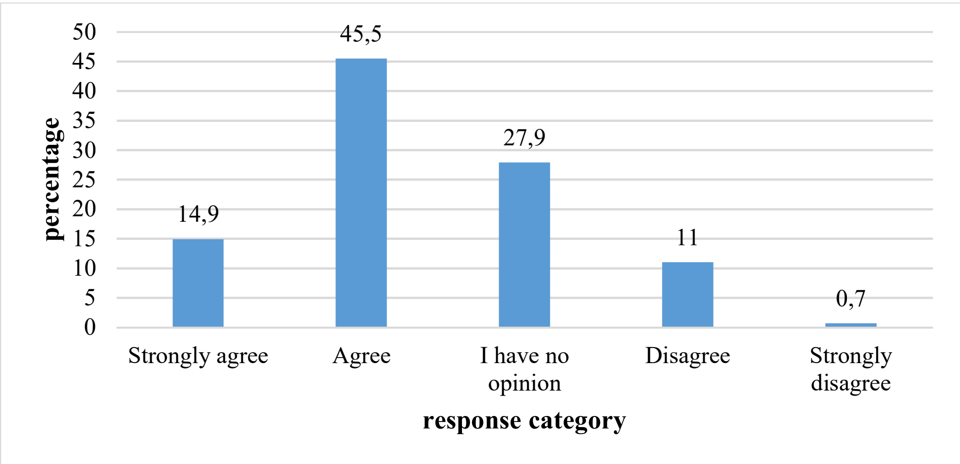

Chart 5. The assessment of the importance of a military unit for the conditions of economic development

Source: 2018 own research (n = 1,064).

As the research results show, the presence of a military unit (and soldiers) in a given locality, in which it is deployed, is not without significance for the economic conditions that prevail there. The scale of this impact depends on local conditions, in particular on the size of the community and the local labor market. More than half of the respondents positively assess the influence of the military on economic development - 60.4%. The negative aspect of the stationing of the military is indicated by a relatively small number of respondents – 11.7%. The differences in responses and a relatively large percentage of respondents who did not have an opinion on this topic indicate a lack of information or public interest in this issue. Among the respondents, the total number of positive responses increases with the age of the respondents. In case of analysis of the answers from the point of view of the respondents' education, a similar tendency can be observed. The higher the education, the higher is the rated category. Among the respondents with primary education, the influence of the military on economic development is responded positively by 40.0% of respondents, and with lower secondary or vocational education – 42.9%. This tendency is clearly maintained among people with secondary education, when the number of positive responses increases to 58.5%, and higher to 66.5%. Much better ratings are given by the respondents who have completed military service and those who have friends in the military environment. On average, the results are 6% higher compared to the respondents who did not have such contacts. This confirms the previous statement that proper knowledge or information on the functioning of institutions contribute to a better understanding of what was reflected in the research results.

To sum up, in order to show this issue from a different perspective, and thus to present a more complete picture of the mutual relations between the military and the local community, soldiers were asked about their willingness to permanently connect with the current place of their service, taking into account also subsequent service assignments in other locations. This is shown in the Chart 6.

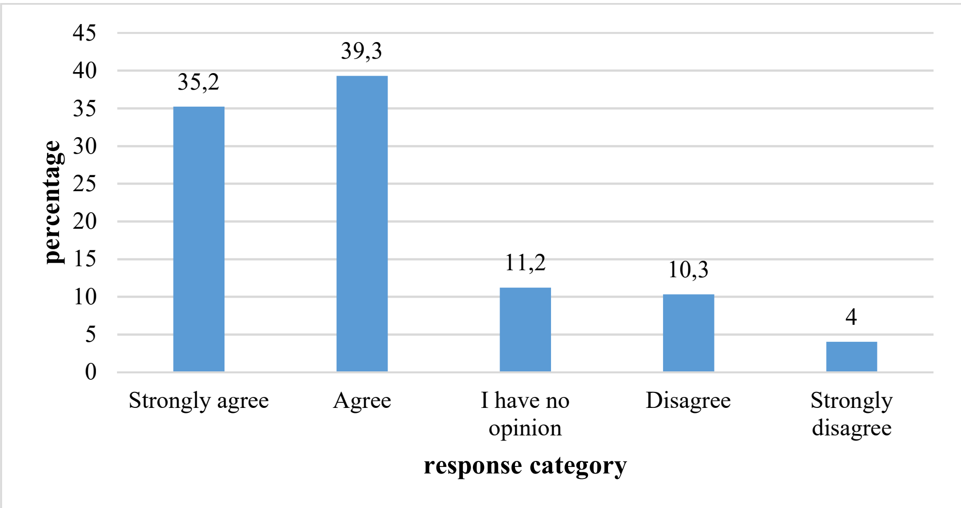

Chart 6. The willingness to permanently connect with the current place of service

Source: 2018 own research (n = 843).

The obtained results confirm that soldiers are willing to connect with the current places of service also after its completion. As many as 74.5% of the respondents expressed their willingness to stay in their current places of residence, regardless of possible professional changes, and thus the change of the place of service. Although they express their readiness to leave their families in their current localities, they also express their readiness to return to them after retiring from duty. In case of this category, a much smaller percentage of respondents, only 14.3%, expresses a lack of willingness to be associated with the current place of residence and service for life. Among the respondents, the tendency to change their place of residence is more often expressed by single people as well as those with better education. Married respondents show a greater need for stabilization. The size of the urban center was not without significance for the decisions made. Larger centers were chosen more often by the respondents, which undoubtedly results from access to the labor market, education and culture, as well as the possibility of taking up professional activity after completing their military service.

Therefore, it is noticeable that the opinions of both local community residents and soldiers serving in given military units on civil-military relations are positive, the more so as they are fostered by both partners of the relationship and relate to situations connected with their everyday life.

4. CONCLUSIONS

Based on the role played by the 21st Podhale Riflemen Brigade in the state defense system, as well as the role that emerges from the answers given by the respondents, it can be concluded that a military unit, as a social institution, satisfies numerous different social needs. Civil-military relations are also important, as in many cases they play a significant integrating role, and their relations with the local community are much deeper and rely on a mutually servant role. The military serves society, and society supports the military, for instance by joining it. The perception of military units, and more broadly the army as a social institution on a macro-sociological level, is beyond any doubt. The above-mentioned research results also indicate the existence of mutual relations and the playing of a significant role of military units in local communities. Social expectations on the macro and mezzo-sociological level in the area of security are similar. After narrowing the research area to the level of the local community, it can be noticed that there are new social roles that the military plays, which result from the specificity of the local community in which the military unit is stationed. These roles may be different for each community, although their "depth" results from the expectations of the inhabitants, the local situation on the labor market or historical conditions. This confirms the assumption that the military unit is an important social institution on the mezzo-sociological level.

The research hypotheses are confirmed, the first of which recognizes that in fact institutional civil-military relations between military units and the local community are manifested in various local undertakings, significant for both partners, and the second, that the opinions of local community residents, as well as soldiers serving in given military units on civil-military relations are positive, the more so that they are implemented by both partners of the relationship and concern situations connected with their everyday life.

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DISUNITY IN TIMES OF CRISIS: COVID-19, GEOPOLITICS AND VACCINE NATIONALISM[3]

Geopolitics and vaccine nationalism have been seen as barriers in addressing the COVID-19 pandemic globally. Rich Western nations have nationalized vaccine production and distribution, while vaccines produced by Russia and China have been criticized in the West as lacking scientific rigor. This paper attempts to understand the negative implications of vaccine nationalism and seeks to explain how, in times of crisis, words such as unity and solidarity were replaced by populism, nationalism, and the politics of blame. To accomplish this, the paper employed a qualitative research method, where a review of the literature relating to the COVID-19, geopolitics, and vaccine nationalism revealed that the words unity and solidarity were non-existent in the fight against the pandemic. In doing so, nation-states put their interests ahead of the other states. It was observed that failure to ensure vaccines for developing countries risks prolonging the pandemic.

Keywords: vaccine, nationalism, states, realism, pandemic.

1. INTRODUCTION

It is safe to contend that the COVID-19 pandemic brought with it unprecedented destruction that no state or government would have anticipated. It has resulted in millions losing their jobs, condemned millions of families to poverty, it increased global inequality, exposed how governance is fragmented in developing regions and has laid bare how in times of crisis, it is every nation for itself. The pandemic has affected the world like nothing else in recent history, triggering serious economic crises. It was expected that the global socio-economic and, by extension, political fallout from the pandemic would unite the world and merge global responses to the pandemic. It was hoped that it would allow rivals to put aside their geopolitical differences and not only work together to neutralise the spread of the virus but to also ensure global stability. However, what we have observed is the direct opposite; rather than a collective global effort to fight the pandemic, we have seen its politicisation between the West (Europe and North America) and the East (Russia and

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China), characterised by the blame game. Lal et al. (2020) conclude that the global response to COVID-19 has been fragmented; it has been fraught with geopolitics, nationalism, and an element of denial. Desvars-Larrive et al. (2020) maintain that millions of lives would have been saved if governments had been proactive rather than reactive and had put people rather than politics and populism first. The disunity in responding to the pandemic was reflected in the development, production and distribution of vaccines. From the outset, poor countries were at the mercy of developed countries that possessed the technology, infrastructure, and knowledge with regards to vaccine development. Rowland, Ruahla & Berger (2021) noted that Western multinational pharmaceutical companies, backed by their governments were keen to consolidate their monopoly concerning the development and distribution of vaccines. A vaccine developed in the East (Russia and China) was unthinkable, considering the current state of geopolitical affairs between the West and East. On the surface, vaccine development was about saving lives but, in the background, great power politics were at play, with the first country to develop a safe vaccine being able to expand its sphere of influence. From the onset of the pandemic, vaccine production in the East has been met with ridicule and mistrust in the West, where they were seen as inferior and rushed processes that were unsafe for human use (Baraniuk, 2021). The politicisation of vaccine development has become another factor hindering an effective global response to the pandemic. Arguably, vaccine politics and nationalism will not help anyone, rather the world needs a collective, all-encompassing solution to the pandemic that involves working together to ensure that all countries rather than a few wealthy countries stand an equal chance of receiving vaccines (Ghebreyesus, 2021). It should not matter where the vaccine comes from, as long as it is safe and can be of valuable assistance in the fight against COVID-19. This paper, therefore, seeks to examine how the terms ‘solidarity’ and ‘unity’ were disregarded during the peak of the pandemic. It seeks to understand the implications of vaccine nationalism and how it has become a barrier to unity and solidarity in times of crisis. To achieve the objectives of this paper, a qualitative research approach was employed where a literature review was undertaken to engage with this highly politicised topic. Data was collected at an international, regional and local level. This approach was deemed appropriate as it permitted the paper to go deeper into the current debates, arguments, and discussion around the understanding of COVID-19, geopolitics, and vaccine nationalism and how these have informed the global response to COVID-19.

2. THEORISING THE GEOPOLITICS OF VACCINES

The global response to the pandemic reflected a great deal of disunity underpinned by populism, nationalism and the disregard for the interests of other states. Realism in international relations underscores the fundamental role of states and contends that all states in the international system are driven by their national interests, which at times are disguised as moral concerns (Guzzini, 2004). Hans J. Morgenthau’s significant insights into international relations contributed considerably to bringing realism to the fore as one of the most important theories in international relations. For Morgenthau, greed and selfishness were the core values of human existence. The need to dominate and amass power, and the disregard for the interests of others were the main cause of conflict (Bell, 2017). Realism assumes that states are the major players in the international system. While other elements may be present (for example, civil society organisations and non-state actors) they however have limited power. Secondly, in the international system, states are seen as unitary actors

(Antunes & Camisao, 2018). In time of crisis, the need to project one's national interests leads the state to take drastic measures. Finally, realism argues that the international system is anarchic. Countries always seek to ensure and protect their territorial sovereignty and political autonomy (Antunes & Camisao, 2018). Once these two important elements are secure, however, the national interests of states take different forms, which may converge or significantly diverge. For some states, securing more land, resources and expanding their spheres of influence may be of national interest, while others may wish to expand their socio-economic and political systems to other areas, while others may just want to be left alone. Defining national interest within the realist context can be reduced to one word, 'power'. However, national power has a wide range of meanings since it can be defined in terms of economics, politics, militarily, economics and even cultural resources (Williams, 2007). Realists observe power as a relative concept, for example, does a state possess the capabilities to protect itself against the aggression (power) of another state or can a state force another state to alter its state policies? For realists, the importance of relative and not absolute power stems from the assumption that the international system is anarchic. Therefore, this anarchy forces states to rely on their resources to protect their interests (Antunes & Camisao, 2018). There is no authority over the nation-state, nor, for the realist, should there be. COVID-19, sadly, exposed not only the disunity in the international system but also the selfishness and greed of nation-states, from the hoarding of vaccines and rich countries directly dealing with manufacturers to secure billions of doses for their populations to countries restricting the export of materials needed for vaccine production (Belluz, 2021).

The pandemic has further reinforced Morgenthau's view that humans by nature are selfish and in times of crisis only think about themselves. The pandemic has greatly affected globalism within the context of international relations. On March 14th 2020, former US President Donald Trump banned citizens from 26 European countries from entering the US (Amaro, 2020). European countries also introduced similar measures to try and flatten the curve and reduce the spread of the virus. What soon followed was beyond what anyone could imagine; travel bans were put in place, borders were shut, mandatory quarantines were enforced. Such actions were classic examples of how the coronavirus pandemic exposed how realism in international relations is still alive today. How countries have been responding to the pandemic has reinforced the assumptions of realism where self-help and ensuring one's interests are secure has been the dominant feature of the global response to the pandemic. Realism in international relations does not put a great deal of effort into analysing pandemics such as COVID-19, nor does it address public health issues or epidemiology, but despite these limitations, realism can offer significant understanding of some of the issues that the pandemic has raised (Walt, 2020). Firstly, the pandemic reassured us that the state is still the major player in international relations. Over the years scholars have argued that the role of the state is diminishing and has been replaced by non-governmental organisations, transnational corporations, terrorists, and global economic markets. However, the coronavirus pandemic is providing yet another vivid reminder that states are central figures in international relations (Walt, 2020). Secondly, different versions of realism at times tend to downplay states (apart from relative power), so far, the pandemic has exposed the weaknesses and strengths of different regimes and political systems (Walt, 2020). Scholars have argued that authoritarian- led countries are more likely to be worse off with regards to epidemics, famine, and other forms of natural disaster because top officials tend to withhold information from the public and hence may downplay the gravity of the situation, as in the case of Iran and China.

3. THE WORLD HEALTH ORGANIZATION AND THE GLOBAL RESPONSE TO COVID-19

What began as a virus in Wuhan China soon expanded and inflicted devastating socio-economic conditions in every corner of the world. COVID-19, which was initially reported to the World Health Organization (WHO) on December 31, 2019, was on the 30th of January 2020, declared a global health emergency (Cucinotta and Vanelli, 2020). When it became clear that the virus had spread beyond the Chinese borders, the WHO on the 11th of March declared that outbreak a pandemic (Eurosurveillance Editorial Team, 2020). One can argue that the WHO was slow in its initial assessment and response to the virus and when it did react, the virus had already begun to cripple socio-economic systems globally. Former US President Donald Trump criticised the WHO and tweeted that the organisation "really blew it, for some reason, funded largely by the United States, yet very China-centric" (Lanyon, 2020). This was not the first time the WHO had come under attack for its lackluster response to the pandemic. Buranyi (2020) observed how, apart from Trump, even prominent people in academia, government and NGO sectors who had been supporters of the WHO argued that it had bent over backwards in response to nationalistic sentiments and caved into populism and failed to take the lead when it was supposed to. The international political system which the WHO relies on is unraveling, as aggressive populism and nationalism become entrenched around the world (Buranyi, 2020). In terms of the realist paradigm, it became clear that from the onset, nation-states were more concerned about their own interests, and this drove them to depend on their resources to ensure such interests were protected. While there is nothing wrong with this approach, it consolidates the notion that in times of crisis, concepts such as solidarity and unity are a myth. However, one cannot take at face value the criticisms levelled against the WHO without understanding the parameters within which the WHO operates. In essence, while the WHO has been expected to take the lead in devising strategies to protect the globe against the pandemic, the world also needs to look at China which has been accused of not sharing but rather concealing information about the pandemic. Months after the virus expanded beyond Chinese borders, US intelligence services communicated that out of fear of arrest, it is highly possible that officials in Wuhan China withheld information concerning the coronavirus from Beijing officials (Frias, 2020). According to a report by the Department of Homeland Security, the Chinese government knew about the severity of the virus but concealed the information from the international community in order to stockpile medical supplies while also reducing the export of key medical equipment (Williams & Luce, 2020). While China has denied concealing information, the subsequent arrest of doctors in Wuhan who had been at the centre of the pandemic gave rise to an increasing suspicion about whether China was being transparent. The prominent doctor who was arrested and later died of COVID-19 was Dr Li, who raised the alarm about the country's coronavirus outbreak. Li sent warnings of a deadly virus on social media (Kirton, 2021). The Chinese government moved to downplay the emergency. Li and seven others were arrested for spreading rumours.

Nevertheless, notwithstanding sustained criticism against the WHO and China, the pandemic had already spread to most if not all countries. It has gone on to overwhelm public health facilities and inflicted socio-economic devastation that will take years to redress.

There was a need for the world to react, and central to this reaction was the need to ensure that the spread of the virus was halted. One would have thought that cooperation, unity, and solidarity were words that were going to characterise a global response to the pandemic. However, what transpired was the total opposite, as populism, nationalism and the politics of blame soon took centre stage. To protect their interests, nation-states-imposed lockdowns, suspended air travel, imposed curfews, closed schools and universities, and decreed that face masks had to worn when in public and people had to practise social distancing (Bhutia, 2021). While these measures were being implemented, in the background, pharmaceutical companies were in a race against time to develop vaccines that could respond to the virus. Billions of dollars were poured into research and development as the rush to have effective vaccines was driven by the socio-economic devastation caused by the virus.

However, Iwuoha et al. (2020) argued that lockdowns are for rich countries. In poor countries, where living conditions are characterised by the prevalence of slums and informal settlements, where the economy is in the hands of a few and where people have no access to water and sanitation services, people are bound to disobey lockdown regulations. Moreover, rich governments have been able to offer stimulus packages worth billions of dollars; they have been able to furlough people to ensure that while they respond to the virus, people would be able to afford the necessities for survival. In developing countries, such has not been the case. Already cash strapped before the pandemic, lockdowns have not been accompanied by stimulus packages and thus people, in search of income, have often broken lockdown regulations, further compounding efforts to stem the spread of the virus (United Nations, 2020). The global response to the pandemic has not been equal; developing countries with constrained resources have been at the mercy of developed countries with regards to the resources needed to tackle the pandemic. When the WHO declared the virus a pandemic, it was be beginning of a global competition to see which country would develop a vaccine first. It was the beginning of the great power competition between Russia, China, and the West (USA in particular), but there were more than 30 other countries which were also engaged in the rush to find a vaccine (Wouters et al., 2021). By early June 2020, government and private laboratories, university research labs, medical institutions and pharmaceutical companies were working on 133 possible vaccinations. The rush to produce a vaccine reinvigorated the great power competition between China, Russia, and the U.S who are all keen to use their knowledge about vaccine development as diplomatic tools. Kirton (2021) argued that the United States was lagging Russia and China, who were consolidating coronavirus vaccines as their new soft power tool and expanding their influence. Generally, it is argued that in times of pandemics or public health crises, a testimony to the effectiveness of a country's health care system, its technological development, and the sophistication of its scientific research can be seen in its ability to produce effective vaccines. Within the context of great power politics, a country that could produce (promptly) an effective vaccine was likely to expand its sphere of influence via COVID-19 vaccines. The need to produce a vaccine saw countries putting their national interest first rather than advocating for international cooperation and coordination. However, the vaccine diplomacy race was not only being played out between great powers, as there were regional powers who were also keen on leveraging on the new- found vaccine diplomacy. For example, India has been wooing South Asians with its vaccine friendship drive aiming to enter markets and compete with Chinese vaccines (Bochkov, 2021).

4. VACCINE PRODUCTION IN THE EAST AND ITS STIGMATISATION

The production of a vaccine was always going to be a geopolitical affair driven by great power politics. There was always going to be tension between the West and the East. Vaccines developed by Western companies were always going to be seen as trustworthy and effective and produced by companies in stable countries, unlike those in the East (France24, 2021). Since the pandemic erupted, vaccine development has been dominated by the well-known Western firms Moderna Inc, Pfizer, AstraZeneca, Johnson & Johnson, BioNTech, GlaxoSmithKline, Novavax and Sanofi. In the East, Russia’s Gamaleya National Research Centre of Epidemiology and Microbiology (which produced the Sputnik V), China’s Sinovac (the biopharmaceutical company behind the CoronaVac) and the Sinopharm Corporation are the most notable vaccines produced in the East and have since gone on to see an increase in usage in developing regions.

When, in August 2020, Russia claimed to have registered the first COVID-19 vaccine (Burki, 2020), dubbed Sputnik V, following two months of laboratory trials, the announcement was heavily criticised and labelled as premature by many Western governments and scientists. US officials called it a “Russian roulette” due to the limited time for its development (Bochkov, 2021). The EU cautioned Russia against gambling with the lives of millions. While countries in Asia, Africa and South America did not openly criticise Russia, they were cautious in their approach and argued that should the vaccine meet all scientific standards, they would probably consider it. It was expected that the West would ridicule Russia, but this paper argues that such criticisms were not born out of Russia’s lack of scientific standards in vaccine production, but rather that geopolitical issues were at play, issues around Crimea, the poisoning of anti-corruption activist Alexei Navalny, Nord Stream 2, allegations of spying and espionage, and allegations of interfering in the US elections. Therefore, one may argue that because the vaccine was from an adversary which does not conform to Western standards, allowing the vaccine to expand beyond Russian borders would expand that adversary’s sphere of influence. Hence, from day one, the Sputnik V vaccine was never accepted in the West. It became a huge geopolitical issue, as evidenced by the US pressuring Brazil not to authorise the usage of Sputnik V even though the US itself was engaged in vaccine nationalism (Rowland, Ruahla & Berger, 2021). Mistrust around Sputnik V stemmed from what Western scientists said, namely that the vaccine was yet to complete critical, late-stage clinical trials to determine its safety and effectiveness. In the latter months of 2020, the United States, Canadian and British governments all accused Russian state hackers of trying to steal vaccine research (Smith & Bradley, 2020). Russian officials denied the accusations and said that their vaccine was based on a design developed years ago by Russian scientists to counter the Ebola virus. In the beginning, the EU dismissed the Russian vaccine, arguing that Russia's global coronavirus vaccine supply campaign was a propaganda stunt by an undesirable regime. Karcic (2020) observed that realism manifested itself where the vaccine development processes became centralised and self-serving. Politics clouded the science behind the Russian development of its vaccine, even though the vaccine Sputnik V has been authorised in over 60 countries worldwide as of April 2021. Rather, great power politics and the competition for global influence overtook the need for collaboration, solidarity, and unity.

Like Russia, China’s development of its own Sinopharm and CoronaVac vaccines was not received with with open arms in the West, largely because of great power politics, where major powers were locked in a global race for a vaccine. Like Russia, China is seen as the biggest threat to US hegemonic power, thus the US, its allies and Western media have downplayed the Chinese vaccines, often associating them with shortcuts, and being untrustworthy and lacking in scientific rigour (Wu & Gelineau, 2021). China is struggling to get the World to trust its vaccines. That mistrust and the reliance of dozens of poorer nations on China to inoculate their populations could set the stage for a major global political headache if citizens offered the Chinese vaccine feel they are being given an inferior product (Marlow, Msngi, & Lindberg, 2020). For those countries that have not yet secured a vaccine, China may be the only solution. The potential use of its vaccine by millions of people in other countries allows China both to repair the damage to its reputation from an outbreak that escaped its borders and to show the world it can be a major scientific player (Wu, 2020). Even though the Chinese vaccines may be of high scientific standards, past scandals have damaged its own citizens' trust in its vaccines, with manufacturing and supply chain problems casting doubt on whether it can be a saviour (Wu, 2020). However, despite the continuous criticisms around Chinese vaccines, as of September 18, 2021, China's Ministry of Foreign Affairs announced this that it had delivered 1.1 billion vaccine doses to more than 100 countries during the pandemic (Jennings, 2021). Chinese vaccines were seen as likely to go to countries with no other alternatives, thus regulatory approval was likely to be quick and hassle-free (Marlow, Msngi & Lindberg, 2020). To ensure potential customers of the safety and efficacy of its vaccines, in October 2020, 50 diplomats and ambassadors from African countries were given a tour of the Sinopharm Group Co. facility where the vaccines were being produced.

It is not surprising that vaccines produced in the East receive criticism from the West. While China and Russia are also directly competing for the same vaccine markets, both countries are beating the West at vaccine diplomacy, and are using coronavirus vaccines to expand their influence (Smith, 2021). Beijing and Moscow are marshalling the vast powers of their states to develop vaccines for domestic and international use, accompanied by grand claims of scientific and manufacturing prowess. Although Beijing and Moscow deny it, experts say they are beginning to see how the strategy of selling or donating their vaccines abroad is allowing them to expand their influence (Smith, 2021). Should this be the case, it would be of grave concern for the United States and other democracies. China and Russia are not just winning at vaccine diplomacy, the U.S. and others aren't even in the game yet. Washington and its allies have instead chosen to prioritise their domestic populations, keeping most doses at home, and causing resentment abroad (Smith, 2021).

5. THE PROBLEM WITH VACCINE NATIONALISM

The realist theory in international relations assumes that humans are selfish and are motivated by self-interest. The pandemic has introduced new terminologies that the world was not familiar with, such as "social distancing", "flattening the curve" and "furlough". There has also been a new phrase in use among experts: "vaccine nationalism". Vaccine nationalism happens when governments (mostly wealthy countries) sign agreements (contracts) with manufacturers to supply their populations with vaccines ahead of them becoming available for other countries (Aljazeera, 2021). Even before COVID vaccines had completed the final clinical trials, wealthy countries such as the US, Britain, Japan, and the those in western Europe had signed deals worth billions with pharmaceutical companies to ensure that they would be first in line to be supplied with vaccines when they became available (Aljazeera, 2021). By August 2020, rich countries had already secured more than 2 billion doses of vaccines. Conversely, there were considerable challenges in acquiring vaccines for low- and middle-income countries. By the time pre-orders began rolling in in early August of that year the United States had secured 800 million doses of at least 6 vaccines in development, with an option to purchase around one billion more (Aljazeera, 2021). The United Kingdom was the world's highest per-capita buyer, with 340 million purchased: around 5 doses for each citizen. It became clear that the world was witnessing the nationalisation of vaccine production and distribution (Aljazeera, 2021). Arguably, vaccine nationalism is not the most appropriate approach in seeking to reduce the spread of the virus. Limiting the availability of and access to vaccines risks keeping the virus alive in poor countries. If vaccines cannot reach countries in sufficient numbers, the virus will continue to disrupt global supply chains, thus affecting developed countries, regardless of vaccine nationalism (Weintraub, Bittom & Roseberg, 2020). Vaccine nationalism has a long history. For example, when swine flu pandemic, caused by the H1N1 influenza virus was at its peak in 2009, rich countries secured deals for vaccines before they were available. The same process unfolded when the HIV pandemic was at its highest level, with poor countries struggling to access lifesaving medication as the costs were too high. Nevertheless, it should be noted that rich nations committed themselves to helping poor counties through the COVID-19 Vaccines Global Access (COVAX) scheme. For example, the G7 countries committed themselves to ensuring that at least 20% of the population was vaccinated in low-to-middle income countries by the end of 2021 through the COVAX scheme (Huizen, 2021). It is important to debunk the notion that only poor countries will be affected by vaccine nationalism. The global economy is at risk of losing $9.2 trillion if developing countries are not effectively catered for in the vaccine rollout (Oxfam, 2021). While pharmaceutical companies are producing millions of doses of vaccines, it might seem as if there are sufficient to go around, but vaccine nationalism has become a stumbling block in ensuring low- and middle-income countries have access to vaccines. Even though rich countries may nationalise vaccines, the more people the virus infects, the more likely it is that further mutations will occur, and it is inevitable that an escaped mutation will eventually surface. The new mutation is then likely to become the dominant strain and will find its way back to our shores, setting off a whole new set of infections in those vaccinated against only the old variants (Aljazeera, 2021) and did this tale place, for example, as the pandemic has progressed, new coronavirus variants have been detected around the world, B.1.1.7 (the variant first seen in the United Kingdom), B.1.351 (the variant first seen in South Africa) and P.1 (the variant first seen in Brazil) and the omicron variant, B.1.1.529, designated by the United states of concern (White, 2021) and (United States Food and Drug Administration, 2021)

The rand cooperation argued that the unequal allocation of vaccines, coupled with vaccine nationalism could potentially cost the global economy up to $1.2 trillion a year in GDP terms. While some countries may eventually get the virus under control, if it is still prevalent in other countries, there is likely to be a global economic cost associated with the pandemic (Hafner, et al., 2020). Vaccine nationalism could cost the global economy up to $1.2 trillion a year in GDP and If poorest countries cannot access vaccines, the word would stand to lose between $60 billion and $340 billion a year in GDP (Rand Cooperation, 2020).

6. COVAX AS A MEASURE TO CUSHION THE POOR AGAINST VACCINE NATIONALISM

Vaccine Nationalism and the difference in purchasing power between poor and rich countries meant that the poor were on the back foot in terms of vaccinating their populations. Developing countries are lagging in the race to end the coronavirus pandemic through vaccinations, and without credible means to ensure access they are likely to contribute to prolonging the pandemic (Shah, Steinhauser & Solomon, 2020). COVAX is one of three pillars of the Access to COVID-19 Tools (ACT) Accelerator, which was launched in April 2020 by the World Health Organization (WHO), the European Commission, and France in response to the pandemic (Wouters, et al., 2021). This response brought together the private sector, civil society, governments, global health organisations, scientists, and manufacturers with the sole aim of ensuring unhindered, equitable and innovative access to COVD-I9 treatments, diagnostics, and vaccines. The COVAX pillar focused on vaccines seeks to ensure that all people in all corners of the world regardless of their income can access vaccines when they become available. Shah, Steinhauser & Solomon (2020) noted that vaccine nationalism is hindering efforts to ensure that poor countries have the resources they need to fight the pandemic. With developed nations having secured vaccines and begun vaccination drives the trajectory of the pandemic had shifted away from developed nations to poor countries which are often characterised by deteriorating infrastructure and lack of capacity to enforce COVID-19 regulations. The COVAX scheme had initially earmarked 240 million doses of vaccines to be delivered to 92 low- and middle-income countries by the end of May 2021. While it aimed to deliver 1.8 billion doses to 92 low- and lower-middle- income economies, it had shipped only 1.1 billion doses by February 2022 (Loft, 2022). There is already a huge gap in the global vaccination process. The lack of vaccination in poor countries can create problems for the global economy. There is the general fear among epidemiologists that the inability to vaccinate the poor countries could leave large reservoirs of the virus circulating, thus increasing the possible of mutation (Steinhauser, Bariyo & Emont, 2021). COVAX was able to secure $6bn (£4.3bn), but the scheme contended that it needed another $2bn to meet its target for 2021. The US government in December (2020) pledged to provide $4bn while the UK provided $734m (BBC News, 2021). However, the WHO-backed programme for equitable vaccination distribution has been hampered by rich countries pursuing their own vaccine agendas. COVAX has been able to secure deals with Pfizer Inc., Johnson & Johnson and Novavax Inc. However, these companies have also signed direct deals with governments, which again limited the likelihood that vaccines can be allocated to the COVAX scheme in a timely manner. Moreover, the problem with the COVAX scheme is that many countries have come to rely on it, but the scheme itself does not have a steady supply of vaccines because of vaccine nationalism. WHO Director-General Tedros Adhanom Ghebreyesus urged wealthy nations to share vaccine doses with COVAX, saying the goal of equitable distribution was “in jeopardy” (Aljazeera, 2021). Vaccine nationalism has seen countries centralising vaccine supply and restricting key export of resources needed in the production of vaccines in what the WHO called a “grotesque” supply chasm between rich and poor nations, dealing another blow to the prospect of global solidarity in fighting the COVID-19 pandemic. The pandemic has affected all sectors globally, hence the WHO argues that rich countries have a role to play in ensuring no one gets left behind in the vaccination process. By 2020, rich nations, representing just 14% of the world's population, had bought up more than half (53%) of all the most promising vaccines (BBC News, 2021). Vaccine nationalism is not the approach one should be taking, rather cooperation is key in the quest to ensure effective resource utilisation.

7. THE NATIONALISM OF VACCINES AS BARRIER TO FIGHTING COVID-19

The Lancet medical journal, using the analysis of data from 20,000 participants in Phase 3 trials suggests that the two-dose Sputnik V vaccine offers more than 90% efficacy against symptomatic COVID-19 (Jones & Roy, 2021). The results indicate that Sputnik V is among the top-performing vaccines, along with the Pfizer/BioNTech and Moderna jabs that also reported efficacy exceeding 90%. Sinopharm's Vero vaccine achieved 79% efficacy in a Phase III study conducted in 10 countries. In a separate study in the United Arab Emirates, it achieved 86% efficacy. The efficacy of Sinovac's CoronaVac vaccine ranges from 50–78%, according to preliminary studies from Brazil and Indonesia. In clinical trials, the J&J vaccine showed 66% overall efficacy against COVID-19. From this it can be argued that vaccines made in the East are of a similar standard to those made in the West. Both vaccines are effective when it comes to preventing symptoms of COVID-19 and possibly preventing death. However, the geopolitical stigmatisation of vaccines from the East remain heavily ridiculed, often obscuring the scientific input behind their creation. Monyae & Nkala (2021) criticise the politics of blame by the West and argue that, unlike Russia and China, they have nationalised vaccine production whereas China and Russia have donated vaccines to other countries in need. In support, Bochkov (2021) reveals that Russia and China will stay committed to their diplomatic rhetoric of multilateralism with their promise to deliver vaccines at competitive prices worldwide. China is part of the COVAX global vaccine partnership, aimed at making inoculations more readily available to less developed countries. Vaccine Nationalism by the West has allowed other powers to use vaccines as a means of diplomacy. Russia and China are using vaccines developed by their scientists to bolster relationships with allies and forge new partnerships in countries like Mexico and Egypt. Arguing from a US foreign policy perspective, Smith (2021) explains that the US has lagged behind in vaccine diplomacy because, like the EU, distributing vaccines to developing regions is hinged on COVAX. Hence, other countries such as Russia and China, and to a lesser extent India and Israel, have stepped into the gap, via vaccine donations, sales and even agreements to build manufacturing plants in key countries. The Rand cooperation argued that vaccine nationalism is a significant barrier to defeating the pandemic. Vaccine nationalism can have several negative implications for the production and equitable distribution of potential vaccines across the world. Firstly, while the competition to produce an effective vaccine between great powers such as Russia, China and the US could ensure the successful development of vaccines, increased geopolitical competition could encourage countries to cut corners on vaccine development, and speed up trials to satisfy public demand (Hafner et al., 2020). This would then result in quicker but riskier regulatory approval. Should these vaccines have severe side effects or prove ineffective, this could, in turn, erode public trust in vaccines and complicate national vaccination plans. Secondly, although the current focus is on the development of vaccines once they have been developed and made available, they ought to be produced and administered at scale. The process of vaccine manufacturing is complex (Hafner et al., 2020). The type of vaccine will determine the type of infrastructure needed and this could be a challenge for poor countries that may not possess adequate systems to deliver and administer doses that have been manufactured in different environments, mostly found in the wealthier countries. Additionally, the elements or components needed to make a vaccine are usually sourced from different geographical locations that specialise in specific stages of the production process (Hafner et al., 2020). A nationalistic approach to vaccine production could lead to global vaccine supply chains being interrupted if some countries hoard the key inputs, causing production delays. Thirdly, in a bid to secure vaccines, rich nations have secured millions of doses through direct negotiation with the manufacturer. These bilateral agreements affect the pricing, and the availability of vaccines as wealthier nations buy up the already insufficient' stock available (Hafner et al., 2020). A nationalistic approach where each country is thinking about its own needs could eventually lead to the inadequate supply or allocation of available vaccines, thus favouring wealthy countries and negatively affecting poorer countries. Geopolitics and nationalism of vaccines are therefore not the approaches to dealing with the pandemic. Rather, the nationalism of vaccines is a barrier to fighting COVID-19 which has further divided the globe between those who have and those who do not.

8. CONCLUDING REMARKS

From the outset, it was expected that rich countries were going to go all out to secure vaccines for their own populations, regardless of the interests of other states. The realist approach to international relations reflects that nation-states are selfish and are driven by their own interests, even if these are at times disguised as moral concerns. It was not surprising to observe how Western countries rushed to secure deals with manufacturers for vaccines even before they became available. The pandemic has revealed that the concepts of unity and solidarity do not exist in times of crisis. Sadly, rich countries that have the financial power have been able to stock up on vaccines, while poor nations have had to depend on COVAX to access them. Receiving vaccines through the COVAX system is time-consuming as manufacturers prefer dealing directly with countries, hence poor countries must make do with the little they have. Russia and China have stepped in to fill the void left by the West that has nationalised vaccine production and distribution. The West has criticised Russian, and Chinese made vaccines fearing that should these vaccines be globally accepted they will increase the sphere of influence of the two countries. Rather than nationalising vaccines, Russia and China have been donating vaccines to poor countries, setting up loan facilities so that poor countries can purchase them and committing themselves to a multilateral approach in the production and distribution of vaccines. Realism is reflected in the response of countries regarding the pandemic, where national interests have superseded global cooperation and solidarity. Geopolitics and nationalisation of vaccines are not the desired approaches, rather a long-lasting framework built on cooperation and coordination is needed.

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MODERN MEDIA SPACE AND FINANCIAL LITERACY OF YOUNG PEOPLE

In the modern world, the internet is an integral part of the formation of culture and the educational potential of society. The relevance of studying its impact on individuals and the social strata of society is due to its structural and functional possibilities. As it actively embeds, it is becoming an institution of socialization for new generations, including in

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educational systems. However, from the perspective of science, it is important to understand the impact of the internet on the formation of basic values, cultural characteristics, and attitudes in young people, particularly in the field of financial behavior, which correlates with the economic activity of individuals.

The purpose of the study is to substantiate the role and influence of the modern media space (internet and social media) on the formation of models of financial behavior for young people.

The research methods used were a content analysis of social media, in particular the social network *Instagram*, including an analysis of the content of bloggers who position themselves as experts in the field of financial management, as well as a mass survey of young people and in-depth structured interviews with experts in the fields of financial markets and financial behavior. As the leading financial center of Russia, the residents of Moscow were studied.

The results obtained allow us to analyze the presence of a serious influence on the formation of financial culture and financial behavior of young people in the modern media space, including content, popular social media channels, social networks, as well as forming various models of financial behavior. Ultimately, this affects the practical choices and day-to-day activities of the country's young population.

The influence of the modern media space on the development of youth policy and of bloggers in the field of education, advice, and other activities related to improving financial literacy and culture should be taken into account.

Keywords: financial behavior, financial literacy, online social media, social networks, internet, socio-economic problems.

1. INTRODUCTION

Theoretical Treatment

The problems of the influence of social networks on the process of formation and functioning of public ideology are addressed in the works of S. G. Ushkin (2015), Y. A. Popova (2015), D. I. Shvedova (2015), T. Kimura (2017), B. Hughes (2011), S. V. Kapralova (2013), S. V. Kroshilin and E. I. Medvedeva (2014), N. V. Alikperova, A. V. Yarasheva, K. V. Vinogradova (2019) and others. According to research by various authors, online social media can act as a tool to influence public opinion, a channel for its formation and a platform for its crystallisation, as well as a mechanism to facilitate the translation of public opinion from the spiritual to the practical.

According to the results of a content analysis based on the Instagram platform and a survey among young people, this very Fifth Estate represented by "opinion leaders" (bloggers) has the greatest influence on shaping financial literacy, financial culture and, consequently, the financial behaviour of Moscow's youth.

The topic of financial culture, financial behaviour in today's realities is more relevant than ever, given the active development of the financial market, the supply of new products and services, the transition to digitalisation of the economy, the increasing complexity of the ecosystem of interaction between financial market and financial actors (Medvedeva, Kroshilin, 2014), in particular among young people, and the transformation of financial behaviour strategies, in particular savings behaviour.

We can see how the forms of savings and the volume of savings are changing. Investment behaviour has modernised in 2020 alone: the number of Individual Investment

Accounts (IIA) has more than doubled[7]. Consumer behaviour is also changing. This is particularly felt against the backdrop of the COVID-19 pandemic: needs are changing, new habits are being formed, online shopping, online learning. Changes are also affecting professional orientation, career building and many other areas of people's lives. This raises the question - what role do social media play in shaping financial culture and financial behavior? To what extent are their activities legal and secure by legal norms?

As early as the 19th century, M. Weber, through the prism of Verstehen sociology, revealed the possibilities of the influence of print media on the socialisation of the individual. G.H. Mead, in line with pragmatism and symbolic interactionism, showed the creation of reality through practical activity (which, in fact, today makes it possible to create "virtuality" as the "real world" through user activity). P. Lazarsfeld complemented the possibilities of studying media influence by developing a two-level model revealing the roles of 'opinion leaders' (Yachmeneva, 2019). Young people today are more included in mass communication processes than ever before, and this communication is often done in a virtual, mediated way and in a world teeming with information. In this case, authoritative opinion leaders have the greatest appeal, acting as a kind of "beacon", shaping not so much opinions as perceptions, values, subsequently planned for realization in the form of practices. Thus, social media functioning in a digital format allow contemporary youth to construct their own world based on the images, symbols and stereotypes they transmit, and to be embodied in actual social practices.

Current statistics

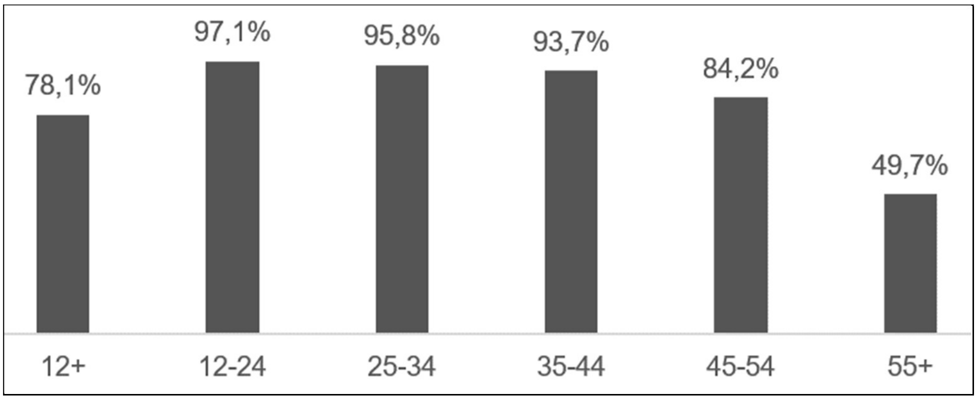
The internet has become an integral part of every modern person's life. Today, the Internet is the predominant source of any information, particularly financial information, for Russians. According to MediaSocope, 95.6 million people on average, or 78.1% of the country's population over the age of 12, used the Internet at least once a month in Russia in February-November 2020. On average, 87.1 million people, or 71.1% of Russia's population, accessed the Internet daily[8].

Internet penetration in Russia in 2020 among the middle-aged group (up to 44 years old) exceeded 90%, and among the youngest Russians (12–24 years old) it came close to 100% (Picture 1). In the 45–54 age bracket, 84.2% of Russians have used the internet at least once a month, while almost half of the country's oldest residents (aged 55 and older) have access to the internet – 49.7%.

On average, users spend 187 minutes a day on the internet. Women spend 15 minutes more than men on the Internet. Young Russians aged 12 to 24 spend the longest time on the Internet (222 minutes), while the time spent on the Internet decreases with increasing age and reaches a minimum of 162 minutes, which is how long the older 55+ generation spends on the Internet (Picture 2).

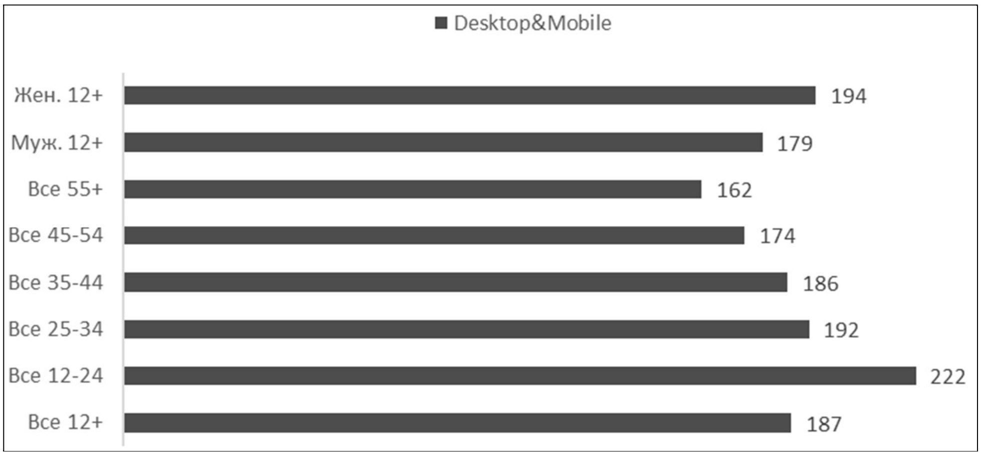
[7] Number of individual investment accounts opened exceeds 2.5 mln [Access: 07.01.2021]. Access on the internet: https://tass.ru/ekonomika/9130105/

[8] Russia's Internet audience in 2020, according to Mediascope//Mediascope [Access 7.01.2021]. Access on the internet: http://mediascope.net/news/1250827//



Picture 1. Internet audience in Russia% of the population, all of Russia, average monthly coverage for February-November 2020

Source: data from the WEB-Index project's establishment survey, February-November 2020.



Picture 2. Average minutes per day on the Internet per user, minutes

Source: data from the WEB-Index project's establishment survey, February-November 2020.

A rather curious fact is that social networks are only a few positions behind such "titans" among search engines as Yandex and Google in their popularity (Table 1). Social networks have long ceased to be just a platform for entertainment and communication. You can find everything on the networks: rental ads, jobs, educational materials, like-minded groups, and more…

Table 1. TOP-10 internet resources, number of users

№	Ресурс	Тыс. человек
1	Яндекс	**84289.0**
2	Google (ru+com)	**82687.5**
3	Youtube.com	**80104.2**
4	Vk.com	**74079.3**
5	Whatsapp.com	**73978.7**
6	Sberbank.ru	**69018.2**
7	Mail.ru	**61692.5**
8	Instagram.com	**59080.0**
9	Aliexpress.com	**47564.1**
10	Odnoklassniki.ru	**46467.1**

The media are not only mediating the transmission of information, they are shaping the development of all spheres of social life, and media and society are constantly interacting (Gureeva, 2016). Popularity in social networks is becoming the new currency for the promotion of various goods and services, as well as for media personalities. Social media can already be called Fifth Estate without any reservation.

As a specialized technological Internet platform, social networks allow users to register (create a profile, a web page) and engage in communication with other users (publish posts and comments, reply to posts (generate content), create communities and groups (Volosnikov, 2019).

2. PURPOSE OF THE STUDY

The main purpose of the study was to assess the influence and substantiate the role of the modern media (Internet, online social media, social networks) space on the formation of financially literate behaviour patterns among young people (using Moscow as a leading financial centre as an example).

The main research methods used were content analysis of social media, in particular Instagram (content analysis of bloggers positioning themselves as financial management experts), as well as a mass survey of young people and in-depth structured interviews with experts in the field of financial markets and financial behaviour.

The following research hypotheses were formulated:

H 1. In today's environment, the processes of shaping the financial behaviour strategies of the population are influenced by digital technologies.

H 2. Young people are significantly more influenced by social media than other age groups.

H 3. Advice from bloggers on social media is increasingly influencing young people's decision-making about how to manage their finances.

H 4. According to young people, intelligence, diligence and luck are important for increasing money.

3. RESEARCH METHODS

The following research tools were used to conduct the study:

1. To analyse the blogs, we selected about 100 (by number of subscribers, including "live" subscribers, based on comment activity and likes, posts) representatives who position themselves as experts in finance and who conduct educational, advisory and commercial activities on their pages. All of these bloggers are for the most part micro influencers, some of them are macro influencers, which gives us reason to believe that there is a wide coverage of users.
2. The methodology for assessing the content of the selected blogs consists in pre-selecting content for analysis: posts devoted to improving financial literacy and fostering active financial behavior in its various manifestations: savings, investment, credit, insurance, and the operation of various instruments.
3. A mass sociological survey (of Moscow young people aged 18-35); as well as in-depth structured interviews with experts in financial literacy and financial market development.

Joint research by the Institute of Socio-Economic Problems of Population of the Russian Academy of Sciences and the authors showed that the problem of the influence of the modern media space on the financial behaviour of Russian youth is very complex and multifaceted: young people are exposed to significant influence from the social media. This is primarily due to the spread and accessibility of the Internet, as well as the influence of social, economic and political factors and global processes that are taking place in our society. The development of the Internet is greatly expanding the range of potential influences on the financial literacy behaviour of young people. This problem requires further in-depth study.

4. FINDINGS

One of the most popular social media among young people is the social network Instagram, where a large group of representatives of the Fifth Estate as bloggers – "opinion leaders" – conduct their various, particularly educational and not always conscientious, activities, broadcasting their content to a wide audience of interested, motivated young people.

On pages of these "opinion leaders" can be found a variety of content, ranging from how you can start investing in 3 steps, then become a financial coach (an algorithm similar to the network marketing), that is enough to work with your subconscious and the money will find you, well and apogee of all this imperfection – magic practices spells for money, to repay debts and attracting wealth. At the same time, bloggers who are doing financial education and at the same time selling their training courses, don't have licenses for educational activities, and most of them are not even working legally.

The threatening fact is that users (consumers of this content) themselves, inspired by irrational optimism (in the hope to get in 3 steps an effective instruction on how to become a wealthy and free man), actively use the services of these pseudo consultants and charlatans. If we justify this fact from a scientific and practical point of view, the growing interest of Russians in financial literacy and financial information is promoted by active implementation of modern technologies. Digitalization in this regard narrows the gap in financial awareness between inhabitants of megacities and remote areas of the country: today, virtually any citizen can buy and sell securities, exchange currencies, open deposits, manage personal savings, etc., from the comfort of his or her own home. The world of finance has become more accessible.

As a result of the analysis of the blogs, a SWOT analysis was formed, characterising the main problem points and opportunities for transformation (Table 2).

Table 2. SWOT-Analysis

Strengths	**Weaknesses**
1. Social media is an authoritative platform for information, which gives us an opportunity to assess the preferences of the population, particularly young people, who are the strategic resource of our country, on whom all financial market participants are betting; they are the future active users of the financial market.	1. Lack of legislation for financial advisers' activities in social media, namely: There is no legislation on who has the right to do this kind of outreach, and there are no requirements for advisers What content can be promoted to users and on what terms, by what parameters a client should choose a financial advisor, how to distinguish a pseudo-expert from a truly knowledgeable, experienced advisor, so protection of the interests and rights of clients who use the services of financial advisors comes to the fore; a low level of culture rather than literacy thousands of people believe in rituals to attract wealth; inability to navigate the vast flow of information.
Threats	**Opportunities**
1. A large-scale field for fraudsters, pseudo-consultants, magicians and other charlatans. 2. A huge, uncontrolled flow of information, in which it is extremely difficult for an average person with a low level of financial literacy to identify bona fide, competent financial teachers; the latter in turn suffer from such unscrupulous teachers, and this casts a shadow over the entire field of financial advice. 3. The scale of potential 'victims'. It is not necessarily the case that the victim will literally lose money - the emphasis here is on something else, rather, what they will gain with the money and what damage they may suffer: loss of money; loss of time; disorientation; studying with the wrong information and therefore not achieving the goal; a misunderstanding of the meaning of the stock market (as one of the most popular topics), which leads novice investors to seek short-term profits based on short-term trading, which usually results in a loss of capital (as opposed to balanced long-term investing), which leads to demotivation and a loss of confidence in the stock market.	1. An opportunity to refocus the financial education system, rethink approaches and methodologies, and analyse audience needs. 2. The financial market will recover by identifying strong, quality players and weeding out unscrupulous participants in terms of financial education for the public. 3. The process of improving financial literacy will proceed faster through social networks due to large coverage.

Source: compiled by the authors based on content analysis of social media.

Supporting these findings with the data of the authors sociological research through an online survey among young people conducted in May 2020 (Moscow residents aged 18 to 35 took part in the survey; the selection criteria were belonging to the studied age group and living in Moscow), it was revealed that respondents prefer social networks to obtain information about a particular financial service or product and such 50.7% of respondents. This confirms the fact that social networks are an authoritative platform for obtaining information, which makes it possible to assess preferences of the population, particularly of young people.

Interest in financial literacy, financial knowledge is steadily growing, which gives researchers solid grounds to say that young people are motivated, they are interested in such topics as risk assessment in the financial services market (39.5%), budget planning (37.5%), formation of long-term savings for their old age (36.9%) and investment portfolio management (38.6%), closing the top five needs for knowledge - where to find the right information and how to understand that it is right (25.1%).

A curious result was obtained in the answers to the question "Who should be involved in improving financial literacy?" The answers were arranged as follows: 34.5% believe that this is the prerogative of higher education institutions, while 27.1% believe that these issues lie within the competence of state organisations. And the most interesting thing, which has never been seen before in answers – 25% believe that the issue of improving financial literacy is an area of personal responsibility: young people say that they learn financial literacy on their own. This is a new emerging trend, and it cuts across the vast social media landscape.

According to experts (the experts were selected by the snowball sampling, the research by means of in-depth structured interviews was conducted in the period from 01.09.2020 to 30.09.2020), young people are quite vulnerable in the financial market due to the specific features inherent in this age group – high risk-taking, ambitiousness, excessive self-confidence.

Expert 2: “Quite often young people can get caught by scammers, as they are active users of social networks, and there are a lot of different unscrupulous financial practices being implemented there. And they play on the fact that people want to make quick and easy money".

Expert 3: “I think youth can be very vulnerable, because of a kind of arrogance, any youth in general, whether is it 40 years old or modern. They think they are young, quick to grasp, advanced in modern technology. So they can be caught by those who skillfully take advantage of this unwarranted amateurism”.

Expert 5: “The general low level of financial literacy together with the cult of success tied to the possession of status goods and services leads to the fact that young people often become victims of unscrupulous practices”.

Expert 1: “In our view, two population groups are vulnerable in the financial market: young people and the elderly. Both often make decisions under the influence of emotions. Young people sincerely believe that nothing bad can happen to them and dare to use any offer”.

Experts also point out that the young generation most often become victims of unscrupulous financial practices on the Internet, which is facilitated by their credulity to various kinds of Influencers.

Expert 4: “Young people are more likely to believe a blogger than a bank employee. And of course there may be crooks among them. They may not be fraudsters in the literal sense that they will take money away by some fraudulent schemes, but they can misinform a person and steer him down the wrong path, which will result in him losing the money himself. It is very difficult to prosecute such people, but through their incompetent actions they can lead a young person to lose money and time. This is a big vulnerability that needs to be worked on in terms of developing some kind of legislation and regulating the social media sphere in general".

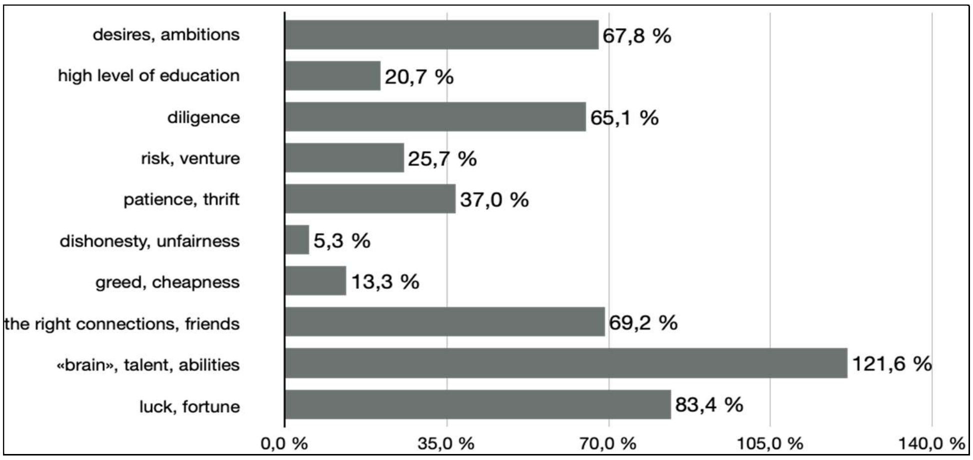
Expert 3: "The environment in which young people live creates additional risks. Digitalization has two sides – on the one hand, the quality of life has increased, and convenience, on the other hand, digital security and disclosure of information about themselves in social networks, exposure to contextual advertising, which may also apply to financial services, gullibility to all kinds of gurus, which today are various bloggers, presenters. Our people of all generations are extremely gullible and rarely think that the person they are attracted to, whom they have chosen as their guru, does not suspect that it could be a double-bottomed person, charged by those who have an economic interest".

To back up the experts' views, on 11 January 2021 a scandal erupted on the Web about a new financial pyramid scheme, which has victimised hundreds of people across the country. Citizens believed advertisements from popular bloggers about fabulous dividends and gave away all their savings. They ended up losing their money.[9]

This fact can be attributed to the results below. Young Muscovites were asked how they thought money could be "made". This question has already been used in the works of Russian and foreign scientists to study the attitudes of young people to different ways of enrichment, as well as their ideas about how to "make" capital (Furnham, 1999; Maksimenko, 2005). In the opinion of Moscow young people, personal abilities (brains and talent) are the most necessary to achieve material well-being, followed by "the will of chance" (Picture 3). Respondents chose "the right connections", "ambition", and "hard work" with roughly equal frequency. A rather alarming factor was that a high level of education and thrift are rarely associated by young Muscovites with a condition for "amassing" capital.

Young people do not hide the fact that they rely on luck in their plans and consider luck and the right connections to be the main factors of material success. In our view, it is this socio-cultural peculiarity of young people that is taken advantage of by scammers in social networks. Due to the high level of trust in Influencers, the younger generation associates them with the very right "acquaintances" who will help them "make" money. Promises of bloggers to earn quickly and easily without special knowledge and higher education also look quite convincing in the eyes of young people, because, as mentioned above, these conditions are not included in the top skills required to achieve material well-being. But if an Influencer announces to its followers that an exceptional moment has come and that there is a unique offer for their subscribers to invest their money in order to multiply their wealth only now, then one of the main markers of financial success – "luck" – comes into play immediately.

[9] Caught by popular bloggers: How a pyramid scheme lured 70,000 people [Access: 12.01.2021]. Access on the internet: https://molsport.ru/video/QE9myo8YBdA



Picture 3. Answers of Moscow youth to the question: "What do you think is important to 'make' money?"

Source: compiled by the authors on the basis of a mass questionnaire survey.

5. DELIBERATION

Thus, according to experts, unless the state strengthens its control over financial market participants, financial relations, and social media are active participants, and develops mechanisms at the legislative level to protect the population, the process of financially literate behaviour may take a long time to develop.

Expert 2: "We need competent regulation of the financial market and financial institutions, so that people understand that their interests are protected and their invested money will not disappear or be taken away. And, in general, to understand where the country is going: «Who are we? Where are we going? What do we want? What are we developing and why?". The national development program, although it is broadcasted, but in fact it is rewritten from year to year, and no one does anything and it only gets worse".

Expert 5: "Tight control over financial institutions and especially MFIs. The responsibility of the management of these financial institutions for the transactions, up to and including criminal liability".

Expert 4: "The most important thing is financial market regulation – tougher requirements and legislation for those people who are engaged in financial literacy, whether it is voluntary volunteering or educating for money, private companies that are engaged in counselling. For each such group of financial educators, there should be different regulatory instruments and legislative practices. A person can choose who will be his teacher, but he must know his rights, that he is protected and, if his rights are not respected, he knows whom to turn to in order to defend his rights. Accordingly, control over the activities of such players is necessary. Because uncontrolled education can do a lot of harm".

6. CONCLUSION

Undoubtedly, conditions for financial literacy and safe behaviour should be ensured, clearly regulated and broadcast by the state, as citizens feel more secure when they are confident in effective regulation and protection of their rights. First and foremost, personal financial security depends on the state's fulfilment of its obligations to counter threats and maintain a high level of personal financial security in the country.

In order to maintain the necessary level of personal financial security, it is necessary to form a set of legal and moral norms, public institutions and organizations that allow a person to develop and implement financially significant abilities and needs. Nevertheless, the entire responsibility cannot be shifted to the state and the financial sector. Financial security and well-being are, above all, the prerogative of the individual himself, it is his area of responsibility: responsibility for his actions in the financial market (whether taking a loan or investing in securities), a preliminary analysis of information that affects the choice of decisions to be made, and an assessment of consequences and risks.

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COGNITIVE BIASES AS A REACTION TO THE COVID-19 PANDEMIC FROM THE PERSPECTIVE OF BEHAVIORAL ECONOMY

This paper aims to identify selected behavioral effects in people caused by the coronavirus pandemic. The research problem was formulated as a question: has people's behavior changed after the announcement of restrictions related to the coronavirus pandemic in Poland?

An analysis of the literature, the results of the authors' own research, and participant observation confirmed the consistency of the results with the literature on behavioral economics. The results may be of cognitive importance in terms of backward induction, taking into account the behavior of the respondents.

A selected description of actual behavior during the coronavirus situation is a novelty of the paper. The reader may become aware of differences in their own behavior and that of their family, colleagues, or others. They may also realize that we often react subconsciously and are guided by the suggestions of others.

Keywords: cognitive biases, reaction, COVID-19.

1. INTRODUCTION

The COVID-19 pandemic has drastically changed the behavior of people worldwide. It can be stated that "we have all been participants in the greatest natural experiment in behavior change" (Grant, Rebele, 2020). People are concerned about their health, so to counter the pandemic, at the beginning of 2020 many governments introduced restrictions whose scope has changed to date. Counteracting the COVID-19 pandemic depends on mutual decision-making by people. During the COVID-19 pandemic an individual's decision becomes a matter for the community.

The difficult and unusual situation resulting from the pandemic caused a crisis on a global scale. In Poland, from March 11, 2020, i.e. the announcement by the Prime Minister of the decision of the Government Crisis Management Team and the introduction of the first government restrictions for society, a lot has changed in the behavior of people.

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In a crisis situation, which is the pandemic, social behavior is important not only for the rulers but also for entire communities. In the behavioral approach it is very important to determine a possibility of replication of the desired behaviors in different situations, and in this case it is coping with the situation of being infected.

The main purpose of this paper is to identify selected behavioral effects in people's behavior caused by the coronavirus pandemic after the announcement of the first restrictions in 2020 in Poland and a year after the pandemic in 2021.

The specific objective is to make the reader aware of the importance of one's own thoughts and a critical approach, as well as to show how we simplify reality and evaluate the situation.

The research problem was formulated in the form of the question: have the behavior of people changed in Poland after the announcement of the restrictions related to the coronavirus pandemic in 2020?

The research problem is supported by the fact that economic behavior is a topical and interdisciplinary issue that is difficult to measure. Behavior conditioned by a factor other than economic one is associated with the reaction of a person who is guided by a criterion other than rational when making decisions. The presentation of the presented topic in a behavioral framework will allow an assessment of human behavior in an unusual case on a global scale, which is the COVID-19 pandemic.

2. PANDEMIC CRISIS

In the literature on the subject, one can find works that refer to the epidemic situation (Weston et. al., 2018; Barzilay, 2016; Perrings et al., 2014), while the impact of these diseases (including influenza, smallpox, malaria and others) was studied in a small degree in relation to the economy. The analyzes were also not conducted on a behavioral basis. Such research was undertaken and referred mainly to the emotional state of respondents in the context of a possibility of contracting COVID-19 (Andrew, 2020; Behavioral, 2020; Behave, 2020; Baggio, 2020; Devlin, 2020; Jordan, Yoeli, Rand, 2020; Salwa, 2020).

In the case of the COVID-19 pandemic, the analyzes and research most often concern aspects of disease reduction and society behavior (Ghaemi, 2020; Holzwarth, 2020; Lieshout, 2020; Mullainathan, Thaler, 2020), which results from the need to overcome the pandemic.

A man learns behavior based on their own observations and life experience. For the behavioral approach it is very important to define precisely the ways of influencing and the possibility of replicating the desired behavior in other situations and conditions, including the situation of another pandemic. It is also important to define how reality is perceived. This results from the fact that many biases in behavior can be identified in human behavior.

Some biases result from an improper course of the cognitive process or from the influence of factors disrupting this course. Others may result directly from the action of individual factors, e.g. from lack of experience or, on the contrary, from an excess of it. In fact, the COVID-19 pandemic shows our own behavioral bias without limits.

The Spanish flu of 1918–1919, which cost the lives of up to 50 million people, reduced global GDP by a total of 6%. The SARS epidemic resulted in 774 casualties and by 0.1 percentage points lower global GDP in 2003. The so-called bird flu, with 455 victims between 2003 and 2019, also reduced GDP by 0.1 percentage points. Regionally, the Ebola epidemic in 2014-2016 caused heavy losses. It resulted in over 11 thousand victims and

GDP lower by 3.4 percentage points in the Republic of Liberia, 3.3 points percent in Sierra Leone and 2.1 points percent in Guinea in the first year of its duration. In the case of the current pandemic, the baseline annual loss ranges from 5 to 9 percent US GDP and 4 and 4.5 percent. for the entire global economy. The forecasts include even higher estimates – a loss of 8 percentage points in the USA and 6 percentage points globally. These costs are an order of magnitude higher than the estimated costs of previous epidemics and outweigh the costs incurred by economies during the 2008–09 Great Financial Crisis. Then the OECD countries lost an average of 3 percentage points GDP per year (www 2).

The outbreak of the SARS-CoV-2 coronavirus pandemic meant that the activity of societies and economies, including Poland, was frozen on an unprecedented scale in the last century. These actions were necessary to avoid a dramatic increase in the number of cases that would be impossible to cope with by the health care system.

Until March 16, 2020, the first losses for the Polish economy caused by the pandemic in Poland can be estimated. It is over PLN 269 billion (http://straty-covid.pl).

A year and a half since the onset of the COVID-19 pandemic, the global economy is poised to stage its most robust post-recession recovery in 80 years in 2021. But the rebound is expected to be uneven across countries, as major economies look set to register strong growth even as many developing economies lag.

Global growth is expected to accelerate to 5.6% this year, largely on the strength in major economies such as the United States and China. And while the growth for almost every region of the world has been revised upward for 2021, many continue to grapple with COVID-19 and what is likely to be its long shadow. Despite this year's pickup, the level of global GDP in 2021 is expected to be 3.2% below pre-pandemic projections, and per capita GDP among many emerging market and developing economies is anticipated to remain below pre-COVID-19 peaks for an extended period. As the pandemic continues to flare, it will shape the path of global economic activity (The Global, 2021).

The economic uncertainty and economic crisis caused by the coronavirus pandemic is largely a precedent. The social and economic consequences not only for Poland but for the whole world are difficult to assess. The negative economic effects of the pandemic will be additionally aggravated by increased budget expenditure on public health protection and the support of the Polish government for the most vulnerable sectors of the economy and social groups. Stopovers in economy and then launching tools to counteract the crisis, in spite of forecasts and simulations made in conditions of uncertainty, are not able to predict what we will face tomorrow despite more than a year of fighting the pandemic.

3. RESEARCH METHODOLOGY

Cognitive tendencies are the basic concept of behavioral economics. In the literature they are also referred to as: cognitive distortions, cognitive bias, biased attitudes, prejudices, etc. (see Goda, et al., 2015; Polowczyc, 2012; Huck, Zhou, 2011). The cognitive bias in a very widely interpreted term means breaking rules of conduct that are considered rational.

The research conducted in 2020, after the announcement of the first restrictions in Poland, was to indicate the most important behavioral effects in the behavior of students in response to the pandemic situation. The questionnaire was made available online, consisted of 29 questions and was addressed to 209 full-time and part-time students randomly selected. The respondents completed the second-cycle studies. Participation in the study was voluntary. 93 questionnaires were returned. Cognitive errors were rated on a 5-point Likert scale.

In 2021 the research was repeated, the same questionnaire was used and the respondents were asked for an assessment in relation to the present situation. The survey link was addressed to 199 full-time and part-time, first and second-cycle students. Responses were obtained from 118 people. From the perspective of one year, the difference concerned the functioning and life of respondents during the year in a situation of restrictions, prohibitions regarding the functioning of the economy and contacts with other people. In the case of those surveyed in 2021, the restrictions were relaxed and their scope was changed by state authorities. Polish society was in the period of the first COVID-19 vaccinations, and the number of COVID patients also decreased.

In the process of analyzing the empirical material, a configuration approach was used, which allowed the selection of behavioral errors during the literature analysis and the assessment of their occurrence in the behaviors of the respondents.

The COVID-19 pandemic had a disastrous impact on the Polish economy but also on society. Taking into consideration such a situation, selected behavioral effects, which, in the authors' opinion, are related to the pandemic situation, were adopted for verification in the paper. The research is of a pilot nature with regard to the indicated effects in the period of the first social distancing in 2020 and 2021. The representativeness of the randomly selected sample of respondents who were students may also raise doubts.

The selection of this group of people was related to access resulting from participation in the didactic process. It was not always possible to explore our entire area of interest. It was very difficult due to the size of the entire Polish population and the pandemic situation.

The use of non-probabilistic selection consists in selecting a sample according to the subjective assessment of the researcher or choosing "at random" (Szreder, 2004). However, it allowed an implementation of the goal adopted and an identification of the problem under study.

The introduction of the first restrictions in 2020 regarding social distance and economic restrictions caused uncertainty and fear in Polish society. People were "locked" at home. While carrying out the research process, it was assumed that the on-line questionnaire was completed voluntarily, without repeating the request to fill in the questionnaire. The same mechanism was used in 2021. Substantial doubts may arise when the results of the research were generalized to the entire population and compared with the research of other authors. It was assumed that students were also representatives of society and their behavior in the event of a pandemic and restrictions was also reflected in social behavior (Dudkiewicz, 2004). It should be emphasized that the random selection applied does not guarantee the representativeness of the sample, but may become a premise to get to know the population (Szreder, 2004). Therefore, it was assumed that the research would be continued on a sample representing the entire population of Poland in a more comfortable situation for future respondents, i.e. stabilization of uncertainty related to the pandemic. The study was repeated in 2021 to compare the responses to respondents' behavior.

In the paper there were also presented the conclusions obtained by the participant observation technique of both groups of respondents, both studying in 2020 and 2021, as well as social behavior mainly related to the purchase of consumer goods.

4. BEHAVIOR OF PEOPLE IN THE PERIOD AFTER THE FIRST PANDEMIC RESTRICTIONS WERE ANNOUNCED

The pandemic situation has forced the state authorities in Poland to introduce preventive measures to stop/mitigate the spread of COVID-19. These actions had serious consequences for the entire Polish society. During the restrictions related to, inter alia, the closure of workplaces, resignation from business activity, the introduction of shopping hours for seniors and the rationing of the number of customers in stores, the prohibition of travel, study or remote work, the closing of borders, society collided with a completely different reality. People's lives have been limited not only in Poland but all over the world. People's behavior has also changed.

The research was conducted at the beginning of the pandemic in 2020, therefore respondents were asked which of the news reported in the media they identify with, which convinces them more. Whether it is “wash your hands to avoid spreading the coronavirus” or “wash your hands to avoid contracting coronavirus”. The meaning of these messages differs in effect. The answers show that 55.91% of the respondents chose the first answer and 44.09% the second. This may indicate responsibility for the health of other members of the community and a lack of a tendency to self-centeredness, which is manifested in one of the cognitive errors. The respondents' opinions confirmed the positive pro-social reception of the message. Similar results were obtained by Jordan et al. (2020) in an online study conducted in the United States. They found that messages focused on avoiding infecting others (”wash your hands to avoid the spread of coronavirus” or pro-social message) are more effective in promoting individual COVID-19 prevention strategies than messages focusing on avoiding infection (self-interest messages): “Wash your hands to avoid contracting coronavirus”. The following answers testify to the people's approach to communication and the information/ recommendations provided. Recommendations for the formation of healthy habits (e.g. washing hands for 20 seconds or not touching the face), which were introduced to reduce the spread of the virus, were fully accepted by 65.59% of people, 27.96% partially, and 6.45% admitted that I don't accept them at all. The responses of the majority of respondents show a pro-social attitude to messages of recommendations and concern for the health of others. In the case of respondents in 2021, when the restrictions were eased and changed, the distribution of responses was the opposite. Slightly less, 48.31% chose the statement “wash your hands to avoid the spread of coronavirus” and 51.69% wash your hands to avoid contracting coronavirus”.

The difficult thing, which is also very widely discussed for mental health, is isolating people. “Closure in our apartments, houses” meant that 66.67% of the respondents felt safer, 19.35% did not feel such a state, and 13.98% chose the option I don't know. After one year, as many as 54.24% of respondents chose the option indicating that they did not feel safer being locked in their homes. Only 27.97% felt safe, the rest chose the “I don't know” answer. Over time, when viewed from the perspective of reducing isolation, it has not been judged to be a socially acceptable preventive measure.

In the case of shopping, the potential consumer is guided by the fashion effect. A man is in fact “socially adapted” and strives for the so-called “Crowd following”, for example, mindlessly stockpiling hand sanitizers and toilet paper (see Smith & Klemm, 2020). People affected by the pandemic think of the COVID-19 crisis. This way of thinking about the current event leads to a bias in which you tend to rely more on things that you remember more easily and automatically. The more we hear about the coronavirus and the financial crisis, the more our mindset influences our decisions. Finally, we can also expect a large random effect. People tend to believe that others will "fix" it (Ramsøy, 2020).

The state of the pandemic has shown that most of the society has succumbed to the effect of fashion and accumulated excess supplies, despite information from the rulers that there will be food.

In the case of students, this effect did not take place. At the time of announcing the closure of some business entities, only 29.03% was affected by the phenomenon of excessive purchases. As many as 70.97% did not buy more when shopping. It was similar a year later, as 66.95% of respondents indicated that they were not over stocking. The study did not explain what caused this behavior. Probably, it could have resulted from the return of the majority of students to their family homes, where other family members did their shopping. Most often, in the period when the restrictions were announced, the respondents were accompanied by negative emotions related to their own safety and that of their loved ones. They were: fear, uncertainty, fear, helplessness, regret.

5. IDENTIFICATION OF COGNITIVE BIASES IN THE BEHAVIOR OF RESPONDENTS

Respondents with regard to the state of the pandemic were asked to evaluate their behavior and make decisions. The assessment was made on a 5-point scale (1 I strongly disagree, 2 rather disagree, 3 neither yes nor no, 4 rather agree, 5 I strongly agree). When editing the research questions in the questionnaire, they were not included in the formula of the scientific language, but were redrafted to make them as readable as possible for the respondent.

Due to limitations on the volume of the text, the descriptions of each of the cognitive biases were not used in the research description. The reader can find them in many items of literature on the subject (see Kahneman, Tversky, 1973; Kahneman, Tversky, 1974; Kahneman, et al., 1982; Polowczyc, 201; Kehneman, 2012; Hommes, 2013; Czechowska, 2014; Orlik, 2017; The Behavioral 2021). Also the ratings 1 strongly disagree, 2 rather disagree were presented mostly jointly as the ones that did not confirm a given effect or error, while ratings 4 rather agree, 5 strongly agree were presented jointly as responses confirming its occurrence.

One of the more common cognitive errors is the Pollyanna Effect. It is manifested by the lack of a realistic view, no actual approach to the event or people. Respondents were asked to answer "do they tend to think about pleasant things and look for positive aspects in a situation of risk of illness, while ignoring unpleasant or unpleasant aspects, often related to the possibility of a loved one becoming ill or ill". As many as 38.71% rather agreed with such an action, which makes it possible to confirm that the search for positive aspects takes place even in epidemic situations. 5.38% chose the answer I definitely agree. Some, because as many as 32.26% chose a neutral answer (neither yes nor no), rather 21.51% disagreed with such behavior, while the rest stated that they did not behave like that.

In 2021, the respondents disagreed with the given statement almost twice as often (5.93%). About 5% less likely disagreed, similarly about 3% less respondents had no opinion about choosing the option neither yes nor no. About 1% of responses were recorded in the case of the "I tend to agree" and 2% in the "strongly agree" note. However, there is a trend of giving in to wishful thinking after one year of the pandemic.

The Pollyanna Effect is closely related to the self-fulfilling prophecy effect. It is about an individual approach to life and the things that happen to each person. A person's general attitude to the world defines what their life is like. It happens that a person approaches a task or a matter pessimistically and sees only a negative ending. The self-fulfilling prophecy "works so that it actually happens later" (www1). In relation to this effect, respondents were asked about their behavior connected with the tendency to perform activities that lead to the effects previously predicted by them. The majority, 47.31%, rather agreed that she did so. Only 6.45% definitely confirmed this behavior. 1.08% was of the opposite opinion, 13.98% rather disagreed. Neither the option was chosen by 31.18% of the respondents. This may indicate negative thinking of the respondents. In a life and health threatening situation, especially in the first months of the pandemic, when no one was sure what would happen tomorrow and how the disease would spread, such behavior was typical for many people. A year later, the respondents' moods were more pessimistic, as evidenced by more than 66.10% of responses, I rather agree that I have a tendency to perform activities that lead to the effects previously predicted by us. Half less than in 2020 respondents because 3.39% chose the option I definitely agree. The biggest difference, 14.23%, was recorded in the case of neither yes nor no, compared to 2020.

In difficult situations people tend to select information in terms of those that confirm their previous assumptions. People are looking for information that can confirm what they believe or know. This situation is referred to as the so-called confirmation effect. The research conducted proves that, according to the vast majority of respondents (35.48%), they tended to search only for facts confirming their opinion on the pandemic, and not verifying it. However, 23.66% rather disagreed with this measure, slightly because about 2% more respondents had no opinion on this subject. This situation can be justified by the lack of reliable knowledge about COVID and by publications in the Internet media or radio and TV broadcasts of information that at that time did not have a scientific confirmation of the disease. A year later, the respondents answered in a very similar way.

This behavior is confirmed by the linkage effect. It is related to the social need for closeness to another person. Many people interviewed during on-line classes indicated a lack of direct contact with their peers. In the case of respondents, this error was verified with regard to using too few different sources of information on the pandemic, relying on known methods that they had used in the past. The respondents strongly denied acting in such a way (66.67% chose the answers I strongly disagree and rather disagree), which, in the author's opinion, may be a positive sign of students looking for other sources of knowledge about COVID. In 2021, despite the fact that there was more information about the pandemic, the answers I strongly disagree and rather disagree were chosen by 59.32% of respondents.

A similar situation occurred with the misjudgment action of paying too much attention to one aspect and ignoring others. This means paying attention to factors that do not really matter and is called the focus effect, which the majority of the respondents did not succumb to (52.69%).

A year later, about 10% of respondents were less affected by this effect. Unfortunately, 22.88%, almost 9% more, chose the answer option confirming the presence of this effect.

A different distribution of responses was noted when assessing behavior in relation to accepting things as they are. More than half of the respondents, 50.54% agreed with the acceptance of the situation in which they found themselves. This confirmed the status quo effect, which simply means that you accept things as they are. However, in the event of a pandemic the explanation is different. The respondents did not change anything because they did not want to take the risk of worsening the situation in which they found themselves. This is probably the result of loss and risk aversion. One year of life in a situation with restrictions and diseases caused noticeable differences in the responses. As many as 38.98% indicated that they rather disagree and completely disagree with the tendency to accept things as they are. Also, about 4% more responses compared to the previous period were recorded for affirmative responses (I strongly agree and rather agree).

The respondents did not confirm the realization of excess inventories and purchases in the first period of the announcement of the restrictions related to the pandemic, and they did not experience the purchase rationality effect.

In 50.54%, the respondents did not agree that they convinced themselves that they had made excessive purchases on purpose. Only 24.74% admitted that after purchasing specifically mentioned products, i.e. excess toilet paper and soap, they found out that it was correct. The remaining respondents chose the neutral answer option. Surprisingly, despite the fact that the above-mentioned products were on the shelves of stores, a slightly higher percentage of respondents admitted that they were overstocking 5.93% (I strongly agree) and 23.73% also chose an affirmative answer (I rather agree). In such a case, the respondents' motives should be examined, taking into account additional conditions that were not possible during the survey.

Currently, there is no full knowledge of the consequences of COVID-19 disease. Despite the reduction and cancellation of some restrictions, the number of infected people is decreasing, but the disease is returning in successive waves and has not been completely eliminated. New outbreaks of infection are recorded all the time around the world, and scientists are giving more and more facts about adverse medical effects after infection.

The respondents had knowledge in the field of economics and finance, not medicine, and despite searching for information about the disease, they did not succumb to the effect of professional bias. This is evidenced by the majority of negative answers of 47.31%, indicating the lack of consent to the assessment of things from the point of view of their own profession. 32.26% indicated neutral behavior. A year later, slight differences in responses were noticed, confirming 38.98% being driven by professional knowledge, and 36.44% not being driven solely by professional knowledge in relation to the analysis and assessment of the state of the pandemic.

An even higher percentage of the respondents (62.37%) disagreed with "doing something (and believing in something) just because many people do it", which made it possible to exclude the bandwagon bias. The bandwagon is also often called sheep rush or herd mentality. In the event of a pandemic, the more often and more intensively we share information, the more it multiplies its strength and effect. Over time, the respondents also indicated that they did not make this mistake (47.46% of negative answers). However, it is worth noting that the percentage of responses, which was higher by over 12%, amounting to 25.42%, was neither yes nor evidence of uncertainty in the assessment of one's own behavior.

Half of the respondents also disagreed with the statement that they could influence the situation they found themselves in, so they did not succumb to the illusion of control.

Only 25.81% of the respondents were under the illusion of control and indicated that they could influence a situation that they had no real influence on. In literature, this phenomenon is interpreted as the phenomenon of overconfidence. This phenomenon is based on the fact that people are overconfident in their knowledge and skills, the position most often due to the success achieved in a given field. In the following year, it was 28.81% of the respondents.

Most respondents agreed that they ascribed a higher probability to events that were associated with greater emotions (44.09%). It was probably related to the frequently reported negative information regarding the pandemic. The opposite task was 29.03%, the rest chose a neutral answer. Therefore, it can be concluded that the respondents were less affected by the heuristic of accessibility consisting in assigning greater probability to events that are easier to recall and are more emotionally marked. In 2021, 50.85% of this heuristic succumbed to this heuristic, while 24.58% each chose the negative response option (i.e. I disagree and rather disagree) and had no opinion about assigning greater emotions to some events.

The respondents were not influenced by the information provided on COVID-19 (62.37%) and the majority of the information obtained did not constitute a basis for them to make a judgment about the pandemic. So they did not succumb to the anchoring heuristics and did not draw conclusions based on the first information and simplifications. It was similar a year later (51.69%), although over 6% more respondents indicated the occurrence of such an effect in their behavior (19.49%).

In a pandemic, life-threatening situation, it can be considered that part of the just world effect has occurred. As many as 39.78% of respondents agreed with the statement that the world was somehow fair and people got what they deserved. This means that when they were ill, the misfortune that struck them was the fault of these people. The world, however, remained safe for “us” and nothing bad will happen to “us”. Nothing could be more wrong, the disease is unpredictable as evidenced by 26.88% of neutral responses. On the other hand, 33.33% do not agree with the statement that the cause of people's misfortunes, in this case diseases, are themselves. In the case of respondents answering in 2021, more respondents, as much as 44.92%, disagreed with this statement. 33.90% of the respondents agreed with this way of thinking.

6. DISCUSSION AND SUMMARY

Most people have encountered a pandemic for the first time, which is why it is so difficult to deal with this situation. There are no known rules of behavior. They were worked out quickly but still concerned/concern only a short period of time. In such a situation, the reaction of many people is important.

In Poland, most of the society has succumbed to government orders, which means that people have changed their behavior. They stayed at home, disinfected their hands, kept their distance, they adapted to the unexpected situation.

The SARS-CoV-2 pandemic is associated with a humanitarian crisis, but from the economic point of view there has been an increase in consumer spending on the one hand, and on the other one a slowdown in the development of many industries. Apart from other economic consequences, it is worth paying attention to the costs incurred by governments in preventing a pandemic. Some people are trying to continue to do everything to avoid a pandemic by following these recommendations.

It should be noted that people often did not verify the content of the information provided to them, they accepted popular science messages as truth. This was often associated with the purchase costs incurred, not always needed. There has been a cognitive bias in a simple decision situation based on one criterion. In the event of a pandemic, decisions are made quickly, not sure what will happen next. Each of our behavior is inscribed in the symptoms of virus infection, therefore our actions are aimed at ensuring safety.

In economics, it is important to identify differences with behavior during a pandemic. Studying actual behavior in a specific context is essential to develop strategic solutions.

This means that if managers are to develop effective policies, programs and products that help people make and implement the best decisions for themselves and for society, it is necessary to understand how society behaves. An application of the conclusions of behavioral science analyzes to social problems is of great importance. Examples from the literature concern, for example, saving for retirement, energy costs (see Kehneman, 2012).

Therefore, it be concluded that the environment where people make a decision in this case in the first period of the announcement of pandemic restrictions is of colossal importance. The main conclusion from research that supports the idea of behavioral science is that context matters. Behavioral science teaches us that the interplay between the context of the disease in this case and the comorbidities associated with the pandemic and our behavior can influence biases that occur. In the research the duration of the study was the factor differentiating the assessment, and thus the time in which the respondents participated in the duration of the pandemic and its consequences.

From an economic point of view, insights from behavioral sciences allow us to anticipate and explain inconsistencies that can be overlooked in product design, program development and economic as well as social policy. The insights from the study may point to specific solutions such as:

- faster feedback on how people cope with in a pandemic situation, which may have an impact on their own decision-making, but also other people. Behavioral learning shows a tendency to favor information related to the received message,
- changing people's perception of what a “social norm” is, can make them act differently,
- undertaking new research that will indicate the direction of economic development (see Wnorowski, Niklińska, 2020).

The coronavirus pandemic is a difficult situation that has suddenly hit and changed the whole world. The respondents also felt its influence. It manifested itself in the emotion of fear and uncertainty for the health of oneself and those of relatives, jobs, and the future. Uncertainty comes from a lack of knowledge when we will return to everyday life to the one we know from before the pandemic.

In the case of the respondents, errors were found: status quo, availability, confirmation, belief, a just world or a self-fulfilling prophecy. It should be positively assessed that the respondents were critical when making decisions and behaving during a pandemic. Not knowing what will happen next did not lead to irrational behavior and making many cognitive errors. This may be due to the short period covered by the post-restriction analysis as well as young people's awareness of the operation of the market mechanism and the dissemination of information.

In the face of the consequences of an unknown disease and the introduced restrictions, we do not always behave rationally. Most people were first impressed, implying that others are thinking biased. People committed cognitive errors to a different degree in the first period of the announcement of the restrictions, but the conclusion is that they are committed by everyone, although to a different degree. This is confirmed by the results of studies after one year of the pandemic. Respondents admitted that in their behavior they had succumbed to the Pollyanna effect, focus, status quo, purchase rationalization, hooking, control or the availability heuristic. These were errors in a greater percentage committed after one year of the pandemic.

Students as respondents to a part of society are a group that should not be omitted in further research, as evidenced by the works of other authors concerning, inter alia, distance education (see Sarkar, 2020; Tawafak, 2021; Lin, 2021). There are also studies on behavioral conduct carried out by other authors on risk (see Fragkaki, 2021), communication (Prieto, 2020) and health-protecting behaviors (Park, 2021; Houdek, 2021, Dryhurst et al. 2020; Glenn, 2021). They will constitute a comparative base while continuing the research undertaken among other strata of Polish society.

Behavioral research shows that people often fall prey to intention-action gaps; that is, we can be aware of how we need to adjust our behavior in order to reduce the risk of disease in this case. Such a mechanism was used in the event of requests to the public to avoid the spread of the pandemic. Reading the actual behavioral responses to a message can be of value in effectively intervening and fighting the disease.

The issues raised have not been fully assessed. There are many cognitive errors and further research should distinguish the relationships between socio-demographic factors and the behaviors of the respondents, identify the impulses that caused such reactions, especially with the variable of time. This may be important when designing the rules of intervention, first in the medical field, then in the economic field.

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CYBERSECURITY AND ETHICAL, SOCIAL, AND POLITICAL CONSIDERATIONS: WHEN CYBERSECURITY FOR ALL IS NOT ON THE TABLE

The text aims to demonstrate that establishing cybersecurity is not only a technical challenge, but that legal, economic, or organizational aspects also play at least an important role. The provision of cybersecurity raises ethical questions, since cybersecurity can affect moral values such as autonomy, freedom, or privacy. If measurements necessary for the provision of cybersecurity shall be accepted, it is essential to find a balance between the different claims of all stakeholders involved. This aim is achieved through a detailed ethical analysis accompanied by an extensive literature study. As the most important result of this analysis, it becomes obvious that cybersecurity is in competition or even conflict with other values and interests, and that establishing cybersecurity always involves a trade-off. Not only can there be no 100 percent cybersecurity for technical reasons, but if other values and interests are to be considered, this inevitably leads to compromises in cybersecurity.

Keywords: cybersecurity, computer security, information security, cyberattacks, cybercrime, cyber espionage, cyber terrorism, cyberwar, ethics, values, competition, conflict, economy, policy, ethical evaluation.

1. INTRODUCTION: DEFINITION AND HISTORY

Today, one can read it in almost every newspaper nearly every day: computers or any other networked devices are potential targets for a hacker attack. Such an attack might allow access to the camera and microphone of a laptop or smartphone, so that images and sound recordings can be made without the user's knowledge. Examples of attacks might be illegal access to financial data, encryption of important data and extortion for a ransom, theft and misuse of personal data or trade secrets, purposeful sabotage of industrial plants, damage to or destruction of computer systems, shutdown, malfunction, or destruction of critical infrastructures such as energy or water supplies. One even finds reports on the hacking of live supporting implantable devices like pacemakers or insulin pumps (e.g. Baranchuk et al., 2018; Coventry and Branley, 2018; Woods, 2017). Some attacks are carried out because the people running them want to show that they are able do it. Many committing these assaults have a criminal background; the attacks, then, represent the virtual version of a bank robbery or extortion and are usually referred to as cybercrime and, at times, cyberespionage (c.f. Connolly and Wall, 2019; Nadir and Bakhshi, 2018). Sometimes,

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attacks must be understood as terrorist acts; this is called "cyberterrorism" (cf. Chen et al., 2014; Jarvis and Macdonald, 2015). If such attacks are carried out by state authorities or groups that are in close relationship to state actors, we would have to speak of state terrorism or even of a virtual variant of war – often called cyberwar or cyberwarfare (e.g. Liff, 2012; Robinson et al., 2015).

It is rather curios that the Hollywood blockbuster "War Games" allegedly was instrumental in raising awareness among political and military leaders in the US about the vulnerability of military computer systems (Kaplan 2016). The 1980s are characterized by the speedy dissemination of home and personal computers followed by the first large-scale attacks by computer viruses (e.g. Szor 2005). Due to the Internet, since the 1990s malicious programs (or malware) were no longer spread mainly through the exchange of data storage media such as floppy discs. That computers can be targets for attacks probably became generally accepted by this time at the latest.

Although at the beginning the terms "computer security" or "information security" were used rather than "cybersecurity", the basic issues and perspectives were shaped very early. Probably two texts published by Ware (1967a and 1967b) mark the beginning of the debates and are still relevant nowadays. Computer technology has changed significantly since 1967, but the descriptions regarding attack vectors, threats, and motives for attack as well as the human factor still hold true.

As soon these debates gained momentum, normative questions were raised that have shaped the discussion regarding the extent to which the widespread use of computers will have an impact on individuals, groups, and entire societies; one of the most important contributions was certainly Alan F. Westin's book "Privacy and Freedom" (1967). Since then, scholarly work linking computer security or cybersecurity to ethics has continued to appear (e.g. Campbell 1988; Cooper, 1995; Leiwo and Heikkuri, 1998). Diffie and Landau (1998) pointed out political aspects of computer system security in the late 1990s; Dittrich et al. (2011) called for the formation of a (scientific) community that should deal with cybersecurity and ethics. For some years now, scholarly work has been published that deals with such issues (e.g. Christen et al. 2017; Christen et al., 2019; Domingo-Ferrer and Blanco-Justicia, 2020; Loi et al., 2019; Manjikian, 2018; Pattison, 2020).

2. THE LACK OF CYBERSECURITY AND ITS NEGATIVE IMPACT ON SOCIETIES

Different types of threats, whether cybercrime, cyberterrorism, or cyberwar, can have different ramifications measured with different scales (cf. Gandhi et al., 2011). If a power plant is attacked (cf. Chhaya et al., 2020; Mazzolin and Samueli, 2020), this may cause malfunctions that could trigger the collapse of the power supply; this can result in economic losses, but also in ecological damage, injury to people or, in the worst case, loss of life. Attacks on computers belonging to a country's administration or government might result in political instability, increase distrust of citizens in state institutions, or limit a government's ability to act (cf. Gross et al., 2016; Iasiello, 2013). Attacks on computers may affect different dimensions of individual, societal, corporate, or political life. This makes it difficult to compare the amount of damage. For this reason, reports highlighting the consequences of computer attacks generally refer to economic damage or costs. While this facilitates comparisons, for instance, between different sectors of the economy (cf. Tripathi and Mukhopadhyay, 2020), countries, or defender and adversary (e.g. Derbyshire et al., 2021), it also obfuscates that a lack of cybersecurity not only causes monetary costs, but can also result in far-reaching damage that is difficult to measure.

The costs of cyberattacks worldwide have grown to orders of magnitude that pose significant challenges to even high-performing economies. Cashell et al. (2004) report: "Several computer security consulting firms produce estimates of total worldwide losses attributable to virus and worm attacks and to hostile digital acts in general. The 2003 loss estimates by these firms range from $13 billion […] to $226 billion […]". Nearly a decade and a half later, the Center for Strategic and International Studies (CSIS 2018: 4) writes "[…] that cybercrime may now cost the world almost $600 billion, or 0.8% of global GDP".

Two years later, the cybersecurity company McAfee (2020: 3) reports that it "estimated the monetary loss from cybercrime at approximately $945 billion. Added to this was global spending on cybersecurity, which was expected to exceed $145 billion in 2020. Today, this is $1 trillion dollar drag on the global economy". As the Center for Strategic and International Studies put it (CSIS, 2018): "Cybercrime is a business with flourishing markets offering a range of tools and services for the criminally inclined". One can hire cybercriminals to do the job or might find all tools needed on the Internet to carry out cyberattacks, without needing expert knowledge; one simply buys "cybercrime-as-a-service".

Yet, despite the seemingly dire situation, Odlyzko (2019: 4) suggests that beyond the aim of ensuring cybersecurity, there are other objectives that are at least as important: "[E]ven if we could build truly secure systems, we probably could not live with them, as they would not accommodate the human desires for flexibility and ability to bend the rules." What follows shall therefore demonstrate that it makes little sense to set cybersecurity as an absolute, while ignoring that there are other economic and/or social goals which are at least as important as cybersecurity. Making cybersecurity an absolute would pose a threat to moral values as well as to design requirements for technology.

3. BALANCING COMPETING AND CONFLICTING AIMS AND VALUES

Analysing the existing scholarly literature on ICT in general and particularly on cybersecurity regarding moral values (cf. Christen et al., 2017; Yaghmaei et al., 2017), one will find, among others, privacy and trust, freedom and (informed) consent, fairness, and equality, as well as dignity and solidarity (see also Weber and Kleine, 2020). Although this list is by no means complete, it is already clear that a wide range of moral values is involved in the development and use of ICT and the provision of cybersecurity. When considering ICT in healthcare as a paradigmatic use case, one can expand these values to include the principles of Beauchamp and Childress (2019): autonomy, beneficence, non-maleficence and justice. While these principles originate in biomedical ethics, they can be applied in other professional domains than healthcare as well. Adherence to these values and principles must guide professional behaviour because they constitute the core of the respective profession. They should guide the professional behaviour of, for instance, physicians, computer scientists, or engineers – especially when they are concerned with ensuring cybersecurity. Yet, that means there may be circumstances in which the core moral values of a profession may compete or even conflict with technical or other requirements.

Aggregating the numerous technical requirements for ICT, the list might look as follows: efficiency and quality of services, privacy of information and confidentiality of communication, usability of services, safety, integrity, availability (Yaghmaei et al., 2017).

Some relate to cybersecurity, while others are more general in nature. Regardless of whether these technical objectives compete or conflict with moral values and principles, even a cursory examination reveals that they already cannot always be realised together: The establishment of a very strict security architecture to protect confidentiality of data and communication often cause the usability of corresponding systems to suffer (cf. Garfinkel and Lipford, 2014), from the user's point of view, efficiency and quality of service may also decline (e.g. Al Abdulwahid et al., 2015); strong encryption of communication to provide confidentiality, particularly in the case of mobile and IoT devices, may compete with available energy and thus ultimately with availability of services and systems. Since research and development are being carried out in this regard, it is to be expected that appropriate solutions might be found. Nevertheless, this illustrates how, at certain point in time, technical requirements might compete or even collide.

Moral values and technical requirements do not exhaust the factors shaping ICT and thus influence the question of what level of cybersecurity can be achieved; economic considerations also play a crucial role. Cybersecurity is expensive and, like all preventive measures, its benefits are difficult to quantify – if cybersecurity is successful or cyberattacks are not successful or even do not occur at all, then damages or costs prevented can at best be credibly estimated, but not quantified unequivocally: Successful cybersecurity is no good advertisement for more cybersecurity. In any case, however, there must be an economic payoff to investing in cybersecurity (e.g. Ekelund and Iskoujina, 2019; Wirth, 2017). Even if the utility of cybersecurity measures can be demonstrated, it is still true that resulting costs must be paid. Often, attempts are made to pass these costs on to the end users, which can only succeed if they are willing to pay and to bear these costs (cf. Blythe et al., 2020; Johnson et al., 2020).

Political aspects also play a role in the design of computer systems and thus in the question of what measures are taken to strengthen cybersecurity (cf. Christensen and Liebetrau, 2019; Dunn Cavelty and Egloff, 2019; Liebetrau and Christensen, 2021). Strong encryption methods have often been associated with export restrictions (e.g. Buchanan, 2016; Manpearl, 2017), or governments demanded that encryption methods having backdoors allowing law enforcement or intelligence agencies to break the encryption (cf. Ahmad, 2009). In these cases, the respective actors pursue interests at the expense of the interests of other stakeholders. However, such measures reduce cybersecurity because criminals or terrorists can also use backdoors. Export restrictions, in turn, lower the level of protection that can be achieved for all stakeholders, which makes attacks easier and can lead to mistrust among stakeholders.

4. METHODS TO BALANCE COMPETING AND CONFLICTING AIMS AND VALUES

The question of what should be morally required or forbidden when technology is developed usually does not find easy answers even if one tries to consider other stakeholders and their interests. Judgement about the morally appropriate design of technology depends on numerous aspects: Which conception of human beings is presupposed? Which ethical theory is being considered, which normative assumptions are being made regarding the relationship between different generations, which and whose normative claims are being prioritised, how should norm conflicts or norm competition (whereby these norms are not limited to moral norms) be resolved? Which understanding of the profession is present? All these and probably many more (normative) considerations affect the ethical evaluation of technology at the theoretical level. Yet, if one wants to give an answer not only on an abstract or theoretical level, but for the actual use of technology in a (more or less) clearly defined environment, further influencing factors are added. Ethical considerations are "contaminated" by personal involvement of stakeholders and their interests and (mostly implicit and often unconscious) subjective attitudes as well as external constraints, which may make appear unfeasible what is normatively desirable, unsuitable for practice, or inappropriate from a professional point of view.

Reijers et al. (2018b) describe a plethora of methods that could be used to first identify the competing and/or conflicting claims of the various stakeholders involved in the provision of cybersecurity, and then possibly find a solution in the form of balancing the different claims. Many of the methods mentioned there are based on a central intuition drawn from discourse ethics: what is morally right or wrong cannot be answered by recourse to universal norms and values, some concept of utility, or the idea of virtue, but must be negotiated among the stakeholders. Only in this way could the various interests and perspectives be adequately taken into account (e.g. Reijers et al., 2018a; Schuijff and Dijkstra, 2020; Thorstensen, 2019).

The idea of negotiating a compromise among different stakeholders, their claims and other relevant factors also has the advantage that cultural and social aspects are automatically considered, as they will be included in the arguments of the stakeholders involved in the negotiation. However, this is also a decisive weakness because the result of such negotiations is contingent and not based on universally valid and accepted norms and values. However, good arguments can be given that in practice it is still better to find a compromise between the different (normative) stakeholder claims that can be accepted by all, rather than a solution based on a universal moral theory, but which only a few stakeholders would accept.

5. CONCLUSION: CYBERSECURITY AS A MULTI-DIMENSIONAL CHALLENGE

Trying to draw some tentative conclusions from what has been mentioned up to now, it is well worth listening to those who professionally work on the analysis of cyberattacks and the establishment of cybersecurity (Wirth, 2017): "we must recognize that any comprehensive cybersecurity strategy includes more than just technical elements. It must include aspects of leadership, societal, and corporate culture and encompass larger economic and even sociopolitical elements (e.g. national security)". Cybersecurity most obviously must be understood as a multi-dimensional task. Without claiming to be exhaustive, one can at least identify moral values, technical requirements and other factors that influence the design of ICT and thus have a tremendous impact on the conditions under which cybersecurity can be provided. The provision of cybersecurity depends on numerous values, aims and requirements that are interrelated but also in competition or even conflict with each other. If one accepts this finding, the question that remains to be answered is how it is then possible to strike a balance and combine these values, aims and requirements in such a way that all stakeholders can agree to the compromise that eventually is found – if there is any such thing. In other words, cybersecurity in many cases, perhaps even most cases, will never be achievable to the same extent for all stakeholders at the same time. The interests of the stakeholders are too different for that, but so is their power to enforce these interests. This is rather bad news particularly for citizens, as they are usually in the weakest position. On many occasions, compromises will therefore probably be at their expense.

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