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The relationship between childbearing motives and the sense of meaning in life and well-being. The moderating role of centrality of religiosity[1]

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Abstract: In the contemporary world, one may notice that people tend to postpone their decision on having a child. A question arises what really motivates people to become a parent and increase their satisfaction with life. An attempt was made to assess the relation between childbearing motives and the sense of meaning in life and well-being as well as the potential influence of religiosity on them. The dissertation discussed the theoretical aspects of childbearing motives, the meaning in life, religiosity, well-being and their interconnectedness in the previous research. The study involved 248 respondents at the age from 19 to 63. Three research hypotheses were made: H1. Positive childbearing motives have a positive correlation with the sense of meaning in life and well-being; H2. Centrality of religiosity serves a moderating role in the relation between positive childbearing motives and the sense of meaning in life and well-being, and H3. Negative childbearing motives do not have a major correlation with the sense of meaning in life and well-being. The first and third hypotheses were partially confirmed. People characterized by positive childbearing motives felt a higher sense of meaning while centrality of religiosity served a moderating role in the relation in question. The second hypothesis was proved. The study suggests that religiosity can serve as the resource thanks to which people are able to give meaning to parenthood. The dissertation indicated the directions of further research and practical implications.
Keywords: centrality of religiosity, eudaimonic well-being, childbearing motives, meaning in life.

Introduction

In various cultures, parenthood is often associated with fulfilment and purpose. Most people seem to be of the opinion that having offspring involves experiencing mattering and sense of meaning. Everyday intuitions find are confirmed by scientific literature (Morse & Steger, 2019). Experiencing the meaning of life helps parents maintain their mental health (Nelson et al., 2014). However, do people who assign positive values to parenthood are prone to declare such type of experience more often? Do negative reactions to the aspects of being a parent might serve as a predictor of lower sense of meaning?

For this matter, one should take religiosity into consideration since it is a strong determinant of the fertility rate (Okun, 2017). It also supports the feeling of meaning in life (Abu-Hilal et al., 2017). High religiosity might intensify the relationship between childbearing motives and experiencing purpose, mattering or comprehension. However, it is worthwhile to consider the sense of meaning from a broader perspective – the one of well-being – in order to verify the relations between valuing parenthood and its potential consequences in a more complete way.

1 Article in polish language: https://www.stowarzyszeniefidesetratio.pl/fer/60P_Pyrz.pdf

1. Theoretical basis for own research

1.1. Childbearing motives vs. sense of meaning and well-being

Childbearing motives refer to the response in form of reactions to the challenges and consequences arising from being a parent. The said reactions can be positive or negative. The dominant form is determined by both individual experiences gained in the course of life as well as biological factors (Miller, 2011). Positive or negative motives can be of significant meaning in the context of how procreation and the willingness or unwillingness to have children are perceived. It influences the behaviors that lead to reproduction or its avoidance (Huczewska et al., 2023). With regard to childbearing motives, one should take into consideration the TDIB model (Traits-Desires-Intentions-Behaviour) (Varas & Borsa, 2022). Its first component is constituted by traits. Traits should be understood as predisposition to certain behavior. The next component is wants which refer to the set plans and objectives which determine the direction of efforts. The next component, intentions, results from wants. However, they also incorporate an element of reflection over the possibilities of an individual and the potential barriers. Behaviors form the final stage in this model and they can emerge in favorable conditions (Mynarska & Rytel, 2014).

According to Viktor Frankl, the sense of meaning in life can be understood as the process of "continuous becoming and improving one's existence" (Frankl, 2019; Szykuła, 2022, p. 239). The sense of meaning in life is perceived as a subjective perception of various components of human life in order to give meaning to one's own experiences (Steger, 2012). The current research regarding the sense of meaning in life has evolved into conceptualizing this variable in three aspects: comprehension, purpose and mattering (George & Park, 2016; King & Hicks, 2021). Comprehension refers to the perception of one's own experiences as forming one complete and coherent whole. In most general terms, it refers to interpreting and systemizing everyday experience of an individual. The purpose is often connected with one's values and motivation that play a key role in the performance and realization of the intended course of action. Mattering is associated with one's perception of their own existence as meaningful in the world (George & Park, 2016; King & Hicks, 2021).

Well-being is a complex construct and the attempts to define it date dozens of years back. Researchers often use various terms interchangeably: well-being, joy, happiness, subjective well-being or life satisfaction (Hills & Argyle, 2002; Ilska & Kołodziej-Zaleska, 2018). When a person defines their life in this way, it might indicate a subjective feeling that the life of an individual is as it should be in the sense of personal satisfaction and no need of changing it (Trzebińska, 2008). It is necessary to highlight two main perspectives of well-being: hedonistic and eudaimonic (Józefczyk, 2023). The former should be understood as the pursuit for satisfaction with life by delivering positive affection and, at the same time, reducing sensations that do contribute to subjective feeling of pleasure and content. The latter is characterized by the feeling of happiness in the context of inner fulfillment. In this sense, a particular person strives for self-realization through own work and effort. The eudaimonic perspective can be compared to the process of discovering and realizing of one's potential (Niemiec, 2023; Richter & Hunecke, 2021). On the other hand, Ryff (1989) also draws attention to the sense of meaning in life and the above-mentioned self-realization. Following the tradition of eudaimonic well-being developed on the grounds of Aristotle's philosophy, Ryff (1989) distinguishes its six components: self-acceptance that refers to accepting oneself taking into consideration one's strengths and weaknesses; positive relations with other people as the ability to establish close and long-term relationships; autonomy which is understood as the ability to cope with various everyday life situations while following internally accepted norms and rules; environmental mastery that refers to adequate coping with and participation in the external environment; purpose in life as the ability to pursue own goals that might lead to perceiving life as meaningful and finding meaning in life; personal growth as the proper management of own resources and potential and the effort to broaden one's competencies (Karaś & Cieciuch, 2017; Ilska & Kołodziej-Zaleska, 2018).

According to research, there is a relation between the sense of meaning in life and well-being. People who are characterized by a high level of sense of meaning in life also exhibit a high level of subjective well-being (Wang et al., 2021). A positive relation between the sense of meaning in life and well-being is also indicated in the research by Santos (2012). The feeling of meaning in life creates adequate conditions for the happiness and well-being (Lent, 2004) as well as exhibits a positive association with life satisfaction (Galang et al., 2011). The feeling of meaning in life should be distinguished from the well-being defined by Ryff (1989). Both notions were developed on the grounds of eudaimonic traditions. From a psychological perspective, however, they should be treated as separate variables.

The relations between childbearing motives and the sense of meaning seem to be rooted in the people's tendency of giving meaning to their own role as a parent. Persons who decide to have offspring mention an increase in the meaning in life and the importance of their relationship with their child. It should also be highlighted that parents find their personal meaning in life by surrounding their child with love (Brooks, 2008). Research indicates that people who find the meaning in life through parenthood also feel greater well-being (Nelson et al., 2013; To, 2015). Parents experience a higher sense of meaning and well-being than people without offspring (Nelson et al., 2014). Thus, researchers indicate that finding meaning in parenthood influences the general feeling of meaning in life. People who are parents and spend time with their children see more meaning in their own life than non-parents (Baumeister et al., 2013) and also notice more significant and satisfying moments in everyday life and more often think about the meaning in life as such (Nelson et al., 2013). On the other hand, more frequent thinking about the meaning in life among parents might serve as the indicator of willingness to give meaning to the challenges related to parenthood (Morse & Steger, 2019). Among factors that might lead to higher feeling of meaning in life through parenthood one may mention active care over a child (Palkovitz, 2002), inner motivation to serve the role of a parent and self-development (To, 2015), as well as noticing a purpose in parenthood that is personally important and desirable (Grolnick & Apostoleris, 2002).

Well-being and the sense of satisfaction with life favor the willingness to procreate (Mencarini et al., 2018)–people who feel subjective satisfaction with their own life have a positive opinion on parenthood. The latter increases the sense of meaning, happiness, well-being and purpose, which is less experienced by non-parents. Parents feel a higher level of happiness when they spend time with their children in comparison to other everyday activities (Nelson et al., 2013). Parenthood can lead to a higher feeling of well-being, which manifests through the presence of goals that need to be realized, establishing new relations or through satisfaction with serving diversified social roles (Nelson et al., 2014). People who give a crucial meaning to parenthood and consider it as a value in itself want to invest their own resources in self-development in this aspect (To, 2015). On the other hand, thanks to self-development people perceive their life as meaningful (Baumann & Ruch, 2022). Individuals who revealed more plans regarding parenthood in the future exhibited a higher level of well-being than people whose plans were focused on other matters (Dunlop et al., 2017). However, in a situation when people decide to have a child in order to fulfil social and cultural requirements and not perceive parenthood as a personally meaningful value, they might feel a lower level of well-being (To, 2015). In such a situation, the pursuit for parenthood might become an attempt to comply with external expectations (Nachoum et al., 2021). Parenthood might also be connected with lower well-being when it is perceived as detrimental to or preventing from fulfilling other important goals (Nelson & Lyubomirsky, 2015). People might find giving meaning to parenthood difficult when they want to have children but encounter obstacles related to fertility and birth (Morse & Steger, 2019).

1.2. The meaning-generative role of religiosity

According to Huber (2003) religiosity refers to five dimensions: intellectual, ideological, public practice, private practice, and religious experience. The intellectual dimension involves knowledge in one's own religion and the frequency at which one has reflections about it. Ideology stands for beliefs concerning the existence of a transcendental reality. Public practice determines the belonging to communities and participation in religious practices. The aspect of private practice mainly refers to individual prayer and meditation. Religious experience involves the conviction of a relationship with the Absolute which influences the emotions experienced by a particular person (Huber & Huber, 2012). Such a definition of religiosity serves as the basis for the concept of personal system of religious constructs. Centrality of religiosity will be related to its autonomous functioning among other constructs and the existence of inner religious motivation (Zarzycka, 2007).

Many researchers note a positive relationship between the feeling of meaning in life and religiosity, regardless of the respondents' age (Krause & Hayward, 2012; Krok, 2015a; Martos et al., 2010; Newton & McIntosh, 2013; Park & Yoo, 2016).

A religious value system and the ideology related to it can be helpful in giving meaning to one's own existence, which is also comprised of difficult experience. In light of research, religiosity is seen as a property associated with a better understanding of one's experience (Krok, 2015b; Park, 2013). The realization of key human values might be connected with the sense of purpose of own existence (Frankl, 2017). In this context, the purpose is related to the conviction that a person must fulfil an extraordinary and unique type of task in life. Fulfilment, on the other hand, refers to being "oriented at something or someone, being devoted to work that one is dedicated to, devoted to a beloved one or God that we serve. (Frankl, 1984, p. 147-148). In such a situation, religiosity becomes a crucial predictor of the feeling of purpose in life (Engel et al., 2024), among others, through the willingness to establish good relationships. It is connected with the morality promoted by religious systems and the intent to follow it (Galbraith et al., 2019). According to other research, religion gives meaning to human life. Thus, believers, when compared to other people, are convinced about their uniqueness and meaningfulness (Prinzig et al., 2023).

Studies reveal that satisfaction with life is higher when the individual feels a meaning in life (Huda et al., 2023). Research on religiosity might find an explanation to such results. In the study conducted by Grouden & Jose (2014), various sources of meaning – such as family and interpersonal relationships – had an impact on well-being and their positive influence was explained by religiosity. Conclusions from that studies indicate the protective role of religiosity in the perspective of events which might potentially disrupt emotional balance (Rodzeń et al., 2021). Spiritual beliefs might also have a positive relation to satisfaction with interpersonal relationships. Research in this scope indicate that spirituality of spouses interceded between satisfaction with marriage and satisfaction with life. Spiritual beliefs help spouses create an emotional bond that helps them cope with stressful situations, allowing them to preserve satisfaction with marriage (Kasapoğlu & Yabanigül, 2018).

1.3. Childbearing motives vs. religiosity

Religiosity in the context of childbearing motives has been the subject of extensive research. It refers both to attitudes towards parenthood as well as the desires and the specificity of parenthood as such. According to studies, personal religiosity is positively related to satisfaction with parenthood. Moreover, people who perceive parenthood as a very important aspect of life report a higher satisfaction as a parent. The quality of the regulating relationship between religiosity and family life greatly depends on the level of religiosity. The latter has a comprehensive impact on the family (Borowska, 2016; Nelson & Uecker, 2018). An increase in religiosity connected with age proves to be mediated by parenthood. Thus, childbearing motives might have something to do with religiosity (Kerry et al., 2023).

It should also be highlighted that religious couples more often become parents and religiosity serves an important role in making the decision to have children. It might be related to the motivation to convey family traditions or be an expression of religious feelings (Bein et al., 2023; Kuhnt & Trapper, 2016; Pezeshki et al., 2005; Rosina & Testa, 2009).

Religiosity has a positive correlation with the fertility rate and involvement in traditional gender roles (Guetto et al., 2015). What is more, it has a positive connection with fertility and intentions regarding procreation while women who stated that religion had a very important role in their life exhibited the tendency to give birth to more children than other women (Cranney, 2015; Hayford & Morgan, 2008). It was also proved than more religious people see more advantages in having children. In case of women, religiosity determines the influence of perceived costs on procreative intentions. It means that the more religious a woman is, the lower will be the influence of perceived costs and the higher the perception of advantages associated with procreation (Bein et at., 2021). In the case of women in a relationship with a man and higher religiosity, the intention to give birth to a child was higher than in the case of other respondents (Lachowska et al., 2017).

2. Own research

2.1. Methodology of own research

The subject of this research is to analyze the relation between positive and negative childbearing motives and the sense of meaning in life and well-being according to C. Ryff (2014). Both of the two last variables fall within the tradition of eudaimonic well-being. The literature suggests that the centrality of religiosity level may serve the role of the intervening variable. Hence its assumed moderating nature. Religiosity intensifies experiencing meaning in life as well as is related to a positive of procreation.

The objective of own research was to determine the relationship between childbearing motives and the sense of meaning and well-being as well as to determine the role that centrality of religiosity serves in it.

The following hypotheses were made:

H1. Positive childbearing motives have a positive correlation with the sense of meaning and well-being.

H2. Centrality of religiosity serves a moderating role in the relation between positive childbearing motives and the sense of meaning and well-being.

H3. Negative childbearing motives do not exhibit a significant correlation with the sense of meaning and well-being (people who do not find a purpose and mattering in parenthood can use other sources of meaning e.g., self-acceptance, growth that also contribute to the declared level of well-being) (Heintzelman et al., 2020). The study used four research tools:

1. *The Childbearing Questionnaire – Short Measure (CBQ-SF)* by I. Huczewska, J. Leśniak, M. Mynarska and W.B. Miller (2022). The tool constitutes an abridged version of the Polish adaptation of *The Childbearing Questionnaire (CBQ-PL)* (Mynarska & Rytel, 2014). It is used to measure the predisposition of positive and negative reaction to various aspects of parenthood. It is comprised of 32 questions. The tool is composed of two parts and questions regarding desires and intentions:
   a. Positive childbearing motivation scale – with 15 positive consequences of having offspring. The respondents use a 4-grade scale to give answers to questions on how much they desire a specific consequence (1 – "No desire", 5 – "Very high desire"). The result of the positive childbearing motivation scale is used to measure the positive reaction to manifestations of parenthood presented in the following sub-scales: happiness connected with pregnancy, childbirth and infancy, traditional parenthood, satisfaction with childcare, feeling of closeness and being needed, instrumental values. The reliability of the positive childbearing motivation scale in the presented study (Cronbach's α) is 0.94 (example of an item: "Cuddling a newborn child. How much desired?");
   b. Negative childbearing motivation scale – consists of 12 negative consequences of having children. Replies provided on a 4-level scale reflect the degree of lack of desire of a specific consequence. The negative childbearing motivation scale measures the tendency to negatively react to manifestations of parenthood on the following sub-scales: discomfort caused by pregnancy and birth, worries and concerns associated with parenthood, negative aspects related to childcare, stress for the couple. In this research, the Cronbach's α for

the negative childbearing motivation scale is 0.90 ("Worrying about the health and safety of my child. How much undesired?")

c. Desire and intention – the last part of the tool is comprised of 5 questions. The first three questions refer to the willingness to have children while the two last – to plans to have a child in the upcoming 3 years. Respondents reply on a scale from 0 – "Not at all" to 10 – "As much as possible", "Definitely yes", "I am most certain". In this study, the Cronbach's α for desire = 0.96, while for intention – 0.94 (desire: "How important is having a child/children to you?", intention: "In your opinion, how probable it is that you will have a child in the next three years?").

The tool has a separate version for men and women.

2. S. Huber's (2003) *Centrality of Religiosity Scale (C-15)* in the Polish adaptation by B. Zarzycka (2007, 2011). The tool is comprised of 15 questions graded on a 5-level Likert scale – from 1 – "no at all" to 5 – "very" (in 2 questions, the respondents use a 7-level scale, from "never" to "several times a week" and "several times a day") constituting the measure of centrality of religious constructs in personality. It comprises of five dimensions:
   a. Intellect – which refers to the intellectual involvement in religious content ("How often do you think about religious matters?");
   b. Ideology – which measures the level of conviction of the existence of "a transcendental reality and intensity of the open approach towards various forms of transcendence" (Zarzycka, 2007, p. 141) ("How strong is your conviction that God exists?");
   c. Private practice – used to measure the frequency and significance of referring to a greater reality ("How important is personal prayer to you?");
   d. Religious experience – refers to the degree to which transcendence becomes a part of the respondents' everyday experience ("How often do you experience situations in which you feel God's presence?");
   e. Public practice – which constitutes the measure of frequency and meaning of participation in religious service ("How important is participation in religious service to you?").

The Cronbach's α of the general result in the current study was 0.97.

3. George's and Park's (2016) *Multidimensional Existential Meaning Scale (MEMS)* in the Polish adaptation by Gerymski and Krok (2020). The tool consists of 9 items valuated on a 7-level Likert scale (1 – "completely disagree", 7 – completely agree"). It constitutes the measure of feeling of meaning in life presented in three dimensions:
   a. Comprehension – constitutes the measure of the degree in which an individual experiences consistency and coherence in their life ("I am able to give meaning to the things that happen in my life");
   b. Purpose – refers to the devotion to fulfilment of life goals ("I have specific goals in my life that motivate me to action")
   c. Mattering – used to measure the intensity of the conviction of the worth of one's own life to the world ("I am convinced that my life is meaningful").

The reliability of the tool determined with the Cronbach's α in the presented study was 0.91.

4. C. Ryff's (1989) *Psychological Well-Being Scales* in the Polish adaptation by D. Karaś and J. Cieciuch (2017). The tool measures the subjectively perceived well-being understood through eudaimonic traditions that was presented in six categories:
   a. Self-acceptance – as the measure of a balanced approach towards own strengths and weaknesses ("When I look at the history of my life, I am satisfied with how it turned out.");
   b. Positive relations with others – this refers to the ability to establish strong and trusting bonds ("People think that I am a person who is willing to help and dedicate time to others.");

c. Autonomy – it measures the degree of independence from external expectations and the subjective feeling of freedom ("When assessing myself, I take into account what I find to be important and not what others consider as important.");
d. Environmental mastery – the measure related to the sense of agency and control ("Generally speaking, I feel responsible for what happens in my life.");
e. Purpose in life – refers to having an important goal that serves as the source of meaning ("I am not a person who wanders through life aimlessly.");
f. Personal growth – it measures the capability to self-improve and gain qualifications ("For me, life is a continuous process of learning, changes and development.").

The full version of the tool comprises of 84 items. However, the presented study utilized its short measure containing 18 items valuated on a 6-level Likert scale (from 1 – "I completely disagree" to 6 – "I completely agree". Due to low reliability indicator of the scales of the tool in the short measure, individual indicators of well-being were not taken into account. The reliability of the tool assessed with the use of the Cronbach's α was 0.83.

2.2. Characteristics of the analyzed group

The surveys were conducted in the period from February to May 2024. Data was collected with the so-called snowball method with the use of an online form. Most people who received the form were students. The study involved 248 respondents (N = 248). 59.7% of respondents were female, 40.3%–male. Respondents were people aged between 19 and 63 (*M* = 26; *SD* = 7.08; *Me* = 24). 76.2% of the respondents were inhabitants of cities, 23.8% lived in rural areas. 85.5% of the respondents did not have children, 14.5%–were parents.

3. Results of own research

The data analysis was carried out with the use of a Jamovi package (version 2.4.11). First, the descriptive statistics were calculated and the normality of variable distribution was checked. Their reliability coefficients were also calculated. When the test statistic probability level was <0.05, the results were deemed as statistically significant. The result of the above-mentioned analyses has been presented in Table 1.

The distribution of variables deviated from the normal distribution, which is indicated by the statistically significant result of the Shapiro-Wilk test.

Table 1. Descriptive statistics, Shapiro-Wilk test, variable reliability coefficient (Cronbach's *α*)

	POS	NEG	DES	INT	CR	MEMS	PWBS
Mean	39.6	33.2	17.8	5.88	37.9	45.6	79.1
Median	41.0	33.5	19.0	4.00	37.0	46.0	79.0
Standard deviation	11.8	8.94	9.57	6.37	17.0	11.3	11.7
Minimum	15	12	0	0	15	12	56
Maximum	60	48	30	20	75	63	106
Skewness	-0.420	-0.225	-0.435	0.843	0.355	-0.277	0.0860
Kurtosis	-0.691	-0.444	-0.966	-0.534	-0.954	-0.585	-0.933
Shapiro-Wilk	0.961	0.975	0.922	0.841	0.942	0.972	0.976
p value of the Shapiro-Wilk test	<.001	<.001	<.001	<.001	<.001	< .001	<.001
Cronbach's *α*	0.94	0.90	0.96	0.94	0.97	0.91	0.83

POS – positive childbearing motivation scale; NEG – negative childbearing motivation scale; DES – desire; INT - intentions (CBQ-SF scales); CR – Centrality of Religiosity Scale; MEMS – Multidimensional Existential Meaning Scale; PWBS – Psychological Well-Being Scales

Table 2. The matrix of r-Pearson correlation

	POS	NEG	DES	INT	CR	MEMS	PWBS
POS	—						
NEG	-0.336 ***	—					
DES	0.774 ***	-0.436 ***	—				
INT	0.422 ***	-0.309 ***	0.506 ***	—			
CR	0.378 ***	-0.304 ***	0.369 ***	0.195 **	—		
MEMS	0.161 *	-0.158 *	0.253 ***	0.064	0.187 **	—	
PWBS	-0.009	-0.111	0.157 *	-0.010	-0.004	0.668 ***	—

* p < .05; ** p < .01; *** p < .001

However, the value of kurtosis and skewness did not exceed the absolute value of 2, which means that the distribution of results does not differ greatly from the average. Consequently, a decision was made to apply parametric statistical tests. In order to analyze the correlation, the r-Pearson was utilized. The correlation matrix has been presented in Table 2.

The next stage involved the analysis of moderation. It was carried out with the use of the bootstrapping method (bootstrapping sample = 1000).

The first step involved an analysis of the interaction between positive childbearing motives and the feeling of meaning at various centrality of religiosity levels. The analysis of moderation proved that positive childbearing motives in an interaction with centrality of religiosity (POS*CR) exhibit a level of sense of meaning with statistical significance (p = 0.004). No statistical significance was proved in the case of an inverse relationship (p = 0.189). The results of the statistical analysis have been presented in Table 3.

The average and high centrality of religiosity levels are moderated by the level of sense of meaning in the interaction with positive childbearing motives at level of statistical significance (respectively p = 0.020 and p<0.001). Low centrality of religiosity level changes the dependency direction between positive childbearing motives and the sense of meaning. However, the said result cannot be considered as statistically significant (p = 0.822). The said relationships have been presented in Figure 1 and Table 4.

The analysis of moderation proved that positive childbearing motives in an interaction with centrality of religiosity exhibit statistically significant well-being (p = 0.001). In this case, an inverse relationship (ef-

Table 3. Analysis of moderation; the interaction between positive childbearing motives and the sense of meaning, taking into account centrality of religiosity

	Estimate	SE	Z	p
POS	0.1700	0.07310	2.33	0.020
CR	0.0570	0.04831	1.18	0.238
POS ∗ CR	0.0112	0.00393	2.85	0.004

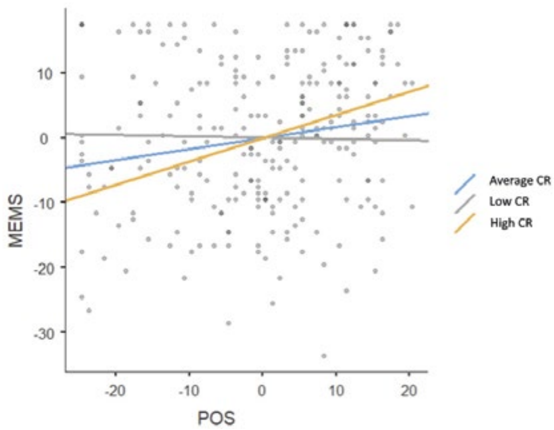

Figure 1. Analysis of moderation – the effect of positive childbearing motives on the sense of meaning at various levels of religiosity

Table 4. The effect of positive childbearing motives on the sense of meaning at various centrality of religiosity levels

	Estimate	SE	Z	p
Average CR	0.1700	0.0730	2.328	0.020
Low CR (-1SD)	-0.0204	0.0906	-0.225	0.822
High CR (+1SD)	0.3604	0.1065	3.383	<.001

Table 5. Analysis of moderation; the interaction between positive childbearing motives and well-being, taking into account centrality of religiosity

	Estimate	SE	Z	p
POS	0.0854	0.07524	1.13	0.256
CR	-0.0555	0.05171	-1.07	0.283
POS * CR	0.0153	0.00400	3.83	< .001

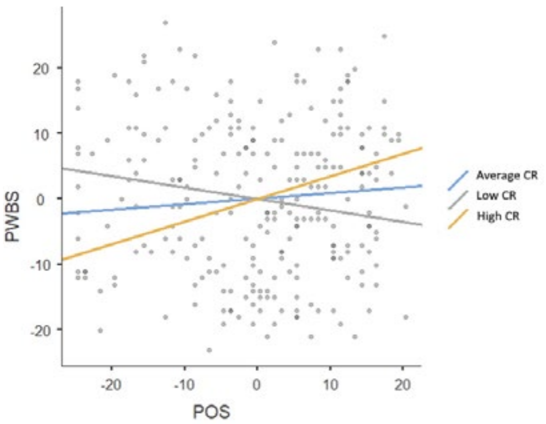

Figure 2. Analysis of moderation – the effect of positive childbearing motives on well-being at various levels of religiosity

Table 6. The effect of positive childbearing motives on well-being at various centrality of religiosity levels

	Estimate	SE	Z	p
Average CR	0.0854	0.0753	1.13	0.257
Low CR (-1SD)	-0.1751	0.0829	-2.11	0.035
High CR (+1SD)	0.3459	0.1159	2.98	0.003

Table 7. Analysis of moderation; the interaction between negative childbearing motives and well-being, taking into account centrality of religiosity

	Estimate	SE	Z	p
NEG	-0.1817	0.08826	-2.059	0.039
CR	-0.0501	0.05024	-0.998	0.318
NEG * CR	-0.0103	0.00426	-2.407	0.016

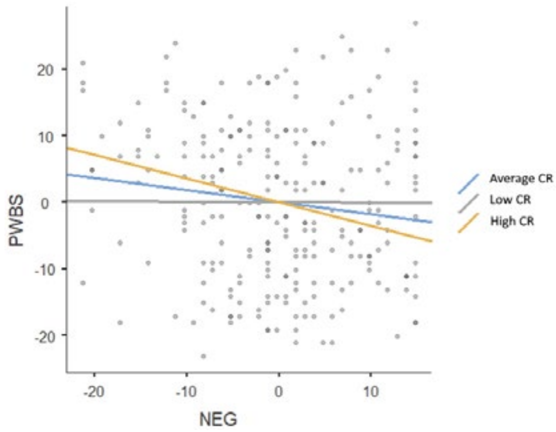

Figure 3. Analysis of moderation – the effect of negative childbearing motives on well-being at various levels of religiosity

Table 8. The effect of negative childbearing motives on well-being at various centrality of religiosity levels

	Estimate	SE	Z	p
Average CR	-0.18174	0.0880	-2.0654	0.039
Low CR (-1SD)	-0.00716	0.1141	-0.0628	0.950
High CR (+1SD)	-0.35632	0.1127	-3.1619	0.002

fect of well-being on positive childbearing motives) also demonstrated statistical significance (p = 0.013) (Table 5.).

Low and high centrality of religiosity levels moderate the level of well-being when positive childbearing motives serve as the predictor. The level of centrality of religiosity modifies the direction of the analyzed dependency (in the case of low CR–-0.18; high – 0.34). It means that in the interaction of positive childbearing motives and centrality of religiosity, taking into account the low level of the latter decreases the level of the well-being felt. The discussed dependency has been depicted in Figure 2. and Table 6.

Further analyses of moderation (Table 7.) proved the moderating role of centrality of religiosity in the correlation between childbearing motives and well-being (p = 0.016). The inverse relationship was not statistically significant (p = 0.271).

An average and a high centrality of religiosity level significantly moderates the dependency between negative childbearing motives and well-being (p = 0.039 and 0.002). However, the direction remains unchanged. The said dependency has been presented in Figure 3. and Table 8.

4. Discussion on results

Three hypotheses were made in the study described above. H1 was partially confirmed (Table 2.) – people characterized by positive childbearing motives declare a higher sense of meaning (0.161; $p<0.05$). However, no statistically significant correlation between positive childbearing motives and well-being were identified (-0.009; $p>0,05$). Parenthood can be the source of meaning. On the other hand – a higher level of declared well-being favors behaviors connected with procreation. The second hypothesis was proved – centrality of religiosity serves a moderating role in the relation between positive childbearing motives and the sense of meaning and well-being. People characterized by higher religiosity, who declare higher childbearing motives, experience a higher sense of meaning (Table 4). This also refers to the generally defined well-being (Table 6). In this case, people with a lower religiosity level and characterized by positive childbearing motives also experienced a lower level of sense of meaning ($p = 0.035$). It should be highlighted that in the case of an inverse relationship (where childbearing motives serve as a dependent variable), the relationship is also of statistical significance. It might suggest that the interaction between childbearing motives and well-being is multi-directional but religiosity still serves a key role regardless of that fact.

The dissertation also proved the moderating role of centrality of religiosity in the relationship between negative childbearing motives and well-being. People with a higher level of religiosity and characterized by negative childbearing motives experienced a lower well-being than persons with an average centrality of religiosity level (Table 8.).

Previous research on motivation to have offspring and on sense of meaning or generally defined well-being seemed to exhibit an unambiguous connection (Dunlop et al., 2017; Mynarska & Rytel, 2020; Borowska, 2016; Nelson & Uecker, 2018; Nelson et al., 2013). The same conclusion can be drawn from our study which proves this relationship.

Our study complements the said literature, indicating the important issue that facilitates the process of giving meaning. This refers to religiosity that is unambiguously related to the feeling of meaning in life (Krause & Hayward, 2012; Krok, 2015a; Krok, 2015b; Martos et al., 2010; Newton & McIntosh, 2013; Park & Yoo, 2016; Park, 2013; Prinzig et al., 2023). In our study, we highlight the fact that positive childbearing motives are in an important relation with the feeling of meaning in life. This relationship is justified in broad literature. However, one should draw attention to the moderating effect of religiosity because it seems to constitute an important variable that explains this relationship. It can be stated that religiosity, in the context of motivation to be a parent, provides major tools that allow coping with stress and adding meaning and importance to parenthood – such as tradition, willingness to live according to principles of faith, feeling of being appointed to serve a specific role (Bein et al., 2023; Handerson et al., 2016; Kuhnt & Trapper, 2016; Pezeshki et al., 2005; Rosina & Testa, 2009).

The negative correlation between negative childbearing motives and sense of meaning (-0.158; $p<0.05$) also seems of key importance. No significant correlation between negative childbearing motives and well-being were identified (-0.111; $p>0.05$). Thus, hypothesis 3 was partially confirmed. Previous research regarding motivation to become a parent indicated that the willingness to procreate appeared when people experienced satisfaction with life (Mencarini et al., 2018). Such results suggest that it is necessary to pay particular attention in psychological practice to people have negative opinions on parenthood. This also refers to people declaring a low level of religiosity and who, at the same time, refer positively to the aspects of parenthood – they may feel that parenthood is not connected with any advantages (Bein et al., 2021). In their case, psychological aid would be concentrated on the attempt to give meaning to parenthood and finding purpose in it – in order to intensify the feeling of meaning in life. This study did not prove an important moderating effect of low-level religiosity. However, future research may focus on this aspect e.g., through a different method of operationalization of religiosity.

The study presented above constitutes a contribution to the research on the role of religiosity in the feeling of meaning in life and well-being. It includes the aspect of parenthood in it, indicating religiosity as a resource. Further research could be concentrated on factors protecting well-being in the case of people characterized by low religiosity who want to have offspring and with a positive opinion on parenthood. Focusing on people with high level of religiosity and a negative opinion on parenthood also seems crucial from the perspective of research and aid practice (Table 8. – such people experience a lower level of well-being). In this case, the V.E. Frankl's (2009) logotherapeutic practice concentrated on the meaning might prove to be helpful.

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The importance of mental resilience in interpersonal communication and the unveiling of ressentiment – analysis of studies on young adults[1]

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Abstract: Understanding certain mechanisms of mental resilience and the methods of communication in interpersonal relationships plays a crucial role in promoting healthy relationships and effective communication in the face of ressentiment. Research shows that despite improvements in some health indicators, mental health issues among young adults have intensified. The hypothesis proposed a connection between aspects of mental resilience that affect ressentiment and forms of interpersonal communication within this age group. The results confirmed this relationship, indicating a positive correlation between a proper attitude toward challenges and emotional well-being, and the recognition of others' value. On the other hand, there was a negative correlation between emotional difficulties and the devaluation of others. These factors can evoke emotions such as envy, hatred, or reluctance, and negatively impact quality of life, increasing the risk of ressentiment. Shifting social structures and the visibility of competing groups deepen these emotional tensions as individuals attempt to reconcile their own success with societal values. The study included 142 young adults aged 18–35, with 54.2% being women and 45.8% men. Mental resilience was assessed using the Mental Resilience Scale by M. Ryś et al., while forms of communication were evaluated using a questionnaire based on Rosenberg's concept, developed by M. Ryś and P. Kwas.

Keywords: mental resilience, interpersonal communication, ressentiment

Introduction

Understanding the dynamics of resilience and forms of communication in an interpersonal setting is crucial to foster healthy relationships and effective communication in the context of ressentiment.

Studies show that despite improvements in some health indicators, mental health issues among young adults have increased in recent times. Experiencing ressentiment as a response to threats, social pressures, and inequalities can contribute to this trend. Adressing the topic of ressentiment and its connections is important for improving the mental health and well-being of young adults (Eckersley, 2011).

This article's main goal is to analyse the results of our own research and determine whether there are relationships between aspects of mental resilience that are associated with ressentiment and forms of interpersonal communication in young adults. Previous research on the impact of traumatic experiences in childhood on attachment styles in the light of ressentiment and functioning in adult life (on a sample of 100 people: 50 women and 50 men) has shown the legitimacy of further scientific exploration (Karbowski, 2023). It should be noted that in early adulthood, people experience numerous,

1 Article in polish language: https://www.stowarzyszeniefidesetratio.pl/fer/60P_Karb.pdf

often deep and sometimes painfully experienced changes, related to building individual identity, achieving independence or modifications of the surrounding environment (Suchodolska, 2016). Young people face new challenges, intensely experiencing reality (Sokołowska, 2015). This has never been an easy task, but a significant increase in problems in this area has been observed in recent years (Franczok-Kuczmowska, Kuzian, 2018). These difficulties have intensified during the COVID-19 pandemic (Baran, Hamer, 2021) and the outbreak of war in neighbouring Ukraine (Franczok-Kuczmowska, 2022; Zabłocka-Żytka, 2023). It is also worth noting that, according to Stone et al. (2010), young people in early adulthood experience stress more often than people at other development stages.

For young adults, ressentiment[2] can be shaped by various environmental factors, such as parenting conditions, socio-economic status, and social stressors. These factors often trigger emotional reactions such as ressentiment, hatred, envy, or revenge, but they can also lead to a decrease in the quality of life in the context of increased depression and anxiety (Karbowski, Nowicka, 2024). The fluidity of contemporary social structures and the visibility of rival social groups further exacerbate these emotional tensions as individuals seek to reconcile their own success with perceived social values (Turner, 2011).

1. Theoretical introduction to research

1.1. The origin of the concept of immunity and its various approaches in psychological literature

The science that first defined and applied the concept of immunity is immunology. According to this field, immunity indicates that the body is not susceptible to the destructive influence of various types of pathogens. Natural sciences use a broader meaning of the term, defining immunity as a state, in which an individual has the ability to resist the adverse effects of broadly understood environmental factors (Terelak, 2017). Moreover, physical sciences distinguish the term *resilience*, indicating strong flexibility as a property of materials insensitive to deformation (Ogińska-Bulik, Juczyński, 2008).

In social sciences and health sciences, attention is paid to a special type of resilience, which is mental resilience. Although this concept is multidimensional and has a dynamic specificity (Charney, 2004; Ogińska-Bulik, Juczyński, 2008), the two most frequently repeated terms can be seen in the literature: *resilience* and *resiliency* (Ryś, Trzęsowska-Greszta, 2018).

1.1.1. Mental resilience as a process

Resilience is referred to as a process. Luthar et al. (2000) perceive this variable as a construct related to the positive and effective adaptation of the individual to life's problems and difficulties. In order to conclude about the process occurrence, the following conditions are necessary: the person finding herself in a situation of danger and achieving good adaptation despite unfavourable threats for the development. A similar approach is presented by Ostaszewski (2005), who claims that the *resilience* mechanism is an adaptive response to the negative effects of environmental factors, but this reaction is also associated with some personal losses (Campbell-Sills, Cohan, Stein, 2006). In this approach, the mechanism of *resilience* will be particularly related to ressentiment.

Egeland et al. (2003) capture mental resilience as an organisational model of development, which describes the processes that enable the analysis and classification of past experiences. Primary patterns of adaptation provide a framework for a person's later experiences, making it possible to develop greater complexity and flexibility in behaviour in the face of difficult situations, and thus to avoid ressentiment.

2 Historically, ressentiment has been seen as a feeling of frustration, contempt, and indignation resulting from experiences of injustice and powerlessness (TenHouten, 2018). The concept of ressentiment in the formulation of Friedrich Nietzsche and Max Scheler emphasises the historical roots of this phenomenon, linking it to powerlessness and a specific moral framework. Nietzsche associated ressentiment with Christian morality, while Scheler related it to the bourgeois ethos of Western Europe (Meltzer & Musolf, 2002). Max Weber developed this idea by analysing ressentiment as a driving force behind the religious beliefs and ideologies of marginalised groups, suggesting that it is a compensatory response to social inequality (Turner, 2011).

The original patterns of adaptation to novelties, problems, threats, or crises are not lost, but are reorganised and then incorporated into new adaptation patterns (Egeland et al., 2003).

1.1.2. Mental resilience as a trait

It is also worth quoting the approach to mental resilience as a trait. Ostrowski (2022) draws attention to the Latin origin of the word *resilience*. Since the term refers to "bouncing back", the author emphasises its similarity to the definition of ego resilience functioning in the scientific literature, understood as a personality disposition. The concept of *ego resiliency* was translated and introduced into the Polish scientific literature by Zenon Uchnast (1997), who emphasised that the term *resiliency* indicates the potential of an individual to be resourceful in various conditions of everyday life, and the word *ego* exposes this potential in relation to the structure of the human personality. Therefore, if an individual is characterised by a high ego resilience, it has the ability to adapt to numerous changes in life. It is easier for a person to effectively cope with difficult situations thanks to the skilful use of the potential to manage personal and environmental resources (Ostrowski, 2022). In such a situation, the individual presents a more positive approach to life, is emotionally stable, and treats the challenges as opportunities to expand the range of personal experiences.

A lack of ego resilience can indicate an unstable personality structure and low resistance to frustration. In new or difficult situations, these people may take incoherent, chaotic actions, acutely feeling the growing anxiety (Block, Block, 1980; Ogińska-Bulik, Juczyński, 2008).

1.1.3. Resources protecting against maladaptive processes

Recently, the problem of resources protecting humans from maladaptive processes has been increasingly discussed. Such protective resources include cognitive abilities, a temperamental tendency to establish contacts with others, adaptability, an optimistic approach to life, a wide range of social competencies, positive self-esteem, having goals and the desire to achieve them, as well as the belief in the ability to act effectively even in the face of difficulties. Among the components obtained through relationships with loved ones, the following are distinguished: family bonds, effective communication, clear rules and expectations, but also support during childhood and adolescence from parents and teachers, or peer environment. Moreover, the company of ambitious and helpful peers acting in accordance with accepted social norms and the presence of kind, trustworthy, and competent adults are important. A suitable local environment can also contribute to the good adaptation of people growing up in high-risk conditions: a positive atmosphere at school, support from educators, activity in interest groups, and easy access to recreational facilities, health clinics or psychological assistance centres in a crisis situation (Boczkowska, 2022; Ostaszewski, 2005; Ryś, 2024; Ryś, Trzęsowska-Greszta, 2018).

1.2. Interpersonal communication

1.2.1. Definitional approach

Communication is an ambiguous concept because it is used to describe all means of transporting and exchanging information (Ryś, 2024).

Communication takes place in almost all interpersonal activities. The exchange of information can take place between: individuals, teams of people, or organisations (Pyrkosz-Pacyna et al., 2022). Intrapsychic communication is understood as a kind of conversation with oneself, a kind of internal dialogue that is carried out by every person undertaking social activity. The described activities include, among others, any concerns about interacting with representatives of unknown cultures or engaging in risky investments. Taking up new challenges is preceded by a period of reflection and hesitation, which, if they remain only in the mind of the individual, are not subject to correction by the external environment (Nęcki, 2008). This dimension of communication is also referred to in the literature as "intrapersonal communication" (Licak, 2018). Ressentiment is a phenomenon occurring mainly in this area. On the group level, on the other hand, the described phenomenon includes the exchange of information by team members performing specific functions. The social dimension of communication, in the view of John Fiske (1999), concerns interactions between groups (Fiske, 1999). Another level of communication is interpersonal communication, during which two people specify what they mean and clearly express their intentions and expectations towards the interlocutor (Nęcki, 2008). Patterns of communication are largely shaped in the family environment (Piekorz, 2022; Weryszko, 2020; Wysota, 2022), and their development is conditioned by the experience of love (Jaworska, Lubiejewski, Wójtowicz, 2019).

1.2.2. Non-violent communication

In times of strong conflicts and a sense of loneliness, non-violent communication becomes particularly important: Marshall Rosenberg's (2011) concept, which is a special attitude of speaking and listening that enables the individual to start communication filled with sensitivity and compassion not only with other people, but also with oneself. The basis for empathic information exchange are specific skills in using speech and all other means used in social interactions. The language of non-violent communication allows for the formulation of statements in a conscious, clear, and honest way. Instead of manifesting thoughtless reactions, the individual makes a cognitive effort, defining own feelings and desires. This person is also sensitive to the needs of others: she not only perceives the expectations of others, but also tries to understand their approach to reality, adopting an attitude full of empathy (Rosenberg, 2011).

In Rosenberg's view, compassion is an extremely important aspect of effective communication. The author points out that empathy can be blocked by the use of specific types of messages. One of the factors that inhibit the development of sensitivity in communication is the use of moral judgments. When formulating assessments or making subjective diagnoses, a person focuses on making classifications, estimating the degree of inappropriateness of the situation and establishing often unfair conclusions. Other elements that disrupt empathic communication are: comparisons, confrontations, or denial of responsibility. The "cutting off from life" messages also include expressing one's own desires and needs in the form of direct or secret demands (Rosenberg, 2011)[3].

Based on the model of non-violent communication and its individual elements, M. Ryś and P. Kwas developed a tool for examining forms of communication. Conducting a conversation in accordance with the empathetic approach symbolised by the giraffe is described by the authors as a "form of communication that values others" (Ryś, 2024, p. 295). Language contrary to the concept of non-violent communication has been described as a "depreciating form of communication" (Ryś, 2024, p. 296).

2. Methodology of own research

2.1. Research aim, questions, and hypotheses

The main objective of the study was to determine what are relationships between dimensions of mental resilience important in the formation of ressentiment, i.e., attitudes towards difficulties and problems, at-

3 In the model developed by Marshall Rosenberg, two very important symbols appear. The giraffe, as an animal with a gentle behaviour and an exceptionally large heart in relation to its body weight, represents the language of mutual respect, openness, understanding, and cooperation. It should also be emphasised that the animal's exceptionally long neck symbolises not only the ability to listen, but above all a perspective view. The sender formulates statements thoughtfully that does not hurt the other person. The individual uses a gentle language, adapted to the communicative situation, which is free from any kind of judgment. In giraffe speech, instead of emotionally charged judgments, there are phrases based on values. Moreover, the language of mutual respect rejects messages that deprive the other person of the possibility of making a choice, because expressions indicating coercion or prohibition are contrary to the idea of cooperation.
The second symbol used by Rosenberg is the jackal. This small predator in the concept of non-violent communication represents a language full of labelling, judgment, criticism, and blame. An individual relying on the speech of the jackal wants to dominate others, often using verbal aggression for this purpose. The sender willingly uses generalisations harmful to the recipient and formulates messages full of hatred. It should be emphasised that the language of the jackal prevents the establishment of a good interpersonal relationship (Rosenberg, 2006, cited in Misztal, 2016).

titudes towards life and oneself, somatisation, emotional sphere, attitude towards wounds, and forms of communication in young adults?

The following hypotheses were put forward when starting the research:

- The higher the level of mental resilience in young adults in terms of the correct attitude towards difficulties and problems, the more they communicate in a form that values others and does not depreciate the value of another person.
- The higher the level of mental resilience in young adults in terms of the correct attitude *towards life and themselves*, the more they communicate in a form that appreciates others and does not depreciate the value of another person.
- The higher the level of mental resilience in young adults in terms of somatisation (i.e., the lower the somatisation), the more they communicate in a form that values others and does not depreciate the value of another person.
- The higher the level of mental resilience in young adults in terms of proper functioning in the emotional sphere, the more they communicate in a form that values others and does not depreciate the value of another person.
- The higher the level of mental resilience in young adults in terms of proper functioning regarding attitudes towards wounds, the more they communicate in a form that values others and does not depreciate the value of another person.

2.2. Testing method

The study was conducted in 2023 via the Google Forms online survey builder. A link to the form was shared on the Facebook platform and sent to Messenger users to spread the snowball test. Before completing the attached surveys, each person was informed that participation in the study is voluntary, and the answers will remain anonymous and used only as part of collective scientific studies. It should be emphasised that the respondents had the opportunity to resign from participation in the survey at any stage of its duration.

2.3. Test subjects

The study involved 142 subjects aged 18-35 (M = 23.96; SD = 3.65). Since no indications were found suggesting that individual data were omitted, statistical analyses included all the results. Among the study participants, 54.2% were women (77 people), while men made up 45.8% of the sample (65 people), (Table 1.).

The largest number of respondents (47.2%) declared having higher education (67 people). A slightly smaller percentage of the entire sample (42.3%) were young adults who had incomplete higher education (60 people). In turn, 10.6% of the respondents (15 people) were characterised by secondary education (10.6%). None of the analysed people described their education level as primary or vocational, (Table 2.).

2.4. Research methods

In order to carry out the analysis a scale examining five aspects of mental resilience (SOP) and a tool enabling the exploration of the forms of communication used by young adults were used.

Table 1. Respondents gender (N = 142)

Sex	n	%
Women	77	54.2
Men	65	45.8
Total	142	100

Table 2. Level of education of persons in the study sample (N = 142)

Level of education	n	%
Basic	0	0
Secondary	15	10.6
Vocational	0	0
Incomplete higher	60	42.3
Higher	67	47.2
Total	142	100

2.4.1. Mental resilience scale (SOP)

In the study, the level of mental resilience in young adults was assessed using the Mental Resilience Scale developed by Ryś et al. (2020). The tool contains 35 items. The respondents answer each test item using a five-point scale, described as follows: 1 – definitely not, 2 – rather not, 3 – I can't say, 4 – rather yes, 5 – definitely yes. The entire tool is created by five subscales defined as: Attitude towards difficulties and problems, Attitude towards life and oneself, Somatisation, Emotional sphere, and Attitude towards wounds; for which the reliability estimated using the α-Cronbach coefficient was as follows: 0.697; 0.872; 0.738; 0.685; 0.771. To indicate an example of a test position, it is worth quoting the following statement: "Even in the face of serious difficulties, discouragement will not overwhelm me". Moreover, it should be emphasised that the overall score is not calculated in the questionnaire. The respondents' answers, on the other hand, are summed up separately for each subscale. The method's accuracy has been confirmed by competent judges (Ryś, 2024).

2.4.2. Forms of communication

The study also used the "Forms of Communication" questionnaire developed in 2022 based on Rosenberg's concept. This method contains 22 statements, to which the respondents respond on a five-point scale, defined as follows: 5 – definitely yes, 4 – rather yes, 3 – I can't say, 2 – rather not, 1 – definitely not. The tool consists of two scales: A form of communication that values others and a Depreciating form of communication. In the questionnaire, the following item can be distinguished: "Subtle intrigue gives me satisfaction". The method's reliability was estimated using the α-Cronbach coefficient, the value of which was 0.726. The tool's accuracy has been confirmed by competent judges (Ryś, 2024).

3. Research results

The analysis of the data collected in the course of the study was carried out using IBM SPSS Statistics. The results of the statistical tests were evaluated with a significance level of $\alpha = 0.05$.

It began with the preparation of a statistical description for the research tools. The data are presented in Table 10. The reliability of each scale was estimated using the α-Cronbach coefficient. In order to assess the normality of the distributions of the variables studied in the sample of young adult variables, measures of skewness and kurtosis were used. Since the values of these statistics were in the range of <-1; 1>, it was found that the distributions of the variables explored in this study resemble the normal distribution, (Table 3.).

Since the obtained data come from a sample of 142 people, the acceptance of estimates of the reliability of the attitude towards difficulties and problems as well as the emotional sphere can be considered justified. The other scales, for which the value of the α-Cronbach coefficient exceeded 0.7, were characterised by good reliability.

Table 3. Descriptive statistics for the Mental Resilience Scale (SOP) and Forms of Communication questionnaires with the Cronbach α reliability coefficientin the entire sample (N = 142)

Scale	M	SD	Me	Skewness	Kurtosis	α
SOP – Attitude towards difficulties and problems	24.21	4.31	24.00	-0.09	-0.40	0.68
SOP – Attitude towards life and oneself	20.83	6.37	21.00	0.12	-0.31	0.87
SOP – Somatisation	21.11	5.90	21.00	0.20	-0.47	0.76
SOP – Emotional sphere	21.67	4.93	21.00	0.05	-0.46	0.65
SOP – Attitude towards wounds	19.85	6.20	19.50	0.33	-0.58	0.81
A form of communication that appreciates others	41.67	6.17	42.50	-0.29	-0.59	0.73
Depreciating form of communication	30.74	8.34	30.50	0.35	-0.01	0.83

3.1. Interdependencies between variables

In order to check whether there is a relationship between the level of mental resilience and forms of communication in young adults, the r-Pearson correlation analysis was used. The results are presented in Table 4.

The attitude towards difficulties and problems (SOP) correlated positively with the *Form of communication that valued others*, and correlated negatively with the *Depreciating form of communication*. These relationships are classified as significant. The *Emotional sphere* (SOP) was positively correlated with the *Form of communication that valued others*. This subscale of mental resilience also showed a negative correlation with *Depreciating form of communication*. *Attitude towards wounds* (SOP) also negatively correlated with *Depreciating form of communication*.

Table 4. r-Pearson correlation coefficients between the individual scales of the Mental Resilience Questionnaire (SOP) and the Forms of Communication for the entire study sample (N = 142)

Scale	A form of communication that appreciates others	Depreciating form of communication
SOP – *Attitude towards difficulties and problems*	0.28***	-0.20*
SOP – *Attitude towards life and oneself*	0.05	-0.12
SOP – *Somatisation*	-0.03	-0.06
SOP – *Emotional sphere*	0.18*	-0.30***
SOP – *Attitude towards wounds*	0.12	-0.20*

* p < 0.05; ** p < 0.01; p < 0.001

3.2. Analysis of intergroup differences

In order to learn about the detailed characteristics of the sample, an analysis of intergroup differences in the range of explored variables was performed. Using the Student's t-test for independent samples, it was checked whether young women and men differ in the level of mental resilience scales and forms of interpersonal communication. The assumption of normality of the distributions of the studied variables in individual groups was verified by assessing the values of skewness and kurtosis, which were in the range <1; 1>. On the other hand, the homogeneity of the variance of basic hope, mental resilience, and forms of communication in both groups was controlled using the Levene test, the results of which were insignificant. The variances of these variables among young women and men were therefore assessed as homogeneous. It was also checked whether the studied groups can be considered relatively equivalent. Since the result of the chi-square test were statistically insignificant ($\chi 2 = 1.01$; $p = 0.314$), the assumption of equivalence of the compared groups was fulfilled. The results of the Student's t-test for independent samples, together with the sizes of the d-Cohen effect, are presented in Table 5.

Statistically significant differences between the compared groups were observed for several scales. Women scored significantly higher than men in the *Form of communication that valued others*. The magnitude of both effects is considered moderate. On the other hand, men received higher scores than women on the scales: *Attitude towards life and oneself* (SOP), *Somatisation* (SOP) and *Depreciating form of communication*. The strength of these effects was moderate. The surveyed men, compared to women, were also characterised by significantly higher scores in the *Emotional sphere* (SOP) and *Attitude towards wounds* (SOP). With regard to the *Attitude towards difficulties and problems* variable, no statistically significant differences were observed.

3.3. Correlations in Subgroups

Due to the occurrence of significant differences in the mentioned variables in young women and men, it was justified to expand the analysis by exploring the relationships between mental resilience and forms of communication, considering the division of the respondents by gender. Therefore, the r-Pearson correlation analyses were used, the results of which are presented in Tables 6 and 7.

Table 5. Tests of differences for individual scales: Mental Resilience Scale (SOP) and Forms of communication between the group of women (N = 77) and the group of men (N = 65)

	Women		*Men*					
Scale	*M*	*SD*	*M*	*SD*	*t*	*df*	*p*	*d*
SOP – *Attitude towards difficulties and problems*	23.82	4.32	24.68	4.27	-1.19	140	0.238	-0.20
SOP – *Attitude towards life and oneself*	19.30	5.94	22.65	6.43	-3.22	140	**0.002**	-0.54
SOP – *Somatisation*	19.27	5.59	23.29	5.56	-4.28	140	**<0.001**	-0.72
SOP – *Emotional sphere*	20.87	4.97	22.62	4.75	-2.13	140	**0.035**	-0.36
SOP – *Attitude towards wounds*	18.75	6.21	21.14	5.99	-2.32	140	**0.022**	-0.39
A form of communication that appreciates others	43.61	5.72	39.37	5.92	4.33	140	**<0.001**	0.73
Depreciating form of communication	28.81	7.59	33.03	8.65	-3.10	140	**0.002**	-0.52

Annotation. To improve readability, the p values < 0.05 have been bolded.

In the subgroup of women, statistical analyses revealed a positive correlation between the *Attitude towards difficulties and problems* (SOP) and the Form of communication that values others. The *Somatisation* (SOP) subscale also showed a positive correlation with the Form of communication that valued others. On the other hand, a moderate, negative correlation occurred between the *Emotional Sphere* (SOP) subscale and *Depreciating form of communication*.

The analyses carried out in a group of men indicated a positive correlation between the four subscales of the Mental Resilience Scale (*Attitude towards difficulties and problems, Somatisation, Emotional sphere, and Attitude towards wounds*) and the *Form of communication that appreciates others*. On the other hand, a negative correlation was noted for the subscales: *Attitude towards difficulties and problems (SOP), Emotional sphere (SOP), and Attitude towards injuries (SOP)*.

Table 6. r-Pearson correlation coefficients between the individual scales of the Mental Resilience Questionnaire (SOP) and the Forms of Communication for the group of women (N = 77)

Scale	A form of communication that appreciates others	Depreciating form of communication
SOP – *Attitude towards difficulties and problems*	0.31**	-0.21
SOP – *Attitude towards life and oneself*	0.14	-0.21
SOP – *Somatisation*	-0.04	-0.07
SOP – *Emotional sphere*	0.23*	-0.41***
SOP – *Attitude towards wounds*	0.13	-0.17

* p < 0.05; ** p < 0.01; p < 0.001

Table 7. r-Pearson correlation coefficients between the scales of the Mental Resilience Questionnaire (SOP) and the Forms of Communication for the group of men (N = 65)

Scale	*A form of communication that appreciates others*	*Depreciating form of communication*
SOP – *Attitude towards difficulties and problems*	0.37**	-0.25*
SOP – *Attitude towards life and oneself*	0.16	-0.20
SOP – *Somatisation*	0.25*	-0.27*
SOP – *Emotional sphere*	0.30*	-0.33**
SOP – *Attitude towards wounds*	0.27*	-0.36**

* p < 0.05; ** p < 0.01; p < 0.001

4. Discussion and interpretation of results

The hypothesis assumed the existence of correlations between those aspects of mental resilience that are most associated with ressentiment and forms of interpersonal communication among young adults. It was assumed that the greater the mental resilience (referring to the scales: *attitudes towards difficulties and problems*, *attitudes towards life and oneself, the functioning of the emotional sphere and attitudes towards wounds*) and the lower somatisation, the more often individuals aged 18-35 would use the *Form of communication that appreciates others*. It was also expected that mental resilience in young adults would show a negative correlation with *Depreciating form of communication*. Analyses of potential ressentiment indicators show that they constitute a complex system containing numerous components, both internal and external, of the surveyed people.

The study results indicate the confirmation of the hypotheses posed in terms of the positive correlation between the correct *attitude towards difficulties and problems*, as well as the *correct emotional functioning* and appreciation of another person's value, as well as the negative correlation between the *Depreciation of the value of others* and *the Attitude towards difficulties and problems, the Emotional sphere*, *and the Attitude towards wounds*.

Those dimensions of mental resilience that also determine the level of ressentiment are associated with positive adaptation to changes or failures in life (Block & Block, 1980; Luthar et al., 2000; McCubin, 1998; Ogińska-Bulik & Juczyński, 2008; Ogińska-Bulik & Zadworna-Cieślak, 2014; Ostaszewski, 2005; Pisarska & Ostaszewski, 2012; Ryś, 2024). Mentally resilient people try to analyse problems considering a broader context. In the face of unfavourable challenges, individuals are able to remain optimistic, and the difficulties they encounter do not obscure their prospects for the future (Ryś, 2024). According to Semmer (2006), people who exhibit *the resiliency trait* are characterised by several most important features: a tendency to perceive the surrounding world as favourable, a more frequent expectation of the occurrence of positive events than negative ones, as well as the perception of failures as phenomena that do not necessarily have their source in the hostility of the world (Ogińska-Bulik & Juczyński, 2008).

Previous research indicates the role of mental resilience in supporting constructive coping with various types of stressful situations (Block & Block, 1980; Egeland et al., 2003; Grzegorzewska, 2011; Luthar et al., 2000; Masten, 2001; McCubin, 1998; Ogińska-Bulik & Juczyński, 2008; Ogińska-Bulik & Zadworna-Cieślak, 2014; Ostaszewski, 2005; Pisarska & Ostaszewski, 2012; Lynx, 2024; Sikorska, 2017; Uchnast, 1997). Maintaining good interpersonal relationships is also extremely important to maintain physical and mental health (Bakiera & Orębska, 2021). In turn, the quality of social contacts is conditioned by the communication between individuals (Satir, 2000, Koprowicz & Gumowska, 2002).

Research shows that communication skills and good communication, as well as creating bonds and building closeness with others, are individual resources conducive to positive adaptation (Black & Lobo, 2008; Borucka & Ostaszewski, 2008; Pisarska & Ostaszewski, 2012; Ostaszewski, 2005). Moreover, analyses indicate a strong link between mental resilience and mental health (Hu et al., 2015; Mazurek, 2024). Bakiera and Orębska (2021) emphasise that maintaining positive social relationships is an element that supports proper functioning not only in the physical but also in the mental sphere. Other researchers emphasise that the quality of interpersonal contacts is determined by the communication between individuals (Satir, 2000; Koprowicz & Gumowska, 2022).

Based on the results of the research conducted on gender differences, it can be noted that young men, compared to the surveyed women: showed stronger trust in themselves in difficult situations; more often undertook activities aimed at maintaining physical and mental strength necessary for effective coping; showed less discouragement in the face of encountered adversities, being aware of the possibility of obtaining support from loved ones and maintaining greater life optimism; and they also presented a more adaptive attitude towards past wounds, not dwelling on previous wrongs or failures, but drawing conclusions from them. Correlational studies conducted in gender-specific subgroups also suggest a certain difference in the relationship between mental resilience and forms of communication in young women and men. In both groups, higher faith and self-confidence in the face of encountered difficulties were associated with more frequent use of a form of communication that valued others.

People often do not realise that their feelings may be the result of ressentiment, which is a complex set of emotions, such as anger, envy, hatred, contempt, jealousy, or guilt and are interrelated, and can affect the individual's behaviour and mental state (Karbowski, 2024). Although in some situations young adults can easily identify the cause of their emotions as ressentiment, it is often the case that the sadness or humiliation they feel is not clearly recognised. In these cases, individuals may not be aware that their emotions are the result of troublesome emotions, which may affect their problem with inappropriate responses to different types of situations (Rickert & Veaux, 2016). Discovering ressentiment can be a key part of building mental resilience, as it enables us to better understand ourselves and our reactions in difficult situations. Becoming aware of past injuries helps in the healing process and prevents them from further affecting everyday life. The ability to transform negative emotions into constructive actions strengthens the psyche and helps in coping with challenges (Scherer, 2001). As a result, the individual becomes more flexible and resilient to stressful situations, which promotes their well-being.

Limitations

Despite many advantages and some innovation, this study is not without limitations. First of all, the results do not allow for the formulation of conclusions regarding coping with difficulties or interpersonal communication of the entire Polish population of young adults, because no representative sample was obtained. The participants were volunteers with access to the Internet and accounts on platforms, such as Facebook or Messenger. Moreover, the age distribution of the respondents was right-skewed – most of them were people under 24. It is also worth noting that not all individuals react to all types of difficult situations in the same way. Factors such as personal resilience, supportive relationships, and access to other mental health resources can mitigate the negative effects of difficult experiences, including the negative effects of ressentiment, opening the way to improved mental health.

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Adolescent identity styles and avatar perception: examining the link between identity formation and virtual representation[1]

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Abstract: Identity formation is a fundamental developmental task during adolescence, significantly influenced by how individuals are judged by others. In today's digital age, such judgements increasingly occur in virtual settings, where the focus often shifts from the user to their virtual representation, or avatar. One of the most relevant frameworks for understanding the process of identity formation is Michael Berzonsky's social-cognitive model of identity formation, which identifies three distinct identity processing styles: informational, normative, and diffuse-avoidant. This study explores whether correlations exist between adolescent identity styles and external judgements of their avatars. The sample consisted of 130 adolescents (75 females, 55 males), aged between 15 to 17 years. The research participants were instructed to create their own avatars and subsequently control their movements within an arcade game. Following this, the participants completed the Identity Style Questionnaire to determine their identity processing style. Field experts then evaluated the adolescents' avatars based on several dimensions: masculinity/femininity of the nickname, unconventionality of the nickname, masculinity/femininity of the character, style of clothing (extravagance), attractiveness, friendliness, intelligence, sociability, and trustworthiness of the character, as well as character's activeness and openness to experience. The results revealed significant correlations between the informational and normative identity styles and the avatars' physical and psychological attributes as evaluated by experts. These findings provide valuable insights from a developmental psychology perspective and hold practical implications for interdisciplinary collaborations between psychologists and developers, particularly in designing educational and therapeutic computer games.
Keywords: adolescence, avatar, computer game, identity styles, identity

1. Introduction

1.1. Identity

Identity formation is a fundamental developmental task during adolescence (Kroger, 2003). Identity provides answers to essential questions such as 'Who am I?', 'Where do I belong?', and 'How do I fit (or fit in)?' (Oyserman, 2001). Classical approaches to identity development, as posited by Erikson (1963) and Marcia (1980), conceptualise identity formation through the lens of crises experienced by young people. An alternative perspective on identity formation is offered by Berzonsky (1992), who shifts the focus away from an understanding of the identity formation process through the lens of the crises experienced. According to Berzonsky, individuals process self-relevant information in diverse ways and arrive at decisions and solutions pertaining to Self through distinct strategies. Based on these action strategies, the researcher identified three identity processing styles: informational, normative, and diffuse-avoidant. The framework proposed by Berzonsky (1992; 2016) is currently regarded as one of the most effective in capturing the essence of individual identity (Moshman, 2011).

Individuals with the informational identity style play an active role in the construction of their self, both in the present and with a view toward the future (Berzonsky, 2016). They 'actively seek out, process, and evaluate self-relevant information'. They are undaunted by the prospect of self-discovery and are prepared to undergo a process of self-identity modification. They adopt a sceptical

1 Article in polish language: https://www.stowarzyszeniefidesetratio.pl/fer/60P_Pale.pdf

stance with regard to their own views. Such individuals are characterised by their rational and critical way of thinking and by their openness to diverse values and ideas.

In contrast, individuals with the normative identity style seek to maintain their existing identity structure (Berzonsky, 2016). They adopt norms, standards, and expectations established by significant reference groups (Berzonsky et al., 2011; Berzonsky, 2016). Concurrently, these individuals demonstrate a marked resistance to alternative beliefs, ideas, and values. They do not tolerate ambiguity. Their key values are security, tradition, stability, certainty, and social order (Berzonsky et al., 2011).

By contrast, individuals with the diffuse-avoidant identity style demonstrate a lack of engagement with the identity formation process (Berzonsky, 2016). They tend to procrastinate and avoid decisions related to their Self. Hedonism and power serve them as key motivators (Berzonsky et al., 2011). The decisions and actions of those individuals are often guided by external factors and circumstances, demands and expectations, potential consequences, and immediate social contexts (Berzonsky, 2016).

Identity formation does not occur in isolation; it is profoundly shaped by how individuals are judged by others. A person's self-perception is influenced by external perceptions (Cooley, 1962/1964; as cited in Szpitalak & Polczyk, 2015) and social interactions (Mead, 1934; as cited in Szpitalak & Polczyk, 2015). For adolescents in particular, peer opinions carry significant weight (Gorrese and Ruggieri, 2013; Jiang et al., 2015; Gruenenfelder-Steiger et al., 2016). These opinions can influence adolescents' self-perception (Kerpelman and Pittman, 2001; Rosen et al., 2013) and their capacity for self-acceptance (Tafarodi and Swann, 1995). In today's digital age, opinions and judgements increasingly occur within virtual environments (Jong and Drummond, 2016; Vossen et al., 2017; Meeus et al., 2019). In such cases, it is not the physical individual who becomes the direct object of judgement, but rather their virtual representation, or avatar. (representations of themselves created by them in virtual space)

1.2. Perception of others

The study of avatar perception represents a relatively nascent yet rapidly evolving area of research. At its core lies the premise that, in the physical world, individuals engage in forming impressions of others based on observed characteristics and behaviours. One of the factors influencing such judgements is clothing. Research has demonstrated that attire significantly affects perceptions of an individual's charisma (Brem and Niebuhr, 2021), particularly when clothing choices deviate from established social norms governing specific styles (Maran et al., 2021). Additionally, the colour of clothing plays a pivotal role. For instance, black and red clothing colours imply higher body attractiveness and slimmer body size ratings (Sidhu et al., 2021). Sandu (2021) posits that colours and styles of clothing individuals choose are closely linked to their worldview or thinking. Forsythe et al. (1985) observed that female job applicants wearing more masculine attire received more favourable hiring recommendations. Forsythe (1987) further demonstrated that women dressed in masculine clothing conveyed managerial traits typically associated with masculinity, as opposed to those in more traditionally feminine attire.

A second crucial factor influencing perceptions is the masculinity-femininity construct. Thompson and O'Sullivan (2013) found that women rated men with highly masculine facial features as more desirable for both short- and long-term romantic partnerships. Dixson and Brooks (2013) reported similar findings: men with full beards and pronounced masculine characteristics were perceived as better fathers capable of protecting and investing in offspring, thereby increasing their suitability as romantic partners. Conversely, in his studies, Lanter (2008) found that 'the female participants reported more romantic interest in a target male with a combination of masculine and feminine characteristics and roles'. Fraccaro et al. (2010) showed that men exhibit a general preference for feminised versions of both women's faces and voices. However, this preference is less pronounced in older men (Marcinkowska et al., 2017). The masculinity-femininity dimension also relates to help-seeking behaviours. McCusker and

Galupo (2011) found that heterosexual men seeking therapeutic assistance for depression were evaluated as more feminine compared to those who refrained from seeking help (this finding didn't concern homosexual men). Fleischmann et al. (2016) demonstrated that wearing a feminine outfit, compared to neutral attire, increased perceived femininity but led to lower ratings of computer skills and unfavourable attributions regarding success and failure in a computer task.

Perceived attractiveness represents another influential cue in forming impressions of others. Jackson et al. (1995) showed that attractive people were judged to possess higher intellectual competence. Similarly, Langlois et al. (2000) showed that both attractive children and adults are judged and treated more positively than their unattractive counterparts. Moreover, in certain circumstances, physical attractiveness can also influence altruistic behaviour: West and Brown (1975) observed that a physically attractive female solicitor received greater donations under low-severity emergency conditions compared to an unattractive solicitor. Individuals who are perceived to be more physically attractive are judged to be more trustworthy (Shinners, 2009), enjoy higher workplace rewards (Fruhen et al., 2015), and are more likely to be hired (Baert and Decuypere, 2014). Behrend et al. (2012) reported that job candidates with more attractive male or female avatars received more favourable interview ratings.

Trustworthiness also plays a critical role in impression formation. Research has shown that individuals perceived as trustworthy receive better remuneration conditions (Fruhen et al., 2015). Sheldon (2009) demonstrated that trust among online users promotes greater self-disclosure. Hira and Bhogal (2020) found that trust negatively predicts Facebook-related jealousy in heterosexual romantic relationships. Nayar and Koul (2020) confirmed a significant 'effect of trust on the relationship between social intimacy and the success of online dating'. Additionally, Rice et al. (2015) observed that individuals perceived as trustworthy were rated as more sociable.

Another essential dimension of perception is intelligence. Perceived intelligence has significant implications for relationship building. Agadullina (2020) found that individuals perceived as highly intelligent were more likely to elicit a willingness to form relationships, even in the presence of negative traits, such as sexist behaviour. Webster and Driskell Jr. (1983) similarly demonstrated a strong association between perceived intelligence and physical attractiveness. Moreover, perceptions of intelligence correlate with ratings of emotional stability, extraversion, openness to experience, and conscientiousness (Mõttus et al., 2008).

1.3. Similarities and differences in the evaluation of people and avatars

Avatars, like humans, are observed by users, and beliefs about them are formed based on these observations. For instance, the intensity of pain experienced by an avatar can be inferred from its facial expressions (Meister et al., 2021). In a study by Del Aguily et al. (2021), participants accurately recognised all emotions presented by avatars, including joy, anger, sadness, fear, disgust, and surprise. The avatars were presented on a screen from a range of distances (from 35 to 115 cm), yet the distance did not significantly influence participants' judgements. Interestingly, a notable trend emerged: negative emotions of avatars were recognised more accurately at longer distances, whereas positive emotions were better identified at shorter distances. Neuroscientific studies reveal that observing an anxiety expression activates the amygdala, irrespective of whether the expression is presented by a human or an avatar (Kegel et al., 2020). Fysh et al. (2021) observed that recognition of avatar faces, whether familiar or unfamiliar, created from photographs was comparable to the recognition of human faces.

However, notable discrepancies exist between the perception of avatars and humans. Kegel et al. (2020) found that observing fearful human expressions elicited stronger responses than fearful avatar expressions in cortical structures such as the anterior and posterior superior temporal sulcus (STS) and the inferior frontal gyrus (IFG). Furthermore, Balas and Pacella (2017) demonstrated that credibility ratings were both less favourable and less precise for artificial faces than for real human faces. Wang et al. (2013) identified significant inconsistency in judgements when participants viewed ghoulish avatars. These avatars evoked negative emotions, which researchers suggest led to distorted perceptions. Another factor contributing to inconsistencies in judgement is the fact that avatars are not always designed to resemble their creators. Machneva et al. (2021) demonstrated a lack of correlation between perceptions of avatars as trustworthy and the trustworthiness of their creators, despite a high degree of agreement among research participants regarding the avatars' trustworthiness.

1.4. Review of literature on avatar evaluation

Several studies indicate a relationship between avatars' physical characteristics and the perceptions of their abilities and personality traits. Evaluations of an avatar's empathy and dominance are influenced by both the avatar's clothing (e.g., a nursing scrub, military uniform, or casual attire) and the degree of openness of the posture (Küster et al., 2019). Female avatars, in particular, were perceived as more empathetic and less dominant when wearing nursing scrubs and exhibiting open postures, which in turn enhanced their perceived competence. Wang et al. (2013) demonstrated that avatars with wider faces were perceived as less aggressive than those with narrower faces. However, for male avatars, wider faces were associated with reduced attractiveness. Wohlrab et al. (2009) conducted a comparative analysis of avatars with and without tattoos, revealing that tattooed avatars were perceived as more experienced, more adventurous and thrill-seeking, having had more sexual partners, and demonstrating less inhibition. Weibel et al. (2010) found that avatars with larger pupils and slower blinking rates were perceived as more sociable and more attractive.

Studies suggest that perceptions of one trait of an avatar often serve as a basis for inferring other traits. Bélisli and Bodur (2010) observed that avatars with blonde hair or avatars who possessed virtual property in a game were perceived as more extraverted than those with dark hair or no virtual property. Perceived friendliness in avatars seems to correlate positively with perceived amicability and attractiveness but negatively with perceived height (Li et al., 2018). In their study, Nowak and Rauh (2005) found that the avatar rated as the most feminine was also judged as the most attractive. In the ranking of avatars, this avatar ranked sixth in terms of credibility, yet considerably lower in terms of similarity to the research participants, and was less likely to be selected as a representation. The most masculine avatar was rated as the most anthropomorphic[2] and the second most likely avatar to be selected but ranked sixth in terms of credibility. Overall, avatars perceived as more attractive were judged to be more credible, similar to participants, and more likely to be chosen as representations. Nowak and Rauh (2008) extended these findings, showing that perceptions of an avatar's femininity-masculinity influenced ratings of anthropomorphism, which, in turn, affected perceptions of the avatar's credibility and the person it represented.

The physical resemblance of avatars to actual humans, otherwise known as anthropomorphism, plays an important role in the perception of avatars. Nowak and Rauh (2005) and Dubosc et al. (2021) highlight a preference for anthropomorphic avatars among participants. Świderska and Küster (2018) explored attributions of mental abilities (such as experiencing emotions, agency, consciousness, and pain) to avatars. The avatars were either human-like or robot-like and approximately half of them exhibited visible injuries. Their study revealed that avatars exhibiting visible injuries were perceived to possess more mental abilities, regardless of whether they were human-like or robot-like. A further study demonstrated that greater anthropomorphism in avatars correlated with increased perceived attractiveness (Dubosc et al., 2021). In their study, Nowak and Rauh (2005) presented research participants with thirty avatars, which they categorised into human-like female character, human-like male character, animal, and object groups. Participants were requested to rank the avatars based on several characteristics, including the degree of anthropomorphism (the physical resemblance of the images to an actual hu-

2 The concept of anthropomorphism, defined as the physical resemblance of avatars to actual humans, plays a crucial role in avatar evaluation (Nowak and Rauh, 2005).

man), androgyny (masculinity and femininity), credibility, likeness, attractiveness, and likelihood of being selected. The findings revealed that the five avatars perceived as the most credible, most similar to the research participants, and with the highest probability of being selected as participants' representations were human-like avatars. In contrast, an avatar representing a green lizard was ranked as the least attractive, least credible, most dissimilar to the participants, and least preferred choice.

The avatars are subject to evaluation by other players. They elicit initial impressions from an audience much like humans. The avatars' physical appearance and material possessions serve as cues for inferring abilities and personality traits. One trait is used as a basis for inferring another. While some of these perceptions may be accurate, others may be distorted or inconsistent. Nevertheless, this does not negate the fact that individuals evaluate others based on their avatars. The evaluation of avatars as virtual representations holds particular relevance in adolescent populations, for whom virtual environments are significant spaces for identity formation. Avatars created by adolescents are subject to evaluation by peers, which can, in turn, influence the development of a sense of identity in young people.

2. Own research

2.1. Aim of the research

The social environment plays a pivotal role in identity formation during adolescence. For adolescents, how they are perceived by others holds particular significance (Antheunis and Schouten, 2011). The judgements made by individuals with whom the adolescent share significant relationships exert a substantial influence on their response to the question 'Who am I?' (Kerpelman and Pittman, 2001; Rosen et al., 2013). Evaluations received in the digital realm have become especially important (Jong and Drummond, 2016). In virtual environments, individuals are assessed indirectly through their avatars. Such evaluations may pertain to both physical and psychological characteristics. In the physical world, people are often evaluated based on dimensions such as masculinity/femininity (Fraccaro et al., 2010; Thompson and O'Sullivan, 2013), attractiveness (Jackson et al., 1995; Langlois et al., 2000), trustworthiness, sociability (Nayar and Koul, 2020; Rice et al., 2015), intelligence (Agadullina, 2020), and their clothing style (Sandu, 2021; Brem and Niebuhr, 2021). These same dimensions were therefore applied to the avatars examined in this study. Additional dimensions were incorporated into the model to account for the unique nature of virtual identities. These include the unconventionality of avatars' nicknames, given their role as a salient element of identity in virtual settings (Conrad et al., 2011), friendliness, reflecting the importance of interpersonal relationships as a motive for engaging in gaming (Williams et al., 2008; Frostling-Henningsson, 2009), openness to experience, given that virtual settings provide opportunities for self-identity experimentation (Hussain and Griffiths, 2008; Paik and Shi, 2013), and activeness, to address the perception of gamers as passive individuals (Domahidi and Quandt, 2015). However, it remains unclear whether a relationship exists between adolescents' identities in real life and the way their avatars are perceived in virtual settings. This ambiguity led to the formulation of three research questions: one primary and two subsidiary questions:

- Q1: Is there, and what is the nature of, the relationship between adolescents' identities and others' evaluations of their avatars?
- Q1a: Is there, and what is the nature of, the relationship between adolescents' identities and others' evaluations of their avatars' physical characteristics?
- Q1b: Is there, and what is the nature of, the relationship between adolescents' identities and others' evaluations of their avatars' psychological characteristics?

2.2. Methodology

2.2.1. Research participants

The sample consisted of 130 adolescents (75 females and 55 males). The participants were secondary school students, aged between 15 and 17 years (M = 16.53; SD = 0.60). Participants were drawn from a range of class profiles, with the exception of IT-focused classes, which were excluded to minimise any disproportionate focus on game mechanics. All research participants reported engaging in computer gaming at least once in their lives. Gaming frequency varied as follows: 14.6% reported no current gaming activity, 27.6% played less than once per month, 12.4% played once per month, 16.9% played once per week, 18.5% played several times per week, and 10% played daily.

2.3. Tools

Characterium computer game – an arcade-style computer game specifically designed and developed for use in the context of this research project. Each participant played the game by embodying an avatar they had created. The game required players to navigate a virtual environment by jumping onto moving beams and avoiding falls (see: Figure 1).

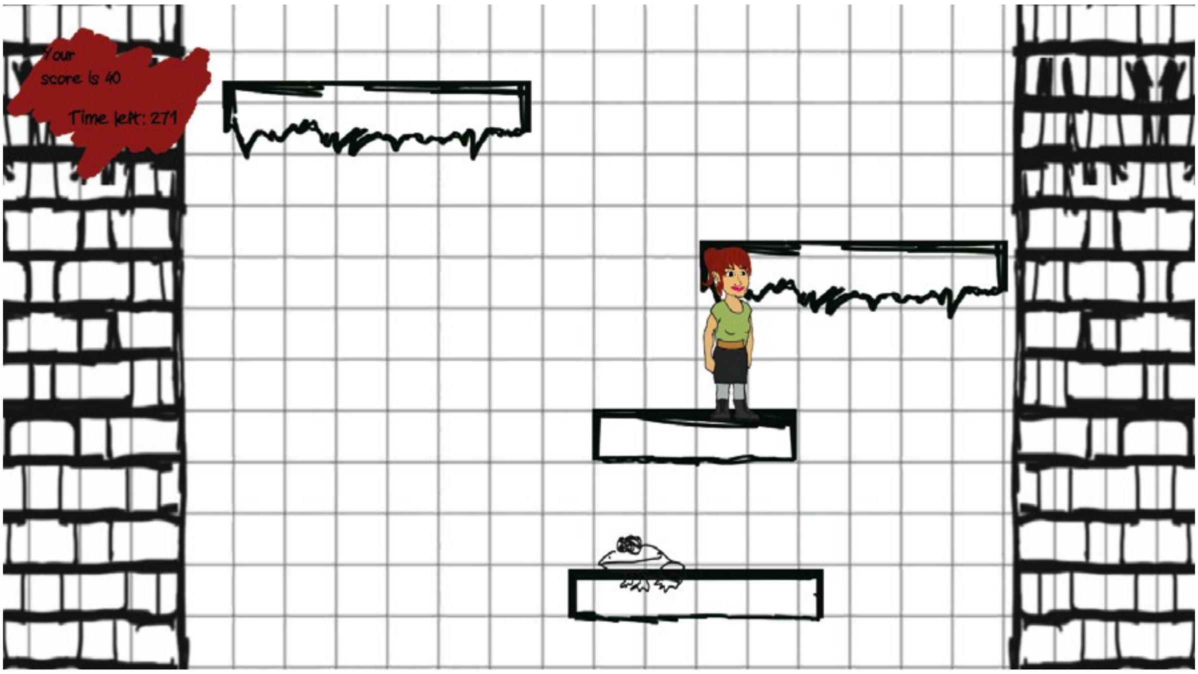

Figure 1. A screenshot from the Characterium computer game.

Figure 2. Examples of avatars created by adolescents

Table 1. Avatar evaluation sheet for field experts

	Please rate each nickname and each character on eleven dimensions on a scale from -2 to 2, where:	
	-2 indicates rating the nickname/ character as:	2 indicates rating the nickname/ character as:
Masculinity vs femininity of the nickname	Characteristically masculine (according to traditional notions of gender)	Characteristically feminine (according to traditional notions of gender)
Conventionality vs unconventionality of the nickname	Highly ordinary, typical	Highly sophisticated, atypical
Masculinity vs femininity of the character	Exhibits a pronounced set of (traditionally) masculine characteristics	Exhibits a pronounced set of (traditionally) feminine characteristics
Unattractiveness vs attractiveness of the character	Very physically unattractive, not considered to be part of the beauty canon	Very physically attractive, considered to fall within the beauty canon
Hostility vs friendliness of the character	Very hostile	Very friendly
Classic vs extravagant style of clothing	Dressed in a very ordinary, unsophisticated, simple way	Dressed in a very unusual, elaborate, fancy, original way
Unsociability vs sociability of the character	Very uncomfortable with socialising	Very keen on socialising
Lack of trust vs trust in the character	Very untrustworthy on important issues	Very trustworthy on important issues
Passiveness vs activeness of the character	A markedly passive approach to leisure activities	A markedly active approach to leisure activities
Closed-mindedness vs openness to experience	Very closed to experiencing new things	Very open to experiencing new things
Low vs high level of intelligence	Of very low intelligence	Of very high intelligence

Players earned points by successfully landing on beams and lost points when falling. Beam velocity increased progressively over the game duration. Controls consisted of the space bar (jump) and two arrow keys (move left or right). The game was played for five minutes. The objective was to accumulate the highest possible score within the time limit. The process of avatar creation occurred in several stages. Players were first required to select their avatars' gender (female or male), age, nickname, and skin colour (from four shades). Next, players customised their avatars' facial features, hairstyle, silhouette, clothing, and footwear. Options, with the exception of silhouette, were gender-specific to simulate real-world avatar design processes. Then, participants allocated 500 points across ten competencies (e.g., bravery, courage). Notably, these attributes did not influence in-game performance. Figure 2 provides examples of avatars created by participants.

Evaluations by field experts: The images of the created avatars were evaluated by a panel of nine field experts, all of whom declared having prior experience with avatar-based computer games. The evaluation process involved viewing a presentation containing 264 slides. The first four slides introduced sample avatars and nicknames to familiarise the experts with the evaluation criteria. The subsequent 130 slides displayed participants' nicknames, while the remaining ones featured their avatars. The experts received printed evaluation criteria (see: Table 1) and detailed instructions outlining the procedure.

The following variables were assessed:

- Physical dimensions of the avatars, which included masculinity-femininity and unconventionality of the nickname, masculinity-femininity, attractiveness, activeness, and extravagance of clothing style – the average score obtained for each dimension, calculated on the basis of the evaluations by the field experts. Each expert rated each dimension of each avatar on a scale ranging from -2 to 2. The scores for each dimension ranged from -2 to 2. A higher score indicated a higher degree of femininity and unconvention-

ality in the avatar's nickname, as well as a higher degree of perceived femininity, attractiveness, activeness, and extravagance of attire.
- Psychological dimensions of the avatars, which included friendliness, sociability, openness to experience, trustworthiness, and intelligence – the average score obtained for each dimension, calculated on the basis of the evaluations by the field experts. Each expert rated each dimension of each avatar on a scale ranging from -2 to 2. The scores for each dimension ranged from -2 to 2. A higher score indicated a higher degree of friendliness, sociability, openness to experience, trustworthiness, and intelligence of avatars.

The Identity Style Questionnaire (Senejko and Łoś, 2015) is an adaptation of the Revised Identity Style Inventory (ISI-5; Berzonsky et al., 2013) designed to measure three distinct identity processing styles. The tool consists of 48 statements, 36 of which constitute three diagnostic scales: informational identity processing style, normative identity processing style, and diffuse-avoidant identity processing style. The remaining items form a fourth scale measuring commitment. Research participants were asked to indicate the extent to which each statement applied to them on a scale of 1 (definitely does not apply to me) to 5 (definitely describes me). The severity of each identity style was determined by summing the scores obtained from the diagnostic questions pertaining to that particular style. Scores for each of the three subscales range from 9 to 45, with higher scores indicating greater intensity of a given style. In the studies of the Polish version of the questionnaire (Senejko and Łoś, 2015), Cronbach's alpha reliability coefficients were 0.77 for the informational style scale of 9 items (such as 'When facing a life decision, I try to analyse the situation in order to understand it.'); 0.68 for the normative style scale of 9 items (such as 'I think it is better to adopt a firm set of beliefs than to be open-minded.'); 0.71 for the diffuse-avoidant style scale of 9 items (such as 'I am not really thinking about my future now, it is still a long way off.'). The reliability analysis conducted during the validation of the tool in the current study demonstrated acceptable consistency for the identity style subscales. Cronbach's alpha coefficients were 0.68 for the informational style scale, 0.68 for the normative style scale, and 0.69 for the diffuse-avoidant style scale. Although the identity style scale coefficients obtained in the present study were lower than those reported in the Polish adaptation, they remained within an acceptable range for research.

2.3.1. Procedure

This procedure formed part of a broader research project funded by the Polish National Science Centre. Prior to commencing the study, permission was obtained from the Director of the relevant institution (school or boarding school) to recruit participants and conduct the research. Each adolescent took part in the study individually. Participation in the study was entirely voluntary, and no remuneration was provided. As all participants were minors, both the adolescents and their parents or legal guardians were required to provide written consent and sign GDPR compliance forms.In the beginning, the research participants were instructed to create their own avatars and subsequently control them within a computer game. After the gameplay session, participants were asked to complete a series of questionnaires, including the Identity Style Questionnaire. The entire procedure lasted approximately one hour. The research project received ethical approval from the Ethics Committee of the Institute of Psychology at Jagiellonian University (KE/05/032020).

3. Results

To address the research questions, statistical analyses were conducted using the IBM SPSS Statistics 25 software. Firstly, an analysis of basic descriptive statistics and a Shapiro-Wilk test were conducted. Results are presented in Table 2. The level of statistical significance adopted for all analyses was set at $\alpha = 0.05$.

Subsequently, a concordance analysis was conducted using Kendall's W coefficient to determine the level of agreement among the field experts. The field experts assessed the avatars across two dimensions:

Table 2. Basic descriptive statistics of variables measured by scales and questionnaires, and Shapiro-Wilk test results

Variables measured Identity Style Questionnaire	*N*	*M*	*Me*	*SD*	*Sk.*	*Kurt.*	*Min.*	*Max.*	*W*	*p*
Informational identity processing style	130	33.52	33.50	4.91	0.01	-0.67	23.00	44.00	0.98	0.099
Normative identity processing style	130	24.63	25.00	5.47	-0.04	-0.55	13.00	38.00	0.99	0.341
Diffuse-avoidant identity processing style	130	23.85	23.50	5.85	0.17	-0.58	11.00	37.00	0.98	0.164

Table 3. Concordance analysis of field experts – Kendall's W for the evaluation of eleven avatar dimensions

Traits assessed	Kendall's W	$\chi^2(129)$	*p*
Femininity of the nickname	0.75	875.85	<0.001
Unconventionality of the avatar's nickname	0.51	589.25	<0.001
Femininity of the character	0.68	784.49	<0.001
Style of clothing (extravagance)	0.31	364.95	<0.001
Attractiveness of the character	0.28	326.96	<0.001
Friendliness of the character	0.21	211.56	<0.001
Intelligence of the character	0.19	196.51	<0.001
Sociability of the character	0.23	209.33	<0.001
Trust in the character	0.21	221.10	<0.001
Activeness of the character	0.13	149.90	0.101
Openness to experience	0.17	171.23	0.008

physical traits (masculinity-femininity and unconventionality of the nickname, masculinity-femininity, attractiveness, activeness, and extravagant clothing style of the avatar) and psychological traits (friendliness, sociability, openness to experience, trustworthiness, and intelligence of the avatar). A concordance analysis was conducted using Kendall's W coefficient to determine the level of agreement among the field experts regarding their evaluations of the avatars. Detailed results of the analysis are presented in Table 3.

As evidenced by the data presented in the table, concordance among the field experts was statistically significant for all dimensions except for activeness. This indicates a lack of agreement among the experts. Consequently, this dimension will not be included in subsequent analyses. The remaining results were found to be statistically significant. The highest concordance was observed for the assessment of the femininity of the nickname (W = 0.75), the femininity of the character (W = 0.68), and the unconventionality of the avatar's nickname (W = 0.51). The remaining dimensions yielded lower concordance values, ranging between 0.17 to 0.31.

To examine the relationship between adolescents' identity styles and others' evaluations of their avatars' physical and psychological characteristics, Pearson's r correlation coefficients were calculated.

3.1. Adolescents' identity styles and others' evaluations of their avatars' physical characteristics

The first stage of the analysis investigated the correlation between adolescents' identity styles and others' evaluations of their avatars' physical characteristics. To this end, Pearson's r correlation analyses were conducted. Results are presented in Table 4.

As evidenced by the data presented in the table, a correlation was identified between adolescents' identity styles and others' evaluations of their avatars' physical characteristics. The results revealed a negative and weak correlation between the informational identity processing style and the extravagance of clothing style. This suggests that adolescents who exhibited a stronger informational identity processing style tended to create avatars whose attire was perceived as less extravagant. Moreover, a negative and weak correlation was observed between the normative identity processing style and the femininity of the avatar's nickname, the femininity of the character, and the attractiveness of the character. This suggests that the stronger the normative identity processing style

Table 4. Correlation between participants' identities and others' evaluations of their avatars' physical characteristics

Traits assessed		Informational identity processing style	Normative identity processing style	Diffuse-avoidant identity processing style
Femininity of the avatar's nickname	Pearson's r	0.13	-0.27	-0.08
	significance	0.132	0.002	0.359
Unconventionality of the avatar's nickname	Pearson's r	0.00	0.09	0.06
	significance	0.995	0.319	0.472
Femininity of the character	Pearson's r	0.09	-0.28	-0.11
	significance	0.327	0.001	0.196
Extravagant style of clothing	Pearson's r	-0.21	-0.02	0.15
	significance	0.014	0.830	0.092
Attractiveness of the character	Pearson's r	0.15	-0.22	-0.14
	significance	0.096	0.011	0.113

Table 5. Correlations between research participants' identities and others' evaluations of their avatars' psychological characteristics

Traits assessed		Informational identity processing style	Normative identity processing style	Diffuse-avoidant identity processing style
Friendliness of the character	Pearson's r	0.11	-0.17	-0.10
	significance	0.195	0.055	0.249
Intelligence of the character	Pearson's r	-0.03	-0.19	-0.03
	significance	0.701	0.030	0.742
Sociability of the character	Pearson's r	0.18	-0.07	-0.11
	significance	0.038	0.430	0.203
Trust in the character	Pearson's r	0.12	-0.25	-0.11
	significance	0.190	0.005	0.229
Openness to experience	Pearson's r	0.03	-0.09	-0.09
	significance	0.699	0.327	0.336

was in research participants, the less feminine (the more masculine) their avatars and nicknames and the less attractive their characters were perceived to be.

3.2. Adolescents' identities and others' evaluations of their avatars' psychological characteristics

In the next phase of the analysis, the relationship between adolescents' identity styles and others' evaluations of their avatars' psychological characteristics was examined. To this end, Pearson's r correlation coefficients were calculated. Results are presented in Table 5.

A correlation analysis revealed significant relationships between adolescents' identity styles and the evaluations of their avatars' psychological characteristics. The results indicated a weak and positive correlation between the informational identity processing style and the sociability of the character. This suggests that as the prominence of the informational identity style increased in participants, their avatars were perceived as more sociable. A negative and weak correlation was observed between the normative identity processing style and the intelligence and trustworthiness of the character. In other words, higher intensity of the normative identity style corresponded with lower ratings for intelligence and trustworthiness of avatars.

3.3. Discussion of findings

The primary aim of this study was to explore the relationship between adolescents' identity styles and others' evaluations of their avatars. It is essential to acknowledge that the perception of avatars by others may be influenced by a variety of factors, including the evaluator's motivations, experiences, and biases. Importantly, the perception of avatars as embodying certain traits does not necessarily imply intentional representation by their creators. For instance, an avatar perceived as sociable may not have been deliberately designed to exhibit this characteristic. Such interpretations would only hold validity if it could be conclusively demonstrated that avatars accurately reflect the adolescents' real-life identities and that the evaluations are entirely objective. However, these assumptions remain unverifiable. Nevertheless, avatars, as interactive components of virtual settings, are inherently subject to judgement by others.

The degree of concordance among the field experts was not high in this study, with greater concordance observed when assessing avatars' physical characteristics compared to psychological traits of avatars. This finding suggests that the experts were more in agreement on the traits easily discernible from physical appearance (such as attractiveness), whereas the traits that could be observed through interaction with the individual over an extended period (such as sociability) were evaluated more variably. In consideration of these findings, it can be proposed that the perception process of avatars mirrors the perception of humans in real life. Physical appearance often serves as an initial indicator of certain attributes, while psychological characteristics are inferred based on behavioural observations in various situations. In the absence of such interactions, the assessment of psychological traits becomes notably more challenging. Some researchers argue that avatars are perceived in a manner comparable to humans (e.g., Del Aguily, González-Gualdy, Játivy et al., 2021; Fysh, Trifonova, Allen, McCall, Burton, and Bindemann, 2021), whereas others highlight notable differences in the perception of avatars (e.g., Balas and Pacella, 2017; Kegel, Brugger, Frühholz et al., 2020). The findings of the current study lend support to the hypothesis that the perception of avatars aligns closely with that of humans.

Given the correlational nature of this study, it is not possible to determine causal directions for the observed relationships. Nevertheless, these findings offer a foundation for understanding and anticipating how adolescents may be perceived and treated in virtual environments. Due to the limited amount of studies on avatar perception, any hypotheses must necessarily draw upon data concerning the perception of humans in real-life contexts. It is crucial, however, to acknowledge that an individual's perception of a trait in real life may not always directly translate into their perception of that trait in virtual settings.

The results of this study indicate that as participants' informational identity style became more pronounced, their avatars were rated as less extravagantly dressed and more sociable. Conversely, as the severity of their normative identity style increased, their avatars and nicknames were described as less feminine (and more masculine), and the characters were rated as less attractive, intelligent, and trustworthy. No statistically significant relationships were identified for the diffuse-avoidant identity processing style.

The findings revealed that as the intensity of the informational identity style of the participants increased, there was a corresponding decrease in the perceived extravagance of their avatars. The perception of humans in real life through the lens of their attire has been demonstrated to influence the evaluation of several characteristics, including charisma (Brem and Niebuhr, 2021), attractiveness (Sidhu et al., 2021), worldview (Sandu, 2021), and professional competence (Forsythe et al., 1985; Forsythe, 1987). It can be inferred that adolescents with a pronounced informational identity style are perceived as adhering to more traditional norms in appearance, potentially limiting perceptions of charisma or deviation from established worldviews. The findings also revealed that as the intensity of the informational identity style of the participants increased, there was a corresponding increase in the perceived sociability of their avatars. The perceived sociability of individuals affects their perceived trustworthiness (Rice, Winter and Tokarski, 2015). It may be posited that adolescents who exhibit a more pronounced informational identity processing style will be better equipped to form more meaningful connections with other users.

As regards the normative identity processing style, it was found that as the intensity of this style increased in adolescents, their avatars and nicknames were described as less feminine (and more masculine), and the characters were rated as less attractive, intelligent, and trustworthy. In real life, femininity in women can elicit greater romantic interest from men (Fraccaro et al., 2010) but may be associated with reduced perceptions of professional competence (Fleischmann et al., 2016). This may indicate that as the intensity of the normative identity processing style in female adolescents increases, they are more likely to utilise virtual environments for professional purposes and less likely to engage there for the formation of intimate relationships. Research indicates that women tend to prefer masculine characteristics (Dixson and Brooks, 2013) or a combination of masculine and feminine characteristics (Lanter, 2008) in men. In light of the aforementioned data, it can be posited that adolescents with a stronger normative identity processing style will encounter fewer challenges in forming intimate connections in virtual settings. Attractiveness significantly influences perceptions across multiple domains, including employability (Behrend et al., 2012), intelligence (Jackson et al., 1995) and trustworthiness (Shinners, 2009), as well as elicit a greater willingness from others to provide them with assistance (West and Brown, 1975). It may therefore be hypothesised that adolescents exhibiting a high intensity of the normative identity processing style may experience greater difficulty in coping with professional contexts in virtual settings, and be less likely to receive assistance during crises. Individuals who are perceived as intelligent are more likely to engage in intimate relationships with others (Agadullina, 2020), are judged to be more attractive (Webster and Driskell Jr., 1983) and 'emotionally stable, extraverted, open to new experiences, and conscientious' (Mõttus et al., 2008). It may be posited that the more intense the normative identity processing style in adolescents, the more difficult it will be for them to form connections with others in virtual settings and the more negatively their personality will be perceived, which may subsequently impact their ability to form and maintain relationships. Individuals who are perceived as trustworthy are more likely to be offered professional opportunities (Fruhen et al., 2015) and to form social relationships (Sheldon, 2009; Hira and Bhogal, 2020). Arguably, the more intense the normative identity processing style in adolescents, the less the virtual world will be an appropriate place for them to address work-related issues and establish relationships.

Two critical points arise from the findings. Firstly, the relationship between an identity processing style and the perceived intensity of an avatar's trait may not consistently align with the individual's self-characterisation in real life. To illustrate, the findings of this study indicate a correlation between the prominence of the informational identity processing style and a reduction in the perceived extravagance of avatars' attire. Conversely, individuals with an informational identity processing style demonstrate openness to new ideas and values (Berzonsky, 2016). It may therefore be anticipated that they would be more inclined to experiment with their appearance. This inconsistency warrants further investigation into adolescents' self-perception of their avatars. Secondly, in some cases, an individual's identity processing style is linked to an increase in certain traits, the perception of which is context-dependent. For example, the more intense the normative identity processing style, the more the avatars are perceived as masculine (which is desirable in a professional context) and less intelligent (which is not desirable in a professional context). Humans, like avatars, are judged based on a combination of traits and characteristics. It is therefore somewhat reductionist to assume that a single trait perceived necessarily implies a specific behavioural response towards an individual. From the perspective of adolescents, it is essential to consider how perceived characteristics influence functioning in significant areas related to identity formation, such as career and intimate relationships. Furthermore, how adolescents are perceived by others influences their sense of identity.

3.4. Research limitations

This research study is not without limitations. Firstly, the in-game character generator was relatively simplistic and based on a traditional understanding of genders. In the context of exploring one's own identity, adolescents were not afforded an unlimited range of possibilities with regard to the creation of their virtual image. The traditional male-female dichotomy is a pervasive convention in the context of computer games (Blodgett et al., 2007). Secondly, the reliability indices for the scales of the Identity Style Questionnaire (Senejko and Łoś, 2015) were found to be suboptimal (Tavakol and Dennick, 2011). It is therefore recommended that the results be interpreted with caution. Thirdly, the attitude of field experts towards the concept of virtual representations was not assessed. Although these individuals had prior experience of playing computer games with avatars, they may have had negative experiences with avatars, which may have influenced their subsequent judgement. Fourthly, the amount of time dedicated by adolescents to the creation of their avatars was not measured. Such data would have been beneficial in determining the extent to which participants engaged in this activity.

4. Summary and further research directions

The present analysis aimed to determine whether a relationship exists between adolescents' identity styles and the external evaluations of their avatars made by others. Statistically significant relationships were found between research participants' identities and evaluations of their avatars' physical characteristics. With respect to the informational identity processing style, a negative correlation was observed with the extravagance of clothing style. For the normative identity processing style, a negative correlation with the femininity of the avatar and its nickname, as well as with its attractiveness, was established. Moreover, statistically significant relationships were found between research participants' identities and evaluations of their avatars' psychological characteristics. Specifically, the results revealed a positive correlation between an informational identity style and the character's sociability, while a negative correlation was observed between a normative identity style and the character's intelligence and trustworthiness. Future research should endeavour to explore the underlying mechanisms that contribute to these observed correlations. It would be particularly valuable to investigate whether the perception of avatars created by adolescents with distinct identity processing styles aligns with their actual behaviours in real-life contexts. The findings suggest that the ways in which individuals construct their avatars may offer insights into their self-identity. Moreover, it would be of interest to examine whether significant discrepancies arise in the external assessment of avatars associated with individuals exhibiting informational, normative, and diffuse-avoidant identity processing styles. The manner in which adolescents are perceived in virtual environments may influence their capacity to achieve key developmental milestones, such as career path exploration and the formation of intimate relationships.

A deeper understanding of the complex interplay between adolescents' identities and their virtual representations holds considerable potential for psychologists and therapists working with young people. Such professionals may collaborate with software developers to design game character generators that more accurately reflect individuals' identities and aspirations. This tailored approach could serve as a constructive mechanism for facilitating adolescent identity development. Furthermore, adapting game character generators to better meet the specific needs of adolescents may enhance the overall user experience and game perception.

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Bilingualism as a potential way to strengthen psychological resources: confidence and the ability to express one's emotions. Positive development through learning a foreign language – a pilot study[1]

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Abstract: This article addresses the issue of the relationship between knowledge of a foreign language and the phenomenon of cultural frames switching and indicators of positive development and functioning in adulthood. Previous research analyses have focused on psychological resources that facilitate learning a foreign language, or on the psychological benefits of bilingualism, e.g. in children of emigrants. However, there is a lack of research focused on the development of psychological resources as a result of fluent communication in several languages. The article is a report on a study conducted in a mixed model among 64 people aged between 18 and 49 (x = 22.19; sd = 5.27). The results indicate that the participants using a foreign language, compared to their native language, notice positive differences in the level of intensity of psychological resources. When using a foreign language, the participants observe greater self-confidence, freedom in expressing emotions and communicating. An increase in the sense of one's own competence, a positive attitude towards oneself and building bonds are fundamental indicators of a person's positive development. The key practical implications for the functioning of children, adolescents and adults were discussed in the discussion of the results.
Keywords: foreign language, bilingualism, cultural frames switching, positive development, self-confidence, positive psychology

1. Using a foreign language and cognitive and emotional functioning

Language is a system of verbal and non-verbal signs that enable interpersonal communication (De Stefani, De Marco, 2019). It serves an integrative function, strengthening social bonds, uniting people and enabling the creation of a community. Thanks to it, you can convey information and share knowledge, express feelings, emotions and attitudes, and also influence the behavior of others (Aronson, Wilson, Akert, 2006; Fabbro, Fabbro, Crescentini, 2022; Jensen, 2014).

In the 21st century, where language skills are rapidly developing and more and more people speak several foreign languages, it is interesting to look for the relationship between communicating in several languages and functioning in various spheres: cognitive, emotional, and interpersonal. Therefore, the analysis of cultural frame switching (CFS) is gaining popularity among researchers (Pope, 2020; Ramirez-Esparza et al. 2006; West, Zhang, Yampolsky, Sasaki, 2018; West, Muise, Sasaki, 2021) . This is a situation in which a person, when switching from one language to another, changes his or her behavior by adopting the culture and intensity of personality traits characteristic of the language in which he or she currently communicates (Hong, Chiu and Kung, 1997; Kreitler and Dyson, 2016; Ramirez-Esparza et al. 2006).

Previous research results suggest that switching cultural frames may concern several areas of functioning. Depending on the language used, cognitive

1 Article in polish language: https://www.stowarzyszeniefidesetratio.pl/fer/60P_BarM.pdf

abilities change: perception of time and events, problem solving, categorization of objects, and solving socio-moral dilemmas (Arieli, Sagiv, 2018; Bloom, 2000; Costa et al., 2014). Using a language with an extensive tense system appears to support understanding of complex temporal sequences and understanding the causality of events. Depending on the language used, the way of planning or organizing events also differs. In turn, the level of development of the grammatical structure may be important for multidimensional thinking. Using complex language structures encourages the development of more abstract categories of thinking, while using language with simpler grammar allows you to focus on specifics and direct experiences ("here and now"). Moreover, grammar and sentence structure play an important role in shaping cognitive processes such as memory, categorization and understanding (Imai, Kanero, Masuda, 2016). This conclusion is consistent with the results of research conducted in a group of bilingual children speaking English and Japanese. Differences in the form and function of narratives in both languages were observed. The language the child used was important for the organization of the story: the descriptions in English were organized around a sequence of events and focused on individual experiences, while the story in Japanese contained more references to social norms and the narrator emphasized the relationships between characters. Additionally, the structure of the narrative in English was more linear (there was a beginning, middle, and end), while in Japanese there was a focus on context and shared experiences (Minami, 2005). In turn, a study conducted among adult Americans of Mexican origin (who speak English and Spanish fluently) showed differences in the intensity of personality traits depending on the language used. The respondents speaking English were characterized by a higher level of extraversion, agreeableness, conscientiousness and openness to experience, as well as a lower level of neuroticism compared to the self-assessment made in Spanish (Ramírez-Esparza et al., 2006). Similarly, differences in the intensity of personality traits were observed in respondents when they spoke English or Swedish (Dylman, Zakrisson, 2023). Differences between individual languages may not only be important for the cognitive sphere and the intensity of personality traits, but also for the emotional sphere. In cultures with complex linguistic systems, it is possible to recognize and manage emotions more precisely. In turn, when using a language with a less complex system, expressing emotions becomes more spontaneous. It is worth paying attention to the issue of linguistic richness. Languages with a developed emotional vocabulary allow for a more accurate description of one's current state (e.g. Russian has more words to describe sadness), while those with a smaller range of emotional expressions may limit the way people experience, understand and express their feelings (Perlovsky, 2009). It varies depending on the language used not only a culture-specific way of expressing and regulating emotions, but and self-perception (Boski, 2022; Cheng, Rizkallah, Narizhnaya, 2020; Gross, 2008; Marian, Kaushanskaya, 2004; Matsumoto, Yo, Nakagawa, 2008; Sheppes, Suri, Gross, 2015). A study comparing attitudes towards oneself showed that using the Russian language facilitated stronger identification with collective values (seeing oneself as part of a social group) compared to individual values typical of Western culture. When using Russian, study participants were more likely to use expressions such as "our family" and were less likely to formulate sentences such as "me and my family." However, when using English, which is more associated with an individualistic culture, participants more often demonstrated values related to autonomy and more clearly marked their distinctiveness as individuals (although they still perceived themselves as part of a community). The results suggest that switching between cultures can affect the way you think about yourself, your self-presentation, and your perception of relationships such as family relationships (Marian, Kaushanskaya, 2004).

From the perspective of this study, the issue of linking bilingualism and cultural switching with positive development is interesting and adaptation to the challenges of adulthood. The study is part of the trend of analyzes concerning the connection between learning a foreign language and the development of psychological resources, e.g., increasing the level of self-esteem (Guban-Caisido, 2020; Rubio, 2021).

The theory of positive youth development comes from the need for the development of children at risk of social exclusion. Focuses on developing strengths and potential, and to a lesser extent on denying shortcomings and deficits (Barłóg, 2023). Researchers of positive development identify five key areas where high levels of intensity and satisfaction in an individual's life contribute to their successful adaptation in adulthood. The five indicators are: a sense of one's own competences (competence), a positive attitude towards oneself (confidence), concern for others (caring), the ability to solve dilemmas and socio-moral situations (character) and the quality of bonds (connection) (Barłóg, 2023; Geldhof et al. 2014, Lerner et al. 2005). A high level of the above-mentioned variables promotes, among others, life satisfaction and the implementation of development tasks (Barłóg, 2023; Dervishi et al., 2024; Mahadzirah et al., 2014; Orejudo et al., 2021; Shek, Leung, 2013). Currently, many preventive activities are carried out aimed at developing the participants' potential and their strengths. Often these programs focus on development through sports (Holt, 2016; Holt, Deal, Pankow, 2020; Newman et al. 2020), or other interests (Feenstra, 2015; Rice, Girvin, Primak, 2014). It is therefore worth considering whether the use of language talent can be a potential component of a preventive program for adolescents and adults, which is why this study focused on the analysis of the relationship between cultural switching, bilingualism and psychosocial functioning.

2. Own research methodology

2.1. Purpose and method

The purpose of the research was to analyze the relationship between use in a foreign language for bilingual people (speaking a foreign language fluently) and the intensity of indicators of positive development depending on the language used. Indicators of positive development include competence, confidence, character, caring and connection.

This study focused on the subjective state, i.e. the sense of change in the intensity of indicators of positive development depending on the language used. Due to the limited number of studies combining areas of positive development with switching cultural frameworks, the study was of a pilot nature and exploratory, in which a diagnostic survey was used. Previous research related to language acquisition has focused on quantitative analyzes (Lesiak-Bielawska, 2019), while for a more complete understanding of the phenomenon explored in the study, it was decided to conduct a survey combining the features of quantitative and qualitative research. In total, the survey consisted of 13 questions regarding the sense of change in psychosocial functioning depending on the language used.

The main research question of the presented work is as follows: do the following changes when using a foreign language: the sense of confidence, the sense of personal competence and the sense of interpersonal competence (character, caring and connection)?

The practical purpose of the work is to present recommendations regarding the use of a foreign language and the phenomenon of cultural switching in preventive programs for youth and adults.

2.2. Research sample

The research involved 64 people aged 18-49 ($x = 22.19$; $sd = 5.27$), including 43 women, 15 men and 6 people who chose other. All surveyed people have been communicating fluently in English for at least three years. Among the respondents, 36 people indicated that they use a foreign language every day (56.3% of the surveyed group), 18 people use a foreign language several times a week (28.1% of the surveyed group), in turn, 4 people use a foreign language several times a month (6.3% of the surveyed group), and 6 people use it less frequently (9.4% of the group). Of the 64 people surveyed, 39 indicated that in addition to English, they could also communicate in another foreign language.

3. Results

Of the 64 surveyed people, 39 feel a change in behavior when using a foreign language (60.9% of the survey group). In turn, 9 people are not sure (14.1% of the group), and 16 participating in the study believe that the type of language used is not related to the intensity of individual behaviors (25% of the group). This difference is statistically significant ($\chi^2 = 23.09$; $p<0.001$).

Table 1. Noticing changes in behavior depending on the language used

	n	χ^2	p
I notice a change	39		
I'm not sure	9	23.09	<0.001
I don't notice the change	16		

Source: own research

This means that significantly more people feel that their individual behavior changes depending on the language they use. Among the respondents, 29 people indicate that they feel more confident when using a foreign language, and 27 people observe greater ease in expressing emotions. Moreover, 9 participants in the study notice differences in the way of thinking–respondents reason more flexibly when using a foreign language.

Non-verbal communication also differs (gestures, facial expressions, body postures), as many as 49 out of 64 surveyed people notice such a difference, which is a statistically significant result ($\chi^2 = 54.41$; $p<0.001$).

Table 2. Noticing changes in one's own nonverbal communication depending on the language used

	n	χ^2	p
I notice a change	49		
I'm not sure	5	54.41	<0.001
I don't notice the change	10		

Source: own research

The question about the source of differences in behaviour was also asked, as many as 47 of the respondents pointed out that changes in behaviour may result from the structure of the language, while 22 people emphasised the importance of cultural differences that are adopted when using a foreign language, and an additional 38 responses of the respondents indicated adopting the attitudes of people from foreign cultures in interaction, i.e. an attempt to adapt to the interlocutor.

The relationship between the type of foreign language and behavior was also analyzed. Among the 64 people studied, 26 people indicated that each foreign language had a different effect on their current behavior, 23 people were not sure, and 15 participants did not notice any differences in behavior depending on the type of foreign language used. This difference is not statistically significant ($\chi^2 = 3.03$; $p = 0.22$). Therefore, the type of language used, whether it is English, German or Spanish, does not matter to the respondents, but the interaction in the foreign language itself. Then, the same question was analyzed in a group of 39 people studied, among those who also indicated knowledge of a foreign language other than English. In this case, 20 people noticed that each foreign language had a different effect on their behavior, 13 people were not sure, and 6 did not notice any change. The difference is statistically significant ($\chi^2 = 7.54$; $p = 0.023$). The people surveyed who notice differences in their functioning when using a foreign language were asked an open question about the differences they notice. The people surveyed indicated several key topics:

3.1. Increased confidence

One of the respondents states:
"*I am shy when speaking Polish. I am quite confident when speaking English. I am talkative when speaking Spanish*". Another respondent adds: "*I am more adventurous when speaking English, it is easier for me to flirt and joke*".

For another respondent, increased self-confidence is also associated with greater anonymity and freedom:
"*I think that in a foreign language I do not draw as much attention if I say something stupid. I also feel more open. Surprisingly, I also have the impression*

that my shyness decreases with each passing day when I communicate in a foreign language".

3.2. Increase in the ease of expressing one's emotions

Of the 64 participants, 27 notice differences in the quality of expressing their emotions, as well as understanding the emotions of others. One of the women surveyed states that
"*It is definitely easier for me to open up emotionally in English, I don't like talking about my feelings in my native language*".

Another person surveyed notices differences in the level of openness and ease in joking:
"*when I use a foreign language, my sociability, extroversion, and sense of humor become more visible*".

3.3. Increased competence in the area of building relationships with others

The participant notices greater joy in interacting with others when using a foreign language:
"*when speaking a foreign language, I feel satisfaction from communicating with other people*".

Similar differences are observed by another person participating in the study:
"*when using a foreign language, I notice a changed approach to the environment, people, and an improvement in mood and more positive emotions*".

Another of the participants reports an increase in emotional competences concerning understanding her own and other people's emotions:
"*I adopt behaviors typical of people from a given region, e.g. when speaking French, I feel distinguished and elegant, and when speaking English, I feel open and full of energy*".

Then, the respondents were asked about their interpretation of the sources of easier expression of emotions in a foreign language and greater self-confidence. As many as 28 respondents indicated a more direct message in a foreign language (especially in English). The Polish language is more formal, which creates distance in interaction (e.g. the formulation "Mr./Mrs."). In addition, 22 people point out that the English language is direct, it is easy to express emotions, with single words or short messages, which are often interspersed in today's Polish language.

In turn, 7 respondents point to a sense of anonymity. While abroad, anonymity makes it easier to express yourself and your emotions.

Discussion

The analyses conducted in the study allowed us to achieve the set goal. There is a connection between using a foreign language and a sense of: increased self-confidence, level of personal competences and building relationships and expressing one's own emotions. These are key indicators of positive development that are important for life satisfaction, mental resilience, or functioning in various social environments (Abdul Kadir, Mohd, 2021; Barłóg, 2023; Dervishi et al., 2024; Mahadzirah et al., 2014; Orejudo et al., 2021; Shek, Leung, 2013).

Previous studies linking cultural frame switching, foreign language skills, or bilingualism with psychological resources have focused on the relationship between an individual's self-esteem and foreign language learning, or on the relationship between psychological variables and the quality of foreign language learning (Guban-Caisido, 2020; Rubio, 2021; Wang, Derakhshan, Zhang, 2021). Researchers indicate that psychological variables such as optimism, engagement, mindfulness, and resilience are important for foreign language learning (Derakhshan, 2022). Although there are studies showing the positive consequences of knowing foreign languages for the development of, for example, self-esteem (Guban-Caisido, 2020; Rubio, 2021), there are still few publications focusing on the possibilities of developing the cognitive sphere through foreign languages and thus strengthening the indicators of adaptation to adulthood related to positive development: competence, caring, confidence, connection and character (Barłóg, 2023; Geldhof et al. 2014; Ostaszewski, 2014). Considering that optimism and resilience are conducive to learning foreign languages, it is worth paying attention in subsequent studies to whether the relationship is bilateral, because the sense of competence that fluent communication in a foreign language gives may be a source of strengthening optimism, mindfulness, or resilience. In the concept of positive development, improving the strengths and potential of an individual is the key to strengthening global psychological resources. Prevention programs in the trend of positive development focus, for example, on sports, where an individual transfers acquired social competences from cooperation with a team to other areas of social functioning (Barłóg, 2023; Holt, 2016; Holt, Deal, Pankow, 2020; Newman et al. 2020). A similar sphere of prevention may be acquiring language competences, which can then be trained in various social interactions, where it is easier for the subjects to express their emotions, feelings, or feel at ease in a foreign language, which is confirmed by the results of the conducted study. It is therefore worth implementing preventive programs in which a foreign language and the phenomenon of switching cultural frames can be used in social interactions, expressing emotions and feelings, gaining self-confidence, or building bonds. It is also important to improve the way a foreign language is taught from the earliest years, in nurseries, kindergartens and schools, so that learning a language is associated with its advantages, and not with the unpleasant obligation of passing a subject in subsequent grades.

This study has several significant limitations. It was conducted on a small sample of 64 people, which, although sufficient to consider the results as a valuable pilot, requires expansion in further research into this previously underexplored area. The study focuses not so much on the actual development of individual indicators of positive development, but on the sense of their growth in situations where a foreign language is used. However, it is necessary to conduct more extensive research (which would use a battery of reliable tests to measure individual variables), including longitudinal studies that take into account the use of a foreign language as one of the elements of the development program. Such longitudinal studies could provide an answer to the question of whether a regular sense of growth in the analyzed areas of positive development can actually lead to lasting developmental change. Despite limitations such as the lack of use of comprehensive and reliable psychometric tools, the adopted research model seems adequate in the context of pilot studies and initial exploration of the problem. The combination of quantitative and qualitative approaches in the applied mixed method allowed for the use of the advantages of both approaches (Malewski, 2023), which makes the study a valuable starting point for further analyses. It is also worth noting that the languages compared were quite culturally close to each other; in the case of cultural switching, a sense of cognitive dissonance or lack of authenticity may appear between two distant cultures (Pope, 2020; West et al. 2018; West et al. 2021).

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Psychological resilience of grandparents and relationships with grandchildren in a family of an adult child. Dimensions of parentification of grandparents in the family[1]

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Abstract: The purpose of the study was to capture the relationships between closeness, frequency of contact with grandchildren and authority and the dimensions of grandparents' mental resilience. The results were collected from a sample of 80 study subjects using two tools: the Mental Resilience Scale (SPP–25) and an original ad hoc scale defining intergenerational relations, closeness – frequency – authority. The effects allowed us to address the research problem of whether there are relationships between the dimensions of grandparents' mental resilience and their closeness, frequency of contact with grandchildren and grandparents' authority. It was expected that the higher the mental resilience demonstrated in its dimensions studied in grandparents, the more significantly grandparents will demonstrate closeness and frequency of contact with grandchildren, while at the same time being an authority for their grandchildren. The results proven that some dimensions of psychological resilience show correlations with the characteristics of intergenerational relations. Among them, a dominant one are openness to novelty and sense of humor, as well as optimistic attitude to life and the ability to mobilize in difficult situations, which enter into positive significant interdependencies with closeness to grandchildren. On the other hand, personal coping skills and tolerance of negative emotions show a negative significant correlation with the frequency of contacts with grandchildren. Tolerance of failure and treating life as a challenge reveal a negative correlation with the authority of grandparents in grandchildren. In conclusion, the results constitute the beginning of a discussion on the issue of parentification of grandparents, a concept identified with clinical child psychology.
Key words: intergenerational relations, grandparents – grandchildren, family

1. Theoretical introduction to the research

Grandparents are intermediaries in the education of their grandchildren, as they are more and more involved in lives of their grandchildren by dedicating time, skills, knowledge and experience as well as their feelings and motivation, which greatly promotes children development. Grandparents – parents – grandchildren help one another (Filus, 2006; Napora, 2019), and grandparents' openness to their needs, their kindness, readiness to help, and genuine concern contribute to building correct relationships based on reciprocity (Zięba-Kołodziej, 2012). To that effect, everyday life and the scientific literature confirm that shared leisure experiences with grandparents shape intergenerational learning, which benefits not only families but also society (Veenstra, Patterson, 2012). There are tangible benefits associated with these intergenerational learning practices for both age groups. On the one hand, they have positive factors for the holistic, ongoing developmental process in which grandchildren find themselves, resulting from the transmission of social and emotional values, cultural capital and traditions. Reports concerning grandparents involvement in a family of an adult child show that about 80% of grandparents emphasise that they play with their grandchildren and/or take part in various recreational activities. The least frequently mentioned activities are helping with homework (39%) and caring for the child in case of illness (36%). Except for leisure activities, much higher percentage of grandmothers reported undertaking all the activities listed in the report. The results show that it is grand-

1 Article in polish language: https://www.stowarzyszeniefidesetratio.pl/fer/60P_Napo.pdf

mothers who, in the same family, are more likely than grandparents to prepare meals their grandchildren, help them with homework, care for them when they are ill and take them to school (Di Gessa, Zaninotto, Glaser, 2021). For some grandchildren, grandparents are a continuous source of emotional support when they have not received this support from their parents since birth (Werner, 2000).

As concerns psychological resilience, researchers agree that it refers to a resilience that allows one to adapt and to maintain and recover their mental health despite experiencing trauma (Ogińska-Bulik, Juczyński, 2010). Individuals characterised by a high level of psychological resilience are able to perform well despite being in a situation that is difficult and stressful for them. They are able to maintain an adequate level of competence in a situation that is highly threatening for them, or to recover their abilities and competences after a negative experience, e.g. after a trauma. Resilience is positively associated with more favourable mental health and self-esteem. Individuals with higher resilience compared to those with low resilience are characterised by higher intelligence and lower markers of psychopathology symptoms (Robins et al., 1996). High resilience has a protective function against risky behaviours and behaviours harmful to health (Ogińska-Bulik, Juczyński, 2010).

Involving grandparents in the childcare means that they often replace parents, becoming playmates and life mentors (Brzezinska, 2000). Above all, relationships with grandparents facilitate the acquisition of competence, patience, responsibility and perseverance, life wisdom and the ability to overcome challenges (Napora, 2017). Grandparents are also a source of support for parents by providing instrumental help in caring for the grandchild, financial and emotional support, sharing experiences (Silverstein, Long, 1998). In a family crisis, they act as a surrogate parent (Napora, 2016). Grandparents have always played a fundamental role in passing on values to their grandchildren (Coall, Hilbrand, Sear, Hertwig, 2018). This role is even stronger when they take over the care, upbringing and education of their grandchildren.

The term parentification refers in the literature to the relationship between a child and its parents (or one of the parents). Minuchin (1985), analysing this phenomenon from the perspective of the theory of family systems, saw its essence in the reversal of roles in the family. Role reversal in parentification involves the integration of children into the parental subsystem. Chase (1999) refers to parentification as change of roles, functional, emotional or both, in which the child sacrifices its own needs: the need for attention, security and receiving developmental support (guidance) in order to accommodate and care for the instrumental or emotional needs of the parent. The concept of parentification of grandparents has so far not been used in research on grandparents, or considered in the context of three generations. It has been assumed that the term refers to the relationship between the child's parents and grandparents, as well as the relationship between the grandchild and grandparents. Parentification of grandparents means the support expected by the adult child's family necessary for its proper functioning. In analogy to the parentification of the child, there is a role reversal here. The grandparents become part of the parental subsystem and play the role of the parent with regard to the grandchild, or–with regard to either of the grandchild's parents–they can provide the support provided by the spouse (Napora, Kozerska, Schneider, 2012). For example, in a single mother's family, parentification of grandparents is a situation in which they provide same support to the child and the mother as the father does in full families (Napora, 2019). This results in the grandparents' role transferring towards the father's role (Napora, 2018). It can be assumed that under certain conditions (e.g. death of the grandchildren's father, break-up of the children's marriage) parentification of grandparents can be beneficial both for the grandparents and for other family members. It can be a protective factor and help to compensate for the negative effects of such family members' experiences of difficult life situations.

The literature emphiseses that the process of parentification can have serious psychological consequences for an individual. An important issue is at what stage of life this phenomenon emerged, whether it started to develop or whether support from loved ones appears, and how long it lasts (Haxhe, 2016). According to the available knowledge, no previous studies have analysed the associations of grandparent resilience with closeness, frequency of contact with grandchildren or authority.

Intergenerational relationships are important sources of social and emotional support for older adults in maintaining their emotional well-being (Guo, Aranda, Silverstein, 2009). Empirical studies have shown that young adults who had close relationships with their grandparents during their entry into adulthood provided greater instrumental and emotional support to their parents compared to those who described their relationships with their grandparents during their entry into adulthood as distanced. The results are interpreted in the context of multigenerational interdependence in families and the sensitivity of young adults to the needs of their older parents through their earlier relationship with their grandparents (Hwang, Brown, Silverstein, 2022). Moreover, it was also noted that grandparents directly influence the status attainment and educational development of their grandchildren, as grandparents are increasingly involved in the process of raising their grandchildren in today's society, resulting in greater opportunities for direct interaction and communication between grandparents and their grandchildren (Zhang, Li, 2019).

It was assumed in this project that grandparents describing themselves as highly resilient would be more likely to demonstrate closeness and frequency in their relationships with their grandchildren, and that authority would be highly valued by their grandchildren. The assumption was based on a prediction in the literature which indicates that grandparent involvement increases in response to adverse life events in the family of their grandchildren and when there is a bigger need of a recipient for help (Coall et al. 2018). Furthermore, the study will highlight the importance of grandparents in catalysing development and improving wellbeing across generations. The role of grandparents in the upbringing of grandchildren is not empirically recognised in Polish settings. This topic issue is usually overlooked by researchers and rarely becomes the focus of scientific interest, despite interesting results coming from abroad. That is why, it can be expected that the presented results fill the research niche to some extent, and that the results will contribute to the strengthening of preventive measures aimed at grandparents and their grandchildren (Napora, 2016).

2. Purpose, research problems and hypotheses

The purpose of the research was to capture the relationships between closeness and frequency of contact with grandchildren and grandparents' authority, as related to the psychological resilience of the grandparents studied. In order to achieve the purpose, the following research questions were made: 1) are there relationships between dimensions of grandparents' psychological resilience and their closeness to their grandchildren, and if so, of what sign and strength? 2) of what sign and strength are there relationships between dimensions of grandparents' psychological resilience and their frequency of contact with grandchildren?, 3) what is the strength and sign of the relationship between dimensions of grandparents' psychological resilience and their authority with grandchildren?, 4) can closeness and frequency of contact with grandchildren be a feature of parentification of grandparents in an adult child's family? It was expected that grandparents with higher resilience manifested significantly more closeness and frequency of contact with their grandchildren, compared to grandparents with lower psychological resilience, and were an authority to their grandchildren.

3. Method

The Resilience Measurement Scale (The SPP) (Oginska–Bulik, Juczynski, 2008) contains 25 questions creating a five-factor construct. The SPP-25 is made up of 5 factors: perseverance and determination in action; openness to new experiences and a sense of humour; personal competence to cope with and tolerance of negative emotions; tolerance of failure and treating life as a challenge; and an optimistic attitude to life and the ability to mobilise oneself in difficult situations. The scale had satisfactory psychometric properties–Cronbach's α reliability coefficients for the subscales were 0.67-0.75. To assess the grandparents' relationship with their grandchildren, an original ad hoc scale constructed from three parts was used. Each part dealt with a different aspect of the relationship under the research. 1) frequency of contact with their grandchildren (for example: *how many times do you see your grandchildren during the week?*), 2) closeness in the grandparents' relationship with their grandchildren (for example: *have you attended and/or do you still attend an important event in your grandchild's life, such as a christening, first communion or school celebration?*), 3) perception of grandparents as an authority figure (among other things: *how often do you share your opinion with your grandchildren about their behaviour or conduct?).* The grandparents surveyed responded to 21 questions. The scale measures the grandparents' relationship with their grandchildren in terms of closeness, frequency of contact and authority. The socio-demographic metric complemented the tools and was used to collect descriptive data of the study group. The grandparents surveyed had grandchildren. Data describing the group are included in Table 1.

Table 1. Characteristics of the study participants

	N	*n* (%)
Sex	80	
F		46 (57.5%)
M		33 (41.2%)
none		1 (1.2%)
Size of the place of residence	80	
Village		19 (23.8%)
50 k		9 (11.2%)
50-150 k		16 (20.0%)
150-500 k		32 (40.0%)
>500 k		4 (5.0%)
Education	80	
Primary		24 (30.0%)
Vocational		29 (36.2%)
Secondary		17 (21.2%)
university education		10 (12.5%)

The results presented in the table are ordered in descending order: Sex: F (n = 46; 57.5%), M (n = 33; 41.2%), none (n = 1; 1.2%), size of the place of residence: 150-500 thousand (n = 32; 40.0%), Village (n = 19; 23.8%), 50-150 thousand (n = 16; 20.0%), 50 thousand (n = 9; 11.2%), over 500 thousand (n = 4; 5.0%), Education: Vocational (n = 29; 36.2%), Primary (n = 24; 30.0%), Secondary (n = 17; 21.2%), Higher (n = 10; 12.5%). Basic descriptive statistics for the age variable of respondents are presented in Table 2.

Among the subjects, the mean value for the age variable was $M = 58.21$ ($SD = 4.854$).

4. Results

The following statistical methods were used for the analysis: the rho-Spearman monotonic correlation coefficient, which allows the strength and direction of the monotonic relationship between two variables to be assessed. The analysis was carried out using the Jamovi statistical package and in IBM SPSS software. Due to the nature of the distributions, non-parametric variables were used for the analyses. The relationship between quantitative variables was tested using Spearman's correlation coefficient. For ordinal variables, the same type of coefficient was used. The level of statistical significance was set at $p < 0.05$. The obtained coefficient values are presented in Tables 3. to 6.

Data analysis carried out at the level of descriptive statistics (Table 3.) showed that, in the grandparents' sample, the mean highest score for the dimensions of resilience (M = 11.94, SD = 2.961) relates to tolerance of failure and treating life as a challenge. The lowest, for resilience and determination to act (M = 10.94, SD = 2.543).

Table 2. Basic descriptive statistics for the age

Variable	*N*	*M*	*SD*	*Me*	*Min.*	*Max.*	Skewness	Kurtosis
Age	80	58.21	4.854	58.00	50.00	65.00	-0.12	-1.19

N–number of valid observations, *M*–mean, *SD*–standard deviation, *Me*–median, *Min*–minimum value, *Max*.–maximum value

Table 3. Descriptive statistics of psychological resilience

Dimensions of psychological resilience	*N*	*M*	*Me*	*SD*	*Min.*	*Max.*
Resilience and determination	80	10.94	11.00	2.543	5	16
Openness to new experiences and a sense of humour	80	11.53	12.00	2.756	5	17
Personal competence to cope and tolerance of negative emotions	80	11.84	12.00	2.441	7	17
Tolerance for failure and treating life as a challenge	80	11.94	12.00	2.961	5	19
An optimistic attitude to life and ability to mobilise in difficult situations	80	11.75	12.00	2.776	5	19

Table 4. Spearman's *rho* coefficient values for the strength of the association between grandparents' psychological resilience and their closeness to their grandchildren

Resilience \ Coefficients		Grandparents' closeness operations						
		8.	9.	10.	11.	12.	13.	14.
Resilience and determination	*rho*	0.156	0.028	-0.031	-0.105	0.087	-0.023	-0.113
	p	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.
Openess	*rho*	0.141	0.01	0.016	0.081	-0.080	0.203	0.191
	p	n.i.	n.i.	n.i.	n.i.	n.i.	0.071	0.089
Personal competences	*rho*	-0.041	-0.109	-0.117	0.110	-0.165	-0.048	-0.131
	p	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.
Tolerance of failure	*rho*	0.061	-0.043	0.039	-0.161	-0.034	-0.052	0.031
	p	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.
Optimistic attitude	*rho*	0.190	-0.045	0.001	-0.116	-0.040	-0.238	0.071
	p	0.092	n.i.	n.i.	n.i.	n.i.	0.033	n.i.

Identification of operands in Table 4: 8. Organising joint outings with grandchildren (e.g. trips, holidays). 9. Talking to grandchildren about their interests. 10. Grandparents' participation in family celebrations, e.g. birthdays, holidays with grandchildren. 11. Visits by grandparents to grandchildren, e.g. in ilness. 12. Grandparents' participation in important events in grandchild's life, such as baptism, first communion, school celebrations. 13. Belief in grandchildren's desire to learn about grandparents' lives and experiences. 14. Grandparents sharing their life story with their grandchildren.

The first research question addressed was the sign and strength of the relationship between the dimensions of grandparents' psychological resilience and their assessment of closeness to their grandchildren. The results in Table 4 illustrate a weak significant relationship between the dimensions of psychological resilience and the variable analysed – closeness to grandchildren.

Significantly weak positive Spearman's *rho* coefficients were noticed between openness and the belief in the grandchildren's willingness to learn about both their grandparents' lives and experiences ($p = 0.071$) and their grandparents' sharing of their life story ($p = 0.089$). The results illustrate some congruence of openness to new experiences and a sense of humour with a willingness to pass on their history and wisdom to the younger generation. A weak significant relationship was also found between an optimistic attitude towards life and the ability to mobilise in difficult situations, and closeness with grandchildren through the form of organising leisure time together ($p = 0.092$). The same dimension of resilience shows a statistically significant relationship with the belief that grandchildren want to learn about their grandparents, life and experiences ($p = 0.033$).

The second research issue reduced to capturing the sign and strength of the relationship between the dimensions of grandparents' psychological resilience and the assessment of the frequency of contact with grandchildren, the results are presented in Table 5.

Table 5. Spearman's *rho* coefficient values for the strength of the association between grandparents' psychological resilience and frequency of contact with grandchildren

Resilience \ Coefficients		Frequency of contact operands						
		1.	2.	3.	4.	5.	6.	7.
Resilience and determination	*rho*	-0.048	-0.002	0.140	-0.065	0.176	-0.094	0.153
	p	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.
Openess	*rho*	0.033	0.043	-0.034	0.160	0.077	-0.046	0.131
	p	n.i.	n.i.	n.i.	n.i.	n.i.	n.i	n.i.
Personal competences	*rho*	0.004	0.087	-0.049	0.044	-0.197	0.154	-0.110
	p	n.i.	n.i.	n.i.	n.i.	0.079	n.i.	n.i.
Tolerance of failure	*rho*	-0.114	-0.083	0.100	0.118	-0.066	-0.159	0.167
	p	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.
Optimistic attitude	*rho*	-0.162	-0.155	0.089	-0.187	0.121	-0.140	-0.088
	p	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.

Identification of operands in Table 5: 1. Frequency of seeing grandchildren. 2. Frequency of remote conversations with grandchildren per week. 3. Regularity of message exchange with grandchildren via instant messaging. 4. Satisfaction with frequency of contact with grandchildren. 5. Assessment of interest by grandchildren in keeping in touch with grandparents. 6. Taking the initiative to contact each other on both sides. 7. Regularity of helping grandchildren with tasks they perform.

Table 6. Spearman's *rho* coefficient values for the strength of the relationship between grandparents' psychological resilience and their authority in grandchildren

Resilience \ Coefficients		Grandparents' authority operands						
		15.	16.	17.	18.	19.	20.	21.
Resilience and determination	*rho*	0.148	0.077	0.069	-0.101	-0.033	0.206	-0.050
	p	n.i.	n.i.	n.i.	n.i.	n.i.	0.066	n.i.
Openess	*rho*	0.050	0.079	0.102	0.201	0.164	-0.090	0.078
	p	n.i.	n.i.	n.i.	0.073	n.i.	n.i.	n.i.
Personal competences	*rho*	-0.112	0.003	-0.162	0.012	-0.107	-0.058	-0.135
	p	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.
Tolerance of failure	*rho*	-0.040	-0.174	-0.104	0.062	0.083	0.081	-0.210
	p	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	0.061
Optimistic attitude	*rho*	0.101	-0.001	0.012	-0.045	0.054	0.130	0.046
	p	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.	n.i.

Identification of operands in Table 6: 15. Do you talk to your grandchildren about your life and experiences? 16. How often do you share your opinion with your grandchildren about their behaviour, conduct? 17. Do you think your grandchildren realise how important they are to you? 18. Have you ever felt that your grandchildren appreciate your contribution to their lives? 19. Do your grandchildren know that they can count on you when they need you? 20. Do you feel appreciation in the eyes of your grandchildren? 21. Do you get the impression that your grandchildren listen to what you say to them and what you offer them?

The results in Table 5. show a weak significant relationship between the dimensions of psychological resilience, personal coping competence and tolerance of negative emotions and the frequency of grandparents' contact with their grandchildren by assessing the grandchildren's interest in maintaining relationships with their grandparents ($p = 0.079$). The result suggests a dependence of intergenerational relationships on grandparents' personal competence in coping with negative emotions.

In contrast, an illustration of the third problem formulated in the form of a question, about the strength and sign of the relationship between grandparents' psychological resilience and their authority with their grandchildren, is presented in the following Table 6.

The results presented in the table show a significant positive relationship between the dimensions of mental resilience, perseverance and self-determination, and grandchildren's evaluation of their grandparents' authority through recognition in the eyes of their grandchildren ($p = 0.066$), and between openness to new experiences and grandchildren's perception of appreciation of their grandparents' contributions to their lives ($p = 0.073$). In addition, a significant negative association was obtained between the dimensions of psychological resilience, Tolerance to failure, and experiencing attention/listening in grandchildren ($p = 0.061$).

5. Discussion of results

Nowadays, family structure and stability are changing, and the functions of grandparents are also changing. Taking up these roles can be a source of closeness, joy and understanding for grandchildren, grandparents become a source of love, wisdom and support (Dendek, Kempa, Nowak-Gołąb, Wojcieszuk-Śmitkowska, 2023). The aim of this study was to capture the relationships between proximity and frequency of contact with grandchildren and grandparents' authority, considering the type of psychological resilience dimensions in the subjects. It was expected that grandparents with higher dimensions of psychological resilience would be closer in their relationships with their grandchildren and have more frequent contact with them, compared to grandparents with lower resilience in the dimensions manifested. In addition, they will be an authority figure for their grandchildren. The study examined how grandparents described their relationships with their grandchildren, in which they rated three overarching characteristics of these relationships–closeness, frequency of contact and ratings of authority.

Four research problems were formulated. The first, whether there are relationships between the dimensions of grandparents' psychological resilience and their closeness to their grandchildren, and if so, of what sign and strength, could not be answered unequivocally. The results showed that the dimensions of grandparents' psychological resilience, such as, openness to new experiences and a sense of humour, as well as an optimistic attitude towards life and the ability to mobilise in difficult situations, show significant positive relationships with emotional closeness with grandchildren. The time spent together is an opportunity for intergenerational relationships to form and for trust to be placed in each other. Sometimes grandparents fulfil a bonding function for the family, especially grandmothers, who in difficult family situations meet the emotional needs and conditions of existence (Appelt, 2007). Thanks to their wealth of experience, life wisdom, grandparents pass on to their grandchildren certain values, norms, life patterns that are desirable from an educational perspective (Szarota, 2015, p. 32). On the other hand, the dimension optimistic attitude to life and the ability to mobilise in difficult situations showed a significantly negative relationship with the evaluation of the belief that grandchildren are interested in the life and experience of grandparents. Satisfaction related to the grandparent-grandchild relationship is dependent on the emotional support that grandparents provide if even grandchildren live far away from them. Supporting grandchildren through proximity allows young people to feel secure in their new life circumstances at the beginning of their adulthood. In general, it can be said that the reciprocity and intensity of social support occurring on the basis of family relationships between grandparents and grandchildren has a positive impact on the health and sense of well-being in both generations. In other words, the more support resulting from the closeness of the relationship, the more favourable the psychological and social effects on the participants of the multigenerational family system. This regularity is worth emphasising considering the broader social context, as the diversity of family situations is undoubtedly a factor that co-determines the overall situation of a community (Napora, 2016). The results may provide a rationale for the claim that relational closeness may protect the grandchild from the occurrence of behavioural problems, peer problems and maladaptive prosocial behaviour.

The second research problem expressed in the question, about the sign and strength of the associations found between the dimensions of grandparents' psychological resilience and their frequency of contact with grandchildren, also cannot be answered clearly. The dimension, personal coping competence and tolerance of negative emotions, showed a negative weak relationship with the frequency of grandparents' contact with their grandchildren. The result suggests that grandparents with high psychological resilience have less contact with their grandchildren and that intergenerational relationships are described by lower frequency. To this extend, the result may be justified as the frequency of contact shows a relationship with the age or developmental stage of the grandchildren (Napora, 2016). Arthur Kornhaber (1996) believes that this role starts when the grandchildren are at an early stage of development and develops when they are of school age, at which point they become friends with the grandparent. It is possible that, for the respondents, the role of grandparent may be important at an earlier stage of life, later evolving into roles of a different kind. The researchers identified contact with grandparents as one of the protective factors for children at risk of social maladjustment (Werner, Smith, 1982).

Searching for an answer to the third research problem, what is the strength and sign of the relationship between the dimensions of grandparents' psychological resilience and their authority with their grandchildren, it can be concluded that only two dimensions of psychological resilience show positive relationships with grandparents' authority ratings. These are, perseverance and determination in action and the grandparent's openness to new experiences. The grandchildren's perception of their grandparents as role models is a source of satisfaction with the intergenerational relationship in light of the concept of the family as a system of interpersonal relationships in which grandparents are an important, integral and irreplaceable link. Research shows that the bonds between grandparents and grandchildren are among the strongest and most intense. In the relationship between grandparents and grandchildren, an attitude of mutual listening is symptomatic. Grandparents generally have time for their loved ones, becoming their confidants–as they are discreet, patient and trustworthy (Stepulak, 2014). In contrast, the dimension of tolerance for failure and treating life as a challenge showed a significantly negative relationship with the assessment of the belief that grandchildren listen to grandparents and what they have to say. Finally, there is the fourth research problem, which alluded to the question of whether proximity and frequency of contact with grandchildren could be characteristics indicative of the ongoing parentification of grandparents in the adult child's family. The results do not give a direct response, but they bring us closer to seeing the parentification of grandparents as an expectation on the part of the family of the adult child and necessary for the proper functioning of the family to provide closeness, support, contact. This causes the role of grandparents to transfer towards the role of parents. It can be assumed that under certain conditions (e.g. death of the grandchildren's father, break-up of the children's marriage), parentification of grandparents can be a beneficial phenomenon for both the grandparents themselves and their children and grandchildren (Napora, Kozerska, Schneider, 2014).

The results of this research highlight that grandparents have a positive relationship with their grandchildren. Intergenerational relationships make it possible to eliminate the stereotypes associated with late adulthood and proposes to the youngest generation the opportunity to get to know and cooperate with older people, thus building a cohesive, cooperative and supportive family through different spaces of coexistence, full of respect and interaction. This shows that grandparents as role models are a model of influence on the younger generation. Frequency of contact was of little importance in the grandchildren's improved perception of their grandparents and showed no connection to their subsequent lives. Moreover, other findings indicate that grandparents see themselves as part of a generation whose dedication to the family contributes to the balance and economic sustainability of society (Danielsbacka et al., 2019). And the role of the grandmother, is a fundamental pillar of supporting their adult child's family (Leeson, 2018). In summary, findings from this research have shown that the role of resilience in the grandparent sample varies, and the potential mechanism for shaping relationships with grandchildren is different for family relationships. An important contribution to the current literature on grandparents and grandchildren is the illustration of the impact of the relationship between resilience and intergenerational relationships. Findings from the study can provide a foundation that analyses the impact of emotional closeness and frequency on adult grandchildren, particularly from the perspective of the diverse roles grandparents take on.

6. Implications for psychotherapeutic practice

The research has several important implications for practice serving grandparents. First, the results emphasise the importance of improving the relationship between grandparents and grandchildren, which may help reduce their social-emotional and behavioural problems as caregivers. Given the potentially serious consequences of deteriorating family relationships for both grandparents and grandchildren, psychologists, social workers, family counsellors, and practitioners who work with grandparent-headed families need to understand the complexity of these family relationships. In addition to developing a thorough and shared understanding of the relationship between grandparents and grandchildren, practitioners who seek to improve the social-emotional and behavioural problems of grandchildren may pay attention to the relational closeness and conflicts between grandparents and grandchildren. To improve the relational closeness between grandparents and grandchildren, a solution may be to provide interventions focused on the relationships.

Secondly, it is necessary to include grandparents as active entities who can effectively contribute to the organisation of the family and improve relationships within it. The resources of older people, who create rich socialisation capital for subsequent generations, are not always used in families. This may be due to various reasons, including mistakes made by all entities involved in the upbringing process (Janicka-Panek, 2022). Thirdly, the results of the research show that maintaining close relationships between grandparents and grandchildren despite the differences seen between generations is an important element. The obtained effects may support the decision to organise support groups for seniors who do not maintain or have poor contact with their grandchildren. Finally, they can change the negative prejudices of young people towards older people.

The topic could be developed as a basis for further research, expanding knowledge not only on family role reversal but also on resilience in later adulthood.

The study has several major limitations:

1. The generalizability of the results is limited due to the sampling strategy and data collection methods.
2. In the study, grandparents were the only data source who assessed closeness, frequency of relationships, and authority in grandchildren. Ideally, it would be better to have more than one data source, which would reduce the likelihood of bias in data collection.
3. Grandparents reported on their relationships with grandchildren retrospectively (i.e., recalling the past six months when completing the survey), which may have influenced their ratings.
4. The sample size is too small, and the data used do not include the amount of time grandparents and grandchildren spent in mutual contact.
5. Frequency of contact is used as an indicator of emotional and practical support, but its meaning may change significantly when grandparental support focuses on caregiving rather than housework.
6. The validity of the closeness and frequency scales of the grandparent-grandchild relationship was not examined in this study.

These limitations are balanced by several strengths of the study. The results of the study show that in a family context characterized by high traditionalism and intergenerational contacts, the assessment of the relationship with grandchildren depends on the level of psychological resilience of grandparents. It can be thought that joint contacts reflect a culture of strong family ties and traditional norms.

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Conflict between the doctor's conscience and the patient's right to obtain medical services after the judgment of the Constitutional Tribunal of 7 October 2015[1]

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Abstract: The physician's conscience clause, contained in Article 39 of the Act on the Medical and Dental Professions, gives the possibility of refusing to provide a health service by invoking religious or moral beliefs. In the original version of the provision, the possibility of using the conscience clause was subject to numerous restrictions, but the greatest opposition from the medical community was aroused by the obligation to indicate real possibilities of obtaining a service inconsistent with conscience from another physician or in another medical facility. In connection with the above, as a result of an application of the Supreme Medical Council, on 7 October 2015 the Constitutional Tribunal issued a judgment stating the inconsistency of the aforementioned restriction with the Constitution, due to the need to ensure freedom of conscience and religion to everyone in a democratic state of law. Under the said judgment, the doctor no longer has to indicate real possibilities of obtaining a service that is against his conscience from another doctor or in another medical facility; however, the issue of who is to do this has not been properly regulated by the legislator after the judgment of the Tribunal. This omission was to be filled in the draft act amending the Act on the Medical and Dental Professions, and certain other acts, adopted by the Council of Ministers on 7 January 2020, which proposed that the medical facility which, within the scope of its activities, refused to provide a health service, should be obliged to refer the patient to another physician. However, this solution was met with criticism from many groups and was in conflict with the position of the Constitutional Tribunal, according to which this obligation should not rest with medical facilities, but with public authorities, e.g. the National Health Service. Ultimately, Article 39 of the Act on the Medical and Dental Professions still does not contain a provision specifying an entity that could indicate a real possibility for a patient to obtain a service that is contrary to a doctor's conscience, which may give rise to many misunderstandings in the public sphere and serve inappropriate interpretations of the law harmful for the patient-doctor relationship.

Keywords: conscience clause, health service, Constitutional Tribunal, doctor

Introduction

The solution to some ethical dilemmas in the medical profession is the conscience clause, which is a legally guaranteed possibility of refusing to perform an obligation imposed by law by invoking religious or moral beliefs. The possibility of using the clause applies to all doctors, but in Poland it is most often used when faced with the requirement to perform an abortion, refer a patient for a prenatal test, or prescribe contraceptives. In connection with the above, the right to the conscience clause is mainly invoked by gynecologists. The change made by the Constitutional Tribunal on 7 October 2015, which somewhat extended the freedom of conscience of doctors, has indeed satisfied the claims of doctors, but has not fully resolved all the procedural issues in this respect, especially those concerning the treatment of patients. The issue of the conscience clause in Poland is therefore still a lively and widely discussed issue, and resolving any misunderstandings or problems resulting from its functioning still requires thorough analysis and specific legislative actions.

1 Article in polish language: https://www.stowarzyszeniefidesetratio.pl/fer/60P_Chud.pdf

1. Conscience clause before the Constitutional Tribunal's judgment of 2015

In its original form, the provision of the physician's conscience clause, contained in the Act of 5 December 1996 on the medical profession, and subsequently in the Act on the Professions of Doctor and Dentist (APDD) read as follows: "A physician may refrain from providing health care services that are contrary to his conscience, subject to Art. 30 (i.e. except for situations where a delay in providing assistance could result in the risk of loss of life, serious bodily injury or serious health disorder, and in other urgent cases), but that he/she is obliged to indicate real possibilities of obtaining this service from another doctor or medical entity and to justify and record this fact in the medical documentation. A doctor performing his/her profession on the basis of an employment relationship or as part of the health service is also obliged to notify his/her superior in writing in advance" (Act on Medical Professions...). Although some of the restrictions contained in the provision raised doubts, according to our own research conducted in 2012–2013 in the area of activity of the Bydgoszcz Medical Chamber in Bydgoszcz and the Kuyavian-Pomeranian Regional Medical Chamber in Toruń, among 210 doctors (84 specialists in gynecology and obstetrics, and 126 doctors of other specializations), 82% of them expressed support for the functioning of the conscience clause in Poland (Chudzińska, Grzanka-Tykwińska, 2015).

As a result of the above-mentioned doubts, the Supreme Medical Council (SMC) submitted a motion to the Constitutional Tribunal to declare as unconstitutional certain parts of the provision of Article 39 of the APDD, which in its opinion violated the freedom of conscience of physicians. This primarily concerned "the part defined by the words 'subject to art. 30', in the scope in which it imposes on the physician the obligation to perform a health service contrary to his/her conscience, despite the fact that a delay in providing this service would not result in a risk of loss of life, serious bodily injury or serious health disorder", and "the part defined by the words 'but that he/she is obliged to indicate real possibilities of obtaining this service from another physician or in a medical entity', by imposing on the physician refraining from performing health services contrary to his/her conscience the burden of guaranteeing the obtaining of these services from another physician or in a medical entity, which makes the right to freedom of conscience illusory" (Constitutional Tribunal Judgment, 2015). The SMC stressed that the "other urgent cases" included in the provision should not take precedence over the physician's right to exercise freedom of conscience, among other reasons because this term applies to both therapeutic and non-therapeutic services. Due to the fact that the latter do not serve to preserve, save, restore or improve the patient's health, the doctor should retain the right to refuse to perform them, unless of course it poses a threat to the patient's life, or causes serious damage to his/her body or a serious health disorder. As regards the second objection, the SMC argued that "the obligation imposed on a doctor using the conscience clause to indicate a real possibility of obtaining a service from another doctor or in another medical entity is in fact a legal obligation to assist in the provision of a service considered by that doctor to be wrong. This provision forces the doctor to provide active, specific and real assistance in obtaining a service that is against his/her conscience" (Constitutional Tribunal Judgment, 2015). Moreover, the SMC found that such an obligation is also impossible to implement in practice, because a doctor refusing to provide a health service that is against his/her conscience does not know the worldview of other doctors to whom he/she would refer the patient (Constitutional Tribunal Judgment, 2015).

From our research, the opinions of doctors on the above-mentioned issues also indicated the imperfection of the construction of the provision in this respect. Although when asked whether obliging a doctor to indicate another real possibility of obtaining the service violates the conscience of the respondents, 66% of all doctors answered that they did not see such a problem, an interesting phenomenon is the fact that among the doctors asked in this research whether transferring the obligation to indicate another doctor to another entity would better protect their conscience, as many as 82% gave an affirmative answer. Moreover, this was stated by 85% of the respondents who had previously considered that appointing another doctor would not violate their conscience (Chudzińska, Grzanka-Tykwińska, 2015).

2. Judgment of the Constitutional Tribunal of 7 October 2015

On 7 October 2015, the Constitutional Tribunal, under the chairmanship of Prof. Andrzej Rzepliński, issued a judgment in favour of the SMC's motion regarding "other urgent cases" and "indication of real possibilities of obtaining services from another doctor or medical entity". The Tribunal ruled that "Article 39, first sentence, in connection with Article 30 of the APDD" (Journal of Laws of 2015, item 464), insofar as it obliges a physician to perform a health service contrary to his/her conscience in 'other urgent cases', is inconsistent with the principle of proper legislation derived from Article 2 of the Constitution of the Republic of Poland and Article 53, section 1, in connection with Article 31, section 3 of the Constitution" (Constitutional Tribunal Judgment, 2015), according to which the Republic of Poland is a democratic state ruled by law, implementing the principles of social justice, in which everyone is ensured freedom of conscience and religion, and such restrictions cannot violate the essence of freedoms and rights (Constitution of the Republic of Poland). For the same reasons, the Tribunal ruled that "Article 39, first sentence, of the Act referred to in point 1, in so far as it imposes on a physician who refrains from providing a health service that is contrary to his/her conscience the obligation to indicate real possibilities of obtaining such a service from another physician or in another medical entity, is also inconsistent with the provisions of the Constitution" (Constitutional Tribunal Judgment, 2015).

The current wording of the provision is therefore as follows: "A physician may refrain from providing health care services that are contrary to his/her conscience, subject to Art. 30 (i.e. except for situations where a delay in providing assistance could result in a risk of loss of life, serious bodily injury or serious health disorder), but he/she is obliged to record this fact in the medical documentation. A doctor who exercises his/her profession on the basis of an employment contract or as part of the health service is also obliged to notify his/her superior in writing in advance" (Act on Medical Professions). Pursuant to the judgment of the Constitutional Tribunal, a doctor is no longer obliged to indicate real possibilities of obtaining a service that is contrary to his/her conscience from another doctor or medical entity, nor to provide the service even in urgent cases if a delay in providing the service would not result in a risk of loss of life, serious bodily injury or serious health disorder.

3. The necessity and attempts to regulate the current legal situation

However, the question remains as to who is obliged to indicate real possibilities of obtaining a service from another doctor or in another medical entity, because this issue has not been regulated by the legislator after the Tribunal's judgment. On the one hand, it may affect the patient's right to obtain a guaranteed medical service to which he/she is entitled. Even in the opinion of the surveyed doctors, when the old wording of the provision was still in force, 39% of them noticed the possibility of violating the patient's rights by referring him/her from one doctor to another without indicating another real possibility of providing the service (Chudzińska, Grzanka-Tykwińska, 2015). On the other hand, although the exemption from the obligation to indicate a real possibility of obtaining a service elsewhere is undoubtedly a beneficial solution for doctors, the lack of clearly defined procedures may also ultimately lead to unjust accusations against them. If a medical service is guaranteed by the state, the rules for receiving it must be clear, and leaving loopholes and ambiguities in this regard does not serve the interests of any party. Moreover, the need to create transparent regulations in this area is also indicated by doctors' concerns about legal liability. The vast majority (57%) would fear criminal liability in the event of using the conscience clause due to the lack of clear procedures in the event of refusing a service. Moreover, the most common eventuality indicated by the survey participants was civil liability (78%), followed by disciplinary liability (43%) and professional liability (41%) (Chudzińska, Grzanka-Tykwińska, 2015).

One of the common solutions to this situation is to create a source of information for patients about the types of services that a given doctor does not perform for reasons of conscience. Among the doctors surveyed, 36% considered such a source useful because it isolates the doctor from services he/she does not accept. In turn, creating a source of information seemed to be a good solution for 47% of all respondents, due to the fact that the patient would know which doctor not to go to. 18% of respondents were skeptical about this idea (Chudzińska, Grzanka-Tykwińska, 2015). The creation of such a database may, however, seem difficult to implement, if only because of the wording of Article 53, section 7 of the Constitution of the Republic of Poland, which states that "no one may be obliged by public authorities to reveal his/her worldview, religious beliefs or denomination" (Constitution of the Republic of Poland).

The only solution seems to be to clearly define the entity which, in the event of invoking the conscience clause and refusing to provide a service, regardless of its type, would indicate a real possibility of obtaining the service elsewhere, in an efficient manner that would not expose the patient to the risk of losing his/her life or health, nor the doctor to unnecessary accusations of failing to provide assistance. Such a solution was assumed in the draft act amending the APDD and certain other acts, adopted by the Council of Ministers on 7 January 2020, which was to, among other things, introduce changes to art. 39 of the APDD, implementing the judgment of the Constitutional Tribunal of 7 October 2015 by deleting from it the wording concerning the indication of another physician that was inconsistent with the Constitution. Art. 1 item 63 of the government bill proposes an amendment to Art. 39 of the APDD to read as follows: "in the event that a physician refrains from providing a health service referred to in par. 1, the medical entity within the scope of whose activities the healthcare service was refrained from being provided shall be obliged to indicate a physician or entity performing medical activities who will ensure the possibility of providing such service." However, the new form of the provision was met with criticism, including from the Supreme Medical Council, and ultimately the Sejm Health Committee decided to delete this change from the draft act. Furthermore, after a negative opinion from the Health Committee, the Sejm also rejected other amendments to Article 39 of the APDD with similar wording (Olszówka, 2020). Although the provision undoubtedly requires regulation, the proposal to place the obligation on the healthcare entity to indicate the real possibility of obtaining the service raised serious doubts in the light of the constitutional guarantee of freedom of conscience, to which the Constitutional Tribunal referred in the justification of its judgment. When finding that the provision of Article 39 of the APDD, in the part requiring the physician to indicate a real possibility of obtaining a health service that raises his/her conscientious objection, was inconsistent with the Constitution, the Tribunal also noted that this obligation should not rest with medical entities, but with public authorities (Olszówka, 2019). According to the justification: "it seems advisable to contract out these services separately and for the National Health Fund to maintain up-to-date knowledge about the entities performing them, because it is the public authorities, and not doctors or even medical entities, which are responsible for ensuring that services financed from public funds are available on equal terms" (Constitutional Tribunal Judgment, 2015). There is also no mechanism in the Polish legal system that would allow one healthcare entity to collect data on other healthcare entities employing physicians who do not raise conscientious objection to selected services (Olszówka, 2019). Moreover, imposing an information obligation on a healthcare entity conflicts with Resolution No. 1763 of the Parliamentary Assembly of the Council of Europe of 7 October 2010 entitled "The right to the conscience clause in legal healthcare." It states that no hospital, institution or individual may be subject to any pressure or discrimination, nor be held liable, if they refuse to perform an abortion, sterilization, in vitro fertilization or euthanasia, or to take part in any of these procedures. The Parliamentary Assembly also stressed the need to establish the right to the conscience clause while maintaining the responsibility of the state, which should guarantee each patient appropriate treatment in due time (PACE Resolution, 2010). Although this resolution has no legal force and is merely a call on the Council of Europe member states to regulate or improve the regulations regarding the conscience clause in their laws, it is undoubtedly a strong argument for defending the conscience of not only doctors, but also managers of medical entities (Olszówka, 2019). Doctors themselves were also asked about an entity that could indicate real possibilities of obtaining medical services, thus replacing a person who does not want to provide it. Our own research shows that the most frequently chosen answer was the National Health Fund (50%), as well as the District Medical Chamber (27%), while the management of the facility was indicated sporadically (12%) (Chudzińska, Grzanka-Tykwińska, 2015).

Summary

Ultimately, the provision of Article 39 of the APDD still does not include a provision specifying the entity that could indicate a real possibility for a patient to obtain a service that is inconsistent with a doctor's conscience, which is why this issue still remains unregulated. This creates many misunderstandings in the public sphere and leads to inappropriate and harmful interpretations of the law for the patient-doctor relationship, especially when there is a political context in the background. Due to the increasing number of media reports on alleged violations of patients' rights, especially women's rights, in the event of refusal to perform a legal termination of pregnancy and the often erroneous interpretations of the current legal status regarding the use of the conscience clause, there is an urgent need for the legislator to regulate the patient's real access to legally guaranteed medical services. The fact remains unchanged, of course, that in the event of a threat to life or the risk of serious bodily injury or a serious health disorder, a doctor is obliged to provide all services, but the situation of uncertainty related to the lack of appropriate regulations in other, especially morally sensitive cases, remains uncomfortable and even dangerous for both the doctor and the patient.

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Personality determinants, love attitudes and self-efficacy in people using dating sites

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Abstract: The Internet can provide an alternative space to the real world. Among these opportunities is making new acquaintances with the intention of creating a romantic relationship via portals designed for this purpose. With the growing popularity of dating sites, it was decided to study the relationship between personality determinants (independent and interdependent self-construal, communion and agency), love attitudes, attachment styles and self-efficacy in a group of people using dating sites. The study included 350 respondents. Dating site users comprised 39% of the sample (135 respondents), whereas non-users accounted for 61% of the sample (215 respondents). The following tools were used in the study: Self-Construal Scale (SCS), Self-Description Questionnaire 30, The Love Attitudes Scale: Short Form (LAS: SF), Attachment Styles Questionnaire (KSP) and General Self-Efficacy Scale (GSES). The results of the correlation analyses conducted for the entire study sample showed the existence of relationships between independent self-construal, agency, communion, Ludus love attitude, Mania love attitude, secure attachment style, anxiety-ambivalent attachment style and avoidant attachment style and self-efficacy, while the linear regression analysis showed the significance of independent self-construal, agency, Ludus love attitude and anxiety-ambivalent attachment style for self-efficacy. By comparing the obtained correlation and regression results, intergroup differences were shown for the variables studied. Differences in the correlations of the independent variables with the dependent variable between the control group and the research group are found for the relationships of communion and avoidant attachment style. In the experimental group, higher correlation coefficients were observed for the relationship with self-efficacy for the independent self-construal and communion. The level of explanation of the dependent variable by the independent variables is 43% for non-users of dating sites, while it is 36% for users of dating sites. In the experimental group, the predictors were statistically significant in explaining the variance of the dependent variable: independent self-construal, agency, communion, Ludus love style, Agape love style, anxiety-ambivalent attachment style. In the control group: agency and anxiety-ambivalent attachment style. The results of the Mann-Whitney U test showed statistically significant differences between the groups with high median differences observed for anxiety-ambivalent attachment style and avoidant attachment style.
Keywords: self-efficacy, self-construal, agency and communion, love types, attachment styles, dating sites

Introduction

The turn of the 20th and the 21st centuries has been a time of great technological change. One of the constituent factors of this phenomenon was the development of the Internet – a global computer network connecting users from all over the world (Bryła et al., 2009). Rapid development of the Internet as a source of information has, in a very short time, allowed to conceive not only new ways of accessing knowledge and the latest news from around the world, but also ways of communication between users. The changes brought about with the emergence of the Internet have also entered people's social lives (Oronowicz & Jaśkowiak, 2015). It has become easier not only to communicate with others, but also to get to know them better; with the development of the Internet, the first online dating portals started to emerge, soon followed by dating apps.

Making new acquaintances via the Internet and dating portals and apps is a specific way of establishing relationships, as one can, at least to some extent, remain anonymous. This encourages shy people into meeting new people (Kacprzak & Leppert, 2013). Also, the undetermined response time to messages can facilitate conversation. Ben-Ze'ev (2005) points out however, that getting to know others and having conversations via the Internet may at the same time be associated with less misgivings about ending a friendship abruptly. In contrast, rejection by new online acquaintances can take a much less noticeable form as it can be explained by circumstances beyond the person's control, whereas negative feelings can be alleviated by continuing to look for a partner.

Although the topic of alternative methods of making new acquaintances has been present in the scientific literature, both psychology and other fields of science are only just exploring and identifying this area, as well as the traits and tendencies displayed by people using dating sites and apps. This paper and the research presented herein will focus on personality determinants of people using dating sites, their attachment styles, love attitudes and displayed self-efficacy.

1. Theoretical introduction

1.1. Self-construal

In consideration of a number of self-concept theories (Epstein, 1973; Markus, 1977; Rogers, 1981; Trzebinski, 1992; Wyer, 2007, after: Pilarska, 2012; Tanaka, 2023), it is possible to consider the self as a system formed on the basis of an individual's awareness of his or her own values, goals, beliefs about his or her traits, abilities or preferences, as well as on the self-evaluation occurring with the previously mentioned components.

Self-construal is a culturally determined concept centred on the way one perceives oneself in relation to other people (Markus & Kitayama, 1991). More precisely, it is defined as a way of understanding the self in relation to one's relationships with others and perceiving oneself as independent of others or interdependent with others, depending on the social context (Pilarska, 2012). According to Markus and Kitayama (1991), the distinction between construal of the self as independent and construal of the self as interdependent should be considered as relative rather than absolute. Hence, it should be assumed that an individual has both an interdependent and an independent self, and it is culture that can strongly influence the development of either of them, leading to differences in the characteristics, motives and relationships represented by the individuals (Kaźmierczak, 2012).

1.2. Agency and communion

Although it seems impossible to completely describe and systematise the possibilities of perceiving the world, David Bakan described two main modalities of human existence in his theory on communion and agency (Wojciszke & Cieślak, 2014; Diehl et al., 2004). Bakan believed that each person is capable of pursuing his or her own goals, calling this agency, and of actively participating in social life, calling this communion (Wojciszke & Cieślak, 2014). Although Bakan's construct was purely theoretical, his theory was developed and empirical research was conducted, with the contribution by Vicki Helgesons who recognised communion and agency as personality traits (Wojciszke & Cieślak, 2014; Abele, 2022; Hauke & Abele, 2020). Agency is responsible for the individual's focus on themselves and realisation of chosen goals. It is associated with a highly developed sense of autonomy, a highly developed desire for self-actualisation and a clear focus on ability, skill and efficacy in achieving goals (Hofstede, 1983, Schwartz & Bilsky, 1990, Reeder & Brewer, 1997, Wojciszke, 2005 after: Abele & Wojciszke, 2014; Markus & Kitayama, 1991). The components of agency include, among others, the ability to maintain self-control and the ability to be assertive (Helgeson, 1994; Wojciszke & Cieślak, 2014; Hauke & Abele, 2020). As mentioned above, communion focuses on relationships with other people and on engaging in activities with them (Wojciszke & Cieślak, 2014). Burda and colleagues (1984, after Helgeson, 1994), in their research findings, presented communion as a trait that may project a tendency to show more mobilisation in offering social support than in agency, which is related to the assumptions developed by Bakan and Helgeson, i.e. the focus on relationships and their quality, and a resource that provides benefits for both the person manifesting it and others (Wojciszke & Cieślak, 2014).

1.3. Attachment styles

The beginnings of psychological investigation of attachment are attributed to John Bowlby; he defined attachment as an enduring psychological bond occurring between human beings (Bowlby, 1969). Another definition of attachment found in the scientific literature is a long-term emotional connection with a specific person (Schaffer, 2018, Momeni et al., 2022; Walker et al., 2022). Publications by Mary Ainsworth (1972, 1982, 1989) also make a significant contribution to the development of a scientific approach to the nature of attachment . She followed on Bowlby's thought, and in her own work, included the following definitions to approximate the issue of dependence between people: emotional bonds, attachment, and attachment gestures (Bee, 2004; Granqvist & Duschinsky, 2021). Although attachment theory originally referred to early childhood, it is also helpful in explaining social behaviour in the context of close relationships that can be established throughout an individual's life (Plopa, 2019).Among the major assumptions of attachment theory is a thesis that while attachment-related behaviour is particularly noticeable and intense during the initial developmental periods, it can be observed throughout a person's lifetime (Marchwicki, 2004). Mary Ainsworth (1978), inspired by Bowlby's attachment theory and based on her long-term research, distinguished three attachment styles. They are the secure style, the anxious-ambivalent style and the avoidant style.

Children with secure attachment style place trust in the attachment figure (Müller, 2013). They rely on sensing their availability and showing warmth, sensitivity and closeness in circumstances that may threaten their sense of balance and comfort. In adulthood, securely attached people are able to form trusting, lasting relationships in which they share their feelings with their partners. Individuals with secure attachment style are more willing to explore their close environment and relationships, they tend to be open, cooperative, and show more trust in therapists and their suggestions (Levy et al., 2010; Amani & Khosroshahi, 2021).

An anxious-ambivalent style emerges when a child feels insecure about the availability of the attachment figure (Plopa, 2019). This style is characterised by high levels of anxiety, lower feelings of security, restlessness, insecurity, lower self-esteem and fear of separation. These individuals crave emotional closeness but at the same time worry that others do not want to be close with them; people with an anxious-ambivalent pattern of attachment show a tendency to form dependent relationships that in effect exacerbate their anxiety (Kobak & Sceery, 1988; Erkan et al., 2023). The perception and description of relationships also takes a specific form: research (Collins & Read, 1990; Feeney & Noller, 1990; Peitromonaco & Carnelley, 1994 after: Mikulincer & Orbach, 1995) has shown that individuals with this attachment style describe their romantic relationships in a more passionate and emotional way.

An avoidant style develops when a child experiences the unavailability of his or her attachment figure, particularly unavailability at the times of danger or heightened need for closeness (Plopa, 2019). Similar to the anxious-ambivalent attachment style, individuals with an avoidant attachment style are more anxious and hostile than individuals with a secure attachment style (Kobak & Sceery, 1988). The avoidant style is characterised by a tendency to avoid closer relationships in order to escape hurt, trust and communication problems, and a desire for self-efficacy? and independence (Müller, 2013; Simpson, 1990; Liberska & Suwalska, 2011; Wardecker, 2020).

1.4. Love in psychology

Specialists in many fields have been interested in defining and describing the essence of love. Psychological theories of love conceptualise it in multiple ways (Janeczek, 2023). Maria Ryś (2016) points out that love has been increasingly perceived not only as a feeling, but also as a relationship and an attitude, or more precisely *"an active, positive attitude towards the other person"* (Ryś, 2016, p. 58). There may then be a desire to affirm the existence of the person one loves.

Among the important concepts for the effort to understand love is Robert Sternberg's Triangular Theory of Love. In his multifaceted view of love, Sternberg described the occurrence of three components: intimacy, passion and commitment, which can occur in relationships of different nature, in different combinations (creating distinct love types) and at different intensities (Olesiński, 2013).

The concept of love central to the present study is the typology of love styles by John Lee (1973) distinguishing six types of love developed under the guidance of competent judges on the basis of sound descriptions and structured in a way that excluded the possibility of assigning more than one love type (they were mutually exclusive), while at the same time exhausting the literature used (Lee, 1977). Typification criteria included: *"physical symptoms associated with experiencing love (loss of appetite, sleep disturbance), physical attraction (sexual attraction), emotional pain, compulsive attention, willingness to humiliate or change to please the partner, jealousy, deliberate manipulative behaviour, need for familiarity and other criteria"* (Lee, 1973:232). Lee using the data he collected and compiled, divided the love styles into primary (primary) and secondary (derivative) ones. Primary love types are those occurring singly, while secondary love types are a combination of primary types. Primary types include Storge, Eros, Ludus, while secondary types include Agape, Pragma and Mania (Janeczek & Lesiewicz, 2020).

Storge – it is a type of love based on a slowly developing attachment, gradual getting to know each other and hope for a long-term commitment (Lee, 1977). The love relationship proceeds in a balanced, friendly, cordial atmosphere, with the conviction of being friends even in the face of the most unfortunate events (Jankowska, 2010). Physical intimacy is not important, this type of love focuses on nurturing the reciprocity of the relationship and a commitment to the relationship and the other person; honesty, empathy and being a devoted friend are important (Jankowska, 2010).

Eros – this type of love is largely associated with corporeality: the person seeks to create a relationship with a partner who reflects the type of beauty they desire (Lee, 1977). There is a belief in love at first sight, individuals representing Eros love believe that it is a guarantee to create an ideal relationship with a permanent and unchanging feeling (Jankowska, 2010). Partners strive to find commonalities between each other, to become more like each other, while at the same time wanting to spend as much time together as possible. Mutual sexual attraction is very strong and the decision to have sexual intercourse is made very early on. Lovers want to give each other as much pleasure as possible, not only in the erotic sphere.

Ludus – the name derives from the works of Ovid; the Ludus type represents attitudes in which love is treated as a game. It looks in vain for jealousy, and relationships are usually short-lived (Lee, 1977). Although close physical contact, sexual intercourse plays an important role, it is only to satisfy one's own needs for pleasure (Jankowska, 2010). Ludic lovers desire to dominate over their partners, they want to show their superiority and advantage over their lover.

Agape – it is a combination of Eros and Storge types; it is referred to as altruistic, self-sacrificing love. Love is treated as an obligation, there is no expectation of reciprocity from the partner – the person is focused on helping and caring for the well-being of the other person and being actively involved in creating a bond (Lee, 1977; Jankowska, 2010).

Pragma – it is a combination of Ludus and Storge types, otherwise known as practical love. Partners calculate the profits and losses that can be achieved by engaging in a relationship, love is treated as a kind of investment (Jankowska, 2010). Among the characteristics determining the choice of a partner are education, financial status or sharing a particular religion, and a relationship can only be formed when the partner meets specific requirements (Lee, 1977; Jankowska, 2010).

Mania – it is a combination of Eros and Ludus love; it is an intense, obsessive form of affection. It often involves jealousy and a need for constant reassurance about being loved (Lee, 1977). It is assumed that the intensity and obsessiveness have their genesis in the fear of losing the partner. Relationships of manic lovers are based on fears and anxieties that stand in the way to creating a deeper bond, so that all the effort is focused on behaviours designed to keep the partner, rather than on the process of creating a stable, healthy relationship (Jankowska, 2010).

1.5. Self-efficacy

The concept of self-efficacy was originally proposed in the works by Albert Bandura (Zulkosky, 2009; Shu, 2022). It first appeared in his Social Learning Theory which assumes that patterns of behaviour emerge from observing other people's responses to specific behaviours and facing their consequences (Bandura, 1977; Płaczkiewicz, 2016; Wojciszke, 2004). In his theory, Bandura (1977) described the mechanisms that determine the emergence of new modes of behaviour, their changes or disappearance, with behaviour explained as the interaction of personal and environmental factors (Płaczkiewicz, 2016).

In the scientific literature, self-efficacy is conceptualised as a person's belief in their own abilities and capabilities to act in order to reach a specific goal regardless of obstacles that arise (Rodek, 2020; Warner and Schwarzer, 2020). According to Bandura (1989, p. 1175), self-efficacy is also referred to as "an important set of determinants of human motivation, affect and action." It should be mentioned, that the above definitions have been based on research findings demonstrating the impact of self-efficacy on thinking, behaviour and motivation (Bandura, 1995, after: Zulkosky, 2009).

Self-efficacy develops over the course of a person's lifespan (Bandura, 2007). It is assumed that the process of developing the perception of self-efficacy depends on direct experience and observation of others (Łodygowska, 2018). Direct experience is a type of learning that leads to the acquisition of knowledge not only about the world, but also about oneself as a result of having to face the consequences of one's actions and choices (Bandura, 2007).

1.6. Specificity of the study group

The history of courtship using media available in a given historical period dates back to the 18th century (Cocks, 2015). However, this way of getting to know others did not inspire much trust in the community. In his historical analysis based on the material from the UK, Cocks (2009) reports that it was not until the late 1960s that matrimonial ads gradually stopped to be perceived as advertisements published by women offering sexual services for money and by homosexuals.

Ways of making acquaintances have evolved with advances in technology – in the 1980s, videotapes were a means of getting to know someone (Toma, 2015). However, the number of people using the aforementioned means of meeting potential partners was never as high as the number of users of online dating sites. A study conducted in 2010 in the United States reported that 22% of the relationships entered into between 2007 and 2009 were made via the Internet (Rosenfeld & Thomas, 2010 after Toma, 2015).

Over the years, the level of stigma? and trust in alternative ways of meeting potential partners have undergone many changes. Data obtained in 2003 (Harmon, 2003 after Oronowicz & Jaśkowiak, 2015) when confronted with research findings reported in 2015 not only point to an increased presence of the topic of online dating services in the mass media (and in the public awareness), but also to a definitely growing number of their users (Madden & Lenhart, 2006; Smith & Duggan, 2013; Oronowicz & Jaśkowiak, 2015).

Although the topic of alternative ways of making new acquaintances is not new to researchers, it is important to emphasise the developing nature of psychological findings regarding traits and tendencies displayed by people using dating sites. However, the review of the available literature and research to date may indicate that there is a relationship between experiencing anxiety, having depressive symptoms, fear of rejection and fear of attachment (but not in an avoidant way), and being a dating site user (Toma, 2022). Also, neuroticism, sexual permissiveness, sensation-seeking and openness to others may be factors that increase a person's willingness to reach for dating sites (Zorita et al., 2021). Furthermore, the results of the study conducted by Cacioppo and his research team (2013) showed that marriages contracted by people who met online showed lower divorce rates and higher levels of marital satisfaction than those of people who met traditionally.

2. Method

2.1. Aim and specific design of the study

The aim of the present study is to investigate the relationships between communion and agency, the interdependent and independent self-construal, love types, attachment styles and self-efficacy in a group of people using dating sites. The present study is a response of sorts to the results of the previous analysis of learning resources related to the psychology of love, and research conducted on a group of dating site users. As they point to a high need to further the research on the above-mentioned scope, it should be emphasised that a small number of studies related to love is available in the Polish scientific literature, which were conducted using psychological tools designed in accordance with modern psychometrics or adapted to Polish conditions.

Based on the analysis of learning resources, i.e. theoretical issues and resources related to the research conducted so far, the following research questions were formulated:

1. Are there any relationships between self-construal, communion and agency, attachment styles, love types and self-efficacy in people using dating sites?
2. Are there any differences in the relationship between self-construal, communion and agency, attachment styles, love types and self-efficacy in the group of people who use dating sites and in the group of people who do not use them?
3. Is self-construal, communion and agency, attachment style and love type relevant in explaining one's self-efficacy?
4. Are there any differences in the level of explaining general self-efficacy by self-construal, communion and agency, attachment styles and love types in the groups of dating site users and non-users ?
5. Can attachment styles mediate the relationship between love types and general self-efficacy?
6. Are there differences in the examined variables: self-construal, communion and agency, attachment styles, love types and self-efficacy between the groups of dating site users and non-users?
7. Is the level of self-efficacy in the group of dating site users higher than in the group of non-users?
8. Is the level of communion in the group of dating site users higher than in the group of non-users?
9. Is the level of interdependent self-construal in the group of dating site users higher than in the group of non-users?

The research questions outlined above formed the basis for putting forward the following hypotheses:

H1: There are relationships between self-construal, communion and agency, attachment styles, love types and self-efficacy in people using dating sites.

H1a: There are differences in the relationship between self-construal, communion and agency, attachment styles, love types and self-efficacy in the group of people who use dating sites and in the group of people who do not use them.

H2: Self-construal, communion and agency, attachment styles and love types are important in explaining self-efficacy.

H2a: There are differences in the level of explaining general self-efficacy by self-construal, communion and agency, attachment styles and love types between the groups of dating site users and non-users.

H3: Attachment styles play a mediating role in the relationship between love types and general self-efficacy.

H4: There are statistically significant differences in the examined variables: self-construal, communion and agency, attachment styles, love types and self-efficacy between the groups of dating site users and non-users .

H4a: The level of self-efficacy in the group of people using dating sites is higher than in the group of non-users.

H4b: The level of communion in the group of people using dating sites is higher than in the group of non-users.

H4c: The level of interdependent self-construal in the group of people using dating sites is higher than in the group of non-users.

2.2. The sample

Three hundred and fifty (350) individuals took part in the survey. 21% of the sample were male (75), 79% of the sample were female (275). The mean age of respondents was 24 years (SD = 5.64). Dating site users accounted for 39% of the sample (135 people), whereas non-users for 61% of the sample (215 people).

2.3. Procedure and materials

In order to verify the hypotheses, five psychological tools were used in the study:

The Self-Construal Scale adapted by Aleksandra Pilarska (2011) is a tool comprised of two subscales measuring independent self-construal and interdependent self-construal. Each subscale contains nine items; responses are given on a seven-point rating scale, where 1 means – strongly disagree and 7 means – strongly agree.

The Self-Report Questionnaire 30 (Wojciszke, 2010) is a tool consisting of two subscales measuring community orientation and agency orientation, each subscale containing 15 questions. The overall score of a subscale is equal to the average score of the 15 items assigned to it. Responses are given on a seven-point scale, where 1 means – definitely not, while 7 means – definitely yes.

The Love Attitudes Scale: Short Form, adapted by Piotr Janeczek (2023), is a 24-item tool that includes six subscales measuring the following love types: Eros, Ludus, Storge, Pragma, Mania, Agape. Each subscale consists of four items. Responses are given on a five-point scale, where 1 means – strongly agree and 7 means – strongly disagree.

The Attachment Styles Questionnaire (Plopa, 2005) is an instrument encompassing three subscales measuring the following attachment styles: secure attachment style, anxious-ambivalent attachment style and avoidant attachment style. Each subscale consists of eight items. Responses are given using a seven-point scale, where 1 means – strongly disagree and 7 means – strongly agree.

The General Self-Efficacy Scale adapted by Zygfryd Juczyński (2000) is a 10-item psychological tool measuring the perception of self-efficacy based on the concept developed by Albert Bandura. Questions are answered using a four-point scale, where 1 means no and 4 means yes. The overall self-efficacy index is the sum of answers to all questions.

Respondents took part in the study personally and voluntarily. They were provided with a questionnaire developed via the Google Forms platform with specific components put in the following order: a description of the study, a space to give informed consent for participation in the study, metric questions, the Attachment Styles Questionnaire, the Love Attitudes Scale: Short Form, the General Self-Efficacy Scale, the Self-Construal Scale, the Self-Report Questionnaire 30 and a thank-you note for participation in the study. A link to the study and a description of the study were posted in the social media in groups specially designed for this purpose. At the beginning of the study, the respondents were informed about the aim of the study, the procedure (including the expected duration), anonymous character and the possibility to withdraw from the study at any time. Giving of informed consent was a prerequisite to participation in the study. In the absence of the consent, the person was transferred to a thank-you page and the study did not continue.

The necessary statistical analyses were performed using IBM SPSS version 26 and Jamovi version 2.3.21. IBM SPSS version 26 was used for descriptive statistics, Pearson correlation analyses and linear regression analyses. The Jamovi programme was used to perform mediation analysis (here, using the jAMM macro module) and to perform the non-parametric Mann-Whitney U test.

3. Results

3.1. Descriptive statistics

The first step was to perform descriptive statistics for the study variables in each group (see: Table 1.). A Shapiro-Wilk test was performed, the results of which were statistically significant for most of the variables in each group, allowing to reject the null hypothesis assuming the normality of the distribution of the groups. The results that were not statistically significant in the control group (non-users) are: independent self-construal, interdependent self-construal, and agency. The results that were not statistically significant in the group of people using dating websites are: independent self-construal, interdependent self-construal, agency, Eros love type, avoidant attachment style.

3.2. Correlations

The next step in testing the hypotheses put forward in this study was to conduct a correlation analysis using Pearson's r method on the entire sample (350 people), (see: Table 2.).

The results of the correlation analysis for the subscales of the Self-Construal Scale, the subscales of the Self-Report Questionnaire 30, love types, the subscales of the Attachment Styles Questionnaire and general self-efficacy conducted for all respondents, presented in Table 2., show positive and statistically significant relationships between: independent self-construal and agency, independent self-construal and communion, independent self-construal and secure attachment style, independent self-construal and general self-efficacy, interdependent self-construal and communion, interdependent self-construal and Mania love type, interdependent self-construal and Agape love type, interdependent self-construal and anxious-ambivalent attachment style, interdependent self-construal and avoidant attachment style, agency orientation and communion orientation, agency orientation and Pragma love type, agency and secure attachment style, agency and general self-efficacy, communion and Agape love type, communion and secure attachment style, communion and general self-efficacy, Eros love type and Agape love type, Eros love type and secure attachment style, Ludus love type and Pragma love type, Ludus love type and Mania love type, Ludus love type and avoidant attachment style, Ludus love type and general self-efficacy, Storge love type and Agape love type, Pragma love type and Mania love type, Pragma love type and anxious-ambivalent attachment style, Pragma love type and avoidant attachment style, Mania love type and Agape love type, Mania love type and anxious-ambivalent attachment style, Mania love type and avoidant attachment style, Agape love type and secure attachment style, Agape love type and anxious-ambivalent attachment style, secure attachment style and general self-efficacy, anxious-ambivalent attachment style and avoidant attachment style.

The results of the correlation analysis for the subscales of the Self-Construal Scale, the subscales of the Self-Report Questionnaire 30, the love types, the subscales of the Attachment Styles Questionnaire and general self-efficacy conducted among all respondents, presented in Table 2., show negative and statistically significant relationships between: independent self-construal and Agape love type, independent self-construal and anxious-ambivalent pattern of attachment, independent self-construal and avoidant pattern of attachment, interdependent self-construal and agency, interdependent self-construal and Eros love type, interdependent self-construal and secure attachment style , agency and Agape love type, agency and anxious-ambivalent attachment style, agency and avoidant attachment style, communion and Ludus love type, communion and avoidant attachment style , Eros love type and Ludus love type, Eros love type and Pragma love type, Eros love type and anxious-ambivalent attachment style, Eros love type and avoidant attachment style, Ludus love type and secure attachment style, Pragma love type and secure attachment style, Mania love type and general self-efficacy, secure attachment style and anxious-ambivalent attachment style, secure attachment style and avoidant attachment style, anxious-ambivalent attachment style and general self-efficacy, avoidant attachment style and general self-efficacy.

The next step in the process of testing the hypotheses was to conduct a correlation analysis and calculate Pearson's r in the group of non-users (215 people), (see: Table 3.).

The results of the correlation analysis for the subscales of the Self-Construal Scale, the subscales of the Self-Report Questionnaire 30, love types, the subscales of the Attachment Styles Questionnaire and general self-efficacy conducted in the group of non-users, presented in Table 3., show positive and statistically significant relationships between: independent self-construal and agency, independent self-construal and secure attachment style, independent self-construal

Table 1. Descriptive statistics for the study variables in the treatment and control groups

	Dating portal	Independent Self-Construal	Interdependent Self-Construal	Agency orientation	Communion orientation	Eros	Ludus	Storge	Pragma	Mania	Agape	Secure attachment style	Anxious-ambivalent attachment style	Avoidant attachment style	Generalized self-efficacy
Mean	Yes	44.4	40.8	4.9	5.7	13.3	10.0	12.2	10.3	11.7	12.0	40.9	33.5	24.5	30.0
	No	42.9	40.0	4.8	5.6	15.5	9.2	12.7	9.5	11.0	13.0	44.7	27.9	19.0	29.4
Median	Yes	44.0	41.0	4.8	5.9	13.0	9.0	12.0	10.0	12.0	12.0	41.0	34.0	25.0	30.0
	No	42.0	40.0	4.7	5.7	16.0	8.0	13.0	9.0	11.0	13.0	46.0	27.0	17.0	29.0
Standard deviation	Yes	7.8	7.7	1.0	0.8	3.6	3.8	4.0	4.2	4.0	4.2	8.2	11.5	8.1	5.5
	No	7.9	7.5	1.0	0.8	3.8	3.6	4.2	3.9	3.6	4.0	9.1	10.7	9.1	5.5
Variance	Yes	60.1	59.3	1.0	0.7	12.8	14.5	15.7	17.3	16.2	17.5	67.5	133.0	65.5	30.0
	No	63.0	56.6	0.9	0.6	14.7	12.8	17.2	15.4	13.1	15.8	83.4	115.0	82.5	29.8
Minimum	Yes	22.0	15.0	2.7	2.8	4.0	4.0	4.0	4.0	4.0	4.0	17.0	10.0	8.0	18.0
	No	18.0	17.0	1.5	2.9	4.0	4.0	4.0	4.0	4.0	4.0	17.0	8.0	8.0	11.0
Maximum	Yes	63.0	59.0	7.0	7.0	20.0	20.0	20.0	20.0	20.0	20.0	56.0	55.0	43.0	40.0
	No	60.0	62.0	7.0	7.0	20.0	19.0	20.0	20.0	20.0	20.0	56.0	53.0	48.0	40.0
Skewness	Yes	0.0	-0.4	0.1	-0.9	-0.1	0.5	0.1	0.3	0.2	0.1	-0.5	-0.2	0.0	0.0
	No	0.0	-0.2	-0.3	-0.5	-0.9	0.7	-0.2	0.4	0.1	-0.2	-0.8	0.3	0.7	-0.3
Standard error of skewness	Yes	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	No	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Kurtosis	Yes	-0.3	0.9	-0.7	0.6	-0.4	-0.5	-0.6	-0.8	-0.6	-0.8	0.1	-0.8	-0.7	-0.8
	No	-0.2	0.2	0.5	0.4	0.4	-0.3	-0.5	-0.5	-0.5	-0.6	0.0	-0.7	-0.1	0.8
Standard error of kurtosis	Yes	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	No	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Shapiro-Wilk W	Yes	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	No	1.0	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.0	0.9	1.0	0.9	1.0
The p-value of the Shapiro-Wilk test	Yes	0.6	0.1	0.1	< .001	0.1	< .001	0.0	< .001	0.0	0.0	0.0	0.0	0.1	0.0
	No	0.1	0.1	0.1	< .001	< .001	< .001	< .001	< .001	0.0	< .001	< .001	0.0	< .001	< .001

and generali self-efficacy, interdependent self-construal and communion, interdependent self-construal and Mania love type, interdependent self-construal and Agape love type, interdependent self-construal and anxious-ambivalent attachment style, interdependent self-construal and avoidant attachment style, agency and community orientation, agency and secure attachment style, agency and general self-efficacy, Eros love type and Storge love type, Eros love type and Agape love type, Eros love type and secure attachment style, Ludus love type and Pragma love type, Ludus love type and Mania love type, Ludus love type and avoidant attachment style, Pragma love type and Mania love type, Pragma love type and avoidant attachment style, Mania love type and Agape love type, Mania love type and anxious-ambivalent attachment style, Agape love type and secure attachment style, anxious-ambivalent attachment style and avoidant attachment style.

The results of the correlation analysis between the subscales of the Self-Construal Scale, subscales of the Self-Report Questionnaire 30, love types, subscales of the Attachment Styles Questionnaire and general

Table 2. r-Pearson correlation coefficients for the studied variables in the sample, n = 350

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Independent Self-Construal	1	.03	.562**	.122*	.081	.009	-.04	.064	-.09	-.115*	.184**	-.154**	-.111*	.434**
Interdependent Self-Construal		1	-.171**	.437**	-.127*	.088	.054	.004	.176**	.201**	-.114*	.267**	.184**	-.062
Agency orientation			1	.218**	.082	.002	-.007	.185**	-.089	-.134*	.154**	-.197**	-.121*	.590**
Communion orientation				1	.097	-.128*	.074	-.01	.07	.151**	.187**	.101	-.124*	.160**
Eros					1	-.414**	.178**	-.156**	-.058	.394**	.473**	-.155**	-.499**	.05
Ludus						1	-.095	.230**	.217**	-.062	-.229**	.052	.253**	.112*
Storge							1	.061	-.058	.149**	.09	-.018	-.074	-.017
Pragma								1	.177**	-.065	-.113*	.174**	.219**	.075
Mania									1	.362**	-.037	.520**	.191**	-.114*
Agape										1	.170**	.167**	-.133*	-.054
Secure attachment style											1	-.270**	-.793**	.110*
Anxious-ambivalent attachment style												1	.487**	-.268**
Avoidant attachment style													1	-.109*
General Self-efficacy														1

**. Correlation significant at the 0.01 level (two-tailed)
*. Correlation significant at the 0.05 level (two-tailed)

self-efficacy conducted in the group of non-users, presented in Table 3., show negative and statistically significant relationships between: independent self-construal and Love Mania style, independent self-construal and anxious-ambivalent attachment style , independent self-construal and avoidant attachment style, interdependent self-construal and agency, interdependent self-construal and the Eros love type, interdependent self-construal and the secure attachment style, the agency and the anxious-ambivalent attachment style, the agency and the avoidant attachment style, the Eros love type and the Ludus love type, Eros love type and Pragma love type, Eros love type and anxious-ambivalent attachment style, Eros love type and avoidant attachment style, Ludus love type and secure attachment style, Storge love type and Mania love type, Agape love type and avoidant attachment style, secure attachment style and anxious-ambivalent attachment style, secure attachment style and avoidant attachment style, anxious-ambivalent attachment style and general self-efficacy.

The next step in the process of testing the hypotheses was to conduct correlation analysis in the group of non-users (135 people), (see: Table 4.).

The results of the correlation analysis for the subscales of the Self-Construal Scale, the subscales of the Self-Report Questionnaire 30, the love types, the subscales of the Attachment Styles Questionnaire and general self-efficacy conducted in the group of people using dating websites, presented in Table 4., show positive and statistically significant relationships between: independent self-construal and agency, independent self-construal and Eros love type, independent self-construal and secure attachment style, independent self-construal and general self-efficacy, interdependent self-construal and communion, interdependent self-construal and Storge love type, interdependent self-construal and Mania love type, interdependent self-construal and the Agape love type, interdependent self-construal and the anxious-ambivalent attachment style, agency and communion, agency and the Pragma love type, agency and general self-efficacy, communion and the Eros love type, communion and the Agape love type, communion and secure attachment style, communion and general self-efficacy, Eros love type and Pragma love type, Eros love type and secure attachment style, Ludus love

Table 3. r-Pearson correlation coefficients for the studied variables in the group of people who do not use dating websites, n = 215

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Independent Self-Construal	1	.004	.530**	.098	.059	.001	-.022	.055	-.138*	-.075	.206**	-.222**	-.162*	.433**
Interdependent Self-Construal		1	-.209**	.433**	-.240**	.117	-.028	.005	.159*	.156*	-.247**	.262**	.273**	-.092
Agency orientation			1	.219**	.12	-.055	.041	.117	-.096	-.062	.220**	-.254**	-.205**	.642**
Communion orientation				1	.008	-.086	.02	-.046	.059	.131	.071	.055	-.079	.115
Eros					1	-.455**	.176**	-.214**	-.108	.428**	.499**	-.146*	-.512**	.01
Ludus						1	-.099	.270**	.313**	-.019	-.219**	.041	.249**	.069
Storge							1	.012	-.156*	.073	.067	-.126	-.069	.018
Pragma								1	.185**	-.13	-.089	.083	.236**	.068
Mania									1	.347**	-.017	.410**	.112	-.099
Agape										1	.178**	.079	-.193**	-.088
Secure attachment style											1	-.383**	-.830**	.098
Anxious-ambivalent attachment style												1	.512**	-.291**
Avoidant attachment style													1	-.105
General Self-efficacy														1

**. Correlation significant at the 0.01 level (two-tailed)
*. Correlation significant at the 0.05 level (two-tailed)

type and avoidant attachment style, Storge love type and Agape love type, Storge love type and anxious-ambivalent attachment style, Pragma love type and anxious-ambivalent attachment style, Mania love type and Agape love type, Mania love type and anxious-ambivalent attachment style, Mania love type and avoidant attachment style, Agape love type and anxious-ambivalent attachment style, anxious-ambivalent attachment style and avoidant attachment style.

The results of the correlation analysis for the subscales of the Self-Construal Scale, the subscales of the Self-Report Questionnaire 30, the love types, the subscales of the Attachment Styles Questionnaire and the general self-efficacy conducted in the group of non-users, presented in Table 4., show negative and statistically significant relationships between: agency and Agape love type, agency and anxious-ambivalent attachment style, communion and Ludus love type, communion and avoidant attachment style, Eros love type and Ludus love type, Eros love type and avoidant attachment style, Ludus love type and secure attachment style, secure attachment style and avoidant attachment style, ambivalent attachment style and general self-efficacy, avoidant attachment style and general self-efficacy.

3.3. Linear regression analyses

The next stage of the procedure was to conduct a linear regression analysis for self-efficacy as the dependent variable and the independent self-construal and the interdependent self-construal, communion and agency, love types and attachment styles as predictors for the study sample (see: Table 5.), in the non-dating group (see: Table 6.) and in the dating group (see: Table 7.).

A linear regression analysis was performed for general self-efficacy as the dependent variable in the study sample (see: Table 5.).

An input method was used in the calculations. In the first step, the subscales of the Self- Construal Scale, i.e. independent self-construal and interdependent self-construal, were entered as predictors. In the second step, the subscales of the Self-Report Questionnaire 30, i.e. communion and agency, were

Table 4. r-Pearson correlation coefficients for the studied variables in the group of people using dating websites, n = 135

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Independent Self-Construal	1	.058	.604**	.148	.207*	-.004	-.055	.056	-.044	-.151	.212*	-.125	-.117	.429**
Interdependent Self-Construal		1	-.128	.440**	.085	.032	.197*	-.009	.192*	.288**	.139	.265**	.011	-.024
Agency orientation			1	.210*	.095	.059	-.067	.264**	-.102	-.216*	.103	-.183*	-.068	.508**
Communion orientation				1	.283**	-.201*	.164	.027	.074	.198*	.415**	.142	-.255**	.222**
Eros					1	-.317**	.152	-.006	.084	.296**	.336**	-.016	-.346**	.163
Ludus						1	-.073	.151	.068	-.091	-.202*	.006	.205*	.165
Storge							1	.156	.104	.253**	.102	.189*	-.038	-.066
Pragma								1	.147	.057	-.107	.258**	.142	.074
Mania									1	.422**	-.018	.654**	.269**	-.15
Agape										1	.101	.383**	.053	.014
Secure attachment style											1	.012	-.691**	.169
Anxious-ambivalent attachment style												1	.350**	-.286**
Avoidant attachment style													1	-.174*
General Self-efficacy														1

**. Correlation significant at the .01 level (two-tailed)
*. Correlation significant at the .05 level (two-tailed)

entered. In the third step, love types were introduced, i.e. Eros, Ludus, Storge, Pragma, Mania, Agape. In the fourth step, attachment styles were introduced, i.e. secure attachment style, anxious-ambivalent attachment style, avoidant attachment style.

Linear regression analysis showed that the first model was a good fit to the data and statistically significant and accounted for 19% of the variance of general self-efficacy. The analysis showed that independent self-construal was the most significant for and statistically significant in explaining general self-efficacy in the first model. The second model, in which agency and communion are introduced, was a good fit to the data and accounted for 36% of the variance of general self-efficacy. The analysis showed that independent self-construal and agency were the most significant for and statistically significant in explaining general self-efficacy in the second model. The third model, in which love types were introduced, was a good fit to the data and accounted for 38% of the variance of general self-efficacy. The analysis showed that independent self-construal, agency, Ludus love type and Mania love type are the most significant for and statistically significant in explaining general self-efficacy in the third model. The fourth model, which introduced attachment styles, was a good fit to the data and explained for 39% of the variance of general self-efficacy. The analysis showed that the largest and statistically significant explanations of generalised self-efficacy in the fourth model are independent self-construal, agency, Ludus love type and anxious-ambivalent attachment style .

The next step was to conduct a linear regression analysis for general self-efficacy as the dependent variable in the group of non-users (see: Table 6.). An input method was used in the calculations. In the first step, the subscales of the Self-Construal Scale, i.e. the independent self-construal and interdependent self-construal, were entered as predictors. In the second step, the subscales of the Self-Report Questionnaire 30, i.e. communion and agency, were entered. In the third step, love types were introduced, i.e. Eros, Ludus, Storge, Pragma, Mania, Agape. In the fourth step, attachment styles were introduced, i.e. secure attachment style, anxious-ambivalent attachment style, avoidant attachment style.

Table 5. Linear regression coefficients for self-efficacy as a dependent variable in the study sample, n = 350

Step	Variable	B	SE	β	t	p	R^2	ΔR^2	F
1	Independent Self-Construal	0.302	0.033	0.436	9.045	0	.194	.189	(2. 347) = 41.743 p = .000
	Interdependent Self-Construal	-0.054	0.035	-0.075	-1.559	0.12			
2	Independent Self-Construal	0.103	0.037	0.149	2.822	0.005	.364	.357	(4. 345) = 49.390 p = .000
	Interdependent Self-Construal	0.004	0.037	0.005	0.107	0.915			
	Agency orientation	2.773	0.312	0.5	8.888	0			
	Communion orientation	0.214	0.356	0.03	0.6	0.549			
3	Independent Self-Construal	0.099	0.037	0.143	2.711	0.007	.392	.374	(10. 339) = 21.817 p = .000
	Interdependent Self-Construal	-0.007	0.038	-0.009	-0.174	0.862			
	Agency orientation	2.763	0.316	0.499	8.756	0			
	Communion orientation	0.387	0.362	0.055	1.069	0.286			
	Eros	0.032	0.076	0.023	0.426	0.67			
	Ludus	0.24	0.073	0.162	3.306	0.001			
	Storge	-0.019	0.059	-0.014	-0.315	0.753			
	Pragma	-0.047	0.062	-0.035	-0.761	0.447			
	Mania	-0.16	0.07	-0.111	-2.283	0.023			
	Agape	0.086	0.071	0.064	1.208	0.228			
4	Independent Self-Construal	0.095	0.037	0.137	2.598	0.01	.410	.387	(13. 336) = 17.935 p = .000
	Interdependent Self-Construal	0.005	0.038	0.007	0.14	0.889			
	Agency orientation	2.637	0.315	0.476	8.376	0			
	Communion orientation	0.492	0.367	0.07	1.343	0.18			
	Eros	0.03	0.081	0.021	0.368	0.713			
	Ludus	0.201	0.073	0.136	2.766	0.006			
	Storge	-0.018	0.058	-0.014	-0.316	0.752			
	Pragma	-0.026	0.062	-0.019	-0.413	0.68			
	Mania	-0.042	0.079	-0.029	-0.528	0.598			
	Agape	0.085	0.071	0.064	1.205	0.229			
	Secure attachment style	0.002	0.045	0.003	0.044	0.965			
	Anxious-ambivalent attachment style	-0.089	0.028	-0.186	-3.15	0.002			
	Avoidant attachment style	0.035	0.049	0.058	0.71	0.478			

Linear regression analysis showed that the first model used was a good fit to the data, statistically significant and explained for 19% of the variance of general self-efficacy. The analysis showed that independent self-construal was the most significant for and statistically significant in explaining general self-efficacy in the first model. The second model, in which agency and communion were introduced, was a good fit to the data and accounted for 42% of the variance of general self-efficacy. The analysis showed that independent self-construal and agency were the most significant for and statistically significant in explaining generalised self-efficacy in the second model. The third model, in which love types were introduced, was a good fit to the data and accounted for 41% of the variance of generalised self-efficacy. The analysis showed that independent self-construal, agency and Ludus love type were the most significant for and statistically significant in explaining general self-efficacy in the third model. The fourth model, in which attachment styles were introduced, was a good fit to the data and accounted for 43% of the variance of general self-efficacy. The analysis showed that agency and anxious-ambivalent attachment

Table 6. Linear regression coefficients for self-efficacy as a dependent variable in the group of people not using dating websites, n = 215

Step	Variable	B	SE	β	t	p	R^2	ΔR^2	F
1	Independent Self-Construal	0.298	0.042	0.434	7.045	0	.197	.189	(2. 212) = 25.923 p = .000
	Interdependent Self-Construal	-0.068	0.045	-0.093	-1.519	0.13			
2	Independent Self-Construal	0.082	0.043	0.119	1.905	0.058	.427	.416	(4. 210) = 39.170 p = .000
	Interdependent Self-Construal	0.041	0.045	0.057	0.906	0.366			
	Agency orientation	3.431	0.386	0.603	8.879	0			
	Communion orientation	-0.391	0.453	-0.054	-0.863	0.389			
3	Independent Self-Construal	0.075	0.044	0.108	1.705	0.09	.441	.414	(10. 204) = 16.126 p = .000
	Interdependent Self-Construal	0.034	0.048	0.047	0.699	0.486			
	Agency orientation	3.456	0.392	0.607	8.826	0			
	Communion orientation	-0.25	0.461	-0.034	-0.542	0.589			
	Eros	-0.011	0.103	-0.008	-0.104	0.917			
	Ludus	0.178	0.097	0.117	1.834	0.068			
	Storge	0.006	0.071	0.005	0.089	0.929			
	Pragma	-0.053	0.079	-0.038	-0.679	0.498			
	Mania	-0.078	0.094	-0.052	-0.829	0.408			
	Agape	-0.037	0.094	-0.027	-0.396	0.692			
4	Independent Self-Construal	0.072	0.044	0.104	1.634	0.104	.461	.427	(13. 201) = 13.248 p = .000
	Interdependent Self-Construal	0.042	0.049	0.058	0.857	0.393			
	Agency orientation	3.333	0.39	0.585	8.542	0			
	Communion orientation	-0.155	0.463	-0.021	-0.334	0.739			
	Eros	0.042	0.111	0.029	0.375	0.708			
	Ludus	0.133	0.097	0.087	1.362	0.175			
	Storge	-0.008	0.071	-0.006	-0.119	0.905			
	Pragma	-0.054	0.08	-0.039	-0.674	0.501			
	Mania	0.044	0.103	0.029	0.424	0.672			
	Agape	-0.055	0.093	-0.04	-0.595	0.553			
	Secure attachment style	-0.03	0.059	-0.049	-0.503	0.616			
	Anxious-ambivalent attachment style	-0.096	0.036	-0.189	-2.666	0.008			
	Avoidant attachment style	0.037	0.065	0.061	0.567	0.571			

style were the most significant for and statistically significant in explaining general self-efficacy in the fourth model.

The next step was to conduct a linear regression analysis for general self-efficacy as the dependent variable in the group of people using dating sites (see: Table 7.).

An input method was used in the calculations. In the first step, the subscales of the Self-Construal Scale, i.e. the independent self-construal and interdependent self-construal, were entered as predictors. In the second step, the subscales of the Self-Report Questionnaire 30, i.e. communion and agency, were entered. In the third step, love types were introduced, i.e. Eros, Ludus, Storge, Pragma, Mania, Agape. In the fourth step, attachment styles were introduced, i.e. secure attachment style, anxious-ambivalent attachment style, avoidant attachment style.

Linear regression analysis showed that the first model used was a good fit to the data, statistically significant and explained for 17% of the variance of general self-efficacy. The analysis showed that the independent self-construal was the most significant for and statistically significant in explaining general self-efficacy in the first model. The second model, in which agency and communion were introduced, was a good fit to the data and explained for 28% of the variance of general self-efficacy. The analysis showed that independent self-construal and agency were the most significant for and statistically significant in explaining general self-efficacy in the second model. The third model, in which love types were introduced, was a good fit to the data and explained for 34% of the variance of generalised self-efficacy. The analysis showed that independent self-construal, agency, communion, Ludus love type, Mania love type and Agape love type were the most significant for and statistically significant in explaining general self-efficacy in the third model. The fourth model, in which attachment styles were introduced, was a good fit to the data and explained for 36% of the variance of generalised self-efficacy. The analysis showed that independent self-construal, agency, communion, Ludus love type, Agape love type and anxious-ambivalent attachment style were the most significant for and statistically significant in explaining general self-efficacy in the fourth model.

3.4. Mediation analysis

The next step in the process of testing the hypotheses was to perform a mediation analysis for the relationship between love types and self-efficacy, with attachment styles as mediators (see: Figure 1. and Table 8.).

Mediation analysis showed a total indirect effect of Eros love type on general self-efficacy through anxious-ambivalent attachment style ($p = 0.005$), Ludus love type on generalised self-efficacy through anxious-ambivalent attachment style ($p = 0.012$), and Mania love type on general self-efficacy through anxious-ambivalent attachment style ($p<.001$). The analysis showed that Eros love type enhances secure attachment style ($p<.001$), Eros love type enhances anxious-ambivalent attachment style ($p<.001$), anxious-ambivalent attachment style enhances general self-efficacy ($p<.001$), Eros love type enhances avoidant attachment style ($p<.001$), Ludus love type enhances anxious-ambivalent attachment style ($p = 0.002$), Pragma love type enhances anxious-ambivalent attachment style ($p = 0.049$), Pragma love type enhances avoidant attachment style ($p = 0.011$), Mania love type enhances anxious-ambivalent attachment style ($p<.001$), Mania love type enhances avoidant attachment style ($p = 0.007$). Mediation analyses showed that the total indirect effect of Eros love type on general self-efficacy through anxious-ambivalent style of attachment was significant ($p = 0.005$). The total effect of Eros love type related to generalised self-efficacy ($B = 0.21$; $p = 0.018$) was reduced to insignificant after introduction of the mediators (direct effect $B = 1.3$; $p = 0.195$). Mediation analyses showed that the total indirect effect of Mania love type on general self-efficacy through anxious-ambivalent style of attachment was significant ($p<0.001$). The total effect of Mania love type related to general self-efficacy ($B = -2.48$; $p = 0.013$) was reduced to insignificant after introduction of the mediators (direct effect $B = -0.31$; $p = 0.752$).

3.5. Mann–Whitney U test

The next step in the process of testing the hypotheses was to conduct a non-parametric rank-sum test to compare with each other the differences for the study in the group of dating site users and the control group (see: Table 9.).

Analysis using the Mann-Whitney U test showed statistically significant differences between individuals using dating sites and the non-users for independent self-construal (higher level in the group of dating site users), Eros love type (higher level in the control group), Ludus love type (higher level in the group of dating site users), Pragma love type (higher level in the group of dating site users), Mania love type (higher level in the group of dating site users), Agape love type (higher level in the control group), secure attachment style (higher level in the control group), anxious-ambivalent attachment style (higher level in the group of dating site users) and avoidant attachment style (higher level in the group of dating site users).

Table 7. Linear regression coefficients for self-efficacy as a dependent variable in the group of people using dating websites, n = 135

Step	Variable	B	SE	β	t	p	R^2	ΔR^2	F
1	Independent Self-Construal	0.305	0.056	0.432	5.487	0	.186	.174	(2. 132) = 15.098 p = .000
	Interdependent Self-Construal	-0.035	0.056	-0.049	-0.619	0.537			
2	Independent Self-Construal	0.14	0.066	0.198	2.11	0.037	.296	.275	(4. 130) = 13.694 p = .000
	Interdependent Self-Construal	-0.037	0.061	-0.052	-0.605	0.546			
	Agency orientation	1.886	0.526	0.352	3.589	0			
	Communion orientation	0.938	0.572	0.141	1.64	0.103			
3	Independent Self-Construal	0.144	0.066	0.203	2.189	0.03	.392	.343	(10. 124) = 7.991 p = .000
	Interdependent Self-Construal	-0.064	0.061	-0.089	-1.042	0.3			
	Agency orientation	1.866	0.537	0.348	3.478	0.001			
	Communion orientation	1.1	0.58	0.166	1.896	0.06			
	Eros	0.137	0.125	0.09	1.102	0.273			
	Ludus	0.351	0.111	0.244	3.174	0.002			
	Storge	-0.086	0.103	-0.062	-0.834	0.406			
	Pragma	-0.057	0.101	-0.043	-0.565	0.573			
	Mania	-0.274	0.107	-0.201	-2.552	0.012			
	Agape	0.276	0.114	0.211	2.432	0.016			
4	Independent Self-Construal	0.138	0.066	0.196	2.107	0.037	.426	.364	(13. 121) = 6.896 p = .000
	Interdependent Self-Construal	-0.047	0.06	-0.066	-0.777	0.439			
	Agency orientation	1.658	0.537	0.31	3.087	0.003			
	Communion orientation	1.141	0.606	0.172	1.882	0.062			
	Eros	0.072	0.129	0.047	0.559	0.577			
	Ludus	0.327	0.11	0.227	2.982	0.003			
	Storge	-0.07	0.102	-0.051	-0.688	0.493			
	Pragma	0.024	0.104	0.018	0.233	0.816			
	Mania	-0.072	0.131	-0.053	-0.548	0.585			
	Agape	0.302	0.112	0.231	2.69	0.008			
	Secure attachment style	0.041	0.074	0.062	0.561	0.576			
	Anxious-ambivalent attachment style	-0.128	0.051	-0.268	-2.485	0.014			
	Avoidant attachment style	0.012	0.077	0.018	0.159	0.874			

4. Discussion

The aim of the present study was to test the existence of relationships between personality determinants (independent self-construal, interdependent self-construal, communion and agency), love attitudes, attachment styles and self-efficacy. To test the hypotheses, a number of statistical analyses were conducted, the results of which are presented and discussed below. The psychology of love is a sub-discipline with a scarce body of empirical knowledge. Also, the study group, i.e. people using dating sites, comprises a population that has never been researched before. Hence, due to the exploratory nature of this study and its conclusions it may serve as the point of departure for future research in this area.

Hypothesis H1 assumed that there would be statistically significant relationships between self-construal, communion and agency, attachment styles, love types and self-efficacy in people using dating sites. It was partially supported. Among the variables that did not show statistically significantly correlations

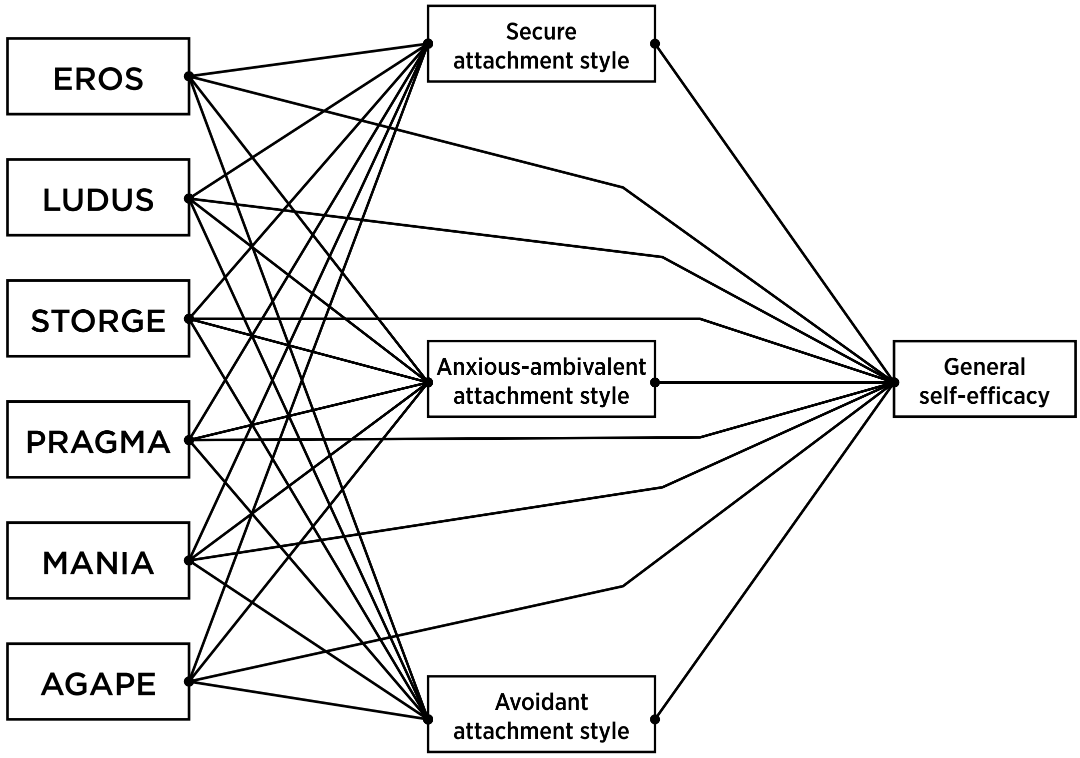

Figure 1. A proposed model for explaining self-efficacy by love styles with attachment styles as mediators.

with self-efficacy in the sample are interdependent self-construal, Eros love type, Storge love type, Pragma love type and Agape love type. Significant relationships between the independent variables and the dependent variable were also shown by correlation analyses in the group of dating site users and the control group, however much fewer.

The obtained results of the correlation analysis regarding the relationship between self-construal and self-efficacy are in line with the results obtained in the study by Suryaningrum (2017) which found a strong relationship between self-efficacy with independent self-construal. Suryaningrum draws attention to the occurrence of freedom of expression and success and achievement orientation in the independent self-construal, which, as a result, may determine beliefs related to coping in specific situations or in the light of specific challenges (Suryaningrum, 2017). He also highlighted the applicability of the referenced research in all cultural settings. The results obtained in the conducted correlation analysis of the relationship between love types and attachment styles were confirmed in other studies conducted to that date (Heaven et al., 2004, Levy & Davis, 1988). They further showed that, in the context of a romantic relationship, secure attachment style was able to predict positive relationship characteristics, while anxious-ambivalent and avoidant attachment styles predicted negative characteristics. Conclusions of the study by Suryaningrum, are confirmed by the results obtained in the present research where the relationship between specific attachment styles and the respective love types was observed. The Ludus attitude where love is treated as a game and usually involves short-lasting relationships, showed positive and statistically significant correlations with the avoidant attachment style, and negative and statistically significant correlations with the secure attachment style. The Pragma love type involving behaviours focused on calculating the gains and losses that may occur as a result of engaging in a relationship, showed positive and statistically significant correlations with the anxious-ambivalent and avoidant attachment styles, and negative and statistically significant correlations with the secure attachment style. Mania love type related to obsessiveness, intensity and

Table 8. Results of mediation analysis for self-efficacy as a dependent variable, love styles as predictors, and attachment styles as mediators

				95% C.I.				
Type	Effect	B	SE	L	U	β	z	p
Indirect	LAS_EROS ⇒ KSP_BEZ ⇒ GSES	0.093	0.057	-0.019	0.205	0.066	1.634	0.102
	LAS_EROS ⇒ KSP_AMB ⇒ GSES	0.083	0.030	0.025	0.141	0.059	2.808	0.005
	LAS_EROS ⇒ KSP_UNI ⇒ GSES	-0.090	0.066	-0.220	0.040	-0.064	-1.351	0.177
	LAS_LUDUS ⇒ KSP_BEZ ⇒ GSES	-0.007	0.012	-0.031	0.017	-0.005	-0.568	0.570
	LAS_LUDUS ⇒ KSP_AMB ⇒ GSES	0.068	0.027	0.015	0.121	0.046	2.518	0.012
	LAS_LUDUS ⇒ KSP_UNI ⇒ GSES	-0.000	0.010	-0.020	0.020	-0.000	-0.031	0.975
	LAS_STORGE ⇒ KSP_BEZ ⇒ GSES	0.002	0.009	-0.016	0.021	0.002	0.229	0.819
	LAS_STORGE ⇒ KSP_AMB ⇒ GSES	-0.007	0.018	-0.042	0.028	-0.005	-0.410	0.682
	LAS_STORGE ⇒ KSP_UNI ⇒ GSES	0.002	0.008	-0.015	0.018	0.001	0.216	0.829
	LAS_PRAGMA ⇒ KSP_BEZ ⇒ GSES	-0.007	0.011	-0.028	0.013	-0.005	-0.696	0.486
	LAS_PRAGMA ⇒ KSP_AMB ⇒ GSES	-0.036	0.020	-0.076	0.004	-0.027	-1.786	0.074
	LAS_PRAGMA ⇒ KSP_UNI ⇒ GSES	0.022	0.018	-0.014	0.057	0.016	1.205	0.228
	LAS_MANIA ⇒ KSP_BEZ ⇒ GSES	0.003	0.011	-0.019	0.025	0.002	0.228	0.820
	LAS_MANIA ⇒ KSP_AMB ⇒ GSES	-0.213	0.055	-0.320	-0.106	-0.148	-3.898	< .001
	LAS_MANIA ⇒ KSP_UNI ⇒ GSES	0.027	0.022	-0.016	0.070	0.019	1.220	0.223
	LAS_AGAPE ⇒ KSP_BEZ ⇒ GSES	-0.004	0.011	-0.026	0.018	-0.003	-0.371	0.710
	LAS_AGAPE ⇒ KSP_AMB ⇒ GSES	-0.022	0.022	-0.064	0.020	-0.017	-1.023	0.306
	LAS_AGAPE ⇒ KSP_UNI ⇒ GSES	0.002	0.010	-0.017	0.021	0.002	0.204	0.839
Component	LAS_EROS ⇒ KSP_BEZ	1.062	0.132	0.803	1.322	0.461	8.026	< .001
	KSP_BEZ ⇒ GSES	0.088	0.053	-0.015	0.191	0.144	1.669	0.095
	LAS_EROS ⇒ KSP_AMB	-0.593	0.158	-0.902	-0.283	-0.203	-3.753	< .001
	KSP_AMB ⇒ GSES	-0.140	0.033	-0.205	-0.075	-0.291	-4.232	< .001
	LAS_EROS ⇒ KSP_UNI	-1.121	0.129	-1.374	-0.869	-0.479	-8.708	< .001
	KSP_UNI ⇒ GSES	0.080	0.059	-0.035	0.195	0.133	1.367	0.172
	LAS_LUDUS ⇒ KSP_BEZ	-0.079	0.130	-0.334	0.177	-0.032	-0.604	0.546
	LAS_LUDUS ⇒ KSP_AMB	-0.487	0.156	-0.792	-0.182	-0.158	-3.132	0.002
	LAS_LUDUS ⇒ KSP_UNI	-0.004	0.127	-0.253	0.245	-0.002	-0.031	0.975
	LAS_STORGE ⇒ KSP_BEZ	0.025	0.107	-0.184	0.234	0.011	0.231	0.817
	LAS_STORGE ⇒ KSP_AMB	0.052	0.127	-0.197	0.302	0.019	0.412	0.680
	LAS_STORGE ⇒ KSP_UNI	0.023	0.104	-0.181	0.226	0.010	0.219	0.827
	LAS_PRAGMA ⇒ KSP_BEZ	-0.084	0.110	-0.300	0.131	-0.038	-0.766	0.444
	LAS_PRAGMA ⇒ KSP_AMB	0.259	0.131	0.001	0.516	0.092	1.971	0.049
	LAS_PRAGMA ⇒ KSP_UNI	0.273	0.107	0.063	0.483	0.121	2.549	0.011
	LAS_MANIA ⇒ KSP_BEZ	0.029	0.127	-0.220	0.278	0.012	0.230	0.818
	LAS_MANIA ⇒ KSP_AMB	1.518	0.152	1.221	1.815	0.507	10.014	< .001
	LAS_MANIA ⇒ KSP_UNI	0.334	0.124	0.091	0.576	0.139	2.699	0.007
	LAS_AGAPE ⇒ KSP_BEZ	-0.048	0.125	-0.293	0.198	-0.022	-0.381	0.703
	LAS_AGAPE ⇒ KSP_AMB	0.158	0.150	-0.135	0.451	0.057	1.055	0.292
	LAS_AGAPE ⇒ KSP_UNI	0.025	0.122	-0.214	0.264	0.011	0.206	0.837

Type	Effect	B	SE	95% C.I. L	95% C.I. U	β	z	p
Direct	LAS_EROS ⇒ GSES	0.124	0.096	-0.064	0.312	0.088	1.295	0.195
	LAS_LUDUS ⇒ GSES	0.208	0.087	0.039	0.378	0.141	2.404	0.016
	LAS_STORGE ⇒ GSES	-0.042	0.070	-0.179	0.094	-0.032	-0.607	0.544
	LAS_PRAGMA ⇒ GSES	0.134	0.073	-0.009	0.277	0.099	1.836	0.066
	LAS_MANIA ⇒ GSES	-0.030	0.095	-0.216	0.156	-0.021	-0.316	0.752
	LAS_AGAPE ⇒ GSES	-0.026	0.082	-0.186	0.135	-0.019	-0.313	0.754
Total	LAS_EROS ⇒ GSES	0.211	0.089	0.036	0.386	0.150	2.360	0.018
	LAS_LUDUS ⇒ GSES	0.269	0.088	0.097	0.442	0.182	3.062	0.002
	LAS_STORGE ⇒ GSES	-0.046	0.072	-0.187	0.095	-0.034	-0.635	0.526
	LAS_PRAGMA ⇒ GSES	0.112	0.074	-0.034	0.258	0.083	1.508	0.132
	LAS_MANIA ⇒ GSES	-0.213	0.086	-0.381	-0.045	-0.148	-2.489	0.013
	LAS_AGAPE ⇒ GSES	-0.050	0.085	-0.216	0.116	-0.037	-0.591	0.555

jealousy showed positive and statistically significant correlations with anxious-ambivalent and avoidant love types. The Eros love type (belief in love at first sight, desire to provide as much pleasure as possible to each other, not only bodily pleasure), the Storge love type (based on slowly developing attachment and friendship) and the Agape type (altruistic love) showed positive correlations with the secure attachment style. Furthermore, the results obtained in the present study are in line with those obtained by Kale (2020). Indeed, they draw attention to the possibility of a negative effect of anxious-ambivalent attachment

Table 9. Results of the analysis using the non-parametric Mann-Whitney U test

	People using dating sites (n = 135)				Control group (n = 215)						
Variable	M	Mdn	SD	SE	M	Mdn	SD	SE	U	p	r
Independent Self-Construal	44.39	44	7.75	0.67	42.85	42	7.93	0.54	12977	0.095	0.106
Interdependent Self-Construal	40.81	41	7.7	0.66	40.03	40	7.26	0.51	13657	0.353	0.059
Agency orientation	4.92	4.8	1.02	0.09	4.75	4.73	0.96	0.07	13354	0.208	0.080
Communion orientation	5.7	5.87	0.82	0.071	5.62	5.67	0.75	0.051	13150	0.139	0.094
Eros	13.26	13	3.58	0.308	15.47	16	3.83	0.26	9295	<.001	0.360
Ludus	10	9	3.8	0.328	9.17	8	3.58	0.244	12664	0.044	0.127
Storge	12.21	12	3.96	0.341	12.73	13	4.15	0.283	13234	0.164	0.088
Pragma	10.27	10	4.16	0.358	9.46	9	3.92	0.267	12907	0.08	0.111
Mania	11.73	12	4.02	0.346	10.97	11	3.62	0.247	12998	0.099	0.104
Agape	11.97	12	4.18	0.36	13.03	13	3.98	0.271	12263	0.014	0.155
Secure attachment style	40.94	41	8.22	0.707	44.65	46	9.13	0.623	10492	<.001	0.277
Anxious-ambivalent attachment style	33.48	34	11.51	0.991	27.92	27	10.73	0.732	10445	<.001	0.280
Avoidant attachment style	24.49	25	8.1	0.697	19.04	17	9.08	0.619	9145	<.001	0.370
General self-efficacy	30.07	30	5.48	0.471	29.43	29	5.46	0.372	13879	0.491	0.044

style and avoidant attachment style on self-efficacy. This can have a significant impact on the establishment and progression of relationships, due to the fact that individuals with anxious-ambivalent style may have limited coping skills in social situations. Also, individuals with avoidant attachment style may manifest problems in establishing relationships with others (Kale, 2020).

Hypothesis H1a assumed the existence of differences in the relationships between the independent variables and the dependent variable in the groups of dating site users and non-users. This hypothesis was supported. The differences occur in the case of the relationship between communion and self-efficacy – no such relationship occurs in the group of non-users, while a positive correlation occurs in the group of dating site users. The situation is similar in the case of the relationship between avoidant attachment style and self-efficacy – it does not occur in the group of non-users, while a negative correlation can be observed in the group of people using dating sites. The difference in Pearson correlation coefficients between the study group and the control group should also be highlighted. In the group of people using dating sites, higher coefficients were observed for the relationship between self-efficacy and independent self-construal and communion.

Hypothesis H2 assuming that self-efficacy will be explained by self-construal, communion and agency, attachment styles and love types was partially supported. In the study sample, in the final step of the analysis in which all variables were entered, the independent self-construal, agency, Ludus love type and anxious-ambivalent attachment style were found significant in explaining self-efficacy.

Hypothesis H2a assumed the existence of differences in the level of explaining general self-efficacy by the interdependent and independent self-construal , communion and agency, attachment styles and love types in the groups of users and non-users of dating sites; this hypothesis was supported. The dependent variable was explained by the independent variables in 43% in case non-users, while in 36% in case of users of dating sites. For non-users, the following predictors were statistically significant in explaining the variance of the dependent variable: agency and anxious-ambivalent attachment style . In the group of people using dating sites, the following predictors were statistically significant for explaining the variance of the dependent variable: the independent self-construal, agency, communion, Ludus love type, Agape love type, and anxious-ambivalent attachment style.

When analysing the obtained results, it is important to note the high level of explanation of self-efficacy by independent and interdependent self-construal, communion and agency, love types and attachment styles. It was 39% for the total sample, 43% for the control group and 36% in the study group. This represents an important step towards a closer understanding of the relationships occurring between self-efficacy and independent variables building the model presented in the study. Self-efficacy is conceptualised? as the expected result of actions taken by a person, taking into account previous experiences, which may explain the relationships shown in this study – among the statistically significant predictors in the presented model there were variables focusing on personal skills, experience or effectiveness in achieving goals (Markus & Kitayama, 1991; Oleś, 2003; Pilarska, 2012). Thus, there is room for further research to broaden empirical knowledge on the interdependencies between the aforementioned statistically significant predictors, i.e. self-construal, communion and agency, and self-efficacy.

Hypothesis H3 assumed that attachment styles will play a mediating role in the relationship between love types and self-efficacy. This hypothesis was partially supported – the conducted analysis showed the presence of the mediating effect. It was observed in the case of the Eros love type related to self-efficacy when the anxious-ambivalent attachment style was included as a mediator. A mediating effect was also observed for the Mania love type related to self-efficacy after the inclusion of the mediator – anxious-ambivalent attachment style. Among the hypotheses put forward in this study was the assumption of a mediating role of attachment styles in the relationship between love types and self-efficacy. However, it was shown that, of the three attachment styles, only the anxious-ambivalent style played a mediating role in the relationship between love types and self-efficacy. The mediating role of the anxious-ambivalent attachment style was related to two out of five love types, i.e. the Eros love type and the Mania love type. Although the literature review failed to indicate any model conceived by the researchers with the variables used in the present study, it is important to mention the results of studies reporting on the important role of attachment styles in self-perception (Wu, 2009 after Berger, 2001; Dozier & Lee, 1995; Kobak & Sceery, 1988). It has been observed that distorted self-image may be associated with an avoidant attachment style, similar to that of an anxious-ambivalent style. Distress may also be regarded as a distortion – people with an avoidant attachment style tend to deny it, whereas in the case of an anxious-ambivalent attachment style, there is a tendency to reinforce it, which can have a significant impact on presented love attitudes and the way one behaves in relation to another person.

Hypothesis H4 assumed the presence of statistically significant intergroup differences for the study variables – this was partially supported. The non-parametric Mann-Whitney U test showed significant differences for independent self-construal, Eros love type, Ludus love type, Pragma love type, Mania love type, Agape love type, secure attachment style, anxious-ambivalent and avoidant attachment styles. The analysis also showed that the levels of independent self-construal (median difference of 2), Ludus love type (median difference of 1), Pragma love type (median difference of 1), Mania love type (median difference of 1), anxious-ambivalent attachment style (median difference of 7) and avoidant attachment style (median difference of 8) were higher in the group of people using dating sites. What is more, lower levels of Eros love type (median difference of 3), Agape love type (median difference of 1) and secure attachment style (median difference of 5) were observed in the dating site group.

Hypothesis H4a assuming higher levels of self-efficacy in the group of people using dating sites was not supported due to the lack of statistically significant differences between the study group and the control group for the mentioned variable.

Hypothesis H4b assuming a higher level of community orientation in the group of people using dating sites was not supported due to the lack of statistically significant differences between the study group and the control group for the mentioned variable.

Hypothesis H4c assuming higher levels of interdependent self-construal in the group of people using dating sites was not supported due to the lack of statistically significant differences between the study group and the control group for the mentioned variable.

5. Limitations of the study

This study has some limitations. First, the responses were obtained via an online questionnaire on the Google Forms platform. Online surveys run the risk of recruiting mainly volunteers or obtaining multiple responses from one and the same respondent. What is more, respondents may experience concentration problems, as the researcher has no control over the distractors, and it is impossible to dispel any doubts or give appropriate instructions should the respondent need it (Mącik, 2005). Despite the above-mentioned possible distractions, the increasing popularity of remote data collection should be emphasised, as it allows, among other things, to reach a much larger number of respondents than the paper-based methods. Furthermore, any potential problems with respondents' concentration and answering questions in a sincere manner may have been caused by the length of the survey – the respondents answered questions from as many as five psychological tools, in addition to the metric questions. Among the limitations of the survey, age of the respondents should also be taken into account, as their mean age corresponds to the period of young adulthood. The predominance of women among the respondents is also noteworthy. In light of the developmental nature of the scientific resources in the field of the psychology of love and cognition via the Internet, the body of empirical knowledge in the aforementioned sub-discipline may also be a limitation of sorts, as the hypotheses presented in this study were not based on the research results obtained by the researchers to date. Nonetheless, the hypotheses put forward by the author are empirically verifiable and can thus form the basis for future research.

6. Practical implications of the study

By laying the groundwork for further research into the psychology of love and the problematic use of dating sites, this thesis may inspire? future empirical knowledge of possible relationships between the variables selected and described in this thesis.

Psychologists are professionals expected to maintain the highest level of public confidence. In their work, they explore the world of their clients, often touching on intimate or difficult topics centred on emotions, attitudes, behaviours or feelings, which is connected with high expectations towards him/her (Panas, 2012). These include sound knowledge, competence in diagnosis and therapy, and continuous professional development. In light of the exploratory nature of the present study, the drawn conclusions may come as a potential source of empirical knowledge that may be relevant in the context of assistance or therapeutic activities carried out by a psychologist.

When discussing practical implications of the present study, attention should also be paid to the myths and stereotypes present in society about people using dating sites. Among the numerous definitions of *a* stereotype, it is described as *an opinion adopted by a given person or a group, usually containing a false, unverified and simplified judgement* (Biron, 1966 after: Grabowska, 2000). In view of the aforesaid definition, attention should be paid to the need to broaden the empirical knowledge in the field addressed by this study, to be able to provide a reliable source of information about the study group.

7. Perspective for future research

Problems with grasping the essence of love have been highlighted in the body of this paper a number of times. Psychology of love is a sub-discipline of psychology, which despite some established theories explaining and describing it, still lacks the empirical knowledge in this area acquired in Polish conditions. Also, people using dating portals comprise a group whose characteristics have not been explored to date, and further research in this area is necessary. Hence, the obtained results may serve as the groundwork for future research on the relationship between personality determinants, love types, attachment styles and self-efficacy in the context of dating website use. In order to further explore this area in future research, it is advisable to include other variables that may mediate or may be mediators in the relationship between love types and self-efficacy. Data such as the number of respondent's relationships, their duration or the purpose of creating an account on a dating site are also worth including in future research. Technological change at the turn of the 20th and 21st centuries represented a revolution with regard to alternative ways of meeting new people. Instant messaging, proliferation of various types of websites and, finally, dating sites is an important outcome enabling one to make new acquaintances. Given the pace of social change, it is advisable for researchers to make further attempts to gain a deeper insight into the psychological characteristics of people using dating sites and the very dating sites. It may also prove valuable to adopt an interdisciplinary approach to the aforementioned phenomenon and the study group.

Summary

The aim of the present study was to investigate the relationship between communion and agency, interdependent and independent self-construal, love types, attachment styles and self-efficacy in a group of people using dating sites. It responds to the need for research in the psychology of love and research conducted in a group of people using dating sites. It also provides grounds for further research in this area, whereas the obtained results and drawn up conclusions provide a foundation for replication studies and further empirical verification.

The statistical analyses used in the present study partially supported the hypothesis assuming the existence of relationships between the study variables. – The results of the correlation analysis may point to a link between self-construal, communion and agency, love types and attachment styles and self-efficacy. Also, the results of the linear regression analysis highlight the variables that are significant in

explaining self-efficacy, while confirming the presence of the relationships shown in the correlation analysis. The hypothesis assuming a mediating role of attachment styles in the relationship between love types and general self-efficacy was also partially supported, showing a mediating role for anxiety-ambivalent style relating to two out of five love types. However, the analysis with the Mann-Whitney U test showed no statistically significant differences between the group of dating site users and the group of non-users.

Self-efficacy construed as a belief in one's own abilities and capabilities to undertake specific actions in order to achieve one's goals, in the light of the obtained survey results, makes it possible to perceive the independent variables as important components likely to affect one's self-efficacy. Moreover, the results highlight the important role of the variables based on personal skills, experiences and the individual's focus on him/herself and the pursuit of his/her goals in the perception of self-efficacy.

The present study focused not so much on love *per se* but on determinants of self-efficacy in people who open themselves to a potential romantic relationship using dating sites. Dating sites are an increasingly important part of the world of the 21st century. In 2015, dating apps were used by one in seven Poles, while data from 2023 states that one in three Polish citizens use dating sites (DigitalCare, 2023; Oronowicz-Jaśkowiak & Oronowicz-Jaśkowiak, 2015). In light of the growing scale of the phenomenon of making new acquaintances via the Internet, it seems necessary to learn more about its psychological aspects. It is also necessary to mention the myths and stereotypes that have arisen over time about people using dating portals and people who fail to use them. They should be refuted by scientific research, which in a reliable and unbiased manner would find out more about and be able to describe the group of people using dating sites.

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In search of determinants of pro-social potential in a group of honorary blood donors – the importance of personality and health resources for interpersonal generosity

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Abstract: Worldwide reports attest to the burgeoning popularity of research in the group of honorary blood donors. It involves a wide range of variables related to both fear and anxiety associated with the blood donation process, as well as the search for traits and resources motivating people to donate blood and donating on a regular basis, and factors related to prosocial potential in this group. Accordingly, it was decided to explore the relationship between health behaviour, framed in terms of an individual's health resources, empathy, self-construal, community and agency – understood as personal resources – and interpersonal generosity – understood as a determinant of the individual's prosocial potential. The study sample included 580 individuals, 445 of whom (76.7%) were Honorary Blood Donors and 135 (23.3%) were non-donors. The following tools were used: the Health Behaviour Inventory (IZZ), the Self-Construal Scale (SKJ), the Cognitive and Affective Empathy Questionnaire (QCAE), Scales for Measuring Agency and Communion (30-item self-description questionnaire) and the Interpersonal Generosity Scale (IGS). The results of the correlation analyses showed associations between certain health behaviours, cognitive and affective empathy, self-construal, communion and agency and interpersonal generosity. The linear regression analysis found that preventive behaviours, positive psychological attitudes, cognitive and affective empathy, interdependent self and communality (in the total sample) were significant for interpersonal generosity. Comparison of results of the correlation and regression analyses showed differences in the strengths of the associations between the Blood Donor group and the control group, while analysis using the Mann-Whitney U test, despite showing statistically significant differences between the groups, did not show them to be large enough.
Keywords: Interpersonal generosity, personal resources, health behaviours, self-construal, empathy, communion and agency

1. Introduction

In case of an emergency threatening a person's health or life, need for major surgery or any other situation that saves a person's life, one of the key procedures to guarantee survival is blood transfusion. This term can be most simply defined as the intravenous administration of whole blood (or blood components) that has first been collected in sufficient quantity from a donor, tested and placed in a blood bank. In order for the blood to reach patients, it is necessary for the entire blood donation and treatment system to function properly in the collection, testing, storage and disposal of the red substance obtained from blood donors.

Honorary blood donation can be defined in two ways. Firstly, as an integrated system of blood donation centres, which in Poland is comprised of twenty-one Regional Blood Donation and Blood Treatment Centres and their field branches, the Military Blood Donation and Blood Treatment Centre and the Blood Donation and Blood Treatment Centre of the Ministry of Internal Affairs and Administration, as well as all procedures accompanying the donation process. Secondly, it is a notion, attitude or pro-social behaviour that involves donating blood selflessly to save lives . Research in the group of blood donors is highly interdisciplinary. It covers many disciplines in psychology, including social, health, personality or emotion and motivation psychology. What they have in common, however, is that they can generally be divided into two research orientations. The former involves the study of factors that motivate and empower people to donate blood or current donors to continue regular donations (Masser et al., 2008), as well as factors that can be considered as determinants of interpersonal and intrapersonal potential for blood donation (Kosowski, 2021a, 2021b, 2023). The latter focuses on exploration of factors that could be defined as emotional and motivational barriers in the context of the initiation of donation and the retention of donors, which mainly include fear of donation and its different steps, as well as ambivalence towards donation (Bagot et al., 2016; Duboz & Cunéo, 2010; France et al., 2013; Kowalsky et al., 2014; Martín-Santana & Beerli-Palacio, 2013; Newman, 2014; Pagliariccio & Marinozzi, 2012; Zucoloto et al., 2019).

The study presented in this paper, continues previous research exploring the resources enhancing potential for blood donation using Hobfoll's Conservation of Resources Theory (Kosowski, 2021a, b, 2023). In relation to previous research, interpersonal generosity was chosen as a determinant of prosocial potential.

1.1. Personal resources

Personal resources are conceptualised as material, physical or psychological predispositions or characteristics. They are important for efficient functioning of an individual in different situations – whether related to a stress factor or to one's general potential. The potential can refer to efficient functioning at work as well as, for example, to pro-social activities or improving one's health (Mróz, 2014; Ogińska-Bulik et al., 2015; Pietras-Mrozicka, 2016). Personal resources are a component of the human psyche that is shaped and enriched in the evolutionary process (Pietras-Mrozicka, 2016). They develop with the process of socialisation, or they can be inborn, which is why, in addition to personal resources understood as specific characteristics of an individual, social/environmental resources have also been distinguished; these can be considered as features of the external environment (social, civilisational, cultural or even natural) important for improving the functioning of the person (Pietras-Mrozicka, 2016). In the presented study, personal resources were primarily construed in accordance with Hobfoll's theory (1989; 2006), which considers them to be objects, energies or intrapersonal conditions being guarantors of survival or likely to be used as tools that help to pursue situations or objects of value that ensure person's survival. The Conservation of Resources Theory (COR), opines that an individual strives to acquire, protect, and retain resources construed as everything that constitutes/presents a value to an individual or everything that ensures/guarantees his or her efficient survival in any situation (Łaguna, 2015). Hobfoll proposes to approach the issue of personal resources in the context of their occurrence in different configurations, the so-called resource caravans. This means that any single resource may be associated with other resources, and a person acquiring them intentionallyor developing them through life experiences, acquires a certain set of them, as in a certain way each resource is coupled with the next one(s) (after: Dudek, Bielawska-Batorowicz, 2012; Mróz, 2014). An analogy can, therefore, be made with not having a particular resource – the consequence of missing one can be missing the others (Mróz, 2014).

1.2. Health behaviours (health potentials)

After WHO's (1948) Constitution, the main determinant of human health is an individual's perceived general psychosocial well-being, that is positive feelings, attitudes and subjective, positive assessments of one's mental, physical and social functioning , which are additionally accompanied by the absence of illness or weakness (Heszen, 2012). Health is also included in the category of human potential, i.e. "a disposition that enables adaptive functioning in a specific environmental context" (Heszen-Celińska, Sęk, 2020, p. 34). In the context of this category, the role of health potential which, by improving a person's effective functioning, strengthens their potential for activities related to helping others, becomes crucial for the presented study. Health potential includes many personality traits, temperament traits, interpersonal traits, etc. (Borys, 2010). In the context of the presented study, health-oriented behaviours – i.e. intentional actions of an individual aimed at bringing him/her closer to achieving a state of health – become interesting.

Health behaviour is a key determinant of the overall health of individuals. It is a set of actions related to one's body, psychological/mental sphere, diet and various types of habits that are intended to maintain and restore health or cause immediate or delayed damage (Gruszczyńska et al., 2015). Therefore, two basic types of health behaviours are distinguished – [1] pro-health behaviours, and [2] anti-health behaviours:

[1] Health-promoting behaviours are conscious and positive activities (Gruszczyńska et al., 2015) intended to strengthen the health potential and to eliminate actions and habits that may have a negative impact on the health of an individual (Muszalik et al., 2013). Such behaviours include physical activity, avoiding consumption of intoxicating substances or unhealthy products (Woynarowska, 2007). These behaviours enhance the health of an individual and are important for his or her subjective psychological well-being (Gruszczyńska et al., 2015).

[2] Anti-health behaviours are negative or self-destructive actions deteriorating the health of an individual and disrupting his or her functioning in the psychosocial, cognitive, physical, and other aspects. (Sygit-Kowalkowska, 2014). Such behaviours include, among others, consumption of harmful substances, engaging in dangerous activities, mutilation, etc.

Health behaviours can, therefore, be considered as a construct impossible to be clearly defined. In the presented research, they were assumed to be positive behavioursmaking the health potential and an internal resource of honorary blood donors being a determinant of a healthy life that, consequently, may be important in helping others effectively.

In the present study, we examined pro-health behaviours, captured by Zygfryd Juczyński (1999) as:

1. Good eating habits – including, for example, eating unprocessed, healthy foods or controlling body weight.
2. Preventive behaviours – including following medical advice or seeking health information.
3. Positive mental attitudes – including, for example, avoiding stressful or upsetting situations.
4. Health practices – including actions intended to maintain health-promoting habits.

1.3. Self-construal

In the broadest sense, self-construal refers to the way an individual understands oneself in relation to other people, whether as essentially independent or interdependent with others (Markus & Kitayama, 1991; Sinha & Lu, 2016). As Aleksandra Pilarska (2011) points out, the concept of the self-construal has been developed and understood through three orientations. First: as a combination of the cultural continuum – 'individualism-collectivism' – and personality predispositions. Second: as a component of of the complex concept of Self, which is still under discussion and scientific analysis. Third: as an expression of the universal nature of the pursuit of individuation and affiliation (Pilarska, 2011). There is a noticeable divergence among researchers in understanding the relationship between individuation and affiliation orientation, with the majority accepting that both co-occur in an individual (Pilarska, 2011). The analysis of the literature revealed two basic research perspectives. The first approach emphasises existence of a dimension with individuation and affiliation as the opposite poles (Markus & Kitayama, 1991; Triandis, 1989), where individuation is a determinant of developmental achievement, indicative of the individual's maturity, and affiliation is the counterpart of the so-called "ideal self" (Baumeister, Leary, 2017; Imamoglu, 2003). The second approach considers individuation and affiliation orientation as complementary, and independent needs of the individual and his/her motivations (Li, 2002; Oyserman & Lee, 2007; Yamada & Singelis, 1999). According to Pilarska (2011), the latter approach gains the most support in empirical research.

The concept of self-construal appears to be scientifically interesting in view of the groups of respondentsparticipating in the present study. Duclos and Barasch (2014), investigating the relationship between self-construal and generosity in groups representing collectivist (Chinese inhabitants) and individualist (United States) cultures who were helping people in need, found that self-construal orientation is important in shaping generosity. Another study (Ma-Kellams & Blascovich, 2012), also comparing representatives of two cultures, highlighted that interdependent individuals from countries with collectivist cultures showed higher levels of empathy, that is greater understanding of the state of others and emotional contagion.

1.4. Communion and Agency

The concept of the so-called 'Big Two', has its origins in David Bakan's claim (1966), which assumed that the main components of an individual's existence are [1] the pursuit of his or her own goals, and [2] participation in both broader and narrower relationships (Bakan, 1966). Bakan, however, was more psychodynamically oriented, and thus his assertion was more of an inspiration for other scholars (Wojciszke & Cieślak, 2014). The first researcher who used an empirical approach to investigate the question of communion and agency was Vicki Helgeson (Helgeson, 1994, 2003), who framed the above orientations in terms of broad personality traits. This was confirmed by anotherstudy conducted by Bogdan Wojciszke and colleagues, who found the relationships between communion and agency and the Big Five traits, mental health, life satisfaction or coping strategies (Wojciszke & Cieślak, 2014; Wojciszke & Szlendak, 2010). The concept in question does not assume the presence of a continuum, so there is no question of a 'community agency' dimension, but of two separate, independent dimensions (Aksamit, 2016). It is important to note that while there are no dimensions between the two presented traits, they already occur within each trait – from a balanced to an unrestrained form (Aksamit, 2016; Golińska, 2019; Wojciszke & Cieślak, 2014; Wojciszke & Szlendak, 2010), howeverthese extreme intensities are not the focus of the present study.

Communion is understood as the so-called 'warmth' dimension (Wojciszke & Szlendak, 2010) – the manifestation of an individual's existence as a component of a larger (social) organism, which is expressed through actions aimed at integration with others (cooperation, caring, etc.). It involves focusing on others, caring for them and striving for affiliation – the sense of belonging, coexistence and usefulness to the social group (Peret-Drążewska, 2014; Wojciszke & Szlendak, 2010). It also involves focusing on the goals of others and one's own relationships that accompany these goals (Wojciszke & Cieślak, 2014). Community also includes an individual's actions, which can be considered in terms of gains and losses for other people (Wojciszke & Szlendak, 2010).

'Agency', referred to as competence (Wojciszke & Szlendak, 2010), is understood as content related to the efficient and effective realisation of one's own goals and to the evaluation of the individual usefulness and profitability of the individual's own actions. While communitarianism focuses on the action of the individual directed towards the group, causality is the focus on the self, by regarding the self as the realiser of goals (Wojciszke & Cieślak, 2014).

1.5. Empathy

Empathy is a theoretical construct that has sparked numerous scientific controversies/debates? for decades now, and stil continues to evolve (Czerniawska, 2002; Kliś, 2012). The reasons for this include the complexity of the construct, the multitude of ways in which it can be defined, the ambiguity in identifying its origins, and the difficulty in precisely determining the mechanisms that trigger behavioral expressions or specific patterns of behavior associated with empathizing (Czerniawska, 2002). The plethora of definitions and issues related to empathy stems primarily from divergent approaches to understanding the construct (Wilczek-Rużyczka, 2002). Each approach distinctly frames its structure and highlights its interpersonal or intrapsychic nature (Czerniawska, 2002; Wilczek-Rużyczka, 2002). Research on empathy has predominantly been conducted through the lens of two research orientations – cognitive and affective (Davis, 1999a; Kosowski, 2021b) which are outlined below.

The cognitive approach conceptualizes empathy as the endeavor to understand the functioning and emotional experiences of others on a cognitive level, meaning it is confined to understanding the states and situations of another person without adopting or sharing their emotions (Davis, 1996, 1999a; Davis et al., 1999a). In other words, cognitive empathy involves adopting the perspective of another person, which allows to understand that each individual perceives the surrounding world subjectively (Davis et al., 1999b; Kosowski, 2021a). Skarżyńska (1981) equates the cognitive concept of empathy with the process of interpersonal decentration – the ability to take another person's perspective and to play a specific social role. Hollin (1994), who might be included among representatives of this theoretical orientation, asserts that empathy is the ability to perceive the world, including one's own behavior, through adopting the viewpoints of others. Meanwhile, Hogan (1969) considers it an act of constructing/sharing? the mental state of others for one's own needs (Smith, 2006), which is nothing more than generating a mental/cognitive representation.

Researchers examining affective empathy view it as the ability to emotionally respond to the observed experiences of others (Kaźmierczak, 2008; Kaźmierczak et al., 2007; Kosowski, 2021b). According to Nancy Eisenberg and colleagues (2006), empathy is an emotional response that is similar or identical to the feelings of another person, taking into account the situational context (Lasota, 2019). According to this research orientation, an appropriate reaction to or individual reflection of another person's affective state requires activation of cognitive processes – without understanding the feelings, one cannot respond adequately.

The cognitive approach puts more emphasis on understanding and being aware of the subjectivity of another person's states (Davis, 1999b; Davis et al., 1999b; Kosowski, 2021a, b). By contrast, the affective approach highlights the "contagion" of observed emotions from another person, stemming from the understanding of those emotions (Reykowski, 1992). In the aforementioned definition of the affective empathy, it is evident that an affective response cannot occur without decoding the observed emotions of another person through cognitive tools. Therefore, Davis (1999a) suggested that empathy should be perceived and understood as a broad spectrum of both cognitive and affective processes, whose interactions result in the elicitation of a cognitive perspective, which in turn generates affective or non-affective outcomes (Kaźmierczak, 2008; Kosowski, 2021b). To understand the contemporary concept of empathy, it is essential to consider Davis's framework (Davis, 1996), which identifies three components: [1] Perspective Taking, [2] Empathic Concern, and [3] Personal Distress.

Empathy is undoubtedly an important resource and determinant of an individual's potential in the light of Hobfoll's Conservation of Resources Theory. In the context of the study groups, it also appears as one of the crucial elements of effective action – for honorary blood donors, it serves as a determinant of undertaking subsequent donations (Kosowski, 2021a, b).

1.6. Interpersonal generosity

Generosity has been a relatively new concept in psychology. It belongs to concepts located/found at the intersection of various fields of knowledge – religious studies, psychology, and sociology. As reported by Jessica L. Collett and Christopher A. Morrissey (2007), the term "generosity" has been used in the literature to describe the entirety of prosocial behaviors and required conceptualization and systematization to grant it the status of a variable suitable? /for empirical study. Researchers from the University of Notre Dame, the initiators of the Science of Generosity Project (2012), define generosity as a type of prosocial behavior – "a virtue involving sharing good with others freely and abundantly."

A construct that can be considered as overlapping with generosity is altruism – a type of behavior characterized by conscious and voluntary actions aimed at providing benefits to others without expecting any form of external reward, as the individual perceives their own initiative and helping behavior as a form of self-reward (Śliwak, 2005). The aforementioned statements pertain to generosity per se, but it is crucial to focus on generosity in the interpersonal sphere – not so much related to sharing material goods, but rather one's internal/personal? resources, such as time and attention, emotions, or specific acquired skills (Rapert et al., 2021). Consequently, in psychological terms, the concept of Interpersonal Generosity (IG) has been established – a form of generosity that occurs solely in the relationships between people. In the context of altruism, Smith and Hill (2009) emphasize that while the concept of interpersonal generosity is closely related to or sometimes strongly overlaps with altruism in terms of prosocial orientation and motivation stemming from the need to help, it nonetheless possesses several differences that, at a conceptual level, define its specificity.

Thus, interpersonal generosity is a propensity, arising from interpersonal relationships, to share one's own intrapsychic and non-material resources with others. In the context of Hobfoll's theory, interpersonal generosity can be considered a type of key potential of an individual who decides to engage in activities aimed at helping another person – for honorary blood donors, this could involve dedicating their time, empathetic sensitivity, or willingness to help, as according to Smith and Hill (2009), blood donation is more associated with the donation of a material substance. Therefore, for the purposes of the present study, interpersonal generosity is considered a potential that determines an individual's ability to act to the benefit of others, that is through blood donations by honorary donors.

2. Method

2.1. Aim and specific design of the study

The aim of this study was to examine the relationships between health behaviors, cognitive and affective empathy, self-construal, communion, and agency, and interpersonal generosity in the group of honorary blood donors. To this end, data were collected via questionnaires distributed among honorary blood donors and individuals who did not engage in voluntary blood donation served as the control group.

To this end, the following research questions were formulated:

1. Are there any significant relationships between health behaviors, self-construal, communion and agency orientations, empathy, and interpersonal generosity?
2. Do health behaviors, self-construal, communion and agency orientations, and empathy impact interpersonal generosity?
3. Are there any differences in the strength of relationships between variables among honorary blood donors compared to the control group?
4. Will the impact of health behaviors, self-construal, communion and agency orientations, and empathy on interpersonal generosity differ between the studied groups?
5. Are there any statistically significant differences in the intensity of the studied traits or behaviors between the groups?
6. Will the blood donor group exhibit the highest level of interpersonal generosity?

The following research hypotheses were put forward. We decided to formulate main hypotheses (e.g. H1) and specific hypotheses (e.g. H4a):

H1: There are positive and statistically significant relationships between health behaviours, self-construal, community and agency, empathy and interpersonal generosity.

H2: Health behaviours, self-construal, community and agency and empathy explain/account for the variance in interpersonal generosity.

H3: There are differences in the strengths of relationships between variables in the study groups.

H3a: Relationship strengths are higher in the group of Honorary Blood Donors.

H4: Health behaviours, self-construal, community and agency and empathy are more significant for interpersonal generosity in the group of Honorary Blood Donors.

H5: There are statistically significant differences for health behaviours, self-construal, communion and agency, empathy and interpersonal generosity in the study groups.

H5a: The group of Honorary Blood Donors is the group with higher levels of interpersonal generosity.

2.2. The sample

The sample consisted of 580 people, 200 of whom (34.5%) were male, and 380 (65.5%) female. The mean age in the sample was 35.62 (SD = 10.46). Four hundred and forty-five persons (76.7%) were Honorary Blood Donors whereas 135 persons (23.3%) were non-Honorary Blood Donors.

2.2.1. Honorary blood donors

The study included a group of 445 blood donors, 37.3% of whom were male and 62.7% female. The mean age in this group was 37.5 years (SD = 9.59). Of the respondents, 18 people (4.0%) were non-working students, 39 people (8.8%) were working students, 364 people (81.8%) were professionals, 16 people (3.6%) were unemployed and 8 people (1.8%) were retired.

2.2.2. Control group – Non-Honorary blood donors

The control group consisted of 135 respondents, 34 of whom were male (25.2%) and 101 were female (74.8%). The mean age in this group was 29.4 years (SD = 10.80). Of the respondents, 39 persons (28.9%) were non-working students, 47 persons (34.8%) were working students, 41 persons (30.4%) were professionals, 6 persons (4.4%) were unemployed and 2 persons (1.5%) were retired.

2.3. Materials and methods

To measure the variables in the studied groups, valid psychometric tools with satisfactory levels of reliability were used, along with specially prepared demographic questions adapted to each group. For the urpose of the study, five scales were used:

1. *Health Behaviour Inventory* (Juczyński, 1999) – the tool consists of 24 items examining various health behaviours – good eating habits (consumption of healthy products, such as whole grain bread), health practices (engaging in physical activity or maintaining good sleeping habits), preventive behaviours (adhering to health recommendations and seeking information about one's health), and positive mental attitudes (avoiding stress, tension, or situations likely to cause depression). The respondents were to rate their agreement with the given statements on a 5-point Likert scale (1 – *almost never*; 5 – *almost always*). The reliability measures for the present study were: Cronbach's alpha: 0.858 and McDonald's omega: 0.869 for the total score.
2. *Self-Construal Scale* (Pilarska, 2011; Singelis, 1994) – the tool is used to assess feelings, thoughts, and actions related to constructs of the self – the interdependent self and the independent self. Participants rated their agreement with the statements on a 7-point Likert scale (1 – *strongly* disagree; 7 – *strongly agree).* The reliability measures for the present study were: Cronbach's alpha: 0.719 and McDonald's omega: 0.731 for the entire tool.
3. *Scales Measuring Agency and Communion)* (Wojciszke & Szlendak, 2010) – a 30-item self-report questionnaire that assesses the intensity of agentic and communal orientations, with 15 items corresponding to each orientation. The test items consist of a list of adjectives describing various human traits. Participants rated how well each adjective described them on a 7-point Likert scale with a point of indifference (Aksamit, 2016) – (1 – *definitely not*; 4 – *hard to say*, *somewhat yes, somewhat no*; 7 – *definitely yes*). The reliability measures for the present study were: Cronbach's alpha: 0.934 and McDonald's omega: 0.939 for the entire tool.
4. *Questionnaire of Cognitive and Affective Empathy* (Lasota et al., 2020; Reniers et al., 2009) – the measure consists of two scales: [1] Cognitive empathy, which includes two subscales – (1) Perspective Taking and (2) Direct Simulation; and [2] Affective empathy, which comprises three subscales: (1) Emotional Contagion, (2) Direct Affective Response, and (3) Indirect Affective Response. Participants rated their agreement with the items on a 4-point Likert

scale (4 – *strongly agree*; 1 – *strongly disagree*). The reliability measures for the present study were: Cronbach's alpha: 0.849 and McDonald's omega: 0.865 for the entire tool.

5. *Interpersonal Generosity Scale* (Mróz et al., 2024; C. Smith & Hill, 2009) – it consists of 10 items and six subscales. The subscales measure specific aspects of generosity, such as: Attention, Compassion, Openness, Self-Extension, Courage, and Verbal Expression. Participants rated their agreement with the statements (e.g., I am a person who is willing to go the extra mile to care for my friends, family, and acquaintances) on a 6-point Likert scale (1 – *strongly disagree*; 3 – *somewhat disagree*; 6 – *strongly agree*). The reliability measures for the present study were: Cronbach's alpha: 0.904 and McDonald's omega: 0.907 for the entire tool.

The study was conducted remotely via Google Forms. The survey form included a socio-demographic section and various subsections with questions tailored to specific study groups. The study was anonymous and voluntary – each participant accepted the terms of the study at the outset and declared that they had been informed they could discontinue participation at any time without any consequences. To eliminate unreliable responses due to inattentive completion of the questionnaires, an attention check was employed – control questions (e.g., mark the middle of the scale; choose the correct answer to the equation 2+2=?) were placed at several random points. Incorrect answers to these questions allowed for the exclusion of participants who did not provide attentive and reliable responses in the questionnaire sets. This method led to the exclusion of two participants who answered the control questions incorrectly out of 582 respondents.

To test the hypotheses, the necessary statistical analyses were performed using two software programs – IBM SPSS version 27, and Jamovi version 2.3.28. The following table (see: Table 1.) outlines the statistical methods used for hypothesis testing and specifies the environment in which each analysis was conducted.

Table 1. Overview of statistical methods used for calculations and hypothesis testing, and statistical software used

Hypothesis/ Calculation	Method Used	Software
Descriptive Statistics	Descriptive Statistics Table	Jamovi
Reliability Analysis	Calculation of Cronbach's α and McDonald's ω	Jamovi
H1	Pearson Correlation Analysis	Jamovi
H2	Linear Regression Analysis	IBM SPSS
H3+H3a	Pearson Correlation Analysis	Jamovi
H4	Linear Regression Analysis	Jamovi
H5+H5a	Nonparametric Mann-Whitney U Test	Jamovi

Source: author's own elaboration

3. Results

3.1. Descriptive statistics

Firstly, descriptive statistics were calculated for the variables in the different study groups (see: Table 2.). The Shapiro-Wilk test showed statistically significant results for most variables in the study groups, indicating rejection of the null hypothesis of normal distributions in those groups. Non-significant results, which failed to reject the null hypothesis, were found for the control group concerning the variables: good eating habits, preventive behaviours, positive mental attitudes, health practices, independent self, and agentic orientation (Table 2.).

3.2. Correlation analysis for the total sample

The next step was to calculate the Pearson correlation coefficients for health behaviours, self-construal, community and agency, cognitive and affective empathy, and interpersonal generosity in the sample (see: Table 3.). Results of the analysis showed positive and statistically significant relationships between good eating habits, preventive behaviours, positive mental attitudes, and interpersonal generosity (two-tailed significance at $p < 0.001$). No statistically significant relationship was found between health practices and interpersonal generosity. The analysis also demonstrated the relationships between independent self

Table 2. Descriptive statistics for the study variables in the test and control group

									Skewness		Kurtosis		Shapiro-Wilk's test	
	Group	M	SE	Mdn	SD	σ^2	Min	Max	Ske	SE	K	SE	W	p
Good eating habits	Blood Donors	20.027	0.220	20.000	4.642	21.549	6.000	30.000	-0.233	0.116	0.096	0.231	0.987	< 0.001
	Control	18.940	0.355	19.000	4.107	16.869	8.000	30.000	0.242	0.209	0.179	0.416	0.987	0.230
Preventive behaviours	Blood Donors	19.494	0.211	20.000	4.460	19.890	6.000	30.000	-0.143	0.116	-0.351	0.231	0.991	0.007
	Control	19.567	0.403	19.000	4.665	21.766	10.000	29.000	0.132	0.209	-0.524	0.416	0.977	0.021
Positive mental attitudes	Blood Donors	20.861	0.188	21.000	3.963	15.706	8.000	30.000	-0.271	0.116	-0.003	0.231	0.989	0.002
	Control	19.657	0.364	20.000	4.218	17.791	8.000	30.000	-0.157	0.209	0.052	0.416	0.988	0.272
Health practices	Blood Donors	19.982	0.190	20.000	4.001	16.009	7.000	30.000	-0.290	0.116	0.125	0.231	0.988	< 0.001
	Control	18.925	0.350	19.000	4.052	16.415	7.000	30.000	-0.019	0.209	0.317	0.416	0.984	0.108
Cognitive empathy	Blood Donors	56.497	0.380	56.000	8.011	64.183	31.000	75.000	-0.240	0.116	-0.039	0.231	0.992	0.014
	Control	58.164	0.702	58.500	8.125	66.018	36.000	73.000	-0.443	0.209	-0.039	0.416	0.977	0.023
Affective empathy	Blood Donors	33.029	0.242	33.000	5.111	26.119	17.000	47.000	-0.153	0.116	-0.147	0.231	0.994	0.056
	Control	34.231	0.461	35.000	5.339	28.510	20.000	46.000	-0.394	0.209	-0.056	0.416	0.979	0.034
Independed Self	Blood Donors	45.647	0.389	46.000	8.198	67.202	19.000	63.000	-0.300	0.116	-0.158	0.231	0.990	0.003
	Control	44.567	0.804	46.000	9.309	86.653	17.000	63.000	-0.280	0.209	-0.304	0.416	0.986	0.169
Inter-dependent Self	Blood Donors	44.360	0.377	44.000	7.960	63.357	18.000	63.000	-0.323	0.116	0.023	0.231	0.990	0.005
	Control	43.724	0.747	45.000	8.645	74.743	10.000	63.000	-1.011	0.209	1.862	0.416	0.943	< 0.001
Agency	Blood Donors	5.128	0.049	5.130	1.028	1.057	1.270	7.000	-0.622	0.116	0.615	0.231	0.974	< 0.001
	Control	5.008	0.090	5.070	1.038	1.077	2.470	7.000	-0.229	0.209	-0.421	0.416	0.987	0.217
Communion	Blood Donors	5.818	0.038	5.930	0.809	0.655	2.000	7.000	-1.025	0.116	1.766	0.231	0.940	< 0.001
	Control	5.855	0.068	5.900	0.793	0.629	2.930	7.000	-0.706	0.209	0.553	0.416	0.952	< 0.001
Interpersonal generosity	Blood Donors	48.620	0.382	50.000	8.051	64.817	10.000	60.000	-1.097	0.116	2.465	0.231	0.933	< 0.001
	Control	49.231	0.683	51.000	7.903	62.465	25.000	60.000	-0.844	0.209	0.319	0.416	0.937	< 0.001

and interdependent self with interpersonal generosity (two-tailed significance at $p < 0.001$). Positive and significant relationships were also found for communal orientation, agentic orientation, and interpersonal generosity (two-tailed significance at $p < 0.001$), with high correlation coefficient for the relationship between communal orientation and interpersonal generosity ($r = 0.759$). Statistically significant and positive relationships were also demonstrated for cognitive and affective empathy with interpersonal generosity (two-tailed significance at $p<0.001$) (Table 3.).

3.3. Correlation analysis in the group of honorary blood donors

In the next step, Pearson correlation coefficients were calculated for health behaviour, self-construal, community and agency, cognitive and affective empathy and interpersonal generosity in the group of voluntary blood donors (see: Table 4.). The analysis showed positive and statistically significant associations between positive eating habits, preventive behaviours, positive psychological attitudes and interpersonal generosity

Table 3. Pearson's r–correlation coefficients for the variables studied in the sample, N=580

		1	2	3	4	5	6	7	8	9	10	11
1	Good eating habits	–										
2	Preventive behaviours	0,555***	–									
3	Positive mental attitudes	0,453***	0,505***	–								
4	Health practices	0,386***	0,421***	0,490***	–							
5	Cognitive empathy	0,237***	0,301***	0,276***	0,038	–						
6	Affective empathy	0,067	0,200***	-0,047	-0,012	0,359***	–					
7	Independed Self	0,197***	0,153***	0,303***	0,036	0,391***	-0,055	–				
8	Interdependent Self	0,123**	0,153***	0,111**	-0,012	0,254***	0,406***	0,124**	–			
9	Community	0,202***	0,256***	0,273***	0,000	0,520***	0,353***	0,311***	0,504***	–		
10	Agency	0,259***	0,211***	0,414***	0,097*	0,386***	-0,067	0,597***	0,111**	0,457***	–	
11	Interpersonal generosity	0,191***	0,298***	0,273***	0,009	0,505***	0,417***	0,283***	0,472***	0,759***	0,359***	–

* p < .05, ** p < .01, *** p < .001

Table 4. Pearson's r–correlation coefficients for the variables studied in the group of honorary blood donors, n = 445

		1	2	3	4	5	6	7	8	9	10	11
1	Good eating habits	–										
2	Preventive behaviours	0.558***	–									
3	Positive mental attitudes	0.459***	0.493***	–								
4	Health practices	0.429***	0.433***	0.486***	–							
5	Cognitive empathy	0.218***	0.278***	0.271***	0.042	–						
6	Affective empathy	0.028	0.150**	-0.076	-0.012	0.348***	–					
7	Independed Self	0.152**	0.105*	0.288***	0.010	0.390***	-0.100*	–				
8	Interdependent Self	0.088	0.136**	0.073	0.021	0.238***	0.430***	0.082	–			
9	Community	0.188***	0.257***	0.285***	0.012	0.523***	0.354***	0.309***	0.495***	–		
10	Agency	0.262***	0.207***	0.434***	0.115*	0.406***	-0.097*	0.604***	0.089	0.456***	–	
11	Interpersonal generosity	0.201***	0.292***	0.271***	0.015	0.525***	0.421***	0.290***	0.459***	0.762***	0.359***	–

* p < .05,** p < .01, *** p < .001

(two-tailed significance at p < 0.001). No statistically significant association was found between health practices and interpersonal generosity. The analysis also showed associations of the independent self and the interdependent self with interpersonal generosity (two-tailed significance at p < 0.001). Positive and significant relationships were also found between for communion and agency and interpersonal generosity (two-tailed significance at p < 0.001), with a high correlation coefficient for the relationship between togetherness and interpersonal generosity (r = 0.762). The associations between cognitive and affective empathy with interpersonal generosity were also shown to be statistically significant and positive (two-tailed significance at p < 0.001) (Table 4.).

3.4. Correlation analysis in the control group

In the next step, Pearson correlation coefficients were calculated for health behaviour, self-construal, communion and agency, cognitive and affective empathy and interpersonal generosity in the control group, which consisted of non-blood donors (see: Table 5.). The analysis showed positive and statistically significant associations between good eating habits, preventive behaviours, positive mental attitudes and interpersonal generosity (two-tailed significance at p < 0.001). No statistically significant association was found between health practices and interpersonal generosity. The analysis also showed associations of the independent self and the interdependent self with interpersonal generosity (two-tailed significance at p < 0.001). Positive and significant relationships were also found for communion, agency and interpersonal generosity (two-tailed significance at p < 0.001), with a high correlation coefficient for the relationship between togetherness/communion? and interpersonal generosity (r = 0.746). The associations of cognitive and affective empathy with interpersonal generosity were also shown to be statistically significant and positive (two-tailed significance at p < 0.001) (Table 5.).

Table 5. Pearson's r–correlation coefficients for the variables studied in the control group, n = 135

		1	2	3	4	5	6	7	8	9	10	11
1	Good eating habits	–										
2	Preventive behaviours	0.568***	–									
3	Positive mental attitudes	0.409***	0.563***	–								
4	Health practices	0.203*	0.396***	0.473***	–							
5	Cognitive empathy	0.356***	0.374***	0.352***	0.068	–						
6	Affective empathy	0.252**	0.353***	0.090	0.035	0.367***	–					
7	Independed Self	0.331***	0.289***	0.331***	0.091	0.420***	0.089	–				
8	Interdependent Self	0.232**	0.206*	0.208*	-0.126	0.318***	0.361***	0.231**	–			
9	Community	0.269**	0.252**	0.257**	-0.027	0.512***	0.349***	0.325***	0.540***	–		
10	Agency	0.236**	0.224**	0.344***	0.016	0.351***	0.045	0.576***	0.170*	0.468***	–	
11	Interpersonal generosity	0.175*	0.320***	0.306***	0.007	0.438***	0.404***	0.273**	0.522***	0.746***	0.370***	–

* p < .05, ** p < .01, *** p < .001

Table 6. Multiple linear regression coefficients for interpersonal generosity as a dependent variable in the study sample N=580

		B	SE	β	t	p			RMSE	F
	Good eating habits	0.048	0.085	0.027	0.565	0.572				
	Preventive behaviours	0.457	0.089	0.257	5.138	0.000				
1	Positive mental attitudes	0.479	0.096	0.242	4.986	0.000	0.146	0.140	7.428	(4;575)=24.532 p = 0.000
	Health practices	-0.453	0.091	-0.228	-4.971	0.000				
	Good eating habits	0.002	0.073	0.001	0.026	0.979				
	Preventive behaviours	0.165	0.079	0.093	2.084	0.038				
2	Positive mental attitudes	0.445	0.086	0.225	5.165	0.000	0.37	0.364	6.39	(6;573)=56.123 p = 0.000
	Health practices	-0.295	0.08	-0.149	-3.713	0.000				
	Cognitive empathy	0.313	0.038	0.315	8.24	0.000				
	Affective empathy	0.455	0.057	0.294	8.004	0.000				
	Good eating habits	-0.042	0.069	-0.024	-0.61	0.542				
	Preventive behaviours	0.175	0.075	0.098	2.347	0.019				
	Positive mental attitudes	0.327	0.083	0.165	3.949	0.000				
3	Health practices	-0.221	0.075	-0.111	-2.935	0.003	0.418	0.38	6.008	(8;571)=57.239 p = 0.000
	Cognitive empathy	0.253	0.038	0.254	6.585	0.000				
	Affective empathy	0.319	0.058	0.207	5.463	0.000				
	Idependend Self	0.099	0.034	0.104	2.907	0.004				
	Interdepended Self	0.275	0.034	0.279	7.993	0.000				
	Good eating habits	-0.055	0.057	-0.031	-0.975	0.33				
	Preventive behaviours	0.141	0.061	0.079	2.3	0.022				
	Positive mental attitudes	0.149	0.07	0.076	2.13	0.034				
	Health practices	-0.103	0.062	-0.052	-1.644	0.101				
4	Cognitive empathy	0.08	0.033	0.08	2.403	0.017	0.627	0.597	4.935	(10;569)=95.606 p = 0.000
	Affective empathy	0.224	0.049	0.145	4.573	0.000				
	Idependend Self	0.037	0.031	0.039	1.171	0.242				
	Interdepended Self	0.079	0.031	0.08	2.559	0.011				
	Agency	0.068	0.283	0.009	0.24	0.81				
	Community	5.719	0.366	0.575	15.63	0.000				

3.5. Linear regression analysis for the total sample

The next stage of the study was to conduct a multiple linear regression analysis for interpersonal generosity as the dependent variable and health behaviour, self-construal, community and agency, and cognitive and affective empathy as predictors in the study sample (see: Table 6.).

An input method was used in the calculations. In the first step, health behaviours were entered into the model. The model was found to be a good and statistically significant fit to the data, explaining for 14% of the variance in interpersonal generosity, while the predictors significant for interpersonal generosity were preventive behaviours, positive mental attitudes and health practices. In the second step, cognitive and affective empathy were entered into the model. The sec-

Table 7. Multiple linear regression coefficients for interpersonal generosity as a dependent variable in the group of honorary blood donors, n = 445

		B	SE	β	t	p			RMSE	F
	Good eating habits	0.096	0.097	0.055	0.987	0.324				
	Preventive behaviours	0.44	0.103	0.244	4.282	0.000				
1	Positive mental attitudes	0.482	0.112	0.237	4.315	0.000	0.143	0.135	7.486	(4;440) = 18.384 p = 0.000
	Health practices	-0.462	0.107	-0.23	-4.325	0.000				
	Good eating habits	0.061	0.082	0.035	0.74	0.459				
	Preventive behaviours	0.171	0.089	0.095	1.928	0.054				
2	Positive mental attitudes	0.443	0.099	0.218	4.495	0.000	0.394	0.385	6.311	(6;438) = 47.411 p = 0.000
	Health practices	-0.316	0.091	-0.157	-3.463	0.001				
	Cognitive empathy	0.334	0.043	0.332	7.772	0.000				
	Affective empathy	0.479	0.065	0.304	7.412	0.000				
	Good eating habits	0.034	0.077	0.02	0.443	0.658				
	Preventive behaviours	0.181	0.084	0.1	2.162	0.031				
	Positive mental attitudes	0.34	0.094	0.168	3.602	0.000				
3	Health practices	-0.268	0.086	-0.133	-3.105	0.002	0.467	0.457	5.931	(8;436) = 47.767 p = 0.000
	Cognitive empathy	0.263	0.044	0.261	5.991	0.000				
	Affective empathy	0.352	0.068	0.224	5.197	0.000				
	Idependend Self	0.126	0.04	0.128	3.17	0.002				
	Interdepended Self	0.269	0.04	0.266	6.763	0.000				
	Good eating habits	0.024	0.064	0.014	0.37	0.711				
	Preventive behaviours	0.124	0.07	0.068	1.777	0.076				
	Positive mental attitudes	0.131	0.081	0.065	1.615	0.107				
	Health practices	-0.125	0.072	-0.062	-1.724	0.085				
4	Cognitive empathy	0.1	0.038	0.099	2.603	0.01	0.636	0.628	4.912	(10;434) = 75.882 p = 0.000
	Affective empathy	0.243	0.058	0.154	4.218	0.000				
	Idependend Self	0.062	0.037	0.063	1.671	0.095				
	Interdepended Self	0.071	0.036	0.07	1.981	0.048				
	Agency	-0.059	0.328	-0.008	-0.179	0.858				
	Community	5.639	0.417	0.567	13.537	0.000				

ond model also proved to be a significant and good fit to the data, explaining 36% of the variance in interpersonal generosity. Statistically significant predictors of interpersonal generosity were preventive behaviour, positive mental attitudes, health practices and both cognitive and affective empathy. In the third step, self-construal was introduced. This model also proved to be a significant and good fit to the data and explained/accounted for 43% of the variance in interpersonal generosity. Predictors significant for interpersonal generosity were preventive behaviours, positive mental attitudes, health practices, cognitive and affective empathy, and the dependent Self and interdependent Self. In the fourth step, communion and agency were entered, and the model was found to be a significant and good fit to the data, explaining 62% of the variance in interpersonal generosity. Predictors significant for explaining interpersonal generosity were preventive behaviour, positive psychological attitudes, cognitive and affective empathy, interdependent self and community.

Table 8. Multiple linear regression coefficients for interpersonal generosity as a dependent variable in the control group, n = 135

		B	SE	β	t	p			RMSE	F
1	Good eating habits	-0.101	0.186	-0.053	-0.54	0.59	0.164	0.138	7.316	(4;130) = 6.368 p = 0.000
	Preventive behaviours	0.482	0.187	0.284	2.571	0.011				
	Positive mental attitudes	0.514	0.195	0.274	2.634	0.009				
	Health practices	-0.437	0.181	-0.224	-2.415	0.017				
2	Good eating habits	-0.236	0.172	-0.124	-1.369	0.173	0.318	0.286	6.657	(6;128) = 9.961 p = 0.000
	Preventive behaviours	0.196	0.18	0.116	1.089	0.278				
	Positive mental attitudes	0.471	0.184	0.251	2.555	0.012				
	Health practices	-0.312	0.167	-0.16	-1.867	0.064				
	Cognitive empathy	0.251	0.084	0.258	3.003	0.003				
	Affective empathy	0.417	0.122	0.283	3.413	0.001				
3	Good eating habits	-0.31	0.162	-0.164	-1.91	0.058	0.418	0.381	6.198	(8;126) = 11.327 p = 0.000
	Preventive behaviours	0.203	0.168	0.12	1.211	0.228				
	Positive mental attitudes	0.29	0.177	0.155	1.644	0.103				
	Health practices	-0.121	0.161	-0.062	-0.752	0.453				
	Cognitive empathy	0.187	0.082	0.193	2.283	0.024				
	Affective empathy	0.277	0.12	0.188	2.317	0.022				
	Idependend Self	0.058	0.067	0.068	0.87	0.386				
	Interdepended Self	0.32	0.072	0.35	4.461	0				
4	Good eating habits	-0.332	0.131	-0.175	-2.535	0.012	0.627	0.597	5.003	(10;124) = 20.846 p = 0.000
	Preventive behaviours	0.233	0.135	0.138	1.723	0.087				
	Positive mental attitudes	0.212	0.146	0.113	1.454	0.148				
	Health practices	-0.075	0.131	-0.039	-0.573	0.568				
	Cognitive empathy	0.007	0.07	0.007	0.098	0.922				
	Affective empathy	0.196	0.097	0.133	2.014	0.046				
	Idependend Self	0	0.061	0	-0.004	0.997				
	Interdepended Self	0.119	0.064	0.13	1.852	0.066				
	Agency	0.267	0.575	0.035	0.465	0.643				
	Community	5.898	0.785	0.592	7.516	0				

3.6. Linear regression analysis in the group of honorary blood donors

In the next step, a multiple linear regression analysis was conducted for interpersonal generosity as the dependent variable and health behaviour, self-construal, community and agency and cognitive and affective empathy as predictors in the group of honorary blood donors (see: Table 7.).

An input method was used in the calculations. In the first step, health behaviours were entered into the model which was found to be a good and statistically significant fit to the data, explaining 13% of the variance in interpersonal generosity, while the predictors significant for interpersonal generosity were preventive behaviours, positive mental attitudes and health practices. In the second step, cognitive and affective empathy were entered into the model. The second model also proved to be a significant and

Table 9. Results of the Mann-Whitney's U test

Variable	Blood Donors (n= 445)				Control group (n=135)						
	M	Mdn	SD	SE	M	Mdn	SD	SE	U	p	r
Good eating habits	20.03	20	4.642	0.2201	19.01	19	4.165	0.359	25441	0.007	0.153
Preventive behaviours	19.49	20	4.46	0.2114	19.58	19	4.65	0.400	29879	0.926	0.005
Positive mental attitudes	20.86	21	3.963	0.1879	19.65	20	4.203	0.362	24825	0.002	0.174
Health practices	19.98	20	4.001	0.1897	18.93	19	4.038	0.348	25149	0.004	0.163
Cognitive empathy	56.5	56	8.011	0.3798	58.19	59	8.101	0.697	26059	0.02	0.132
Affective empathy	33.03	33	5.111	0.2423	34.27	35	5.343	0.460	25437	0.007	0.153
Idependend Self	45.65	46	8.198	0.3886	44.59	46	9.276	0.798	28184	0.277	0.062
Interdepended Self	44.36	44	7.96	0.3773	43.71	45	8.614	0.741	29634	0.813	0.013
Agency	5.13	5.13	1.028	0.0487	5.01	5.1	1.034	0.089	27813	0.192	0.074
Community	5.82	5.93	0.81	0.0384	5.86	5.9	0.791	0.068	29348	0.686	0.023
Interpersonal generosity	48.62	50	8.051	0.3816	49.26	51	7.881	0.678	28424	0.344	0.054

good fit to the data, explaining 38% of the variance in interpersonal generosity. Predictors of statistical significance for interpersonal generosity were preventive behaviours (at the limit of statistical trend), positive mental attitudes, health practices and cognitive and affective empathy. In the third step, we entered self-construal. This model also proved to be a significant and good fit to the data and explained 45% of the variance in interpersonal generosity. Predictors significant for interpersonal generosity were preventive behaviours, positive mental attitudes, health practices, cognitive and affective empathy, and the dependent Self and interdependent Self. In the fourth step, community and agency were introduced, and the model was found to be a significant and good fit to the data, explaining 63% of the variance in interpersonal generosity. The predictors significant for explaining interpersonal generosity were cognitive and affective empathy, the Interdependent Self and community.

3.7. Linear regression analysis in the control group

In the next step, a multiple linear regression analysis was conducted for interpersonal generosity as the dependent variable and health behaviour, self-construal, community and agency, and cognitive and affective empathy as predictors in the control group (see: Table 8.).

An input method was used in the calculations. In the first step, health behaviours were entered into the model which was found to be a good and statistically significant fit to the data, explaining 13% of the variance in interpersonal generosity , while predictors significant for interpersonal generosity were preventive behaviours, positive mental attitudes and health practices. In the second step, cognitive and affective empathy were introduced into the model. The second model also proved to be a significant and good fit to the data, explaining/accounting for 28% of the variance in interpersonal generosity. Statistically significant predictors of interpersonal generosity were positive mental attitudes and cognitive and affective empathy. In the third step, self-construal was entered. This model also proved to be a significant and good fit to the data and explained 38% of the variance in interpersonal generosity. Predictors significant for interpersonal generosity were good eating habits, cognitive and affective empathy and the Interdependent Self. In the fourth step, community and agency were introduced and the model was found to be a significant and good fit to the data, explaining 59% of the variance in interpersonal generosity. Predictors significant for explaining interpersonal generosity were good eating habits, affective empathy, interdependent self (at the limit of statistical trend) and community.

3.8. The Mann–Whitney U Test

In the next step, a non-parametric rank-sum test was used to compare the differences in the study variables in the group of honorary blood donors and the control group (see: Table 9.).

Results of the Mann-Whitney U-test showed statistically significant differences between Honorary Blood Donors and non-donors for good eating habits (higher levels in the Blood Donor group), positive mental attitudes (higher levels in the Blood Donor group), health practices (higher levels in the Blood Donor group), and cognitive and affective empathy (higher levels in the control group).

4. Discussion

The aim of the present study was to investigate the relationships between health behaviour, understood as an individual's health resources, cognitive and affective empathy, self-construal, community and causality/agency? orientation, that is variables construed as the individual's personality resources, and interpersonal generosity, construed as an indicator of the individual's potential, and a determinant of prosociality. The point of departure for the presented study was Hobfoll's Theory of Resource Behaviour (Bernat & Krzyszkowska, 2017; Hobfoll, 1989, 2006) which assumes the possibility of combining different types of resources into 'resource caravans', that is constellations of different predispositions/propensities?, traits and skills that build and strengthenthe potential of an individual. In order to test the assumed hypotheses, a series of statistical analyses was performed, which is explained and summarized further in this chapter.

Hypothesis H1, assuming the existence of positive and statistically significant relationships between health behaviours, cognitive and affective empathy, self-construal, community and agency orientation and interpersonal generosity, was partially supported; the only variable that failed to show any statistically significant correlation with interpersonal generosity were health practices, a health behaviour. Significant correlations between the independent variables and the dependent variable were also found in correlation analyses in the group of Honorary Blood Donors and the control group. The obtained results comply? with the claims regarding the relationship between empathy and prosocial behaviour (Lönnqvist & Walkowitz, 2019). The results also showed a link between self-construaland generosity. This result is to some extent contradictory to the results obtained by Duclos and Barasch (2014), where independent individuals helped in-group and out-group victims equally, and interdependent individuals were more likely to donate to the in-group (i.e., Caucasians) than to out-group members (i.e., African Americans). The associations of community orientation and the interdependent self with interpersonal generosity are also supported by the findings of Simpson and colleagues (2018), which showed that interdependent socially recognised individuals are able to make larger donations. More links of the obtained results of the correlation analysis are presented in the discussion of hypothesis H2, concerning linear regression analysis.

Hypothesis H2, which assumed that interpersonal generosity was explained by health behaviours, cognitive and affective empathy, self construal, and community and agency orientations, was partially supported. In the last step of the analysis, in which all study variables were entered, it was shown that preventive behaviours, positive mental attitudes, health practices, cognitive and affective empathy, the Interdependent Self and community were statistically significant for interpersonal generosity. The obtained results of the correlation analysis and linear regression analysis exploring the relationship between empathy and interpersonal generosity are supported by the study by Twenge and colleagues (2007), who showed that empathy is important in explaining interpersonal generosity, and that its level decreases along with stronger feelings of social exclusion. The importance of empathy in explaining prosocial behaviour was also demonstrated in the study by Lockwood and colleagues (2014), who found that both affective and cognitive empathy constitute motivating factors for prosocial behaviour, and in the study of abused adolescents by Dickerson and Quas (2021), who also found strong links between empathy and generosity. The relationship between empathy and generosity was also found in the study by Verhaert and Van den Poel (2011), who indicated high importance of higher levels of empathy for making the decision to donate. The links between health behaviour, community and agency, self-construal and interpersonal generosity shown in the present study were also partially supported in the study by O'Malley and colleagues (2012), who found that prosocial activity in general is highly contingent on the individual's better health and stronger social ties. The obtained results, therefore, may indicate that taking care of one's own health through the use of beneficial practices and the personality predisposition associated with the perception of oneself as a component of and one's dependence on a wider social group, may be related to the realisation of prosocial potential, which is expressed through interpersonal generosity. In addition, the links between the dependent Self and communality orientation are partially confirmed in the study by Glanville and colleagues (2015), which included a sample of 30,000 respondents from 19 countries, the results of which showed relationships between trust in community and person's propensity for generosity.

Hypothesis H3, which assumed the existence of differences in the strengths of relationships between the study variables, was supported – differences in Pearson correlation coefficients between the study groups were observable. In the group of Blood Donors, higher coefficients were observed for relationships between interpersonal generosity and the following independent variables: good eating habits, cognitive empathy, affective empathy, independent Self, interdependent Self and community. As regards correlations with interpersonal generosity in relation to one's loved ones, higher Pearson correlation coefficients in the Blood Donor group were observed for the following independent variables: positive mental attitudes, cognitive empathy, the Interdependent Self, the Independent Self, communality and agency orientations. In the context of interpersonal generosity towards strangers, higher Pearson correlation coefficients in the group of Blood Donors were observed for the following independent variables: good eating habits, cognitive empathy, affective empathy, community and agency. As for linear regression coefficients, when analysing the final steps of the analyses with all predictors entered, the adjusted r square values – determination coefficients – were found to be higher in the group of blood donors in the case of interpersonal generosity and interpersonal generosity towards relatives as dependent variables. In the case of interpersonal generosity towards strangers as the dependent variable, the coefficients of determination reached the same value in both groups. On the other hand, when analysing the predictors that were statistically significant in explaining the variance of interpersonal generosity, it was noted that in the group of Blood Donors the predictors were cognitive empathy, affective empathy, the Interdependent Self and communality while in the control group the predictors were good eating habits, affective empathy and communality. In the case of interpersonal generosity towards loved ones as the dependent variable, cognitive and affective empathy and communality orientation were significant in explaining the variance of the dependent variable in the Blood Donors group, while positive mental attitudes, affective empathy and communality orientation were significant in the control group. In the case of interpersonal generosity towards strangers as the dependent variable, the following predictors were statistically significant in explaining the variance of the dependent variable in the Blood Donor group: preventive behaviour, affective empathy, the interdependent Self and communality orientation?, while in the control group: good eating habits, preventive behaviour, the Interdependent Self and communality orientation. Thus, the aforementioned observations only partially support hypothesis H3a, which indicates that strengths of the relationships are higher in the group of Blood Donors.

As for hypothesis H4, which assumed that the studied predictors would be more significant in explaining interpersonal generosity in the group of Blood Donors, the results of the analyses also provide a rationale for partial support of the aforementioned hypothesis. The results highlighted that different components of the explored constructs were significant for generosity in the study groups, and in some cases the same variables – e.g. affective empathy or community orientation were significant predictors in both groups. Nevertheless, these results are contrary to the claim of Smith and Hill's (2009) concept of interpersonal generosity, which excludes blood donation from the scope of generous giving to others.

Hypothesis H5, assuming statistically significant intergroup differences for the study variables, was also partially supported. The non-parametric Mann-Whitney U test showed significant differences only for good eating habits, positive mental attitudes and cognitive and affective empathy. The analysis highlighted that levels of good eating habits, positive mental attitudes and health practices were higher in the group of Blood Donors. However, despite statistical significance, these differences were not very large – the medians in the Blood Donor group and in the control group differed by 1. For cognitive and affective empathy, higher scores were shown in the control group, but again although statistically significant, these differences were not very large – for these variables, the difference in medians is 2.

Hypothesis H5a, assuming that the level of interpersonal generosity would be higher in the group of Blood Donors, was not supported. Results of the Mann-Whitney U test showed no statistically significant differences between the group of Blood Donors and the control group for this variable.

The theory that may bind together and explain/ for the relationships shown in the analyses is Hobfoll's Conservation of Resources Theory. Health behaviours understood as health resources or health potentials, and cognitive and affective empathy, self-construal, and community and agency orientations as personality resources, can be framed as a kind of a system that is highly significant for accounting for interpersonal generosity understood as a general fitness potential of an individual – prosociality. For the total sample, interpersonal generosity was explained in 59%, in the group of Blood Donors – in 62%, and in the control group – in 59%-. In the light of this theory, it can be concluded that health behaviours and personality predispositions, such as perceiving oneself as an interdependent being forming part of a wider social group (interdependent self and communality orientation), or the ability to both cognitively understand and share other people's states, form a kind of equipment, that is a collection of resources that significantly enhance the individual's ability to take prosocial action (Hobfoll, 1989; 2006). In the case of honorary blood donors this is a highly important determinant of the potential to undertake important prosocial, and to some extent health-promoting activity, through which the health and lives of other, unfamiliar people are saved. According to Smith and Hill (2009), donating blood should not be framed in terms of giving generously to others.. It should also be noted, that blood donors must adhere to restrictions related to the number of donations per year, hence the volume of blood that can be donated per person is limited and cannot be freely distributed in front of the subject, which may account for the absence of statistically significant differences between blood donors and the control group for interpersonal generosity What is more, Smith and Hill (2009) conceptualise generosity as expending irreducibly intangible personal goods in order to give to others, hence the reference of the concept to the Conservation of Resources Theory.

5. Study limitations

The study encountered several limitations that may have significantly influenced the obtained results. The primary limitation was a significantly smaller size of the control group compared to the experimental group. This substantial disparity between the groups might have led to inflated results in the Blood Donors group, while potentially lowering them in the control group. Another key limitation was the remote nature of the study, which meant that the researcher could not check whether participants were completing the questionnaires attentively. Nevertheless, remote data collection methods have become increasingly popular due to the functionality and integration of the results with statistical platforms, as well as the ability to reach a larger number of participants. The risk of obtaining and using invalid responses due to inattentive completion was mitigated by the inclusion of several control questions placed randomly within the questionnaire. This allowed to exclude two questionnaires from the study.

Another limitation was the limited body of empirical knowledge regarding interpersonal generosity, which resulted in most hypotheses being formulated without strong grounds in previous research findings. However, despite the lack of a scientific foundation, the hypotheses put forward in this study remain empirically verifiable and provide a valuable starting point for further research in this area (Maciejowska, 2012).

Interpersonal generosity used as the dependent variable might also be considered a limitation, as it excludes blood donation as a form of sharing with others. It might have been more appropriate to use a different variable that would take into account the context of blood donation as a form of sharing.

The issue of interpersonal generosity remains a relatively unexplored research niche, making the present work predominantly exploratory in nature. It raises questions and draws conclusions that may serve as a foundation for more extensive research in this field.

6. Practical implications and future directions

The results obtained in the present study have some practical implications. Quantitative examination of various aspects of the human potential enables the exploration of relationships between key predispositions defining the potential. Consequently, the findings could be used in developing promotional strategies aimed at recruiting new blood donors or retaining existing ones. Given the potential for engaging in prosocial activities, as expressed through interpersonal generosity – where empathy, a sense of community, and interdependence play a significant role – it will be crucial to craft promotional content that emphasises the importance of empathy and the need to support one's immediate social environment.

Voluntary blood donation in Poland has been largely overlooked by Polish psychology. Unfortunately, the latest report from the Central Statistical Office (GUS 2022; 2024) does not offer an optimistic outlook on the number of donors or blood donations, as it shows that their numbers have sharply declined over the past decade. This downward trend may, unfortunately, foreshadow challenges in maintaining adequate blood supplies in banks in the coming decades. Therefore, the role of social sciences – especially psychology, with its capacity for empirically developing tools to assess levels and types of motivation, fears/anxieties, and specific attitudes towards various variables – is crucial.

Both the group of voluntary blood donors and those who do not donate blood present three important research pathways that need to be studied in greater detail. The first pathway, outlined in this paper, involves the investigation of potentials and factors that may explain why donors continue to donate regularly – specifically, identifying factors that reinforce donor motivation and ensure that donors, even after many years, continue to see their activities as valuable.

The second, and arguably more critical, pathway requires particular research attention: examining various barriers and obstacles that prevent potential new donors from giving blood and continuing donations in the future, as well as those that make it difficult to retain existing donors – such as fear/anxiety about blood donation or ambivalence towards the practice.

The third pathway involves studying the motivation to donate blood and factors that both encourage and discourage the decision to donate. This pathway should also focus on assessing the level of knowledge about the entire donation process and developing methods for effective and impactful promotion of this activity.

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Spirituality in logotherapy and existential analysis by Viktor Emil Frankl[1]

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Abstract: A proper image of man forms the basis of all kinds of practice – educational, medical, pastoral – including psychotherapeutic practice. What, then, constitutes the constitutive element of this image? In search of the answer to this question, Logotherapy, created by Viktor Emil Frankl, was examined. The key dimension of human existence in Logotherapy is the spiritual dimension. Starting with a general characteristic of Logotherapy as a psychotherapeutic approach, a detailed analysis of the spiritual dimension in this context was conducted, outlining its various manifestations against the backdrop of broader philosophical assumptions on which Frankl constructed the foundations of his theory. The theoretical aspects were related to examples from case studies described by Frankl and his contemporary followers. The aspect of spiritual unconsciousness, distinct from the unconscious in the psychoanalytic sense, was also discussed. Based on the analyses conducted, it was concluded that the spiritual dimension of human existence constitutes an inalienable and fundamental way of being, even if that dimension is unconscious or, to use Frankl's terminology, even if it is "walled off," for example, due to mental illness. The spiritual dimension itself is not subject to illness, which creates a hopeful area for psychotherapeutic work and serves as a source of resources manifested, for instance, in the so-called "power of the spirit's resistance." The extraordinary potential of Logotherapy lies in the connection between the spiritual dimension and meaning, which, according to Frankl, is the strongest motivating factor. The spiritual dimension directs us to something greater than ourselves – to the meaning that awaits realization. The more the spiritual dimension is a governing dimension, the more a person is integrated around this dimension, the easier it is for them to perceive the unique call to meaning that permeates all life circumstances and continually offers itself anew.
Keywords: spirituality, Logotherapy, psychotherapy, meaning

> *Struggles for the spiritual content of life (...) are, in fact, something (...) the most human, that distinguishes man as such.*
>
> V.E. Frankl

1. Logotherapy as a asychotherapeutic approach

> *True happiness, even if only for a brief moment, can be experienced even by a person in a concentration camp, through contemplation of what they love most* (Frankl, 2017a, p. 69).

These words by Viktor Emil Frankl indicate the special role of the spiritual dimension in human life, especially in the face of extreme situations when the question of meaning becomes particularly vivid. Frankl (1905-1997), a world-renowned psychiatrist, neurologist, philosopher, and prisoner of four concentration camps, is the founder of Logotherapy, also known as the third Viennese school of psychotherapy. Giambattista Torello once stated that Logotherapy is the last complete system in the history of psychotherapy. By "complete", he meant that Logotherapy, as a therapeutic approach, is based on a well-developed concept of man and the world (after: Lukas, 2020).

Currently, this approach is experiencing a kind of renaissance, also in Poland, where around 150 people are being trained within the framework of a four-year

1 Article in polish language: https://www.stowarzyszeniefidesetratio.pl/fer/60P_Horn.pdf

School of Logotherapy and Existential Analysis and in three-semester postgraduate studies in Personalism and Logotherapy in teaching and upbringing.

The combination of the Greek words logos (gr. λόγος – word, meaning, explanation) and therapeuo (gr. θεραπεύω – I care for, I look after, I heal) expresses the essence of this therapy (Konieczna, 2003) – caring for meaning and explaining life, as well as healing by helping to find meaning, which, according to Frankl, is the strongest motivating factor (Szczukiewicz, Szczukiewicz, 2018). While according to psychoanalysis, human existence is governed by the pleasure principle, and from the perspective of individual psychology, it is shaped by the will to power, from the perspective of existential analysis, it is permeated by the will to meaning. Human life is a field of struggle to extract meaning in the context of various circumstances. According to Frankl, "in psychotherapy, it is ultimately not about transforming the dynamics of affects or the energy of drives, but about existential change" (Frankl, 2017a, p. 264).

The novelty that Logotherapy has brought to psychotherapy includes methods engaging the spiritual dimension of man (also called the noetic dimension). This dimension is specifically human. Logotherapy is a practical application of existential analysis, which represents an anthropology that takes into account all dimensions of man (spiritual, psychological, and physical) and the resulting theory of personality (Wolicki, 2001).

In addition to many non-specific methods, Logotherapy employs methods typical for it, such as attitude modulation, dereflection, or paradoxical intention, which are highly effective in treating various types of mental disorders. The paradoxical intention method was used by Frankl as early as 1929 and was first mentioned by him in 1939, with further refinement occurring post-war between 1953 and 1960 (after: Galarowicz, 2024). Paradoxical intention is especially used in working with individuals suffering from anxiety neurosis. Its essence lies in the patient wanting what evokes their anxiety. Logotherapeutic methods appeal to specifically human qualities such as responsibility, self-transcendence, conscience as an organ of meaning, discovering duties, and making choices. Any manipulative, reductionist, or dehumanizing methods are excluded. It should be noted that in Logotherapy, it is not so much the methods and techniques employed by the therapist that matter, but primarily the spirit in which they are applied (Wolicki, 2010).

One of the fundamental principles of Logotherapy reminds us that every person's life possesses unconditional meaning, which is not lost or reducible even in the face of extremely difficult circumstances. Frankl attested to the truth of this principle not only in his professional life as a doctor and psychotherapist but also by saying "yes" to life in the face of the hell of the concentration camps through which he passed (Lukas, 2019). Frankl describes his experiences in concentration camps as "experimentum crucis". For the Logotherapeutic concept, the foundations of which were laid even before the war and described in a manuscript lost on the first day of his stay in Auschwitz, the camp experiences became a kind of verifier for significant tenets of Logotherapy, such as the assertion of human capacity for self-transcendence and self-distance: "the specifically human fundamental ability for self-transcendence and self-distance (...) was existentially verified and confirmed in the concentration camp" (Frankl, 2023, p. 149). Frankl experienced the legitimacy of what Logotherapy proclaims on his own body and soul (Frankl, 2021). The works he left behind, which also contain guidelines for those professionally involved in helping others through Logotherapy, are thus particularly credible, though this comes at a high price – as Frankl says: "It is not easy to write with one's own blood. But it is easy to write well with it" (Frankl, 2023, p. 10).

2. The spiritual dimension in Frankl's perspective

When referring to the spiritual dimension of man, Frankl also uses terms such as "spiritual sphere", "noetic dimension", "nous", "existential-spiritual person", "personal axis", "person", "spiritual person". To avoid religious connotations and equating the spiritual dimension with spirituality in a theological sense, Frankl emphasizes that when describing the spiritual dimension, he refers to the anthropological dimension (after: Galarowicz, 2024). An extensive characterization of the person as a spiritual dimension was conveyed by Frankl in his ten theses on the person, which he formulated for the first time in 1950. A person, by virtue of being a single entity, an indivisible unit, a whole and unity, cannot be split or divided into smaller parts. Therefore, "even in schizophrenia, there is no true splitting of the person", and it is also correct to replace the previously used term "double consciousness" with "changing consciousness" (Frankl, 2017a, p. 259). The indivisibility of the person is also connected with the impossibility of transferring one's spiritual existence to another person. Parents can only pass on their child's organism, to which the spiritual dimension is added. From a purely naturalistic or medical perspective, the emergence of a spiritual person at the moment of conception is inexplicable, remaining something mysterious and enigmatic. The spiritual person, not being born, is immortal. Even in life, we do not have direct access to it; however, indirectly, it is given to us even after death (Frankl, 1984).

Thanks to the spiritual dimension, we are not solely dependent on signals coming from the body or emotions. These often lead us toward what is pleasurable or what provides an opportunity to prove our point or superiority (Freudian pleasure principle or Adlerian will to power). Drives and emotions push us, while meaning and values invite and attract. The spiritual dimension has the power to manage the emotional and drive spheres (Solecki, Rusin, 2024). The dynamism of striving for meaning and the need to refer to values are inscribed in human nature. According to Kazimierz Popielski, regardless of how a person understands and experiences these realities, they are necessary for being and serve existence analogously to breath for the body or expression for the psyche (Popielski, 1996).

A person, being a whole, cannot be reduced to an element of a collective, class, or race, which are impersonal elements (Frankl, 2017a). He assimilates the definition of a person presented by Max Scheler, according to which a person is the bearer and center of spiritual acts. They are the center that organizes what is psychophysical and around which what is psychophysical concentrates. A person "has" their psychophysical sphere, while they themselves "are" something spiritual, the opposite of the psychophysical organism. What is spiritual is the most characteristic for man (Frankl, 2017a). The person as an existential-spiritual center integrates the bodily, psychological, and spiritual whole of human existence. An individualized human being is only integrated when they concentrate around their spiritual axis, which is the person (nous). However, only all three dimensions taken together constitute the whole person (Frankl, 1984). The existence of man is marked by optionality. Following Karl Jaspers, Frankl calls man an "existentially deciding" being, who constantly determines what they will become in the next moment. Man "exists as their own potential, as a possibility, for which they can either support or oppose" (Frankl, 2017a, p. 263). Here, another characteristic of being human is clearly marked: "being profoundly and ultimately responsible". This is more than simply being free, because responsibility is accompanied by the justification of freedom, its reason ("for what"), for which man is free, using it for something or against something (Frankl, 2017a). A person can be guided by their drives, but they do not have to be. The freedom of man expressed in taking a stance for or against something is inalienable, always present. Even when a person makes an irresponsible choice that restricts freedom, it is still their free choice (Frankl, 2024c).

Responsibility is an ethically neutral boundary value that psychotherapy should strive to achieve as a valuing action. The psychotherapeutic process can lead the patient to become aware of responsibility as a fundamental feature of their own existence. The consequence of this is a sort of automatic confrontation with evaluative judgments situated in the context of their unique personality and unique space of fate. One of Frankl's tasks for psychotherapy is to lead the patient to realize their specific responsibility for the tasks that life sets before them. Only by accepting their inner condition and the external circumstances of life (the entire situation in the world) and experiencing them as unique and unrepeatable does one sharpen the awareness of personal responsibility and a specific mission, simultaneously enhancing the forces needed to overcome difficulties on the path to fulfilling meaningful actions, to realize what "life expects from me" (life as "being asked," being – as "responding to life") (Frankl, 2021, p. 13, 19; 2023).

3. Dimensional ontology and psychotherapeutic credo

In characterizing the issue of the multidimensionality and unity of man, Frankl relies on what he called dimensional ontology (Frankl, 2017b). Alexander Batthyány (2023) notes that this model, although rooted in a long tradition of philosophical and anthropological thought from Aristotle to Scheler, constitutes, however, in many respects a specific aspect of Logotherapy (cf also: Leidinger, Rapp, Mosser-Schuöcker, 2022).

Frankl's dimensional ontology contains two fundamental laws. The first states that "the same object projected from its dimension onto other, lower dimensions reflects in such a way that its two reflections contradict each other". For example, projecting the image of a three-dimensional glass onto two-dimensional planes toward its base and in the lateral plane will produce a circle in the first case and a rectangle in the second. However, the glass is neither a rectangle nor a circle, nor is it a combination of these two shapes. Another contradiction is that in both projections, closed figures are formed, while the glass is an open figure. Projecting man onto the plane of biology reflects somatic phenomena, while projecting onto the plane of psychology involves mental phenomena. However, this duality does not negate the unity of man. Similarly, looking through the prism of only two dimensions, we will not see the whole person, so they should not be taken as a whole. Only adding a third dimension allows us to see who man is (Frankl, 2017b).

The second law of dimensional ontology states that projecting different objects into the same lower dimension results in reflections that are not mutually contradictory but ambiguous. For example, projecting a cone, cylinder, and sphere in three-dimensional space toward the base will yield a circle in each case, making it impossible to infer from this image what figure is being projected. The somatic dimension is present in every person, but a person is something more than just that dimension. Frankl did not negate the necessity of projecting man into one dimension when wanting to investigate individual dimensions that may give rise to disorders. However, one must be aware that such a detached way of looking is merely one perspective that does not constitute the whole (Frankl, 2017c).

Within the whole that is man, Frankl distinguishes two phenomena: psychophysical parallelism (the bodily-psychic union) and noetic-psychic antagonism ("bargaining" of the spirit with bodily and psychic aspects). While the first is unavoidable, the second is optional. A doctor or psychotherapist should, however, refer to the noetic-psychic antagonism, which is associated with what Frankl calls "the power of the human spirit's defiance". In this context, Frankl formulates his psychotherapeutic credo: within the unity that constitutes the person, the noetic dimension has the possibility to "withdraw" and stand in opposition to the seemingly stronger psychophysicality. It is this characteristic of the person, namely its dynamism, that enables the person to distinguish, reveal, and constitute themselves. The bodily and psychophysical aspects also distinguish themselves in this process when a person confronts and "bargains" with themselves (Frankl, 2017b).

4. Psychiatric credo and pathoplastic

In what Frankl describes in one of his "ten theses on the person" as his psychiatric credo (Frankl, 2024b), he expresses his unwavering belief in the spiritual personality of the psychotic patient. Logotherapy aims to help a person view their life in terms of responsibility while simultaneously making them aware of the vast area of freedom inseparably linked to that responsibility. Even in severe illness, such as endogenous depression (resulting from neurotransmitter dysfunction), a person has the opportunity to shape their fate by adopting a specific attitude toward it. In this context, Frankl speaks of pathoplastic. Unlike the pathogenic element, the pathoplastic factor results from shaping fate in relation to illness. In the case of a person suffering from endogenous depression, alongside pharmacological treatment, Logotherapy can also be helpful. Its aim is then to change the attitude toward life by bringing out its task-oriented character. The spiritual attitude of a person toward their illness is already contained in the pathoplastic factor. The behavior of a sick person is shaped not only by the consequences resulting from their ailment but is also a manifestation of the spiritual attitude of a person toward the fate that in this case is illness. This attitude is based on freedom and is subject to the requirement of choosing the right direction (becoming a properly directed attitude). One could say that the pathogenic factor learns pathoplastic from the human factor. In this sense, illness represents a kind of test of humanity for a person. Frankl speaks in this context of the "remnant of freedom" that is present even in psychosis. Thanks to this untouched area of freedom, a person struggling with illness can actualize values of attitude toward their fate marked by illness in every situation (Frankl, 2024b). Where medicine or traditional psychoanalytic therapy discovers only psychological or physiological dependencies, Logotherapy uncovers areas of spiritual freedom.

Illness is a certain kind of pathology (from Greek πάθος, pathos – suffering and -λογία, logia, literally: "word about suffering"). Pathos (suffering) is the key term in this word. As Krzysztof Grzywocz notes, the emergence of illness is not merely something negative and destructive, but it also carries within it a message, a call to fulfill the logos that is inscribed in this event. Such a perspective stands in opposition to the approach according to which everything in illness is meaningless: "In every illness, one can find some part of the logos, some rescue". (...) Quick classification of something as sick or healthy can be a form of pathology (...). Similarly, the comprehensive judgment: "This person is sick", as if the boundary between logos and pathos did not run in a person – between suffering that hampers life and the logos that is hidden in that painful experience" (Grzywocz, 2020).

Personal dignity is equal among all people, regardless of how their life efficiency and ability to act (biological-social utility) are perceived. It remains unchanged and intact even despite the loss of those abilities regarded as utilitarian values. Personal dignity stands above those deficits, just as the spiritual person remains untouchable by psychophysical processes of illness (Frankl, 1984). Frankl sees the source of confusion between human dignity and mere utility in the erroneous interpretation of concepts arising from contemporary nihilism (which proclaims that everything is meaningless), which is also present in universities and in the training process for therapists (Frankl, 2017a).

The spiritual dimension of man, by definition being free, is not subject to any external conditions, including the conditions of illness (physical or mental). The spiritual personality not only cannot become ill, but even the categories of health and illness do not concern it at all (Frankl, 1984). Frankl agrees here with the views of Karl Jaspers, who claims that the spirit itself cannot become ill, but the Dasein that carries it can be subject to illness, thereby influencing the degree to which the spirit can be realized (after: Opoczyńska, 2002). In this context, Frankl uses the metaphor of the musician and the instrument. The relationship between the spiritual person and their psychophysical organism is instrumental; the spirit organizes the psychophysical instrument, making it its tool. A musician playing on a poor or out-of-tune instrument cannot perform a piece in a way that aligns with the artist's intent but will be subject to limitations arising from the instrument's dysfunction. If the spiritual person is carried by a sick psychophysical organism, then attempting to express themselves through it, they experience its imperfections. However, these shortcomings do not leave a mark on the spiritual person but make them somewhat "walled off". Even if the perception of a person is significantly hindered by the foregrounding of pathological processes, they remain unchanged, hidden deep down, although helpless and invisible. The task of the doctor is to sense behind that wall the suffering person who is suffering due to illness, yet does not itself become ill from it (Frankl, 1984). For example, in the case of psychosis, the spiritual person suffers in two ways: due to instrumental paralysis (they are unable to adequately control their instrument, which is psychophysics) and due to expressive invisibility (they cannot express themselves through an organism that functions without disturbances).

This invisibility is intermittently interrupted by single moments in which the "spirit" breaks through the psychophysical layer that separates us from it like a "lightning bolt" (Frankl, 1984).

5. Noo-psychic antagonism

The presence and activity of the spiritual dimension sometimes manifest clearly in the struggles of individuals suffering from schizophrenia, where amidst various manifestations of the weakening spirit, many testimonies of its extraordinary strength can also be observed. In the experiences of individuals with schizophrenia, one often notices an actual excess of what is typically human, particularly relating to the world of meaning and values. In this context, schizophrenia emerges as a particular field of struggle for one's humanity, where the logotherapeutic noetic-psychic antagonism clearly crystallizes. Thus, as Małgorzata Opoczyńska notes, "the illness that affects the psychophysical organism and threatens its order would turn out to be the place where what is spiritual in a person gains special strength, allowing for detachment from the concreteness of life and the search for Logos, which would give it meaning" (Opoczyńska, 2002, p. 81).

Although illness as such may obstruct the realization of specific values and threaten the psychophysical organism, thus becoming a source of suffering, the discovery of hidden opportunities for the realization of values of attitude within this experience means that illness not only does not negate the chance for a person to fulfill themselves as a person, but provides a special opportunity for this. In this way, illness, which is inherently a negative aspect, is existentially transformed and overcome. This is only possible in the case of an attitude directed toward integrating the painful experience of illness with the rest of life and not trying to forcibly remove what may initially seem completely meaningless and worthless (Opoczyńska, 2002). This attitude assumes hope for finding seemingly non-existent meaning within this experience; it is an expression of unconditional faith in unconditional meaning (Frankl, 2017c). This conviction, supported not only by Frankl's own experience but also by the experiences of many of his patients, or the testimony of numerous camp fellow inmates, is expressed in treating every situation as carrying potential meaning waiting to be realized. A person is not responsible for what belongs to the sphere of fate, but they are responsible for their attitude toward how they respond to it (Frankl, 1984). The therapist's role is to assist the patient in expanding the scope of freedom by creating a distance between the illness and the human dimension in the sick person. The emphasis in this case is not on the symptom, but on the pursuit of changing the attitude toward the symptom, which characterizes personalist psychotherapy (Frankl, 2024b).

According to Piotr Szczukiewicz (2024), the enormous potential of Logotherapy to respond to the needs of people seeking help in the face of disruption or loss of meaning in the context of various life difficulties stems from the fact that the logotherapeutic perspective is focused on what is most human. Based on his professional experience, he notes that this characteristic feature of Logotherapy, which is a proper, integral concept of a person, is an extremely important element of the therapeutic process: "When in my work as a psychologist and psychotherapist I began to encounter various forms of suffering among patients, I could in my own experience confirm that perceiving what 'makes a person a person' is as important in counseling and psychotherapy as a multifaceted diagnosis or a good therapeutic relationship" (ibidem, s. 13-14).

6. Spiritual Unconsciousness

The sphere of unconsciousness in the logotherapeutic perspective is much broader than in psychoanalysis. In Logotherapy, the unconscious relates not only to the aspect of drives but also, and even more so, to the spirituality of man (with Frankl making a clear distinction between drive unconsciousness and spiritual unconsciousness): "where the spirit is rooted – precisely in its maternal home, the person is not unconsciously optional but inevitably so". Within spiritual unconsciousness resides also unconscious piety, unconscious religiosity, which Frankl understands as an unconscious, often repressed, innate bond of man with transcendence. Situating this unconscious religiosity in the place of unconscious sexuality (the unconscious drive shaped by the 'id') was, according to Frankl, Carl Gustav Jung's mistake. Meanwhile, the spiritual act of faith does not arise because it is pushed towards it by the drive, but is a free stand of man for God. Religiosity is either the domain of the "I" or it does not exist at all (Frankl, 2017b).

Awareness and unconsciousness permeate each other, are interlinked, and mutually interact. According to Rafał Szykuła, in Frankl's concept, one can see the alignment of unconsciousness with consciousness as its component. The same applies to preconsciousness. These three spheres co-create a whole (Szykuła, 2022). Between the psychoanalytic and logotherapeutic perspectives, there is also a qualitative difference in the perception of unconsciousness. The spiritual unconsciousness in Frankl's view is an ally of man (an existing unconsciousness, non-deterministic), because from it arises all of his conscious spirituality. It is a reality that enables the development of spiritual awareness. Marian Wolicki emphasizes that a person should not try to amputate their spiritual unconsciousness, because as long as their existence is rooted in spiritual (noetic) acts, they are free from their drives. A person is somewhat carried by spiritual unconsciousness. Behind it, there lies spiritual depth, which is the space for discovering logos and the place where existential decisions of utmost significance are made (Wolicki, 2008). Therefore, spiritual depth, unconsciousness, preconsciousness, and consciousness are like different parts of the ocean of human inner life, collectively forming a single element with varying degrees of depth (Szykuła, 2022).

7. Spiritual freedom and guilt

Logotherapy teaches that recognizing the spiritual freedom and dignity of a person is a necessary condition for a person to cope with justified feelings of guilt. Seeking justifications for actions committed in circumstances makes any potential reparation of guilt unnecessary. Meanwhile, an adequate sense of guilt can become a stimulus to correct a previously meaningless action through present meaningful action and thus extract benefit from it, namely – transform it into an impulse toward good. This means that the horizon of meaning can also extend over false actions from the past. Although these actions were meaningless in themselves, a person, through recognizing and realizing the current invitation that meaning directs toward them, can in a sense imbue even their erroneous decisions, which already belong to the past, with meaning. Frankl's student, Elisabeth Lukas, does not hesitate to state that "all good that a person extracts from their guilt (...) gives a certain meaning ex post to what was" (Lukas, 2024, p. 174). Every undertaking and actualization of a positive possibility, underpinned by the awareness filled with healthy guilt that previously we responded negatively to the appeal of meaning, causes the ray of meaning to reach even what happened earlier.

In relation to feelings of guilt, the role of the therapist may be, first of all, to jointly reflect with the patient on whether the guilt that burdens them is justified (whether what happened was dependent on them, fell under the area of their responsibility, or whether it depended on external factors over which the patient had no control). Secondly, the therapist can help the patient face justified feelings of guilt. This can only occur through referring to the responsibility and freedom that the patient possesses as a spiritual person (nous). This orientation is the opposite of "psychological absolution," which treats a person as a powerless puppet, whose actions are dictated by unconscious drives, subject to processes that unwittingly control their behavior (Lukas, 2024).

Elisabeth Lukas – a follower of Frankl's thought, describing the subsequent phases of a project conducted from 1977 to 1980 in her counseling center in Munich, acknowledges that the first two concepts employed to assist its recipients proved ineffective. Initially, regular social training was sought, and then efforts were made to teach the project's beneficiaries appropriate strategies and encourage them to implement them in life. The project concerned juvenile delinquents and aimed to reduce recidivism rates. Only the appeal to the logotherapeutic image of man (as a being endowed with the noetic dimension, and thus free and responsible) brought positive, measurable results. The logotherapist reports the guidelines adopted at that time: "We dared to treat guilt, contrary to all adverse environmental circumstances, as guilt – however, not in the sense of accusation or reproach, but as an impulse for reflection on the age-old human wisdom of the heart that each of these young delinquents carries within them, regardless of their external environment. Guided by the motto: 'my environment cannot fully shape me, but I can shape myself as much as possible', we transitioned from the fact of how free they actually were in committing the criminal act to drawing evidence of how free they are now to perform actions in the world with an awareness of responsibility for them. Actions that, by affecting backward, can balance everything that was negative and had settled in their young lives" (Lukas, 2024, p. 70).

Contesting traditional psychodynamic psychotherapy and drawing on her over thirty years of experience working with patients, Lukas draws interesting conclusions regarding the relationship between memory and various types of negative experiences that we may encounter throughout life. She observes that those negative experiences, over which we have no control, over time lose their original sharpness or are completely forgotten (regardless of how this process will be explained – as "repression through defense mechanisms" or otherwise). Conversely, negative experiences that are the consequences of one's own decisions and behavior do not so easily fade from memory but remind the perpetrator of themselves as an "unsettling remnant", mobilizing them to repair the harm done or reconcile. Only undertaking such reparative actions has the power to balance and placate these negative memories in some way. Frankl's student derives from this the conclusion that the very nature of man operates in such a way that "what should be forgotten is what no longer makes sense to remember, while no forgetting should occur where there still lies some meaning waiting to be fulfilled" (Lukas, 2024, p. 70-72). This memory serves as a catalyst for the process of learning and purification, thus protecting against the repetition of mistakes.

Lukas calls the realization of meaning "the elixir of human life", because "nothing (...) protects against neuroses, depressions, psychosomatic disorders, anxiety about the future, or crises in relationships with the environment as broadly accepted content of meaning" (E. Lukas, 2024, p. 48). Referring to the statement by Friedrich Nietzsche quoted by Frankl: "He who lives 'for' something will endure almost any 'how'", she observes that reversing this statement, one could say: "He who does not live 'for' something will not be pleased by any 'how'" (E. Lukas, 2024, p. 83). Piotr Szczukiewicz, examining together with his team the application of logoprofilactics in preventing risky behaviors among youth, points out that "young people often turn to uncertain promises or substitutes for happiness and engage in risky behaviors when they lose the basic orientation toward meaning and values" (Szczukiewicz, Kurcbart, Solecki, 2023). Where the perception of meanings is lacking, there is a flight into mirages of pleasure. In this case, logoprofilactics can serve as a helpful point of reference for the educational process.

Frankl advises that even at an early stage of life, one should develop an "internal skill" of contact with one's "self," with one's most proper essence, even in the face of various losses that life abounds in. This kind of internal formation constitutes an invaluable resource in situations where fate suddenly forces a person to respond to the question of what they see as the source of meaning and value in their life. The lack of this skill increases the risk of falling into a psychological crisis in the face of difficult life circumstances (Frankl, 2023).

As an antidote to various types of destructive behaviour that undermine the value of one's own life or threaten the lives of others, Lukas points to the ability to see the meaning of life despite difficulties and the awareness of the personal dignity and unconditional value of every human being (Lukas, Schönfeld, 2021).

8. Conscience

Conscience is the voice of transcendence: "through the voice of conscience resounds – per sonat – the voice of some non-human being" (Frankl, 2012, p. 76). The word person (persona) thus acquires a new meaning. In conscience, the transcendent side of spiritual unconsciousness is revealed. It is an immanent psychological fact that simultaneously possesses transcendent roots, in other words – a part of transcendence entering into the immanence of the psyche: "conscience is only the immanent side of a transcendent whole, emerging from the realm of psychological immanence but surpassing that realm" (Frankl, 1978, p. 49). Thus, projecting conscience from the realm of what is spiritual into the psychological sphere (as various psychological interpretations do) constitutes an unjustified reductionism that undermines what is most human in a person.

The transcendent nature of conscience does not deny that a non-religious person also possesses conscience and is responsible. However, such a person does not ask where conscience comes from, stopping at the fact of conscience as something immanent, recognizing it as the ultimate instance to which they respond. Frankl explains the genesis and function of conscience by comparing it to the navel. Without referring to the prenatal history of a person when they were connected to their mother by the umbilical cord, the human navel would seem meaningless. Only then does its existence become understandable and meaningful when one perceives it as something that points to a reality beyond itself, from which it originates and of which it is a part. Similarly with conscience – its existence can only be considered meaningful when it refers us to its transcendent source. If we attempt to sever a person from these transcendent roots, we will not be able to understand the entirety of their organism. Although existentiality alone suffices to explain human freedom, in order to explain human responsibility, it is necessary to reach the transcendent dimension of conscience. A person can say: "as the master of my will, I am the creator, but as the servant of my conscience, I am created" (Frankl, 1978, p. 46-50).

Conscience as an organ of meaning urges us to choose what is positive and real, even if the path to that is fraught with struggles. The subtle voice of conscience invites us to realize what is most aligned with our authentic desires; thus, by listening to it, the will to meaning ignites, and the heart begins to beat stronger. To hear the voice of conscience, inner peace and silence are needed. Conversely, noise and agitation disturb its delicate sound. In the latter case, Lukas recommends "spatial-psychological distance from everyday life and a radical retreat into solitude" (Lukas, 2024, p. 190). These measures help regain clear access to the voice of conscience. Its message is full of hope, providing strength and encouragement: "Proceed calmly on your path! If your path involves making constructive changes, embrace it with enthusiasm and energy! If it involves courageously enduring something, take up your cross and go! If it involves stepping into what is new and unknown, do not hesitate! There is enough strength within you to live your life to the fullest. Trust!" (Lukas, 2024, p. 190). In the logotherapeutic interpretation, conscience is a friend of man. It points to the right path on which the fullest realization of meaning is possible.

9. Ultimate meaning

When asking about meaning, Frankl primarily refers to particular meanings related to specific situations in a person's life. Meaning is also a dynamic reality, differing depending on the situation and the person (ad personam and ad situationem). However, Frankl does not stop at the question of individual meaning but reaches further, also asking about the meaning of the whole, the ultimate and universal meaning. He also uses other words to describe it: "supersense", "overarching meaning", "absolute meaning", "meaning of fullness", "meaning of far-reaching scope" (Galarowicz, 2024).

Ultimate meaning is regarded in Logotherapy as a so-called "boundary concept", as it surpasses the cognitive capabilities of man. While meaning can be discovered and understood, ultimate meaning can be acknowledged and accepted. According to Rafał Szykuła, "the law of psychotherapy is not only to refer to the will of meaning but also to the will of ultimate meaning (...). If Logotherapy as a form of psychotherapy wants to fully assist the patient seeking meaning, it must also find a reference to the ultimate meaning of human existence" (Szykuła, 2022, p. 34).

Distinguishing meaning from ultimate meaning has significant implications for practice. Blurring the line between meaning and ultimate meaning would preclude the possibility of decision-making and taking responsibility, as then regardless of what one chooses or does, ultimate meaning would triumph anyway. Such an approach would undermine the meaning of human decisions, paralyzing and hindering them. Meanwhile, the appropriate conduct is such that everything depends solely on the action taken or omitted by me, especially since ultimate meaning remains unknowable and is given only "in effect," not in "intention;" one can only speculate about it retrospectively. In the moment of action, what should determine its direction and illuminate it is meaning, not ultimate meaning. Frankl succinctly expresses this in the following statement: "I can always count 'on' ultimate meaning, but I cannot count 'with' it" (Frankl, 1984, p. 69). This kind of suspension of faith in ultimate meaning does not equate to its complete elimination. The history in which ultimate meaning is fulfilled can occur with or without my participation, depending on how much I engage in fulfilling the particular meaning addressed to me. Ultimate meaning is characterized by discretion; it does not impose itself and therefore often remains unnoticed. When a person asks about ultimate meaning, they can provide two answers: "absolute nonsense" or "absolute ultimate meaning". Each of these carries the responsibility of the one providing the answer. Thus, it is about existential decision (commitment), not intellectual speculation (understanding). This decision assumes faith, which Frankl understands as "thinking multiplied by the existentiality of the thinker"; it is not "thinking diminished by the reality of the thought", because the one who answers and makes a decision thus stakes the weight of their being (Frankl, 1984).

Frankl assumes that the world accessible to man is surpassed by the world that transcends his understanding, simultaneously representing the ultimate meaning of everything that makes up his life (including suffering). Hence, in the last of his "Ten theses on the person", Frankl formulates the following conclusion: "A person understands themselves only from the perspective of transcendence. Moreover, a person is also a person only to the extent that they perceive themselves from the standpoint of transcendence – a person is also a person only to the extent that they become one through transcendence: permeated by the call of transcendence. This call of transcendence is heard by man in conscience" (Frankl, 2024b, p. 266). Despite potential associations with what constitutes the sphere of religiosity, from the logotherapeutic point of view, religion remains merely an object and cannot become a position. What legitimizes and justifies the interest of Logotherapy in the phenomenon of faith and engagement with this sphere is the understanding of faith in Logotherapy as faith in meaning. Following Albert Einstein, Frankl interprets being religious as questioning the meaning of life. Thus, faith in meaning or religion constitutes a radicalization of the "will to meaning" in that it concerns the "will for ultimate meaning" ("the will for supersense") (Frankl, 2024b). Through and thanks to the spiritual dimension, a person is oriented toward meaning and values, remains in a dialogical relationship with others, and is capable of love. An essential element of the spiritual dimension is also conscience (Galarowicz, 2024).

Between the all-encompassing ultimate meaning that transcends the limited framework of human understanding and the meaning personally directed to each individual through specific situations in their life, there exists a relationship that Frankl explains by referring to a certain analogy. Just as a film consists of many single frames that come together to form scenes, each with its own significance. However, it is impossible to grasp the significance of the entire film based solely on these individual fragments until the film comes to an end. Similarly, with human life – at best, its ultimate, holistic meaning may only reveal itself at best on one's deathbed. However, this could not take place if a person during the individual stages of life did not engage in fulfilling the meaning contained in every moment that comprises it, according to how they interpreted that meaning at that moment (Frankl, 2024a, p. 120). Frankl also considers the concept of ultimate meaning in another sense, relating it to the Absolute, a personal God who is the guarantor and source of ultimate meaning: "the supreme value, 'ultimate meaning is connected with the 'transpersonal'" (Frankl, 1984, p. 111).

10. Self-transcendence and autotranscendence as manifestations of the spiritual dimension

Frankl points to the "phenomenon of self-transcendence" as a specifically human trait, which "always signifies an orientation toward something or someone, a dedication to some work we devote ourselves to, a person we love, or God we serve" (Frankl, 2024b, p. 46). Thus, it is precisely through love that humanity reveals itself in a unique way. Love is not only turning to another person as "you," but also saying "yes" to another person, which is understood as recognizing their uniqueness and individuality and affirming their value. In such an attitude toward another, a person not only affirms who someone is but also employs a way of seeing that anticipates the future and recognizes what someone can still become based on the potential they possess. A person who loves thus has a special kind of insight into the optional nature of the other because they also perceive the potential value of their loved one, the possibilities that can still be realized (Frankl, 2024c). Love, which sees further and deeper, should also be present in the work of the doctor or psychotherapist. As a postulate of his work as a psychiatrist, Frankl indicated that the patient should be reflected in the doctor and be "seen" by them, even beyond the surface of the pathological symptoms noticeable in psychophysics. This profoundly human aspect of contact with the sick is of immense therapeutic significance because what is human in the doctor awakens humanity in the sick, just as what is specifically human in the sick reveals humanity in the doctor (Frankl, 2021). The essence of self-transcendence manifests itself in the fact that "the more one is able to overlook oneself, the more one forgets oneself by devoting oneself to something or to other people, the more one becomes a human being, the more one realizes themselves. Only by forgetting oneself can one lead to sensitivity, and by giving oneself, to creativity" (Frankl, 2024b, p. 103). Logotherapy also recognizes in a person the capacity for autotranscendence. It represents a "lifting force", with which even experiencing psychophysical enslavement, one can rise to the heights of spiritual freedom (Lukas, Schönfeld, 2019). In this sense, a person is not doomed to the mercy or wrath of their psychophysics, so patients undergoing therapy should be encouraged to transcend their psychophysical sphere.

11. Psychotherapy and faith

The relationship with God was for Frankl something very personal, which should be veiled by a certain kind of mystery and protected by restraint. This is why he spoke rarely about his own faith (Lukas, 2019). Being a person of deep faith, he postulated that one should remember to maintain the independence of psychotherapeutic methods from religion. The topic of faith may arise in therapeutic conversations, but the potential usefulness of psychotherapy for religion can only arise from its autonomy. Only then can the results of psychotherapy constitute a value for theology when obtained through independent inquiries (Frankl, 2012). The goals of psychotherapy and faith also remain distinct – the first is healing, the second is salvation. Each of these two disciplines has its own assumptions and methods that it should adhere to in order to achieve its goals.

Logotherapy should remain neutral in the sense that its arguments and methods should be acceptable and understandable to every person, regardless of their religious beliefs. However, this does not preclude stating that "no one who is honest and takes psychotherapy seriously can avoid confronting it with theology" (Lukas, 2019). The bridge between the two disciplines is the integral anthropology that takes into account the multifaceted dimensions of man. Erroneous ideas about man result in inappropriate methods of treatment. The bridge between psychotherapy and theology is also the concept of the soul – the Greek word ψυχή (psyche) meaning soul is found in the word "psychotherapy", while also playing an important role in theology (Lukas, 2019). The dimension of spirituality seems to be important not only in theology and philosophy, but also in medicine, psychiatry, psychology, and psychotherapy (Szary, 2024). Each perspective, theological and psychotherapeutic, defines the soul differently, yet this does not preclude the possibility of dialogue between these two modes of support and assistance directed toward man (Lukas, 2019). Such an opening to dialogue also protects against the temptation of anthropocentrism, which Frankl warned against.

James and Melissa Griffith point to the therapeutic potential of spirituality, which psychotherapy should also tap into. According to the American psychotherapists, "spirituality provides a whole range of means and methods for positioning illness in its rightful place, so that it does not affect life more than is necessary due to its biological necessity". In this context, it is interesting to distinguish in English between two modes of existence of illness: disease – referring to the biomedical understanding of the patient's condition, and illness – describing how the sick person or their family experience and cope with the symptoms of illness and its repercussions in various aspects of life (physical, psychological, social, spiritual) (Griffith, Griffith, 2008).

Conclusion

The analysis conducted regarding the spiritual dimension of a person from the logotherapeutic perspective leads to the conclusion that this is a specifically human sphere, without which such realities as life, love, forgiveness, suffering, faith, and meaning become incomprehensible. If a person is reduced ("projected") from the realm of spirit (the only realm in which, by nature, "they exist") to the plane of exclusively psychological or physical, the entire human dimension suffers, not just one of the dimensions of their existence (Frankl, 2024b). Both diagnosis and therapy should be directed toward the multidimensionality of man, who is a unity despite their diversity. Rooted in the spiritual dimension, human freedom creates the opportunity to provide the most meaningful response in every life situation, while also making them responsible for the answer they choose to give. The particular manifestations of the spiritual dimension are conscience and the person's ability for self-transcendence and autotranscendence. Despite the differences, including methodological differences, that exist between psychotherapy and faith, Logotherapy remains open to issues concerning faith, also in the process of psychotherapy, due to its non-reductionist nature.

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Issues of spirituality in psychology and psychotherapy[1]

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Abstract: Psychology was born from philosophy as the "science of the soul", and was treated and practised as such by the ancient Greeks. Over time, especially after it was reborn in the 19th century as modern psychology with its origins in Wilhelm Wundt's laboratory, it evolved into a strictly empirical science, distanced from metaphysics and detached from what is spiritual and hence immeasurable and methodologically problematic. Subsequent psychotherapeutic approaches have gone through phases from a reductionist understanding of man (psychoanalysis, behaviourism) to viewing him in a broader, also noetic perspective (existential analysis, logotherapy). There is a certain opposition here in the anthropological assumptions that shape psychology. We still use the prevailing materialistic anthropology, consistently limiting human functioning to its bio-psycho-social dimension; rationalizing all manifestations of human behaviour incomprehensible to reason (excluding the spiritual factor in its interpretation). However, we have realistic psychology and anthropological personalism, which recognizes the manifestations of man's spiritual life. The constantly developing branch of psychology, which is the psychology of religion and spirituality, shows that the element of ratio is present in the centre of interest for modern psychologists, bringing further research on the connections between human religiosity and spirituality and his functioning in various areas. The practical dimension of psychology, i.e. psychotherapy, is based on assumptions that adepts of particular therapeutic modalities accept "on faith", because they have no empirical confirmation. The growing popularity of using strategies and techniques derived from various spiritualities in psychotherapy shows how strongly the element fides is embedded in it. To sum up: fields such as psychology and psychotherapy, regardless of what they declare, have always been based on the elements of both fides and ratio, and today they still balance between spirituality and science.

Keywords: spirituality, fides, psychology, psychotherapy, ratio

Introduction

Contemporary academic psychology is dominated by materialist anthropology, while psychotherapy is dominated by axiological subjectivism. On these grounds, the assumption is made that there is no objective good, but only individual personal good (here one can see the implications of philosophical and anthropological assumptions: realism vs. idealism). Consequently, it is the individual "I" that decides what is good for the person, what is true and what is real. With post-post-modern relativism and subjectivism, an unspecified well-being of the individual has become one of the primary goals of therapy, while the criteria for this well-being are defined by the individual themselves. Just as everything that is subjective, this too can be subject to constant fluctuation and variability. The undermining of the assumptions of realist philosophy and anthropology (that reality, and we ourselves, exist in an objective way) has led to modern man getting lost in his subjective 'truths'. The surrounding world intensifies this confusion, as any sense of constancy and certainty has been eroded, and people or institutions that used to stand as authority figures have been devalued and replaced by all types of gurus, influencers or celebrities, who appear and disappear. These new pop-culture authority figures often rely on a certain syncretism of psychology, coaching and a kind of spirituality.

While declaring to rely mainly on rational arguments, the present-day human being is just as often seeking something more than what is tangible and empirically experienced. One can hypothesise that what the present-day human being is seeking is associated with transcendence. Thus we can observe a widespread, often uncritical, reliance on science; but this is also

1 Article in polish language: https://www.stowarzyszeniefidesetratio.pl/fer/60P_Prac.pdf

accompanied by the growing popularity of various currents of pop-psychology and pop-spirituality, with new theories and therapy methods emerging, including those that elude scientific verification. Some therapists admit explicitly that "knowledge is a love affair between the explored and the unexplored' (Gierszewska, 2024). The growing demand for all kinds of developmental, spiritual and healing practices and the popularity of various pseudo-therapies now has its own name: psychowashing (Gutral, 2023).

Such approaches, however, give rise to a reflection on the nature of the human being, which cannot be reduced to a merely measurable biological-cognitive-emotional plane, and whose noetic dimension (Hornik, 2024; Popielski, 1994) demands, as it were, to be updated. The human being has a strong urge to seek the transcendent: that which transcends the surrounding reality and the human being themselves. This is related to transcending the temporal realm; which responds to the need for meaning in humans (Frankl, 2010, 2012; Solecki, Rusin, 2024). It can be fulfilled in different ways: in both theistic and atheistic spirituality/religion (Tyrała, 2013). Anything can become a 'God', and religion may be concerned with very specific things that bear no relation to institutional religiosity. One instance is the cult of a healthy, muscular body; its fanatics have a tendency towards bigorexia, following rituals in the form of strictly observed meal times and training hours, as well as a 'decalogue' of what one is allowed to eat and what one is not allowed to eat under any circumstances (Modrzyński, Mankowska, 2022). There are many other instances of how spheres of contemporary human life that were not originally considered "sacred" have been "made divine". This does not necessarily imply a clinically diagnosed addiction, but it is possible.

1. The philosophical roots of psychology as a science

In this context, how should a scientific field such as psychology and its practical application in psychotherapy be understood and perceived?

In order to attempt to answer this question, it is necessary to start by examining the origins and roots of psychology itself. By way of reminder, the very etymology of the word psychology from Greek is psyche: soul and logos: word, thought, reasoning. The term "psychology" thus means the science of the soul. Psychology was practised as early as antiquity. The ancient Greeks, however, did not use the name "psychology"; instead, when referring to psychology, they used the phrase περί ψυχής (peri psychis – about the soul). Not a distinct discipline at the time, psychology was treated as part of philosophy. Philosophers were most interested in the specific character of the mental processes: whether they are material in nature or the function of a separate substance (the soul). The philosophers who made the most significant contributions to the development of psychology were Plato (who was the first to describe the internal conflicts, biological, cognitive and religious functions of the soul; Plato, 2021), Aristotle (who made a systematic classification of the mental process and developed the laws of association; Brentano, 2023; Aristotle, 2021), Saint Augustine (who studied introspection and human behaviour; sometimes referred to as the father of Christian psychology; Charry, 2006) and Descartes (who developed such constructs as innate ideas and nativism; Descartes, 2024). The very name "psychology" was artificially created only in the 16th century, first appearing on the title page of a 1590 book by Goclenius, a German Philosopher: Psychologia: hoc est, De hominis perfectione, animo et in primis ortu hujus, commentationes ac disputationes quorundam theologorum & philosophorum nostrae aetatis. (Psychology: or the perfection of the human being, the mind and, above all, its origin, commentaries and discussions by some theologians and philosophers of our time; Stachowski, 2000).

Ancient thinkers did not distinguish between the soul as the principle of life and the psyche as understood today. This division of psychic functions into two dichotomous dimensions stemmed from the failure to distinguish the psyche as an intermediate dimension, connecting the spiritual soul to the body. The origins of the identification of the psyche as a separate construct, now studied in psychology, lie in the distinction of Descartes' cogito (Descartes' dualism has received much criticism, e.g. Damasio, 2022). In the age of modern philosophy, psychology as a science and its subject – the psyche did not exist. Ancient, medieval and modern philosophical thought do not distinguish or name the psyche as a distinct dimension of the human being. While moving away from metaphysics to turn their attention to the emerging natural sciences, scholars made a breakthrough, enabling the emergence of psychology as a new science.

2. The emergence of modern empirical psychology and the directions of its further development

Psychology is considered to have been constituted as an independent empirical science when Wilhelm Wundt founded the first psychology laboratory at the University of Leipzig in 1879. Wundt systematised a method of recording subjective sensations, referred to as introspection. The introspective method was based on the assumption that one can only investigate mental processes "from the inside", by recording conscious sensations. (Pankalla, Stachowski, 2011; Radu, 2019).

As psychology has developed as an academic science, research paradigms have changed. New directions and schools of psychology have emerged, and continue to emerge, with a variety of research goals. These research agendas feature various philosophical schools. Although psychology is gradually beginning to abandon philosophical assumptions in favour of experimental research, one should not overlook the role of the philosophical concepts that underpin the theoretical foundations of these psychological schools. Moving away from metaphysics and turning attention to the natural sciences led to the emergence of psychology as a separate science with its own methodology and research focus. At the same time, this has resulted in psychology being reduced to a detailed science, limiting the scope of research into the depths of human nature to its own methods. Ever since its debut as a science, psychology has selected only those psychological processes that can be observed and measured (perception, attention, behaviour, memory, etc.) while ignoring psychological phenomena that are more subtle or less visible. Over time, this has given rise to the idea that the invisible does not exist, and has, in some ways, erased the recognition and value of a deeper psychological and spiritual life (Buju, 2016). This has resulted in a shift in the conceptual apparatus of psychology away from metaphysical concepts. Concepts such as "free will" (in modern psychology synonymous with motivation); human values (now in psychology synonymous with basic motivational goals), character and its formation (now: discovering and developing one's own potential/strengths), or forgiveness (in systemic constellations, forgiveness is a negative phenomenon, as it places the victim above the perpetrator; Hellinger, 2006). One can venture to conclude that concepts describing the human psyche and relating, to some extent, to spirituality have become a problematic issue for the modern psychologist or psychotherapist (Monk, 2012). In summary, modern psychology has largely adopted the methodological tenets of behaviourism and, as the heir to positivism and neopositivism, has narrowed its focus to human cognition. What has a raison d'être in psychology is only what is evidence-based, in line with the "do not theorise, but test" principle.

3. The influence of materialist anthropology and psychological reductionism on the development of psychotherapy

How has this informed the psychological trends that shape the approach to the human being in an applied field, such as psychotherapy? Freud, considered to be the father of psychoanalysis, assumed that religious experience was fully explainable by psychology as a neurotic mechanism, both at an individual and social level, and this influenced psychotherapists' attitudes towards the patient's spirituality for many years. Freud's "projection theory" of religion assumes that belief in God is merely a product of the human desire for security, and psychoanalysis provided a satisfactory explanation for atheism. Religious belief came to be attributed to irrational human psychological needs. This heavily reductionist attitude has been put into practice as a postulate of neutrality, with the rationale being that a religious attitude is a highly morally judgmental one, in conflict with the ethical principles of psychotherapy.

Psychoanalysis reduces the human being to their instincts and drives. It is notable that attempts to reconcile the reductive attitude of psychology, especially psychoanalysis, with the spiritual dimension were made in the field of psychology by such eminent scholars as C.G. Jung and E. Erikson. A highly interesting field itself, one that inspires multitudes of people (not only psychologists and psychotherapists, but also artists and creators) and is part of our culture, psychoanalysis is based on the assumptions that, while very interesting and profound, are mostly empirically unproven (Paris, 2017). When asked what they think about there being no confirmation of psychoanalytic theories on scientific grounds, some practitioners of psychoanalysis reply that these theories have not yet been proven, but that it is a matter of time. The purpose of this article is not to criticise psychoanalysis, without which all modern psychology would not exist. When researchers encounter many personality concepts (not only psychoanalytic ones, by the way) they intuitively have a conviction of something transcendent (at the level of intuitive processing/thinking), but there are no tools (or according to some: not yet) to verify these theories through rational processing. The fact that the personality theories underlying therapeutic approaches are unverifiable does not mean that psychotherapy itself is not effective (Shedler, 2010). Still, it has been argued that what proves to be effective in therapy (more than or even independently of the approaches, strategies or techniques used, something that is common to all therapeutic modalities) is the bond that develops between the therapy participant and their therapist (Król-Kuczkowska et al, 2018; cf. also Czabała, 2006).

The behaviourists, led by John Watson, called for the study of the human being as a "black box", by analysing the connections between incoming stimuli and responses. This limits the perception of the human being to their behavioural sphere. At the same time, one should bear in mind that Skinner considered a person's thoughts as behaviour as well (Skinner, 2022). While cognitive-behavioural therapy has emerged as one of the psychotherapeutic perspectives with the best empirically proven clinical efficacy, it is often considered a therapy associated with reductionist thinking about the human being. It is notable that the 1980s saw the emergence of religious/spiritual cognitive-behavioural psychotherapy (R/S CBT), which has continued to be developed. In this strand, religion and spirituality issues are deliberately and intentionally integrated into the psychotherapy process, yielding positive results (e.g. de Abreu Costa, Moreira-Almeida, 2022).

4. The noetic dimension of the human being in psychology and psychotherapy: a new (old) perspective on the human being

These reductionist tendencies in the understanding of the human being, in both psychoanalysis and behaviourism, triggered a response, leading to the emergence of humanistic and existential psychology. Maslow developed the concept of a pyramid of needs, with self-actualisation at the top (Maslow, 2013). More hope for overcoming the reductionist view of the human being by psychology and psychotherapy came with the emergence of Viktor Frankl's logotherapy, which assumes that the individual comprises not only the cognitive-emotional, biological and behavioural spheres, but also the spiritual sphere. Logotherapy triggers the spiritual, noetic and existential dimension (Szykula, 2022). It contradicts determinism, emphasising human freedom. Frankl discussed the need for meaning and the areas in which it can be discovered: in a mission that we dedicate ourselves to, in the attitude towards suffering that one adopts (Frankl, 1998), our relationship with a fellow human being based on love or a relationship with a god/superpower. In his existential analysis, the founder of logotherapy went further than his humanist predecessors: it is the need for self-transcendence, i.e. a need related to the noetic dimension of the human being, that is placed at the top of Frankl's hierarchy of human needs, above self-actualisation. Furthermore, Frankl in some ways modernised Maslow's approach to needs (whereby the satisfaction of lower-order needs is a prerequisite for the satisfaction of higher-order needs) by demonstrating that the insufficient satisfaction or lack of satisfaction of lower-order needs does not preclude the realisation of higher-order needs, with self-transcendence at the forefront. This was corroborated by cases of people in concentration camps (Frankl being one of them), who preserved their human dignity and were able, in the face of such extremely harsh and destructive conditions, to transcend beyond the "here and now" towards something that surpassed them. The implications of placing transgression/transcendence beyond the self at the top of the pyramid of needs indicate that when one relinquishes, to an extent, self-actualisation and becomes concerned with the realisation of "self-transcendence" needs (through the pursuit of such higher values as, for instance, love, goodness, God, freedom, etc.), this self-actualisation appears in one's life somewhat incidentally, as a "side-effect" of the values pursued.

In Poland, a broader, non-reductionist view of the human being was proposed by Kazimierz Dąbrowski (2021), with his theory of positive disintegration, showing a perspective of transcendence and development of the human being. Speaking of Dąbrowski, it is interesting to note that although his achievements have not received much attention in Europe, North America has for some time been witnessing a renaissance of interest in his work, including in its practical, or therapeutic, aspect. The noetic dimension of the human being is so very "human" that even the rapidly developing artificial intelligence, which is predicted to be able to eliminate the need for human presence and activity from many areas, is unlikely to replace the human being in this dimension (Strzelecki, 2024).

5. Spirituality and related concepts from the perspective of psychological research

For many years now, one has witnessed how the concept of spirituality has infiltrated psychology. In psychological publications, authors are ever more likely to distinguish a person's spiritual sphere, referring to spiritual development, spiritual intelligence and moral intelligence (e.g. Soejanto et al, 2024). Positive psychology is concerned with such constructs as intellectual humility (e.g. Kroplewski et al, 2022), gratitude (e.g. Wong et al, 2024) and virtues (Seligman, 2005), to name but a few. In terms of content, the concepts of "spirituality" and "human spiritual dimension" are related to concepts already found in psychology: the noetic dimension of personality (Popielski, 2018), self-actualisation (Maslow, 2013), a sense of coherence (e.g. Schaffer et al, 2023) or transgression (Kozielecki, 1987).

One of the topics that researchers frequently address in the context of religion are issues in the area of religious psychopathology, such as religious delusions (i.e. Dyga, Stupak; 2018). Scholars themselves acknowledge that distinguishing religious beliefs from religious delusions remains challenging, given the spiritual and supernatural nature of the former. (Sofou et al, 2021). Some scholars argue that a clinical perspective on religion and spirituality should transcend the limitations of statistical and diagnostic manuals, such as DSM-5 (Prusak, 2016). Diagnosing and interpreting whether a given case of "odd behaviour" falls more under psychopathology or under the spiritual sphere, i.e. distinguishing between what is "disturbed" and what is "spiritual and demonised" is a highly challenging and problematic task. It requires, once again, dissecting the human being separately into their functioning at the spiritual level and their functioning at the psychological level. Many researchers do not regard this as a dilemma, assuming that the spiritual does not exist. They treat symptoms interpreted by exorcists as demonic as dissociative symptoms of a traumatised, divided self.

Spirituality as a psychological concept has the status of a theoretical construct, which is not directly measurable. In this respect, it does not differ from basic psychological concepts, such as personality, intelligence, cognition or will. The psychological measurement of religiosity is an attempt to address the scientific approach to the study of religiosity in psychology (Jarosz, 2011). Tools relating directly or indirectly to religiosity or spirituality are being developed (e.g. Chaim, 2021; Falewicz et al, 2023;

Pingani et al, 2021). In their work, researchers address such topics as psychological factors influencing deconversion (Krok et al, 2024; Zarzycka et al, 2023a; Zarzycka et al, 2024a), religiosity as a protective factor (Rodzeń et al, 2021), the impact of spiritual well-being on psychological well-being (Zarzycka et al, 2024b), the mediating role of forgiveness and hope in the relationship between religiosity and life satisfaction (Rydz et al, 2024), religious struggle (Zarzycka, 2023), the role of prayer and religious orientation (Zarzycka et al, 2023b), the relationship between everyday spiritual experiences and life purpose (Adamczyk, et al, 2022) and the relationship between religious support and psychological functioning (Zarzycka, 2023c). The number of new publications at the intersection of psychology and religiosity/spirituality demonstrates that this area to be of interest to many researchers.

6. Effectiveness of therapies incorporating a transcendental aspect using spirituality resources

Although psychotherapy itself prefers the model of a worldview-neutral therapist who makes no reference to the sphere of spirituality and religiosity, unless the therapy participant themselves raises this topic, it does use methods that address the spiritual sphere, whether explicitly or not. One of these, known worldwide, is Mindfulness Stress Based Reduction. Authored by Dr Jon Kabat-Zinn, a neuroscientist at the University of Massachusetts, USA, the MBSR course is now the most popular and clinically researched stress reduction programme in the world. The benefits of meditation have been demonstrated in a number of clinical studies (e.g. Arrastia-Chisholm et al, 2024; Radon, 2017; Zangri et al, 2024).

Another approach that clearly addresses spirituality is Bert Hellinger's family constellations method albeit in a way that makes use of occult assumptions. While being very popular in Poland (Kromer, 2024), it is not a recognised therapeutic method in Germany, Hellinger's homeland. The constellations are based on the "knowing field" theory, whereby a complete stranger placed symbolically in the place of someone from the patient's family has the same feelings as the person they represent although they know nothing about the person. Therapists working in this stream refer to the occult work of Rupert Sheldrake and his morphogenetic field (Sheldrake, 2016).

Conclusions

Modern psychology increasingly appreciates such spheres of human functioning as religiosity and spirituality and, as a science, studies and explores them.

It should be mentioned that, there is also a large group of therapists in Poland who come together and rely on the noetic dimension in their activity, e.g. the Polish Institute of Logotherapy, which focuses on the sense-making effect of values (Solecki, 2024), and those who develop the "Christian psychology" current in centres affiliated to the Association of Christian Psychologists (and this is accompanied by an ongoing dispute: is there such a thing as Christian psychology, or is psychology one and only its practitioners have a particular worldview). In Kraków, there is a group within the Karol Wojtyła Thought Institute, bringing together psychiatrists, psychologists and psychotherapists who draw on Karol Wojtyła's personalism in their work (Wojtyła, 2020; Harciarek, 2008).

Therapists who embrace a Christian perspective deem faith to be an experience that produces the desired change (Barbaro, 2008). The results of a meta-analysis of dozens of studies of "spiritual" therapies conducted between 1984 and 2005 on people suggest that a spiritual approach in psychotherapy can produce positive effects (Smith et al, 2007). One can thus recognise the beneficial effects of religiosity/spirituality on human psychological wellbeing and to also consider religion as a powerful as a powerful tool for handling stress and life crises (Ostaszewska, 2014).

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Architecture of the church of St. Joseph in Zabrze by Dominikus Böhm – historicism with the announcement of modernism and liturgical renewal[1]

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Abstract: The article presents the church of St. Joseph in Zabrze by Dominikus Böhm as an architecturally unique object from the first half of the 20th century. When describing the spatial arrangement of the temple defined in the appropriate language of artistic and symbolic expression, the historicist element is emphasized as being of primary importance over the modernist one in the construction of the sacral arrangement. Consequently, preservation of the authentic historicizing content, after the post-conciliar changes in the liturgical arrangement of the interior in the second half of the 20th century, proves the originality of the concept of St. Joseph's church, inspired by Romanesque, Gothic and even ancient Rome architecture. Simultaneously-introduced modernism refines the above content, which is related to a real return to the sources of early Christian thought. All this corresponds to the work of Dominikus Böhm. The universality of his architecture, after years of pre-conciliar use, responds well to the changes in the liturgical renewal of Vatican II. The sensitivity of the interior of the church in Zabrze to liturgical and cultural changes proves a high quality of his artistic work.
Keywords: sacred architecture, facade, liturgical interior, altar, tabernacle, Dominikus Böhm, Vatican II.

Introduction

A decision about the construction of St. Joseph's Church in Zabrze, designed by Dominikus Böhm, was made on 11 March 1930. The final site of its implementation was determined by the municipal architect, dr Wolf, who pointed to the termination of the present-day Damrota street, formerly known as Farna street. The street linked a newly-built housing estate to the old parish Church of St. Andrew the Apostle in the district of Stare Zabrze (Old Zabrze) (Wagner, 2003, p. 52). The construction of the new church was decided due to a rapid growth of the population in the south-west part of the city (Wagner, 2002, p. 422).

St. Joseph's Church was constructed as a three-nave hall church of a short four-span body with a series of chapels located on both sides, created by massive walls in the form of internal buttresses, with openings serving the purpose of low arcade passages which define side aisles. The church body, which internally accentuates the rhythm of the spans, is based on the projection of a short rectangle, which is terminated by a semi-circle of the chancel. The chancel is positioned above the crypt and is distinctly elevated above the level of the nave. The main part of the church is preceded by a courtyard, atrium, a specific *paradisus,* defined by massive angular side pylons containing stairs and chapels. From the northern side, the courtyard is terminated with a high openwork wall in the form of large arcades, which simultaneously constitute the façade of the whole architectural object. On the east side, an angular bell tower adjoins the church. The bell tower as well as the whole complex built from brick (the material contributing to the

1 Article in polish language: https://www.stowarzyszeniefidesetratio.pl/fer/60P_BogM.pdf

visual impact) emphasize the compact and succinct character of the form (Chojecka, Szczypta-Gwiazda, 2009, p. 408).

The Church of St. Joseph is a unique temple in many aspects. The author of the concept invokes original symbolics, which requires the recipient's sensitivity in order to discover the synthesis of sacral art and liturgy. From the very beginning, this architectural object exhibited the search for objectivism, whereas the applied symbiosis of historical and modernist content was expressed in the form of an architectural stronghold. A similar 'fortification' siding with reason, protects in an earthly way the thing that never dies and becomes the experience of faith. The interior of the church highlights this by the elevation of the chancel and altar by means of twelve steps in relation to the level of the nave. The hall church in Zabrze proves that a complete departure from a historical mysticism treating the church as God's House is impossible in the artistic work of this architect.

The massive body of St. Joseph's Church in Zabrze definitely creates an impression of a closed-off, walled-in and inaccessible space (Chojecka, Szczypta-Gwiazda, 2009, p. 408)[2]. This effect is increased by the fact that the faithful must follow a certain road to enter the temple. They must stick to the main axis of the complex, whose axis constitutes the prolongation of the Damrota street axis, and must go across the courtyard zone, finally to enter the interior with lavabos and a baptismal font (the zone of cleansing, purification). Next, along the main axis of the composition in the central nave, the road leads to the chancel.

The presence of a formally historical content (referring to the epoch of the Middle Ages) in the architecture of St. Joseph's Church in Zabrze definitely becomes the grounds on which the structure of this temple is organized. Juxtaposed with modernist elements of the spatial organization and the sensitivity of the whole system to announcements of the liturgical renewal, an authentic sacrum came into being. The above-mentioned three elements become the source of knowledge of the authenticity of the architecture of St. Joseph's Church in Zabrze. That refers not only to the sacral system defined by its designer as a symbolic 'church of the way' (in German: Wegkirche), but also to the civilization of Christocentrism, applying minimalism to express a deeply spiritual content.

1. State and purpose of research

In 1930, August Hoff in his book entitled 'Dominikus Böhm' (Berlin-Leipzig-Wien, 1930) described Dominikus Böhm's artistic work prior to the construction of St. Joseph's Church in Zabrze, whereas Josef Habbel in his book 'Dominikus Böhm Ein Deutscher Baumeister', published in 1943 (Regensburg, 1943), includes the time of his work after the implementation of the church. Also, a joint monograph entitled 'Dominikus Böhm', published in 1962 in München, by August Hoff, Herbert Muck and Raimund Thom refers to that artist.

The everlastingness of artistic work characteristic of Dominikus Böhm was described by August Hoff in two magazines, the first one *Die Christliche Kunst* from 1925 (issue 22), the second one from 1955 *Das Munster* (issue 8). Rudolf Seibold continues this topic in his book 'Dominikus Böhm. Der Mensch und sein Werk', published in 1984. The same is done by Prof. Dariusz Kozłowski in his article 'A Lost Temple or a (Sentimental) Journey to Places and Objects' (*'Zagubiona świątynia albo podróż (sentymentalna) do miejsc i rzeczy')*, published in the magazine *Architektura Murator* (1999, issue 7).

A Polish author who contributed greatly to the knowledge of the architecture of St. Joseph's Church in Zabrze and Dominikus Böhm's artistic work is professor Tomasz Wagner. This fact is proven by his PhD dissertation entitled 'Sacral Architecture of

2 Prof. Ewa Chojecka and Barbara Szczypka-Gwiazda drew attention to a 'stronghold' character of the architectural object of St. Joseph's Church, where the presented vision corresponds to the image of a temple as the emanation of God. That evokes the words from the Book of Psalms *"For you are my rock and my fortress'* Ps.31:4. The design of the temple in Zabrze was influenced by the architect's fascination with the Italian architecture of the Middle Ages, which became particularly strong after the journey to Italy the architect made with his wife.

Dominikus Böhm in the Region of Upper Silesia and Its Significance in the Context of the Development of Architecture and Cultural Landscape of Upper Silesia' (Politechnika Śląska, Gliwice, 2002). The same author continues this subject in his monograph from 2003, entitled 'Zabrze. Unknown Faces of Silesian Architecture' *('Zabrze. Nieznane oblicza śląskiej architektury')*, published in collaboration with the Centre of Cultural Heritage of Upper Silesia (Centrum Dziedzictwa Kulturowego Górnego Śląska) and another one entitled 'Modernist Architecture of Zabrze' *('Architektura modernistyczna Zabrza')* (Urząd Miejski w Zabrzu, 2016).

The subject of Dominikus Böhm's artistic work is raised by professor Ewa Chojecka in the first edition of the book 'The Art of Upper Silesia from the Middle Ages to the End of the 20th Century' *('Sztuka Górnego Śląska od Średniowiecza do końca XX wieku')* from the year 2004 and in the second revised edition from 2009, both published by the Silesian Museum in Katowice (Muzeum Śląskie w Katowicach). The co-authors of the monograph are as follows: Jerzy Gorzelnik, Ima Kouma and Barbara Szczypka-Gwiazda.

As for other publications, two more articles should be mentioned, which were written by Ewa M. Żurakowska and published in the magazine *Space and Form* (*Przestrzeń i forma)* represented by the Szczecin Foundation of Education and Additive Development 'SPHERE' (Szczecińska Fundacja Edukacji i Rozwoju Addytywnego „SFERA"). The first article, entitled 'Dominikus Böhm's Artistic Work in Silesia' *('Twórczość Dominikusa Böhma na Śląsku')* was published in 2011, in issue no. 16, whereas the second 'Dominikus Böhm's Artistic Work in Silesia Part 3' *('Twórczość Dominikusa Böhma na Śląsku – część 3')* was published in 2012, in issue no. 18.

The author of this paper refers to the presented subject in his article entitled 'Pre-conciliar Architecture of St. Joseph's Church in Zabrze Designed by Dominikus Böhm and Post-conciliar Liturgical Renewal' *('Architektura przedsoborowa kościoła pw. Św. Józefa w Zabrzu autorstwa Dominikusa Böhma a posoborowa odnowa liturgiczna'),* which appeared in the magazine *Liturgia Sacra* published by the Faculty of Theology of the University of Opole (Wydział Teologiczny Uniwersytetu Opolskiego) in 2023, issue 2(62).

Dominikus Böhm's artistic outlook can be better understood through his connections with the concepts of the liturgical renewal movement as well as the book entitled 'Geist der Gotik' (the Spirit of the Gothic) by Scheller, which was a source of inspiration for this great designer. Contrary to Gothic inspirations, it is important what G.Pigafetta and A.Mastrorilli write in the book entitled 'Paul Tournon architecte (1881-1964) (Sprimont 2004), where they define Böhm as an architect who, in the late 1920s, turned more to the Romanesque inspirations in his designs.

The Church of St. Joseph in Zabrze is an example of Historicism. Its architecture designed by means of a conservative design enriched with symbolics actually supports the modernist language of expression. It literally introduces the adaptation of the designed interior to the developing-in-time liturgical transformations. Therefore, even after the post-conciliar update of the interior, the universal language of Böhm's architecture still serves its purpose. It applies elements of Historicism, which, despite the flow of time, have not lost much of its previously-defined topicality.

Nowadays, with this in mind, the parish is planning to complete the implementation of stained-glass windows in the west wall. Obviously, the unavoidable renovation works require vast knowledge of the genesis, history and symbolics of the church. It is absolutely indispensable to carry out proper research in such a situation. What reinforces this argument is the fact that since 1999 St. Joseph's Church in Zabrze has been enlisted in the register of heritage buildings (Register of Immovable Monuments – Silesian Voivodeship, 1999, p. 28)[3].

3 *Register of Immovable Monuments – Silesian Voivodeship (Rejestr zabytków nieruchomych–województwo śląskie).* Institute of National Heritage (Narodowy Instytut Dziedzictwa). Parish Church of St. Joseph, ul. Roosevelta 104, Zabrze, 1930-31, Entry no.: A/5/99 of 30.04.1999, p.28.

2. A profile of the designer of St. Joseph's Church in Zabrze

Dominikus Böhm born in 1880 in Jettingen, between Ulm and Augsburg, a graduate of the Higher Technical School in Stuttgart in 1906, already during his life, as a remarkable architect, was granted the Order of Merit of the Federal Republic of Germany in 1950 by the President, professor Theodor Heuss. Böhm was an honorary member of the Academy of Fine Arts in Stuttgart. In 1952, he received the Order of St. Sylvester from Pope Pius XII, and two years later, a Great Award of Northern Westphalia (Wagner, 2013, p. 72). Retired in 1953, he continued his collaboration with his son Gottfried, however, he worked on a more modern interpretation of architecture. Dominikus Böhm, an architect, a representative of an artistically talented Swabian-Bavarian family of craftsmen, a great interpreter of eclectic references to previous implementations, sensitive to the new artistic application of previously-used motifs, died on 6 August 1955 in Cologne, Westphalia (Wagner, 2002, p. 419).

As for Dominikus Böhm's first achievements in the field of introducing modern architectural means of expression into German sacral objects, one should mention St. Joseph's Church in Offenbach, erected between 1919-1920. After the inspirations drawn from the South German Baroque, the first successful attempts of introducing Gothic inspirations to the 'language' of modern architecture were visible in his designs of a church in Neu-Ulm (1922-1926) and a temple in Bischofsheim (1926) (Wagner, 2003, p. 41). In the late 1920s, Böhm experienced a turn towards a more conservative architecture. This trend was expressed by Böhm's use of large surfaces or planes undivided by pilasters, flat tops and quadrangular towers. In those days, his inclination to the inspiration by the Romanesque art was confronted by Gothicism in the church architecture (Pigafetta, Mastrorilli, 2004, p. 115). Beginning from 1926, as the head of the Cologne branch of Christian Art of the Werkschule, at the turn of the 1920s and the 1930s, Böhm developed a very characteristic and recognizable style of his buildings and became one of the most highly regarded architects in Germany (Wagner 2013, p. 72). Having a mystic outlook on the reality, he used an interesting, revolutionary in his time, solution designed by him, namely, a parabolic vault made from reinforced concrete. The most convincing example is the Church of St. Engelbert in Cologne completed in 1932 (Joedicke, 1961, p. 30).

From a historical perspective, it was the Plebiscite in 1921 that contributed to the fact that Dominikus Böhm began his work in Zabrze. After the Plebiscite, Zabrze became a border city (the city rights obtained on 1 October 1922) and along with the cities of Gliwice and Bytom was incorporated into Germany. Therefore the creation of an industrial agglomeration, including Gliwice, Bytom and Zabrze, which would compete with the city of Katowice (which was on the Polish side of the border), became a priority. The most remarkable German architects and urban planning experts were brought to Silesia. A vision of a harmoniously developing civilization of the future was to be created by: Max Berg, Paul Bonatz, Gustaf Allinger, Erich Mendelsohn and Dominikus Böhm – the creator of an outstanding implementation of St. Joseph's Church in Zabrze (Żurakowska, 2011, p. 636-637).

When describing Böhm's architecture, we should enumerate his other designs and implementations in the context of the region of Silesia, in the scope of sacral architecture. One of the examples is the interior of the Church of St. Camillus in Zabrze in the House of Religious Associations (Parish House) of Camillians Fathers (Dom Związkowy Kamilianów) constructed in accordance with the concept of Heinrich Gerlach, an engineer from Gliwice. Apart from the House of Religious Associations, there is an important modernist implementation of a hospital and a monastery complex. The design of an independent building of the church dedicated to St. Camillus was never implemented, a similar fate befell the concept of the Chapel Church in Zabrze. Another never-implemented Böhm's concept was the extension of the sanctuary on St. Anne's Hill (Sankt Annaberg). The only part that was constructed was the Pilgrim's House. The Church of Christ the King in Gliwice (1934-1935), which was initially designed by Dominikus Böhm, was finally constructed on the basis of the design created by Karl Mayr (Bogdan, 2023, p. 198).

The Church of St. Joseph in Zabrze is a scenographically characteristic object in the whole artistic work of Dominikus Böhm. Fortunately, the temple was not destroyed when the Red Army entered Zabrze in January 1945 and still stands there till our present day. Its interior mobilizes the faithful and visitors particularly to observe the altar. Twelve steps lead up to the chancel, which is elevated high above the nave floor. This architectural solution evokes the symbolics of Mount Zion[4]. The application of the mystic language is also visible in a crypt constructed in the Church of Joseph. A historical witness to the Middle Ages supports the weight of the chancel surrounded in the background, this time, by the ambulatory in a modernist style.

In the interwar period, in his artistic work, Dominikus Böhm does not define historical styles as those that hamper the way to the creation of modern, in his opinion, architectural sacral form. He draws from early medieval Christian philosophy and the roots of sacral architecture. Numerous connotations in his work to the mystic significance of the temple involve the use of colour, numerical systems, form and spatial solutions in the system of the sacral complex and its composition in the landscape. His work is an artistic continuation of the Christian tradition in the scope of symbolics and semantics with a creative application of archetypal patterns of Christian architecture (Wagner, 2002, p. 424).

While designing the zones of profanum, such as: residential buildings, schools, students' dormitories, hospitals, public administration buildings, factories, etc. (Wagner, 2013, p. 72), Dominikus Böhm created the interiors of his architectural objects with great enthusiasm and furnished them with self-designed furniture. He equipped the churches with his own custom-made altars, pulpits, crucifixes, lavabos, baptismal fonts and stained-glass windows. Apart from being an outstanding drawing artist and stained-glass window creator, Dominikus Böhm also composed short musical pieces (Żurakowska, 2011, p. 635).

After the war, similar to Rudolf Schwarz and Otto Bartning, he rebuilt devastated churches. This encompassed 300 re-constructed churches within a 40 km radius of the Diocese of Cologne (Joedicke, 1961, p. 30). When he built new churches, they were often designed in the style of mature Modernism, where he used a more diversified form and lighting of the interior different from his pre-war interiors permeated with mysticism. Drawing eclectic inspirations from earlier implementations, these forms apply previously-used artistic motifs which make it possible to introduce elements of modern architecture (Bogdan, 2023, p. 199).

3. Spatial layout of St' Joseph's Church in Zabrze

Dominikus Böhm had been planning to construct an ideal temple in Zabrze, which was called by him a chapel church (Kapellenkirche). The never-implemented church, preceding the Church of St. Joseph, was based on the axial system and was supposed to be constructed on a different site to the current one. The design of its composition presented a system of twelve high chapels connected with one another and with the walls which formed the main nave; the chapels connected by means of low passages between them, which formed low and 'reduced' side aisles (Bogdan, 2023, p. 199-200; Żurakowska, 2012, p. 301). The chapel church, presented in rough drawings, was supposed to be built on the outskirts of the DEWOG housing estate, in the line of other public buildings. They were connected with the urban planning axis perpendicular to Damrota street. In the end, Damrota street (the-then Farna street) found its special purpose in the implementation of St. Joseph's Church in Zabrze (Wagner, 2023, p. 52).

The Church of St. Joseph in Zabrze underwent the evolution of design concepts before its erection. They particularly focused on the idea of a complex frontal façade. Even the earliest design drawings already showed its original character. That refers, among other things, to the composition including

4 'When twelve generations had settled in the Holy Land, in David's time, God chose as a place of his presence Mount Zion, which was later called Mount Moriah up to the days of Babilonian exile, on which mountain Salomon built a magnificent temple. That religious centre was a place of pilgrimage for Jews, where they went to on all religious holidays. That was a mountain 'where God loved dwelling and where God will dwell forever' (Ps. 68,17) (Dorothea Forstner, *The World of Christian Symbolics–Świat symboliki chrześcijańskiej*, Warszawa 1990, p. 84).

a massive westwork in the form of an arcade niche. The niche was supposed to feature a longitudinal window providing the nave with an additional source of lighting (Bogdan, 2023, p. 201). In front of the window, in the third design variant, the aisle layout was preceded by a feature characteristic of the implemented concept, namely *paradisus*. The-then plan of the church was based on a rectangular and featured the chancel terminated with a flat wall, without the function of going around the chancel. The-then nave zone was divided into three parts by means of twelve pairs of pillars (square in cross-section), where the outermost pillars were blended into the church walls (Wagner, 2003, p. 53).

The openwork wall of the present-day façade consists of two larger entrance arcades and twelve smaller arcades exhibited on three higher levels. The transparent structure formed in this way evokes associations with Roman aqueducts. It differs from the one designed in 1930. According to Dominikus Böhm, it functions symbolically as the gate to heaven–*porta sacra* (Wagner, 2002, p. 423). Its form leads to a large vestibule located in the open air, that is *paradisus* – paradise with the wood of cross in the middle. Behind it, there is the façade without the openwork structure, parallel to the gate *porta sacra*, where the planes of glazing and the central zone of entrance doors are located. Above them, there is a zone of a clinker wall, crowned with a clearly visible great rosette, which intuitively brings associations with French Gothic rose windows (Wagner, 2003, p. 54).

The rosette, which is filled with stained glass featuring white colour, various shades of green and dark blue, and even red colour, is perceived from the church interior as a composition in an emerald colour. It is decorated with geometrically positioned, radial 'crystals', with the bordure in its circumference, including also geometrical forms of crosses. Being the artistic work of the designer of the church, the rosette was already completed for the ceremony of the church consecration on 12 December 1931 (Żurakowska, 2012, p. 292).

By locating the *paradisus* in front of the great rose window, Böhm provided a space which builds an acoustic distance between the church and the street. In doing so, he brought reminiscences of the atrium accompanying early Christian basilicas (Wagner, 2013, p. 78). In the past, it was a symbolic site of purification, a kind of a link between *profanum* and *sacrum,* where the focal point of the relatively small courtyard was not a high wooden cross (like in Zabrze), but a well – *cantharus*. The cross located in the middle of a small courtyard in the church in Zabrze, was supposed to, according to the architect's intent, 'direct the eyesight towards the heaven'[5] (Wagner, 2002, p. 423). The composition of this open-towards-the-heaven interior is flanked on both sides by large pylons of cubatures taller than the cubature of the church body. Internally, the pylons serve the purpose of chapels and stairs, whereas externally, their form symbolizes arms embracing this symbolic courtyard–*paradisus*.

The space of St. Joseph's Church is organized as the system of three, compositionally parallel axes, where the most important, the central one explicitly indicates the way leading from the vestibule to the altar. The parallel side axes bilaterally flank the central axis of the composition and refer to the interpretation of a three-nave system. This effect is achieved by means of two passages leading through internal buttresses (the so-called brick wall-shields) and creating arcade-like openings. Thus created spaces designate places for a private prayer in front of chapels organized along the external walls. Two systems of chapels, accentuated in such a way, organized in a parallel way and on the opposite sides of the main nave, refer to the request–to surround the interior of the church with a row of chapels–made by Cardinal Adolf Bertram. Dominikus Böhm designed none of the retabula placed there. They are very modest compositions and originate from later times (Żurakowska, 2012, p. 297).

Adjacent side aisles do not lead, however, to the ambulatory (as it was in accordance with the Romanesque and Gothic layout) but to the side altars

5 A similar function of the cross referes to Christ, who through his crucifixion and resurrection has become a symbol of the victory over death and glory for his followers (Langkammer, Biblical Dictionary, *Słownik biblijny*, 1984, p. 92). Symbolically, only such a cross is able to lead us through the façade doors to the interior of the church in Zabrze. The cross is situated on the main axis of the layout and announces that at its end there is the altar, the most important element of the sacral liturgical interior.

positioned against the background of the outermost inner buttresses of the chancel. These buttresses along with the remaining ones surround the zone of the chancel. At the termination of the left arcade-like passage there is an altar dedicated to St. Joseph, the patron saint of the church, whereas the right-side altar was erected to the glory of Christ the King. The main altar is located in the chancel, which is elevated high above the crypt. The chancel is surrounded by a single ambulatory with preceding, centrically bordering inner buttresses, which are radial in relation to the chancel centre. All this constitutes the termination of the vista, the perspective in the form of a central radial composition.

The walls, solids and arcades form the language of this architecture. It is a simple language, however, its formal semantics may be understood as the one spanned between a genetic essence of sacrality of the Christian temple and a mythic memory of rituality (Kozłowski, 1999, p. 56-57). In addition, the interior shows austere walls made of clinker bricks, similar to the ones used as a decorative element on the elevation. Huge brick blocks provide a perfect background for simple, but elegant, marble, wooden and metal elements of the furnishings designed by this architect from Cologne. Only stained-glass windows, created by this architect, contrast with the designed austerity. They are works of a deep colour saturation and present biblical content in abundance. Their lines resembling drawings, as if made for children, are somehow restraint, and yet unpretentious and perfectly lucid to everybody (Żurakowska, 2012, p. 292).

Different intensity of light on the right and left side of the interior is visually justified. In this way, Böhm followed the example of medieval architecture, in which the right side, namely the southern wall of the temple, was reserved for depictions of the New Testament, whereas the left, northern side was reserved for the Old Testament. The architect let the daily light into the interior through slender and Gothic-like openings, in the western wall (to the right of the altar), however, he maximally restrained the light by designing small-size oculi high, right under the ceiling, on the eastern side (on the left side of the altar). The number of windows is full of symbolics, as there is a transition from the number of seven windows in the nave to eight windows in the close surroundings of the chancel, which symbolizes the transformation from earthly perfection to heavenly perfection (Wagner, 2003, p. 59).

At the same time, directing both light and shade, the architect referred to the luminist effect, so characteristic of his work. Therefore the light coming from the west side clashes with the darkness of the east wall. A similar direction of daily light combined with the linearly conducted, dim, artificial lighting emphasizes the character of space directed as the 'church of the way', i.e. the way starting with baptism at the baptistery in the zone of the temple's main entrance, then leading along the main axis of the layout to the altar – the source of salvation (Żurakowska, 2012, p. 296-297).

The subsequent combination in the zone of the altar of the motifs of an octagon, cross, the Eye of Providence on the ceiling and a 'mystic light', is an implementation of Johannes van Acken's postulate. In his work *Christozentrische Kirchenkunst, ein Ertwurf zum liturgischen Gesamtkunstwerk*, he defines the altar as 'mystic Christ' and the culmination of the temple. Number eight, being a symbol of cosmos, is combined here with the symbolics of the Holy Trinity (Wagner, 2003, p. 59)[6].

This concept is emphasized by the interpretation of a hidden light, which was often applied by Böhm. In the Church of St. Joseph, the pillars of the nave are responsible for this effect when they are lit on one side by seven invisible windows glazed with stained glass. According to the architect's concept they were to present allegories of seven sacraments and their brightness was to increase during the way along the main nave towards the altar. Obviously, the brightest light lightens up the altar when it comes into the interior between the pillars surrounding the chancel in a circular way (Wagner, 2003, p. 58-59).

6 It is a touch of the Antiquity by the number of eight, which was then considered to be a symbol of perfection, when in the picture of the world of seven planetary spheres corresponding to seven levels of heaven, the eighth sphere constituted the heavens of constant stars and was the crowning of the system, definitely serving the purpose of the 'Lord's Great Day' (Forstner, 1990, p. 48-50).

4. Dominikus Böhm and the post-conciliar reform of the Second Vatican Council in the 20th century

Despite the fact that Dominikus Böhm's life was not connected in time with the sessions of the Second Vatican Council (1962-1965), this sensitive artist had been long before aware of oncoming transformations and trying to interpret them in his own way. As early as in 1920, he made a lot of designs in the form of rough drawings, which presented church as a central building (Nyga, 1990, p. 9). He also proved it in his collaboration, among others, with Martin Weber and Rudolf Schwarz (1897-1961), when the last one started co-operation with a Catholic author Romano Guardini (1885-1968) in the magazine *Die Schidgenossen*. Rudolf Schwarz was, as for his time, an avant-garde builder of churches, whose architectural work in the pre-war period ideologically belongs already to the period of Modernism after World War 2 (Bogdan, 2013, p. 144).

Johannes van Acken, in his book entitled *Christozentrische Gesamtkunstwerk*, also refers, in his own way, to the search for liturgy as the mistress of sacral Christocentric art. The development of space beginning from the altar, which is present in his book, is later visibly implemented in many post-conciliar constructions and is also in agreement with rough drawings of central concepts made by Dominikus Böhm. The drawings were definitely included in the supplement to the second edition of that book (Muck, 1987, p. 190).

Johannes van Acken himself proposed that the liturgical altar should be moved to the site of the intersection of naves in churches built on the basis of a Latin cross and right under the dome in central floor plans. Similarly, acceptance of the altar solely as a sacrificial table was ahead of its time. It became an inspiration in the designing of the sacral space of new churches (Adam, 1985, p. 66). All this was influenced by the Liturgical Movement, among other things, by innovative conclusions presented by Fr. Lambert Beauduin and activity of Fr. Ildefons Herwegen, abbot from Maria Laach. They led to the alteration of outlook on the liturgical zone of the altar. A breakthrough point was the publication, by the abbot of Maria Laach, of the first classic work of the Liturgical Movement (Romano Guardini, *Vom Geist der Liturgie*). When people became aware of the necessity of shaping the chancel zone anew, it referred to the attempt to make the zone of the faithful closer to the liturgical centre, i.e. to the altar. The-then widespread historical styles were the negation of that concept. They came into being as the result of the 19th-century Romantic interest in the Middle Ages as well as a deeply religious return to the sources. Therefore in 1912, Cardinal Anton Fisher from Cologne clearly demanded that the Romanesque and Gothic styles should be reflected in the newly-created architectural objects (Nyga, 1990, p. 7).

An emotional approach to historical architecture was reflected in the Church of Saint-Jean-de-Montmartre, designed by Anatole de Baudot, built in Paris in 1894-1904. This architectural object is drawing closer to the Art Nouveau rather than to Modernism, and shows the transition phase from the Romanesque to Gothic architecture. Having applied the synthesis of Gothic forms and the structure of reinforced brickwork, the architect used a construction system developed by Paul Cottancin[7] living in the years 1865-1928 (Bogdan, 2013, p. 73). All that supported the modernist image of a three-nave basilica, without the transept, with the interior axially oriented in the direction of the altar. The longitudinal layout and inspirations drawn from different epochs as well as the-then novel construction material attempted to make a fusion of architectural Historicism with Modernism in that temple; all that happening before the authorization of the Liturgical Movement in Malines in Belgium (1909) (Bogdan, 2023, p. 206).

The Church of St. Joseph in Zabrze, designed by Dominikus Böhm, brings closer these two epochs in its architectural implementation. The time of its erection, following the construction of the above-mentioned church in Paris, suggests that it should have a more perfect form of the Modernist expression

7 Cottancin's construction system refers to frames carrying reinforced concrete along with panels filled with bricks or some ceramic slabs, supported with metal nets or meshes.

than the one it really has. In comparison with the Church of St. Joseph in Zabrze, a parallel-built concrete church dedicated to St. Casimir the Crown Prince in Katowice (Kościół Kazimierza Królewicza w Katowicach) (1931, arch. Leon Dietz d'Arma, Jan Zarzycki) is deprived of Historicism and constitutes a clear Modernist work. The Modernist design of that church serves the purpose of an explicit exposition of the altar at the termination of a symmetrical system (Bogdan, 2023, p. 206). The three-nave, axial spatial system itself was interpreted anew by placing simple, geometric forms into the pillar-beam framework of the ferro-concrete structure. These new concepts contributed to the avant-garde character of *De Stijl* and changed the image of Dutch architecture, which had been so-far traditional, decorative and deprived of cool objectivity of implementation (Chojecka et al., 2009, p. 396).

The Cathedral of Christ the King, which was built in the vicinity of the Church of St. Casimir the Crown Prince in Katowice, in its initial stage of implementation was constructed at the same time as the Church of St. Joseph in Zabrze (1930-1931). After a competition for an architectural design of the cathedral, finally, a modified version of the design made by Zygmunt Gawlik in collaboration with Franciszek Mączyński was chosen for implementation. When the construction works began in 1927 and the layout of the temple showed a central system topped with a dome, nobody expected that the consecration of the completed cathedral would be as late as on 30th October 1955. The final implementation had to accept the lowering of the dome, which was imposed by the-then political regime. Another aspect that was changed was the resignation from the central system proposed by the Liturgical Movement in favour of the placement of the main altar within the chancel (Nyga, 1990, p. 64).

The cathedral in Katowice demonstrates the central layout, however, in a different way to the Churches of St. Joseph in Zabrze and St. Casimir the Crown Prince in Katowice. There is a characteristic difference between the projections of these temples. The layout of the cathedral with the post-conciliar altar (currently located close to the geometrical centre of the system) is characterized by two chapels flanking the chancel. The other two churches do not feature such chapels. Each chapel is situated symmetrically on the opposite side of the zone of the Eucharistic Liturgy (chancel), whose axial termination is the cathedral's place of presiding (sedilia) and not the tabernacle.

It was as late as in 1975 that the cathedral finally received a new, post-conciliar interior. Architect Mieczysław Król was the author of a general concept. The chapel on the left side of the chancel received a function of the baptismal chapel. The chapel on the right side, with an identical projection, was dedicated to storing the Blessed Sacrament. For this purpose, a sculpted standing tabernacle was made and placed directly on the floor on a prominently-displayed spot constituting the termination of the system, which serves the chapel of worship during the week (Nyga, 1990, p. 75).

The Church of St. Joseph is an example of a visually participatory axial interior, which is organized as a longitudinal layout of the temple. The postulate of a characteristic elevation of the chancel zone in relation to the nave floor level, which exists in this church, builds the centralist character and puts emphasis on the cult of the Eucharist. It is in compliance with the pre-conciliar Canon Law, when the tabernacle could be located on the mensa of the one and only altar. In order to find its place on two altars, the exhibition of the Perpetual Adoration was obligatory on one of them out of respect for this rule (Danilewicz 1949, p. 76). Without the Perpetual Adoration in the church in Zabrze, both the pre-conciliar tabernacle elevated above the mensa of the main altar and the post-conciliar tabernacle exhibited without the presence of the mensa refer to the same place. It is the termination of the chancel, the honoured sphere in the church interior. At the same time, it emphasizes the rank of the post-Tridentine placement of the box storing the Blessed Sacrament, its presence connected with the retabulum at the axial termination of the historical sacral layout (Bogdan, 2023, p. 85).

It is not contradicted by the Instruction *Eucharisticum Mysterium*, which orders a compulsory placement of only one tabernacle in the sacral interior. That refers to the tabernacle which is solid and not transparent, which excludes the risk of profanation (Eucharisticum Mysterium 1967, no. 52; OWMR, 2002, no. 314). Its presence, in accordance with the Code of the Canon Law should be marked with a constantly lit lamp, supplied with oil or wax. In such a way, it is supposed to show the presence of Christ and encourage to give Him praise (KPK 1983, canon 940; OWMR, 2002, no. 316).

When the tabernacle finds its place as a beautiful termination of the sacral layout just behind the post-conciliar altar, like in the church in Zabrze, then it evokes a historical custom of kneeling before the tabernacle positioned in the chancel. In accordance with the liturgical renewal, the tabernacle itself, being an optional object in the zone of the Eucharistic Liturgy, takes a special place in St. Joseph's Church. It is the termination of the chancel, which, according to the *General Instruction of the Roman Missal*, becomes a privileged place for the post-conciliar zone of the person presiding over the liturgical gathering – the sedilia. That refers to the chair of the priest located at the termination of the zone of the Eucharistic Liturgy, which should highlight the function of presiding over the congregation and leading prayers (*General Instruction of the Roman Missal*, OWMR 1975, no. 271; OWMR 2002, no. 310).

Obviously, in compliance with the liturgical law, the post-conciliar tabernacle may be situated in the chancel, like in the Church of St. Joseph, where, being located at the termination of the layout, it visually accentuates the liturgical self-sufficiency of the erection of one altar in the post-conciliar interior. This fact is emphasized by the *General Instruction of the Roman Missal* which orders to build one permanent altar in new churches, which would signify one Christ and one Eucharist to the congregation of the faithful (*General Instruction of the Roman Missal,* OWMR, 1975, no. 262; OWMR, 2002, no. 303). The site of the altar in St. Joseph's Church is so characteristic, self-sufficient and elevated, that the altar itself will always be perceived as the only liturgical altar in this interior.

Also, Dominikus Böhm understood it in the same way, when, in the spirit of Christocentrism, he placed only the cross with crucified Christ at the main altar. It was rooted in the architecture of reformed churches. There are visible references to the first philosophical-aesthetic treatises, being the grounds of the Christian art. By transition towards transparency, the spiritual beauty–ideal and symbolic–becomes more important than the empirical one. It is about the Platonic goal of all aspirations as well as the emanation of the empirical beauty from the ideal beauty, a thought drawn from Platinus (Wagner, 2002, p. 424). In his own way, it was continued by Pseudo-Dionysius the Areopagite, who introduced the notion of the absolute and emanation to medieval aesthetics (Bogdan, 2023, p. 19-20).

In the search for the absolute, in accordance with Romano Guardini's words, the altar at which the liturgy is celebrated stands in the most holy place and is elevated above the rest of the church space by means of a series of steps. While ascending the steps we lift our spirit and anticipate reaching the height where everything is great and perfect. It happens so because 'the mountain top' is a symbol of everything that is good and noble. Consequently, a simple action of ascending, striving towards the height, tells us about our entity's rising towards God Most High. The existing stairs reinforce this effect, as numerous steps lead from the nave to the chancel – the most holy place of all (Guardini, 1987, p. 40-41)[8].

The *General Instruction of the Roman Missal,* by recommending the placement of the tabernacle beyond the zone of the Eucharistic Liturgy, honours its individual presence in the sacral interior. However, it maintains its functionality in terms of circulation routes in relation to the altar and the place of distribution of the Holy Communion. It refers to a chapel located in the vicinity of the zone of the Eucharistic Liturgy, or in a different place, which is either completely open or sectioned off from the existing space of the interior (OWMR, 1975, no. 276; OWMR, 2002, no. 315 b).

8 'That is why the stairs lead from the street to the church. They say: 'You are going up, to the house of prayer, you approach God'. From the church nave lead the steps again to the chancel. They say: 'Now you are ascending the most holy place of all'. Then the steps lead to the altar. Whoever ascends them is spoken to by them, like Moses was spoken to by God once on Mount Horeb: 'Take your sandals off your feet, for the place on which you are standing is holy ground'. The altar is a threshold of eternity'.

The Church of St. Joseph in Zabrze, which features a full symmetry of the liturgical plan of the temple, is not adaptable in the area of its nave interior to the possibility of enclosing there a chapel, which would serve the purpose of worship during the week (a week church). The chapel of the week worship, in compliance with the post-conciliar renewal, should be an independent space which is separated from the nave and where the second altar should find its place. Such a chapel may also feature the tabernacle and baptismal font (OWMR, 1975, no. 267; Inter Oecumenici 1964, no. 93).

The second liturgical altar in St. Joseph's Church is situated in a chapel dedicated to St. Barbara, i.e. in the crypt (vault) supporting on its 'shoulders' the sacrificial table of the festive Sunday church. The crypt, which in practice plays a function of the chapel of worship during the week (week church), with its altar wall being the 'palate' of the chancel stairs, exhibits expression of specific concealment. It is emphasized by four pillars, based on the projection of a circle, which divide the existing space of the crypt and play a function of the reinforcement of the vault bearing the load of the most important object of the interior. The ambulatory, which is open towards the crypt, is accompanied by stained-glass widows at bilateral stairs leading to the level of the crypt. The stained-glass windows present allegories of the Ten Commandments and do not exceed the height of the concealed chapel (Bogdan, 2023, p. 213-214).

The post-conciliar renewal made use of the objective functionality of the chancel of St. Joseph's Church. In compliance with the *General Instruction of the Roman Missal*, its zone was adapted to the requirements of the obligatory presence of the sacrificial table, the pulpit–from which the word of God is preached and the sedilia–the place of presiding connected with the function of a priest, deacon and other serving persons. The above-mentioned church also meets the requirements of ensuring good visibility of the chancel as well as its characteristic form and interior decoration (OWMR, 2002, no. 295). The tabernacle, which according to the post-conciliar regulations, similar to the baptismal font, may but does not have to be in the Eucharistic Liturgy zone, remains in that zone.

Summary and conclusions

While looking at the architecture of St. Joseph's Church in Zabrze, it should be stated that apart from the elements of the interior designed by Dominikus Böhm with great care and reverence, there are also elements which were introduced there in the 1930s, against which the very architect protested. It is important that works to complete the iconographic programme of the temple lasted till the end of the German jurisdiction in Zabrze (the-then HINDERBURG O/S). Finally, the presence of some elements, which were either transformed in relation to the original concept of the temple furnishings or never fully completed, bears testimony to universal architectural independence of the temple layout and structure. The temple itself constitutes such a beautiful orderly universe that no elements of different epochs are able to ruin or disturb the central theme of its architecture.

In the case of St. Joseph's Church, the central architectural theme refers to the association of the sacrum with the area of inaccessibility. It was implemented in the form emphasizing the majesty of the altar, which, existing in its eschatological sanctity on symbolic Mount Zion, should remain as such in its visual exhibition in the sacral interior. The means of expression is based on a decisive difference between the site of location of the sacrificial table and the nave floor. The elevation of the sacrificial table in relation to the nave level scenographically meets this purpose and was introduced in the Church of St. Joseph in Zabrze.

The chief asset of the design, showing the directed inaccessibility of the zone of the Eucharistic Liturgy, consists in constructing a perfect image of a stronghold-like façade, on the outside (see: Photo 1). When the Gate of Heaven (Himmelstor) in the fortress-like security walls serves the interior and harmonizes with the tabernacle (protected against profanation), the place of storing the Eucharist behind the altar visually emphasizes the respect for the mystery of the Eucharist. This place is located at the termination of the axial system, which already starts on the 'mystery-securing' façade.

Such an effect does not take place in chancels which are functionally organized without the presence of the tabernacle (see: Photo 2 A,B).

The chief asset of the created inaccessibility of the St.-Joseph-Church tabernacle, protected against the profanation, is the perfect implementation of the exposition of the termination of the longitudinal sacral layout. Distinctive elevation of the chancel in relation to the nave explicitly highlights this disposition. In longitudinal systems, a lot depends on the zone of the faithful being the place of observation of the chancel, where the altar erected on the compositional main axis precedes the tabernacle (see: Photo 3 A,B). Such a situation does not occur in central layouts where the chancel is surrounded by the zone of the faithful. It means, in the case of multilateral observation of the chancel zone.

The Church of St. Joseph in Zabrze, designed by Dominikus Böhm as a fortification, emphasizes the significance of a way or road. It leads to the eschatological mystery, and yet, at the same time, is protected by the architectural means securing this mystery. What is concealed must remain concealed till the end. The definition of the church perceived as the church of the way was implemented by Dominikus Böhm in his architectural creation. The way itself constitutes the chief asset in the interior of St. Joseph's Church. It leads straight to the goal or destination, even breaking through arcade-like openings in the shield-like walls (see: Photo 4). The way, serving also the purpose of the chancel ambulatory, never ends and always leads to a praiseworthy goal, however, without its overpowering formal presence. The most important factor is inaccessibility, constituting here a form of respect, and securing the impossibility of conversion of the longitudinal liturgical system into the central one.

The architecture of St. Joseph's Church in Zabrze created by Dominikus Böhm exhibits the 'language' of forms connected with the historical layout applied in the Romanesque and Gothic periods. That includes an explicitly legible historical disposition of the function of the façade, a three-nave hall layout and a radial composition of the chancel surrounded by the ambulatory. Other elements encompass: a massive bell tower at the side elevation of the church body and a French-like great rose window, bilaterally flanked by pylons, which delicately evoke the majesty of medieval twin towers of the façade. The introduced elements of early Christian basilicas include: the function of a courtyard preceding the body housing naves, a beautiful *paradisus* – paradise with the wood of cross in its middle and the gate to heaven–*porta sacra* leading to it from the street.

The Church of St. Joseph in Zabrze constitutes an outstanding masterpiece by Dominikus Böhm. It speaks to us in the language of love, the love towards God and the love towards mankind. It directly refers to the liturgical function of the Holy Mass, whose significance comes to the forefront in the proposed application of architectural Historicism. A traditionalist architect from Cologne, taking into consideration the beauty and the system of historical forms, applied at the same time, a Modernist intuition. It meant the departure from an eclectic fusion of details from different epochs and the search for new means of expression. The artist made use of only historical motifs, fusing tradition with avant-garde. Such an approach ensured a good implementation of the liturgical function in St. Joseph's Church, which works even in our time. The temple in Zabrze, in spite of its conservative elements, presents motifs which are universal in terms of style and sensitive to liturgical changes in each epoch.

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Photo. 1. Church in the form of a stronghold with the fortress-like façade and fortified termination of the nave. St. Joseph's Church (Kościół św. Józefa, Zabrze, 1930-1931, arch. D. Böhm). Photo: Mirosław Bogdan

Photo. 2. Eucharistic Liturgy Zone without the tabernacle and with its presence.
A). Cathedral of Christ the King (Katedra Chrystusa Króla, Katowice, 1927-1955, arch. Z. Gawlik, F. Mączyński.).
B). Church of St. Joseph (Kościół św. Józefa, Zabrze, 1930-1931, arch. D. Böhm). Photo: Mirosław Bogdan

Photo. 3. Longitudinal system terminated with the tabernacle, preceded by the altar on the main axis of the church.
A). Church of Saint-Jean-de-Montmartre (Paris, 1994-2001, arch. A. de Baudot).
B). Church of St. Casimir (Kościół św. Kazimierza, Katowice, 1931, arch. L. Dietz d'Arma, J. Zarzycki) Photo: Mirosław Bogdan.

Photo. 4. Temple designed as the 'church of the way' by the creator of its architecture.
St. Joseph's Church (Kościół św. Józefa, Zabrze, 1930-1931, arch. D. Böhm). Photo: Mirosław Bogdan.

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Modernity and traditionalism in the sepulchral art of the Lychakiv Cemetery in Lviv. Tendencies, examples and artists[1]

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Abstract: The article bears a character of initial research on the Art Deco style and modernism in the sepulchral art of the Lychakiv Cemetery in Lviv. A group of art objects chosen on the basis of stylistic criteria and high artistic and scientific values is presented.. Traditional research methods of art history such as formal, iconographic and iconological analyses were used due to the fact that research on the architectural and sculptural form of the sepulchres and tombs in the Lychakiv Cemetery are still in its initial stage. The research showed the variety of architectural trends in the sepulchral art of the first thirty years of the 20th century, starting from neoclassical tendencies, through Art Deco and so-called eastern Lesser Poland style, up to avant-gard modernism. It resulted in a distinction of a group of tombs in the Lychakiv Cemetery in Lviv representative for popular architectural trends of that time. The article points to the features and ideological base of those tendencies and presents the environment of Lviv artists – architects, sculptors, decorators and stonemasons, including a circle linked to Tadeusz Iwanowicz stone workshop, to which belonged, among others, Bronisław Wiktor and Wincenty Witold Rawski. The research led to a conclusion that the sepulchral art created in the Lychakiv Cemetery in Lviv in the first thirty years of the 20th century was a subject to intensive changes starting from neo-classicism, through Art Deco and eastern Lesser Poland style up to avant-garde modernism. All of this was caused not only by the dynamics of architecture development of this time, but also by fashion for specific forms. The development of sepulchral art was fostered by a high artistic awareness of its creators: stone workshop owners, architects, decorators and sculptors.
Keywords: A Funeral Art, Art Deco, Modernism, Neoclassicism, The Lychakiv Cemetery in Lviv

Introduction

The term sepulchral art derives from a Latin *sepulcrum* meaning a grave and is connected with the cult of the dead. Its main task is to perpetuate the memory of them. (Kozakiewicz, 1996, p. 376) It refers to all kinds of artistic creation, being often a synthesis of architecture (mausolea, mastabas, tombs, chapels), small architecture (tombs), sculpture and painting (e.g. epitaphs, coffin portraits). It is characterized by a specific form, symbolism, iconography of depictions and very often the rhetoric of inscriptions. This art results from many spheres of human life – an economic one, connected to the wealth of an endower, a propagandist one – as it serves to underline merits and the role of the deceased, the artistic role and, as well, the spiritual one which is linked to the faith. Thus one can find in here two aspects of human life – the spiritual and material ones, sacrum and profanum, fides et ratio.

The Lychakiv Cemetery in Lviv is one of the oldest necropoles whose beginning reaches the year 1786 (Nicieja, 2011, p. 14). It has a reach subject literature dedicated to the various aspects of its existence: its history, meritorious people buried there, but also the sepulchlar architecture and sculpture (Figol, Krysa 2006; Łupij, 1996; Nicieja, 1988, 1990a, b, 1998, 2011). In the last decade the Cultural Heritage Foundation carried out an inventory of the major part of tombs, which was published in the Internet in a form of the inventory item cards.[2]

1 Article in polish language: https://www.stowarzyszeniefidesetratio.pl/fer/60P_Boro.pdf
2 https://cmentarzlyczakowski.pl

The above mentioned publications include basic information about the form and iconography of chosen tombs and sepulchres and their authors. Stanisław Nicieja (1990 b) presented works from the 19th century, leaving not much space for the works from the first thirty years of the 20th century. There is a lack of complex scientific description in which they could be analyzed more deeply, grouped according to certain criteria (e.g. the stylistics or artists) and determine their artistic value. Therefore in this article I would like to present a group of tombs chosen on the basis of both stylistic criteria and high artistic or scientific value, which is connected with individual designers or sculptors. The article bears the initiating character of an opening of the research on the Art Deco style and modernism in the sepulchlar art of the Lychakiv Cemetery in Lviv.

Form and decoration of tombs and sepulchres are usually quite conventionalized and rarely represent a high artistic value. It is no different in the case of historic necropoles such as Lviv Garden of Dream and Memory, where the mediocre works executed in stonemason workshops often as typical items exist alongside with exquisite works designed individually, often by talented architects and sculptors. For the analysis I chose a group of tombs created under the influence of fashionable trends in the first thirty years of the 20th century which were recognized at the time as modern: classicism of the 1920s and 1930s, Art Deco and modernism also in its avant-garde version. I used traditional art history research methods such as formal, iconographic and iconological analyses due to the fact that research on the architectural and sculptural form of the sepulchres and tombs in the Lychakiv Cemetery are still in its initial stage. This article will also be an occasion to present the environment of artists working in Lviv of that time – architects, sculptors, decorators and stonemasons. For this part of the article an invaluable reading constitutes a book by Jurij Biriułow (2007).

1. Neoclassicism of the 1920s and the 1930s.

Neoclassicism is a universal style which was eagerly used for erection of different types of buildings, including sepulchlar ones. The classical forms were associated with the ideal, beauty, timelessness, durability, nobility – such epithets can be multiplied. When Poland regained its independence, neoclassicism appeared again as a proposal of a national style, which resulted in increase of its popularity, especially in the public buildings, sponsored by the reborn state. Neoclassicism of the 1920s and 1930s existed in two basic versions: a literal one – in which certain ancient forms were imitated, e.g. a column, a cornice, an ornament, and a modernized one – which was inspired by the character of ancient architecture, e.g. its proportions, harmony or rhythm.

In the following part of the article the chosen examples of the sepulchlar architecture in the neoclassical forms, realized in the two above mentioned types, are going to be presented.

One of the most magnificent realizations is the sepulchre of the Białobrzeski family in a form of a chapel [fig. 1]. Its façade is made of doubled pairs of Tuscan columns sustaining a fragment of entablature and a high attic with an inscription „FROM BIAŁOBRZEGI ABDANK THE BIAŁOBRZESKIS". In a deep, arcaded niche there is a rectangular entrance and Abdank coat of arms in bas-relief, in a cartouche with garlands. The architecture of the sepulchre is an example of monumentalism characteristic for the 1920s, which was based on the tradition of Roman antiquity.

A literal reference to Greek classicism without any national meaning attached to it, can be found in a composition of Oswald Balzer sepulchre, a professor of Lviv University and a director of the Archive [fig. 2]. Its façade refers to ancient forms and consists of a niche framed with a pair of squat, little columns in a Doric style. The high and massive attic bears an inscription in stylised majuscule: "DEO ET PATRIAE/SERVIEBANT"

In the second half of the 1920s and in the 1930s references to antiquity were not treated in an imitative manner. They were rather modernized and the

Figure 1. The tomb of the Białobrzeski family, 1920s. A. Borowik, 2019.

Figure 2. The tomb of Oswald Balzer, around 1933. A. Borowik, 2019.

general aesthetic principles of antiquity were used: its harmony, proportion and rhythm. As examples, one can point to numerous tombs in Lychakiv, including the one of an architect and conservator, Edmund Żychowicz (1870-1924), which was made of pink sandstone (Łoza, 1954, p.349-350), [fig. 3].

It is characterised by its simplicity - a pink sandstone cuboid with lisped corners, covered by a massive finial which is a paraphrase of an ancient abutment

Figure 3. The tomb of Edmund Żychowicz, around 1924. A. Borowik, 2019.

with acroterions. The impression of stateliness is reinforced by the strong projection of the cover in front of the face of the walls. The decoration more literally refers to antiquity - the chest is surrounded by a frieze of kimation, and laurel wreaths and palm trees are placed in the tympanums. The inscription was made in Roman capital - it is laconic, reduced to the name of the deceased.

A similar stylistics was used in more modest realizations such as the sepulchres of the Rudrofs (around 1931) or the Mikołajczykiewiczs (round 1930, Iwanowicz workshop). Among them some typical realizations, e.g. the Schneiders and the Halikowskis, appeared.

2. Art Deco and its local variant – eastern Lesser Poland style

At the beginning of the 1920s emerged a new decorative convention that had its own individual character – Art Deco, which was granted a deeper, national meaning in a reborn Polish state. It came in two main variants: the Krakow School (Olszewski, 1966, p. 72-128) and so-called eastern Lesser Poland style occurring in eastern voivodships (districts) of the Second Polish Republic (Borowik, 2012, p. 207-254). The other one was characterized by stylization of historical patterns, mainly the Renaissance, the Mannerist and the baroque ones and occurrence of

Figure 4. The tomb of Zofia Juhrowa, around 1924. A. Borowik, 2019.

abundant and artistic, geometric-floral decoration whose forms evolved from ovalness to sharp, crystal shapes (Borowik 2015, p. 208-226).

One of the first examples of this stylistics was the sepulchre of Zofia Juhrowa, née Zwisłocka (1887-1924) called "Zofia's Little House", designed by W. Rawski and made in T. Iwanowicz workshop [fig. 4] (Borowik, 2010, p. 145-164). A cuboid sarcophagus was covered with a gable lid. The façade was crowned with an attic with a cartouche – these two elements are covered in an abundant and artistic geometric-floral ornament in the eastern Lesser Poland style, while the cartouche bears the inscription: "ZOSIA'S LITTLE HOUSE" executed entirely in capitals with calligraphic lettering. The aforementioned ornament appears also in the framing of the slab of the tomb entrance, on the sarcophagus' sides in a form of big crosses and in metalwork elements.

The most splendid sepulchre with Art Deco motifs is a classicizing chapel of the Gorajski family from 1930, designed by W. Rawski, executed by T. Iwanowicz and founded by contess Jadwiga Rzyszczewska, née Gorajska [fig. 5].: It is a stone, cubic structure on a square projection with a high attic and a top in a form of a low tambour. Windowless elevations were diversified with the giant order of pilasters and semicircular panels, while the representative façade was given a pair of semi-columns flanking a semicircular entrance. The attic and the tambour is covered with geometrized floral ornament taking the form of garlands and volutes.

Figure 5. The tomb of the Gorajski family, 1930. A. Borowik, 2019.

Figure 6. The tomb of the Glatty and Lefki family, 1920s. A. Borowik, 2019.

The best examples of the discussed trend were designed by architects and conservators Bronisław Wiktor and Wincenty Witold Rawski. Two solid sepulchres can be enumerated among their works: the one of the Glattys and the Lefkis, and the one of the Strońskis.

The tomb of the Glattys and the Lefkis (architect Piotr Tarnawiecki was buried in it in 1961) was executed according to the design by B. Wiktor [fig. 6].

Its form and decoration travesty loosely indigenous "Sarmatian" Baroque. In a form of a chest, was given a wide façade. Its central part constitutes a protruding aedicul which consists of two pairs of squat little columns suspending a frayed top adorn with floral-ornamental cross and an inscription: THE FAMILY OF THE GLATTY AND THE LEFKI/1860 PIOTR TARNAWIECKI 1961". On the outer sides of the columns are figures of angels holding flowers. The side parts are decorated by squat pilasters with monstrous capitels and enormous volutes covered with abundant ornament in a convention of eastern Lesser Poland style.

The Strońskis tomb of W. Rawski design was made around 1928-1929 in T. Iwanowicz workshop. It stands out due to the presence of a big Madonna Immaculata statue [fig. 7], while the main feature of the façade is a high panel framed with a rich floral-geometric ornament in the Art Deco stylistics. In the side plain parts, the signs containing the information about the dead were made. The foreground of the structure was created in a form of a flowerbed in a stone frame with the lanterns fixed to its corners (they have not been preserved).

The Art Deco ornament often "inlays" some fragments of tombs such as the ones of the Dedeyczyks, the Bendls, the Bodnars, the Arnolds, the Balicki-Kienzers, the Borth-Mazurkiewiczs, the Ancs or the Felsztyns. The abundant ornament usually completely covers the designated part of the composition and is deliberately contrasted with a plain surface of the other parts.

Figure 7. The tomb of the Stroński family, around 1928-1929. A. Borowik, 2019.

Figure 8. The tomb of Tadeusz Obmiński, around 1932. A. Borowik, 2019.

3. Classicizing and avant-garde modernism

Modernism is a style which in architecture meant departure from historism, search for simplicity and strive for functionality. These tendencies led to the emerging of functionalism where functions were considered crucial and both technical elements, material, construction and esthetics, that is a form, were subordinated to them.

Modernism in sepulchral architecture usually occurs in two variants: classicizing and avant-garde ones. The first one is characterized by symmetry and a harmonic expression obtained by usage of appropriate proportions – careful composition of all parts related to each other. In this group, inscriptions, often treated as ornamentation in their own right, play an important role, usualy executed in simple modernist lettering. This kind of tombs are worth examining more deeply.

A modernist, but also classical in composition is the tomb of Tadeusz Obmiński – an illustrious architect and professor of Lviv Polytechnic (now Lviv Polytechnic National University) [fig. 8]. Its design was made around 1932 by Józef Różyski (Biriułow, 2007, p. 265) and it was executed in pink sandstone. A sarcophagus with a lid of concave corners was placed on a high two-level plinth. On the longer

Figure 9. The tomb of the Basch family, 1930s. A. Borowik, 2019.

Figure 10. The tomb of the Gyurkovich family, around 1933. A. Borowik, 2019.

side is a panel with a small cross and an inscription in narrowed sans serif, two-piece lettering: "Tadeusz Obmiński, PhD/ Professor of Polytechnic/1871-1932"

Another, more intimate example is the sepulchre of the Basch family – of Karol (1844-1906) and Julia, née Czernik (1858-1934) – made of big pink sandstone blocks in T. Iwanowicz workshop [fig. 9]. It is a massive cuboid with a front in the form of a deep portal, which contains a panel with an inscription that is an important element of the composition, made with geometric, one-piece lettering in the Art Deco style. Such type of tombs enjoyed huge popularity in Lychakiv in the 1930s (e.g. it was used in the sepulchre of the Bratrs).

An interesting group of sepulchres is formed by those constructed in a stylistics of radical avant-garde modernism. It is characterized by a lack of reference to historical forms and by composition close to plastic art works of geometric abstraction – the use of cubic forms, solicitude for their mutual relation, and often the presence of asymmetry. A new feature is a renouncement of traditional division into a cuboid tomb and a decorative façade. Sepulchres start to resemble abstract, geometricized sculptures. Their composition is open thus the space around them plays an essential role. A specific functionalism sui generis appears – numerous protruding elements and niches have different functions, such as a bench for the family, a shelf for lights or a flowerbed.

Below some examples of realizations representative for this group, whose authorship was determined and which have a high artistic value, will be presented.

The imposing sepulchre of the Gyurkovich family was executed in T. Iwanowicz workshop [fig. 10]. Its architectural design was made by architect Ludomił Gyurkovich while Julian Mikołajewski done the sculpting. It consists of the above-ground part in a form close to a cuboid. On the left side, perpendicularly to the front elevation, a stone bench with a high back was placed, which constitutes an integral element of the composition. A low stepped lid was ruptured with a perpedicularly situated slab with an expressive relief depicting the Raising of Lazarus and with a complex inscription: "Gosp. of St. John Ch.XI/ LORD, IF THOU HADST BEEN HERE/ MY BROTHER WOULD NOT /HAVE DIED***I AM/THE RESURRECTION/ AND THE LIFE/WHOEVER [LIVES AND] BELIEVES IN ME/THOUGH HE DIE/YET SHALL HE LIVE[FOR ETERNITY]****". The inscription was executed as a convex relief with simple but dynamic, single-element lettering, while the sharply shaped form of the relief reveals the references to Art Deco. A metal cross was fixed to the front part of the relief panel. The composition of the front is asymmetric, divided in two parts by a red fluted column. The left one bears the inscription: "HERE/LIES A CHRIST'S SERVANT/REV.ADAM GYURKOVICH/*20.VIII.1897+6.V.1933/PROFESSOR IN JAN DŁUGOSZ HIGH SCHOOL/AND CHAPLAIN OF DISCALCED CARMELITES NUNS". In the right part there are a panel, which veils the entrance to the sepulchre, with an inscrip-

Figure 11. The tomb of Ludwik Ralski, 1931, M. Bucka, 2010. https://commons.wikimedia.org.

Figure 12. The tomb of the Stromenger family, around 1935. A. Borowik, 2019.

tion above it: “THE GYURKOVICH FAMILY” and a lesene with continuous bossage which also decorates the side of the sepulchre.

A modernist and avant-gard character has the tomb of Ludwik Ralski (1907-1931) designed by W. Rawski, with the sculpting by Janina Reichert-Toth [fig. 11]. Ralski was a student and a talented skier who died in an avalanche on a slope of Vysokyj Verch in Sławsko (today Ukraine) (Biriułow, 2007, p. 265). The composition breaks with a traditional division into a cuboid tomb and a decorative façade. Looking from the front one can see a richly carved asymmetric and geometric composition consisting of pure cubized forms: cubes, cuboids and spheres. Two front cubes have a role of shelves for lights. The sparing decoration consists of the inscription ‘TOMB OF THE RALSKI FAMILY’ in geometric yet free-form, one-piece lettering in the Art Deco style, and the relief of a skiing skier with geometric form in the same style, slightly set back from the front. In front of the sepulchre, a small flowerbed in a concrete frame was placed.

In the group which is being described, the tomb of Jan and Maria Stromenger from around 1935 is distinguished by its scale and verticalism [fig. 12]. In front of a cuboid tomb there is a high reinforced concrete construction consisting of two pylons flanking a metal cross and a pedestal with a concrete tomb lantern and inscription: ”THE MR AND MRS JAN STROMENGER FAMILY” in single-element antique sans serif. A considerable role is played by

Figure 13. The tomb of Stanisław Sokołowski, around 1931. A. Borowik, 2019.

the differentiation of plaster surface textures from completely plain to rough ones worked out with stonemason methods.

In the described group a three-dimensional sculpture “in the round” occurs rarely, therefore one outstanding work is worth presenting – the tomb of prelate Stanisław Sokołowski (1886-1931), designed by B. Wiktor and executed in Iwanowicz workshop [fig. 13]. Its composition is dismembered and consists of a high cuboid sarcophagus on which a simple cross in a reinforced concrete hemi-spherical frame was placed along with a big, softly modelled figure of Christ as a Good Shepherd by Julian Mikołajski. The sepulchre foreground is a flowerbed in a concrete framing on whose corners there are metal geometrized lampions.

In this group occur also repetitive solutions, e.g. a type of asymmetric tomb from Iwanowicz workshop used in the Dziuba family's one from around 1931. Its distinctive feature is a façade composed of two asymmetrical pillars flanking a simple slab covering the entrance to the tomb. The higher one protrudes in front of the face, decorated with rustication, and the lower and receding one, almost flush with the slab. Its smooth surface bears inscriptions.

In the sepulchres from the first thirty years of the 20th century a way of stonemason modelling of a natural and artificial stone surfaces plays a significant role. Hatching, cutting, graining and other stonemason techniques contribute to obtaining interesting effects of texture and underlining of chosen composition fragments.

4. Artists

A sepulchre is a structure that usually combines several fields of creativity: fine arts, that is architecture and sculpture and craft skills that is stonemasonry. Thus in most cases the complete work is a result of cooperation between an architect as a designer, a sculptor who makes sculptural decoration and a stonemason as an executor.

Many of the already presented tombs were executed in the stone workshop of Tadeusz Iwanowicz (1885-1944) who in several sources is referred to as an architect. However, in fact, he was educated as a sculptor as he graduated from the Industrial School in Lviv in decorative sculpture. As a builder he operated on a concession basis obtained in 1925. His cooperators include prominent figures of Lviv artistic environment – architects Wincenty Witold Rawski, Bronisław Wiktor as well as sculptors Aleksander Bohuss and Julian Mikołajski (Biriułow, 2007, p. 263). Stanisław Nicieja writes that Iwanowicz cooperated also with Ludwik Makolondra stonemason workshop (Nicieja, 2011, p. 188). It can be assumed that in certain cases Iwanowicz offered his clients ready solutions and he had a tombs and tombstones catalogue at his disposal. That can be argued due to the occurrence of the same type of sepulchres several times. Thus the Baschs tomb has its twin analogue of the Minkiewiczs one, and the asymmetric type occurs both in the Kühn-Jazłowińskis and in the Dwernickis tombs.

Bronisław Wiktor (1886-1961), cooperating with Iwanowicz, was an architect and a painter. In the years 1905-1913 he studied at the Faculty of Architecture of the Lviv Polytechnic and in Stanisław Kaczor-Batowski private artistic school. Before the Second World War, Wiktor worked for the Lviv Polytechnic and the Art Industry School. He designed not only buildings, but also sepulchral architecture, including tombs in the Lychakiv Cemetery which have already been presented here: of the Glattys, the Lefkis, the Tarnawiecki and the Sokołowski ones. He was also the author of the tombs of Gustaw Müldner (after 1933, together with J. Mikołajski) and of Wilhelm Stanek (around 1920, together with Z. Kurczyński).

Another important cooperator of Iwanowicz was Wincenty Witold Rawski (1893-1962), an architect with a great talent for sculpture and painting as well (Kunkel, 1987, p. 670-671), (Czerner, 1962, p. 423), (Nicieja, 1990 b, p. 390; 2011, p. 188). In 1922 he graduated from the Lviv Polytechnic in architecture, and before the second World War worked in Lviv Municipal Board where ancient monuments conservation was one of his duties. He also cooperated with Lviv stonemason workshops of Matusiewicz, the Zagórskis, Makolondra and Tyrowicz. In Iwanowicz workshop the following tombs were created: of the Juhras, the Sobińskis, the Edelmans, of Ralski (Biriułow, 2007, p. 264), Józef Nogaj, Karol Brzozowski, Franciszek Jaworski, Franciszek Majchrowicz, Józef Kallenbach, the Strońskis and the Komorowskis, Władysław Gawliński, Stefan Janelli, the Felsztyns, and also of the Skibińskis. At the Cemetery of the Defenders of Lviv Iwanowicz and Rawski made the monument to the battle of Rarańcza heroes and the tombs of the Kamieńskis and the one of General Wacław Iwaszkiewicz (Biriułow, 2007, p. 263; Nicieja

2011, p. 187). Nicieja gave the following characterization of the architect style: "In his oeuvre the motifs whose meaning refers to the world of antiquity intertwine with the ones alluding to Biblical stories. They are mostly figurative reliefs whose significant compositional feature is chiaroscuro. The monuments by this artist strike us with monumental inclination with a tendency to geometrical stylization and exposure of architectural construction" (Nicieja, 1990 b).

Wiktor and Rawski were the authors of architecture of the most interesting works maintained in the stylistics of Art Deco and its local version, so-called the eastern Lesser Poland style, in which sculptural decoration played a substantial role.

Rawski cooperated with talented sculptors – Jan Matusiewicz and Janina Reichert-Toth. Matusiewicz (1867- after 1943) owned a stonemason company in Lviv. He graduated from the Lviv Industrial School and then practised in Henryk Perier workshop (Nicieja, 2011, p. 187). Reichert-Toth studied in the Industrial School in Lviv and the Academy of Fine Arts in Krakow under Konstanty Laszczka (Biriułow, 2007, p. 271-274). Before the Second World War she was active mainly in Lviv, in the beginning as a teacher of drawing, then as a sculptor in Ludwik Tyrowicz stonemason workshop and finally she opened her own company. She was making a lot of altar sculptures e.g. to the main altar in St. Elisabeth's Church in Lviv (1928-1934). In the Lychakiv Cemetery she created the decoration of the Ralski tomb. A figure of the Szaynowskis tomb is attributed to her as well.

Sculptors Aleksander Bohuss and Julian Mikołajski also cooperated with Iwanowicz workshop. Not much is known about Bohuss basing on a current state of research. Between 1923 and 1944 he worked in the Industrial School in Lviv, which was later called the Fine Art Institute. He was the co-author of the tombs of Nogaj and Brzozowski. Mikołajski (1904-1952) graduated from the Lviv Industrial School, where he was employed in the position of an academic assistant to 1943. He made not only sepulchlar works, but also sculptures for the churches in Wołków, Rudki and Stara Sól (Biriułow, 2007, p. 263-264). He also carried out conservation of ancient monuments. His works include the monument to the battle of Rarańcza heroes, the tombs of the Kamieńskis and of General Iwaszkiewicz (ibidem). Biriułow attributes to Mikołajski a relief of Madonna on his parents' tomb (1929-1930), a figure of Good Shepherd on the Sokołowski tomb and an angel on the Gustaw Müldner sepulchre in the Cemetery of the Defenders of Lviv (after 1933, designed by B. Wiktor) (ibidem, p. 264).

A sculptor Zygmunt Kurczyński (1886-1954) cooperated with Bronisław Wiktor. He graduated from the Lviv Industrial School under Tadeusz Wiśniowiecki and Juliusz Bełtowski. Then he studied in the Academy of Fine Arts in Krakow, later in Monachium and in Paris where he worked as a stonemason in the workshop of August Rodin himself (Nicieja, 2011, p. 174-179). After he returned to Lviv, he created architectural sculpture of public buildings and tenements. In the Lychakiv Cemetery he made the figures in the tombs and sepulchres of Tadeusz Rutowski, Wilhelm Stanek and Władysław Grzędzielski. Nicieja attributes to him decoration of two other tombs – of Bolesław Chom (died in 1925) and Piotr Kiniarz (1879-1940) (Nicieja, 2011, p. 177). After the Second World War he settled down in Wroclaw where he lectured in the University of Science and Technology.

An architect and sculptor Józef Różyski (1898-1974) was the author of sepulchral architecture of modern, but also classicizing character. He studied in the Academy of Fine Arts in Krakow and in the Faculty of Architecture of the Lviv Polytechnic. After graduation, he lectured in his alma mater and in the State Technical School (later National Institute of Fine Arts). After 1945 he continued working as an academic teacher in the Academy of Fine Arts in Krakow. He cooperated with Aleksander Król (1883-1959) stonemason workshop in Lviv and sculptor Józef Starzyński. His major works include the American Flyers Memorial and the French Soldiers Monument in the Cemetery of the Defenders of Lviv (together with J. Starzyński). In the Lychakiv Cemetery he made designs of tombs of Obmiński (died in 1932), Władysław Szaynok (around 1928, together with A. Król) and Ludwik Czarnowski (1937).

A cooperator of Różyski, sculptor Józef Starzyński (1890-1961) was a graduate of the Academy of Art Industry in Vienna. In the years 1924-1928 he worked as an academic assistant at the Faculty of Architecture of the Lviv Polytechnic, he also lectured in the Lviv Technical School. After 1946 he settled down in Zakopane (Nicieja, 2011, p. 205).

Ludomił Gyurkovich (1899-1980), the last, but not least of the authors of the already presented group of works, in the case of architecture expressed himself in modernist forms in their extreme avant-garde version. In 1926 he graduated from the Lviv Polytechnic in architecture. Before the Second World War he worked in the City Council in Lviv, then in Mościcie and Łuck. He lectured in his alma mater and run his own construction enterprise. After the war he became linked to Kielce as the district architect and a director of "Inwestprojekt" company. He was the author of designs of public buildings and churches, he also carried out the conservation works e.g. in the Royal Tenement House in Lviv (Biriułow, 2007, p. 273).

Jurij Biriułow lists more artists who created the sepulchral art at the time, however, the scope of this article does not allow for presenting their profiles. These are the following sculptors: Luna Drexlerówna, Marian Spindler, Ryszard S. Plichal, Piotr Wójtowicz, Bronisław Sołtys, Andrzej Albrycht, Michał Wesołowski, Mychajło Zastawny, Sergiusz Łytwynenko, Antin Pawłos i Mychajło Jackiw and architects: Roman Voelpel, Otton Fedak, Aleksander Łuszpiński and Marian Nikodemowicz (Biriułow, 2007, p. 265-266) (Biriułow, 2007, p. 262; Kwiatkowska-Frejlich, 2020, p. 139-141).

This article attempted to show the diversity of architectural trends in the sepulchral art occurring in the first thirty years of the 20th century, starting from classicism, through Art Deco and so-called eastern Lesser Poland style, up to avant-garde modernism. Their features and the ideological background were also determined. The works of the Lychakiv Cemetery which are representative for these trends and environment of their authors – architects, sculptors and stonemasons active in Lviv, were described. The research led to a conclusion that the sepulchral art created in the Lychakiv Cemetery in the first thirty years of the 20th century was a subject to intensive change from traditional to modern forms. It was caused by the dynamics of changes in art of that time, but also by a fashion for certain solutions. A catalyst for change was a high artistic awareness of sponsors and artists: the stonemason businesses owners, architects, sculptors and stonemasons. Topics of typology, stylistics and attribution of works originated in the first thirty years of the 20th century in the Lychakiv Cemetery in Lviv requires further research to be done. Not only due to the fact that they are scarce, but also because the elements of the group are artistically valuable items whose creators remain anonymous. Only further archive and empirical search and formal and comparative analyses can result in discovering their authors.

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