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Personality predictors of self-compassion, ego-resiliency and psychological flexibility in the context of quality of life

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ABSTRACT

Self-compassion (S-C), ego-resiliency (E-R) and psychological flexibility (P-F) are internal resources that enhance quality of life, adaptation and life satisfaction. Despite similar effects, they are vastly varied in terms of specific psychological functions. The aim of this study was to establish the relationship between personality traits and S-C, E-R, and P-F, regarding quality of life, in a Polish sample. 379 participants (50% female, M_{age} : 29.04) took part in a questionnaire survey. Despite the fact that all three resources correlated with personality dimensions (emotionality, extraversion and agreeableness), it was established that they varied in terms of specific components. Personality facets established 53% of variance explained for S-C, 37% for E-R, and 34% for P-F. Cluster analysis identified three resource-related personality structures that diversified the level of quality of life. It may have implications for the selection of therapeutic tools, where P-F, theoretically referring to the constant readiness to adapt to and interact with the changing environment and least predicted by personality, seems to be the most accessible and learnable resource, regardless of the personality structure.

1. Introduction

Self-compassion (S-C), ego-resiliency (E-R) and psychological flexibility (P-F) are internal resources that influence the affective regulation and behaviour of individuals (Kashdan & Rottenberg, 2010). Despite their processual nature, all these resources exhibit relations with personality traits (Gloster, Klotsche, Chaker, Hummel & Hoyer, 2011; Neff, Kirkpatrick & Rude, 2007b; Steenhaut, Rossi, Demeyer & de Raedt, 2018) and foster the development of the individual. Their importance for well-being and quality of life, reduction of depressive symptoms (Hayes, Strosahl & Wilson, 1999) or more effective coping (Bonnano, 2004) has been supported. Despite their growing popularity, there is a lack of research taking into account all three resources, the differentiation of their specific functions and relationships with personality traits and impact on quality of life. The aim of this study is to fill this gap by distinguishing a configuration of personality traits and internal resources, and verifying their links with quality of life.

1.1. Self-compassion

As indicated by Gilbert's three-factor model (2014), regulation of emotions can occur with the use of three systems. The threat system involves detection of external and internal stimuli assessed as threatening, the drive system seeks rewarding stimuli, and the contentment

system is responsible for the regulation of emotional reactions within the two previously mentioned systems, activating internal resources, such as self-compassion. It is in the third system where the internal resources, such as self-compassion (S-C), are activated (Sydenham, Beardwood & Rimes, 2017). S-C is an attitude characterized by a non-judgemental, approving approach to oneself, and active affective experience of suffering and difficulties according to the belief that suffering is inherent in humankind. Neff, Kirkpatrick and Rude (2007a) demonstrated links between S-C and personality traits: positive with agreeableness, extraversion and conscientiousness, and negative with neuroticism.

1.2. Ego-resiliency

E-R is defined as a relatively constant, although dynamic, trait of the individual (Kim-Cohen & Turkewitz, 2012) that makes flexible adaptation to difficult stressful conditions possible (Block & Block, 1980). In a wider perspective, it is the ability to adapt and to cope with adversities (Southwick, Bonanno, Masten, Panter-Brick & Yehuda, 2014), with emphasis put on the behavioural impacts of the individual. Research indicates important links between E-R and quality of life (Rudzinski, McDonough, Gartner & Strike, 2017), life satisfaction (Nemati & Maralani, 2016), and personality traits (especially negative correlations with neuroticism and positive ones with openness to

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experience, cf. Oshio, Taku, Hirano & Saeed, 2018).

“Resilient personality” is a specific group of personality traits based on the Big Five model (Costa & McCrae, 1992), distinguished by Asendorpf and van Aken (1999) in their longitudinal studies on three personality prototypes. The resilient type can be attributed to individuals with low neuroticism levels and high results on the other Big Five scales. The overcontrolled type is characterized by high neuroticism and low extraversion, while the undercontrolled one by low agreeableness and conscientiousness as well as by a tendency towards aggression. It must be remembered that despite replications confirming this typology, some researchers negated its legitimacy as it was not confirmed by their studies (Costa, Herbst, McCrae, Samuels & Ozer, 2002); Donnellan and Robins (2010) indicated methodological reservations concerning the cluster analyses performed and the establishment of personality typologies in general. Ashton and Lee (2009b) questioned the use of the six-dimensional personality model in providing personality types, although other researchers report extracting significant profiles based on this framework (cf. Taku & McLarnon, 2018).

1.3. Psychological flexibility

Psychological flexibility is defined as the ability to observe thoughts and emotions of the individual in a conscious and non-judgemental way, and, if needed, to change the behaviour in order to achieve goals and values (Hayes et al., 1999). P-F is a fundamental resource developed in acceptance and commitment therapy, associated with adaptation and with the ability to switch perspectives (Kashdan & Rottenberg, 2010). What was supported were the links between personality traits and P-F (Gloster et al., 2011), as well as the ability of P-F to be an effective mediator between neuroticism and quality of life (Steenhaut, Rossi, Demeyer & de Raedt, 2018). Along with the development of skills associated with P-F, quality of life also increases (Meyer et al., 2018).

Self-compassion is considered as one of the key elements of the acceptance and commitment therapy (Harris, 2012) as there are several positive associations between S-C and P-F (cf. Marshall & Brockman, 2016). Mindfulness, one of the foundations of S-C, also exhibits positive correlations with P-F (cf. Silberstein, Tirch, Leahy & McGinn, 2012). According to Mahmoodi (2018) or Kemper et al. (2018), self-compassion is positively associated with resilience amongst people suffering from stress or somatic illnesses (Gentili et al., 2019).

It seems that the internal resources in question play a supporting and reinforcing role for each other. At the same time, research indicates that both self-compassion and psychological flexibility may be predictors of resilience (Shattell & Johnson, 2018), and therefore components of affective (S-C) and cognitive (P-F) nature may somehow affect the expression of behavioural actions (E-R).

1.4. The current study

The aim of the current study was to determine the links between personality traits and its facets and internal resources: self-compassion, ego-resiliency and psychological flexibility. On the basis of the literature cited, it was hypothesized that S-C, E-R and P-F exhibit relationships with personality traits: negative with emotionality (all) and positive with extraversion (all), openness to experience (E-R) and agreeableness (S-C). However, there is a lack of research explaining deeper relationships regarding personality facets, hence it was decided to include them in this work.

Additionally, based on Asendorpf and van Aken's (1999) personality prototypes model, it was decided to distinguish a configuration of personality traits and its facets and internal resources (S-C, E-R and P-F) and to verify their links with quality of life. It was proven that the level of resources in question is associated with the personality structure (cf. Marshall & Brockman, 2016; Shattell & Johnson, 2018), and the

combination of personality traits and level of resources is of importance for the quality of life of an individual (cf. Steenhaut, Rossi, Demeyer & de Raedt, 2018). Put in this way, it would allow better understanding of broad psychological functioning of an individual by determining which configurations of the personality structure and resources constitute a cluster, and how these configurations differentiate quality of life in its varied aspects.

2. Methods

Six questionnaires were used, whose description and parameters are presented below. Cronbach's alpha reliability (α) refers to the reliability calculated for the purpose of this paper.

Personality traits. The HEXACO questionnaire was used in its abbreviated version, and the evidence for its adequate reliability and validity in original (Ashton & Lee, 2009a) and Polish adaptation by Szarota (Saucier et al., 2014), was established. The questionnaire consists of 60 items (e.g. ‘I worry a lot less than most people do’) and measures six personality dimensions: Humility/Honesty ($\alpha = 0.67$), Emotionality ($\alpha = 0.7$), Extraversion ($\alpha = 0.48$), Agreeableness ($\alpha = 0.58$), Conscientiousness ($\alpha = 0.78$), Openness to Experience ($\alpha = 0.65$), and each dimension is composed of four additional components. HEXACO'S Cronbach's α was 0.71.

Self-compassion. The Self-Compassion Short Scale (Raes, Pommier, Neff & Van Gucht, 2011) was used, adapted into Polish by Kocur (unpublished). The Scale is proved to show high level of reliability and validity and has a near-perfect correlation with the longer, 26-item Self-Compassion Scale, when examining total scores (Raes et al., 2011). The scale is made of 12 items (e.g. ‘I try to see my failings as part of the human condition’) rated on a scale from 1 (almost never) to 5 (almost always). Scale's Cronbach's α was 0.7.

Ego-resiliency. The Ego-Resiliency Scale by Alessandri, Vecchione, Steca, Caprara and Capara (2007) was used, adapted into Polish by Kołodziej-Zaleska and Przybyła-Basista (2018); both original work and Polish adaptation provided evidence for the adequate reliability and validity of the Scale that can be found in the literature cited. The scale consists of 12 items (e.g. ‘I get over my anger at someone reasonably quickly’) rated on a Likert scale from 1 (it does not refer to me) to 4 (it refers to me). Scale's Cronbach's $\alpha = 0.77$.

Psychological flexibility. The Acceptance and Action Questionnaire (AAQ-II) by Bond et al. (2011) was used. Evidence for the adequate reliability and validity of the AAQ-II can be found in the original work by Bond et al. (2011) and Polish adaptation by Kleszcz, Dudek, Białaszek, Ostaszewski and Bond (2018), used in this paper. Flexibility is measured with the use of seven questions (e.g. ‘I'm afraid of my feelings’) rated on a Likert scale from 1 (always untrue) to 7 (always true). The higher the coefficient reached by the respondent, the lower the psychological flexibility. Questionnaire's Cronbach's α was 0.88.

Quality of life. To study a wide spectrum of various well-being aspects, it was decided to study quality of life and life satisfaction. To measure quality of life, a 60-item (e.g. ‘There are more successes than failures in my life’) Quality of Life Questionnaire by Straś-Romanowska (2005) was used. Apart from the general perception of quality of life, it allows to measure four spheres: psychophysical (biological dimension, $\alpha = 0.73$), psychosocial (the sense of belonging, $\alpha = 0.78$), subjective (the sense of autonomy, $\alpha = 0.75$) and metaphysical (the spiritual dimension, $\alpha = 0.74$). Cronbach's α for the Questionnaire was $\alpha = 0.9$, and the evidence for the adequate reliability and validity of the Questionnaire can be found in Straś-Romanowska (2005) or Nomejko, Dolińska-Zygmunt and Zdrojewicz (2012). Life satisfaction was measured using the Satisfaction with Life Scale (SWLS) by Diener, Emmons, Larsen and Griffin (1985) in a Polish version by Juczyński (2001). Both original work by Diener (1985) and Polish adaptation by Juczyński (2001) showed a satisfactory level of reliability and relevance as described in the literature cited. The scale is composed of 5 items (e.g. ‘I am satisfied

with my life’) rated on a Likert scale from 1 (strongly disagree) to 7 (strongly agree) and the sum of these answers constitutes the global perception of life satisfaction. The Scale’s Cronbach’s was $\alpha = 0.85$.

3. Participants

The participants were recruited in the region of Upper Silesia in Poland. It was a questionnaire survey and each person was informed that it was a voluntary and anonymous study. A total of 379 persons participated in the study (190 women; $M_{age} = 29.04$; $SD_{age} = 12.44$, age range was 16–75). 60% of respondents completed secondary education, 32% had higher education and 8% elementary education. 54% were working, 41% were students, and 5% were jobless or were recipients of pensions. 19% lived in the countryside, 39% in cities with less than 100,000 inhabitants and 38% in cities with less than 500,000 inhabitants.

4. Results

All analyses were conducted using STATISTICA.13PL.

4.1. Relationships between personality traits and self-compassion, ego-resiliency and psychological flexibility

Table 1 presents descriptive statistics and Spearman’s ranks correlation analysis.

The obtained results indicate a consistent image of relationships between particular resources and traits of personality: their coexistence, even if different in terms of intensification, was always consistent when it comes to direction. Three personality traits: extraversion (X), emotionality (E) and agreeableness (A) were significantly ($p < 0.05$) correlated with S-C and P-F, while two aspects of conscientiousness (C), perfectionism and diligence, and openness to experience were

correlated only with E-R.

The next step involved conducting a series of regression analyses. The analysis used facets, not personality traits, as predictors, due to its assumed greater usability in predicting. It has been assumed that the facets would provide a more specific illustration of the relationship between personality and resources, taking into account which specific facets of a given personality trait are significant predictors of a resource in question (e.g. the assumption, reported in the literature cited, that emotionality or neuroticism is associated with self-compassion, do not explain which particular neurotic feature is a predictor of this variable). The results are summarized in Table 2. Appendix 1 (Table 3) contains a regression model using personality traits.

The regression analysis indicated that personality facets constituted an important predictor for all three internal resources: 53% of variances explained for S-C, 37% for E-R, and 34% for P-F. Thus, it can be assumed that S-C is the resource which depends most strongly on the basic personality structure, while and P-F is the one that depends on it least strongly. In the case of every resource, extraversion-related facets were the strongest positive predictors (especially Social Self-Esteem) and emotionality-related facets the strongest negative predictors (especially Anxiety and Fearfulness). The additional analysis using personality traits showed similar results with lower variance explained.

4.2. Configurations of personality traits and internal resources

A cluster analysis using the k-means method was performed, assuming the presence of three clusters, based on Asendorpf and van Aken (1999) model. Additional analyses, assuming the presence of more clusters, showed no presence of different constellations. For the purpose of the cluster analysis, facets of these personality traits that indicated significant correlations with all three resources, emotionality, extraversion and agreeableness, as well as S-C, E-R and P-F, were selected (cf. Table 1). During the cluster analysis, three clusters were

Table 1
Descriptive statistics and Spearman’s rank correlation coefficient, * $p < 0.05$.

	M	SD	Self-compassion	Ego-resiliency	Psychological flexibility
Honesty/Humility	14.07	7.76	−0.02	−0.01	−0.03
H1.Sincerity	10.33	2.48	.04	−0.01	.07
H2.Fairness	10.36	3.21	.01	.11*	.03
H3.Greed-avoidance	5.32	1.72	.16*	.06	.08
H4.Modesty	6.59	1.76	.03	−0.14*	.17*
Emotionality	31.79	7.10	−0.36*	−0.27*	−0.32*
E1.Fearfulness	8.71	2.60	−0.32*	−0.36*	−0.25*
E2.Anxiety	6.85	1.95	−0.48*	−0.28*	−0.40*
E3.Dependence	6.24	1.98	−0.24*	−0.18*	−0.22*
E4.Sentimentality	9.21	2.57	−0.30*	−0.19*	−0.26*
eXtraversion	31.25	4.68	.44*	.40*	.21*
X1.Social Self-Esteem	10.39	2.19	.56*	.33*	.44*
X2.Social Boldness	8.62	2.24	.08	.33*	.01
X3.Sociability	6.32	1.84	.18*	.25*	−0.00
X4.Liveliness	6.13	1.27	.19*	.03	.12*
Agreeableness	29.69	5.64	.36*	.14*	.16*
A1.Forgiveness	5.87	1.98	.22*	.23*	.12*
A2.Gentleness	9.14	2.58	.16*	−0.02	.03
A3.Flexibility	8.94	2.40	.35*	.02	.13*
A4.Patience	5.53	1.38	.31*	.19*	.12*
Conscientiousness	34.53	6.78	−0.03	.04	.06
C1.Organization	6.77	2.06	.04	.03	.04
C2.Diligence	7.77	1.49	.06	.25*	.08
C3.Perfectionism	10.57	2.32	−0.06	.12*	.01
C4.Prudence	10.18	2.53	.02	−0.02	.11
Openness to experience	32.99	6.57	.08	.30*	−0.01
O1.Aesthetics	6.76	2.08	.07	.20*	.05
O2.Inquisitiveness	6.67	2.01	.04	.21*	.05
O3.Creativity	9.56	2.69	−0.03	.21*	−0.07
O4.Unconventionality	10.10	2.38	.00	.24*	−0.00
Self-compassion	35.84	7.25	1.00	.33*	.49*
Ego-resiliency	34.10	5.83	.33*	1.00	.2*
Psychological flexibility	20.86	8.52	.49*	.2*	1.00

Table 2
The results of regression analyses with facets as predictors. * $p < 0.01$; ** $p < 0.05$.

	R ² fixed	F	b*	Standard error with b*	b	Standard error with b	t(354)
<i>Self-compassion</i>	.53	19.02**					
Absolute term					13.78	3.81	3.61*
H1.Sincerity			.02	.04	.07	.12	.61
H2.Fairness			−0.02	.04	−0.04	.10	−0.38
H3.Greed-avoidance			.06	.04	.27	.17	1.62
H4.Modesty			.01	.04	.06	.17	.35
E1.Fearfulness			−0.06	.04	−0.16	.12	−1.31
E2.Anxiety			−0.21	.04	−0.79	.16	−4.80*
E3.Dependence			−0.01	.04	−0.05	.16	−0.29
E4.Sentimentality			−0.09	.05	−0.26	.13	−1.94
X1.Social self-esteem			.40	.04	1.33	.14	9.40*
X2.Social boldness			.00	.04	.00	.13	.01
X3.Sociability			.12	.04	.46	.16	2.90*
X4.Liveliness			.08	.04	.49	.22	2.19*
A1.Forgiveness			.03	.04	.12	.15	.80
A2.Gentleness			.09	.04	.25	.12	1.97*
A3.Flexibility			.13	.04	.4	.13	3.01*
A4.Patience			.13	.04	.7	.21	3.29*
C1.Organization			.06	.05	.22	.16	1.31
C2.Diligence			−0.00	.05	−0.01	.24	−0.05
C3.Perfectionism			−0.06	.05	−0.19	.14	−1.28
C4.Prudence			.02	.05	.06	.14	.41
O1.Aesthetics			.10	.04	.35	.15	2.34*
O2.Inquisitiveness			−0.04	.04	−0.14	.15	−0.93
O3.Creativity			−0.04	.04	−0.12	.11	−1.12
O4.Unconventionality			−0.04	.04	−0.12	.13	−0.88
<i>Ego-resiliency</i>	.37	10.20**					
Absolute term					18.67	3.56	5.23*
H1.Sincerity			−0.07	.05	−0.16	.11	−1.38
H2.Fairness			.10	.05	.18	.09	1.99*
H3.Greed-avoidance			.00	.05	.00	.16	.01
H4.Modesty			−0.07	.05	−0.22	.15	−1.42
E1.Fearfulness			−0.17	.05	−0.38	.11	−3.37*
E2.Anxiety			−0.09	.05	−0.28	.15	−1.84
E3.Dependence			−0.04	.05	−0.13	.15	−0.85
E4.Sentimentality			−0.05	.05	−0.11	.12	−0.89
X1.Social self-esteem			.13	.05	.35	.13	2.64*
X2.Social boldness			.19	.05	.49	.12	3.86*
X3.Sociability			.11	.05	.34	.15	2.29*
X4.Liveliness			.02	.04	.09	.21	0.46
A1.Forgiveness			.16	.05	.46	.14	3.29*
A2.Gentleness			.01	.05	.03	.12	.24
A3.Flexibility			−0.01	.05	−0.03	.12	−0.24
A4.Patience			.01	.05	.04	.20	.2
C1.Organization			.01	.05	.04	.15	0.28
C2.Diligence			.15	.06	.57	.23	2.52*
C3.Perfectionism			.07	.05	.18	.14	1.29
C4.Prudence			−0.10	.05	−0.24	.13	−1.86
O1.Aesthetics			.02	.05	.05	.14	.36
O2.Inquisitiveness			.09	.05	.26	.14	1.92
O3.Creativity			.11	.05	.24	.10	2.31*
O4.Unconventionality			.07	.05	.17	.12	1.37
<i>Psychological flexibility</i>	.34	9.06**					
Absolute term					34.06	5.33	6.39*
H1.Sincerity			.04	.05	.14	.17	0.81
H2.Fairness			−0.00	.05	−0.01	.13	−0.09
H3.Greed-avoidance			.05	.05	.25	.24	1.07
H4.Modesty			−0.2	.05	−0.97	.23	−4.16*
E1.Fearfulness			.05	.05	.17	.17	.98
E2.Anxiety			.2	.05	.8	.23	3.80*
E3.Dependence			−0.01	.05	−0.03	.23	−0.12
E4.Sentimentality			.12	.06	.42	.19	2.23*
X1.Social self-esteem			−0.39	.06	−1.54	.20	−7.67*
X2.Social boldness			−0.00	.05	−0.02	.19	−0.09
X3.Sociability			.04	.05	.19	.22	.84
X4.Liveliness			−0.09	.05	−0.61	.31	−1.94
A1.Forgiveness			−0.04	.05	−0.17	.21	−0.79
A2.Gentleness			−0.03	.05	−0.09	.17	−0.49
A3.Flexibility			.05	.05	.16	.19	.88
A4.Patience			−0.01	.05	−0.08	.3	−0.28
C1.Organization			.00	.05	0.01	.23	.05
C2.Diligence			−0.01	.06	−0.05	.34	−0.14
C3.Perfectionism			−0.01	.05	−0.04	.20	−0.19
C4.Prudence			−0.08	.06	−0.26	.19	−1.34

(continued on next page)

Table 2 (continued)

	R ² fixed	F	b*	Standard error with b*	b	Standard error with b	t(354)
O1.Aesthetics			-0.12	.05	-0.5	.21	-2.35*
O2.Inquisitiveness			.03	.05	.11	.20	.54
O3.Creativity			.09	.05	.28	.15	1.82
O4.Unconventionality			.05	.05	.19	.18	1.03

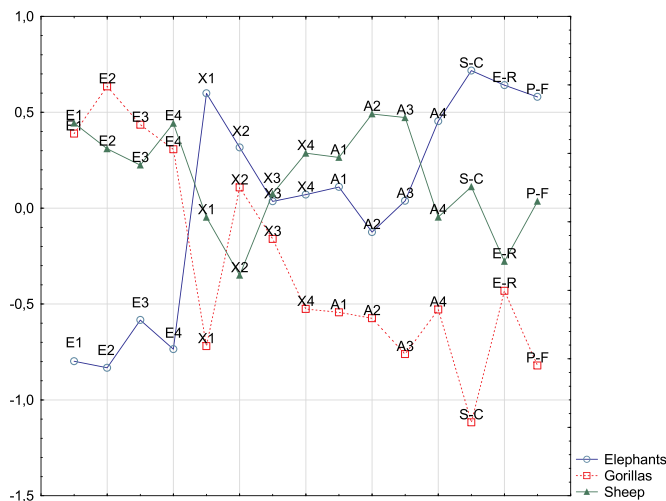


Fig. 1. Cluster analysis. Note: E1.Fearfulness, E2.Anxiety, E3.Dependence, E4.Sentimentality, X1.Social Self-Esteem, X2.Social Boldness, X3.Sociability, X4.Liveliness, A1.Forgiveness, A2.Gentleness, A3.Flexibility, A4.Patience, S-C.Self-compassion, E-R.Ego-resiliency, P-F.Psychological flexibility.

Table 4 Mean clusters and variance analysis.

	Between SS	df	Within SS	df	F	p
E1: Fearfulness	127.7479	2	250.2521	376	95.9697	<0.001
E2: Anxiety	144.9840	2	233.0160	376	116.9748	<0.001
E3: Dependence	70.8289	2	307.1711	376	43.3499	<0.001
E4: Sentimentality	109.3150	2	268.6850	376	76.4882	<0.001
X1: Social self-esteem	98.5988	2	279.4012	376	66.3439	<0.001
X2: Social boldness	32.5642	2	345.4358	376	17.7228	<0.001
X3: Sociability	3.5863	2	374.4137	376	1.8008	>0.001
X4: Liveliness	40.2864	2	337.7136	376	22.4269	<0.001
A1: Forgiveness	41.2305	2	336.7695	376	23.0167	<0.001
A2: Gentleness	70.6447	2	307.3553	376	43.2112	<0.001
A3: Flexibility	90.7504	2	287.2496	376	59.3946	<0.001
A4: Patience	54.9833	2	323.0167	376	32.0010	<0.001
S-C	192.8203	2	185.1797	376	195.7570	<0.001
E-R	83.8347	2	294.1653	376	53.5784	<0.001
P-F	110.9240	2	267.0760	376	78.0816	<0.001

identified, as characterized below, named metaphorically as follows: Elephants, Gorillas and Sheep. The layout of variables and clusters is presented in Fig. 1. Table 4 depicts the mean clusters and variance analysis.

Cluster 1. Elephants. This cluster was characterized by a low level of emotionality in all of its aspects, an average level of sociability and liveliness, and an average level of three out of the four elements of agreeableness (forgiveness, gentleness, flexibility). Above average results were noted in the area of one element of agreeableness – patience – and in all three resources; the highest level was achieved by P-F.

Additionally, high results were achieved for elements of extraversion: social boldness and social self-esteem. On the basis of the cluster analysis and of literature, it can be suggested that individuals from that cluster are egosyntonic and characterized by effective self-regulation, where the high level of internal resources is consistent with a stable personality profile.

Cluster 2. Gorillas. Results in this cluster made it possible to identify a profile with a low level of resources (especially of very low S-C), agreeableness and extraversion. High results in all elements of emotionality (with the highest level in anxiety and the lowest in sentimentality) and an average level of social boldness combined with a very low level of social self-esteem and flexibility, both psychological and cognitive, can indicate the advantage of (negative) affect over the cognitive and behavioural aspect of interpretation of events. It leads to a certain paradox: low social self-esteem combined with emotionality and, at the same time, the presence of social boldness, which – with the lack of both internal resources and resources for interpersonal relations – can lead to conflicts and frustrations.

Cluster 3. Sheep. The results in this cluster were focused mostly on average, with several deviations. What was indicated was a lower level of social boldness and E-R linked with an increased level of all the elements of emotionality and two elements of agreeableness (gentleness and flexibility). It can be assumed that individuals from this cluster were characterized by decreased activity and ambiversion that are consistent with increased gentleness, anxiety and decreased assertiveness. It seems that average results in sociability, social self-esteem, patience and P-F may constitute a core aspect of the functioning of individuals from this cluster, and S-C, the resource with the highest level of intensification, may have a highly adaptive nature, being linked with an accepting attitude towards the neurotic traits present.

4.3. Quality of life amongst Elephants, Gorillas and Sheep in its varied aspects

To compare different aspects of quality of life in regard of the personality type as combined with resources, the Kruskal-Wallis ANOVA analysis was conducted. The results are presented in Table 5 included in Appendix 2.

A multiple comparative analysis indicated a statistically significant ($p < 0.001$) difference among Elephants, Sheep and Gorillas in every studied area, namely: quality of life: $Z = 7.73$; $Z = 5.82$; subjective sphere: $Z = 7.49$; $Z = 3.67$; psychophysical sphere: $Z = 7.99$; $Z = 4.33$; psychosocial sphere: $Z = 5.34$; $Z = 5.49$; metaphysical sphere: $Z = 3.63$; $Z = 4.35$; life satisfaction: $Z = 6.64$; $Z = 4.60$. Gorillas scored the lowest in every studied area, in turn the results obtained by Elephants and Sheep were relatively similar, and the lack of statistically significant differences between these two clusters was noted in the following spheres: generalized quality of life and life satisfaction. It would indicate that two clusters of egosyntonic nature – where the first was active and characterized by high level of resources and the second was passive and emotional but with adaptive structure of resources (S-C in particular) – exhibited a higher level of quality of life as compared with the egodystonic cluster where, apart from

neurotic and passive-aggressive personality structure, there were no resources making it possible to compensate for adaptive difficulties.

5. Discussion

On the basis of the results obtained, it can be assumed that all three resources exhibit a significant relationship with personality traits and facets, fulfilling a similar regulative function for the individual. It was indicated that S-C, E-R and P-F showed significant positive correlations with extraversion and agreeableness and negative ones with emotionality (neuroticism), which confirms previous research in that area. E-R was the only resource that showed significant correlations with openness to experience and two domains of conscientiousness, diligence and perfectionism. This may support the idea that the nature of E-R is more behavioural-orientated compared to S-C and P-F, with more focus on commitment to action and search for new opportunities, and non-acceptance of the status quo and lesser focus on affective experiences.

Psychological flexibility, being least dependent on personality (34% of explained variance), may be considered as the most, *nomen omen*, flexible and involving the greatest opportunities for development or change. On the one hand, it results from a low level of prediction on the side of relatively stable personality structure, on the other – from the very theoretical assumption of the construct referring to the constant readiness to adapt to and interact with the changing environment. As a result, it seems that in its context, the cognitive component assuming constant interpretation and restructuring is of key importance. In turn, self-compassion, explained most strongly by personality structure (53% of variance), seems to be the most fixed and difficult to modify, being associated mostly with affective sphere (with *sense* of self-compassion, not *attitude* assuming compassion towards oneself). This would result from the internal nature of S-C and the deeper, more emotive level of influence of this resource. Ego-resiliency, explained by personality structure in 37%, seems to be the resource which is most strongly linked to behavioural functioning of the individual focused on “here and now”. This is consistent with the definition of resilience, assuming engagement and activity (Block & Block, 1980), taking into account also the processual nature and development over time (Bonanno, 2004). All three studied resources are defined as trainable, but from the point of view of the individual the effort and time put into their development vary – possibly because of the individual differences and basic qualifications of the individual.

Despite the similar and thoroughly proven regulative function in the context of improving quality of life and reducing stress, depression or anxiety (Aldrich, 2012; Hayes et al., 1999), this analysis makes it possible to distinguish in a basic way the traits and determinants of these three resources. It must be emphasised that personality is a relatively stable (cf. Hoopwood & Bleidorn, 2018), although complex and dynamic (cf. Asendorpf, 2017), structure, and that the discussed resources are to work in its favour – not against it. This, in turn, leads to a highly applicable conclusion, namely that during their development (especially in the case of S-C), one should take into account the personality structure of the given individual – since the function of the studied resources is quite similar, it is worth starting with the development of the elements that will be least strongly conditioned by one's personality (especially during short-term interventions with no time for insightful work on deep cognitive schemas).

The three clusters identified overlapped with the models by Asendorpf (1999) and Robins (1996) in terms of personality structure.

Highly emotional Gorillas characterized by low social competences (what seems especially interesting is the low self-esteem combined with above-average social boldness) and a scarce level of agreeableness, displaying a low level of all resources, would fit into the under-controlled type, not only because of the personality constellation but also due to the lack of the ability to cope. In turn, the overcontrolled type characterized by high emotionality and ambivalence, and above-average agreeableness, matches the Sheep that additionally exhibited average S-C and P-F and low E-R, which can be explained by the advantage of affect and cognitive nature over the behaviour of such individuals. In such an approach, the Elephants could be of the resilient type: with balanced emotionality, social self-esteem, average agreeableness (including high patience), and having at their disposal also an above-average level of internal resources (where the S-C is the strongest of all three resources).

It may seem that both Gorillas and Sheep bear high costs in the context of emotion regulation which should be of importance for their well-being. Elephants scored significantly highest in general quality of life, the psychophysical sphere and life satisfaction. However, the results obtained indicate that on several scales of quality of life Sheep get results similar or higher (in the psychosocial and metaphysical spheres) than the resilient Elephants (who scored significantly higher in the autonomous, subjective sphere), while Gorillas obtain low results. It seems that even average S-C and P-F levels can act as a buffer between neuroticism and quality of life, especially in the areas of spiritual and relational values.

6. Limitations and further research perspectives

It must be emphasised that in this research it was not taken into account whether the studied individuals exhibited psychopathology or how it may have affected their resources. The results obtained made it possible to determine further directions, both in terms of research and practice. It seems that it would be crucial to verify the functioning of the resources in a controlled randomized sample of patients of defined characteristics, where emphasis would be put not only on the ‘input’ level of resources but also on the personality structure of the respondents. Given the fact that the resources change over time, it seems important to verify their relationships with personality traits in a longitudinal study, involving groups diversified in terms of age and culture (especially non-Western ones).

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Declaration of competing interest

No conflict of interest was identified.

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Appendix 1

Table 3

The results of regression analyses, * $p < 0.01$, ** $p < 0.05$.

	R ² fixed	F	b*	Standard error with b*	b	Standard error with b	t(372)
Self-compassion	0.42	45.963**					
Absolute term					-0.00	0.04	-0.00
Honesty/Humility			0.09	0.04	0.09	0.04	2.20*
Emotionality			-0.32	0.04	-0.32	0.04	-7.58*
Extraversion			0.40	0.04	0.40	0.04	9.86*
Agreeableness (versus anger)			0.32	0.04	0.32	0.04	7.96*
Conscientiousness			-0.01	0.04	-0.01	0.04	-0.28
Openness to experience			-0.01	0.04	-0.01	0.04	-0.38
Ego-resiliency	0.28	26.167**					
Absolute term					-0.00	0.04	-0.00
Honesty/Humility			0.12	0.05	0.12	0.05	2.48*
Emotionality			-0.20	0.05	-0.20	0.05	-4.41*
Extraversion			0.34	0.04	0.34	0.05	7.62*
Agreeableness (versus anger)			0.09	0.04	0.09	0.04	1.95
Conscientiousness			0.04	0.04	0.04	0.04	0.83
Openness to experience			0.26	0.04	0.26	0.04	5.97*
Psychological flexibility	0.20	16.679**					
Absolute term					0.00	0.04	0.00
Honesty/Humility			-0.15	0.05	-0.15	0.05	-3.11*
Emotionality			0.36	0.05	0.36	0.05	7.31*
Extraversion			-0.20	0.05	-0.20	0.05	-4.33*
Agreeableness (versus anger)			-0.13	0.05	-0.13	0.05	-2.74*
Conscientiousness			-0.10	0.05	-0.10	0.05	-2.23*
Openness to experience			0.09	0.05	0.09	0.05	1.95

Appendix 2

Table 5

Comparisons of various aspects of well-being in three clusters: Elephants ($N = 131$), Gorillas ($N = 99$) and Sheep ($N = 149$). ANOVA Kruskal-Wallis H test.

	H	Rank sum	Mean rank	p
Life satisfaction	44.98 (2)			<0.001
Elephants		29,821.50	227.64 ^a	
Gorillas		12,949.50	130.80 ^b	
Sheep		29,239.00	196.23 ^a	
General quality of life	62.34 (2)			<0.001
Elephants		30,303.00	231.32 ^a	
Gorillas		11,734.50	118.53 ^b	
Sheep		29,972.50	201.16 ^a	
Subjective sphere	56.98 (2)			<0.001
Elephants		31,566.50	240.96 ^a	
Gorillas		13,041.00	131.73 ^b	
Sheep		27,402.50	183.91 ^c	
Psychophysical sphere	64.22 (2)			<0.001
Elephants		31,717.50	242.12 ^a	
Gorillas		12,429.00	125.54 ^b	
Sheep		27,863.50	187.00 ^c	
Psychosocial sphere	37.15 (2)			<0.001
Elephants		27,558.00	210.37 ^a	
Gorillas		13,108.50	132.41 ^b	
Sheep		31,343.50	210.36 ^a	
Metaphysical sphere	20.83 (2)			<0.001
Elephants		26,250.00	200.38 ^a	
Gorillas		14,587.50	147.35 ^b	
Sheep		31,172.50	209.21 ^a	

Note: a, b, c – indicators of differences and similarities between subgroups; the same letter indicates that groups do not differ significantly, different letters indicate statistically significant differences between groups, $p < 0.05$.

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