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## Pilot Test of the Growth Resources Questionnaire

### Abstract

In this paper, the results of a pilot test of a new diagnostic tool are presented. *The Growth Resources Questionnaire* (its Polish version) was developed on the basis of the Growth Resources Model – a new theoretical concept dedicated to grasping the key psychosocial resources responsible for personal development and flourishing (Pasowicz, 2017, in this volume). The questionnaire consists of three scales: *The Positive Autonomy Scale*, *The Positive Belonging Scale*, and *The Positive Emotionality Scale*. The questionnaire was tested on a sample of 304 subjects and its most important psychometric properties are presented and discussed. Finally, conclusions are drawn and further developments of the tool are outlined.

**Key words:** resources, autonomy, belonging, emotions, questionnaire.

### Badanie pilotażowe Kwestionariusza Zasobów Rozwoju

#### Streszczenie

W artykule zaprezentowane są wyniki pilotażu nowego narzędzia diagnostycznego. Kwestionariusz Zasobów Rozwoju został opracowany na podstawie Modelu Zasobów Rozwoju – nowej koncepcji teoretycznej opisującej kluczowe psychospołeczne zasoby odpowiedzialne za osobisty rozwój oraz rozkwit (Pasowicz, 2017, w tym tomie). Kwestionariusz składa się z trzech skal: Skali Pozytywnej Autonomii, Skali Pozytywnej Przynależności oraz Skali Pozytywnej Emocjonalności. Narzędzie zostało przetestowane z udziałem grupy 304 osób i przedstawione są jego najważniejsze właściwości psychometryczne. Zaprezentowano także najważniejsze wnioski płynące z pilotażu oraz sugestie co do kierunków rozwoju narzędzia w przyszłości.

**Słowa kluczowe:** zasoby, autonomia, przynależność, emocje, kwestionariusz

### Introduction

#### What makes us flourish?

For many years psychology was dominated by a deficits-oriented paradigm (Seligman & Csikszentmihalyi, 2000). The issues of what exactly positive psychological functioning (understood as something more than simply a lack of disorders) is and

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what factors make people function well are still very important questions for academic psychology. Thanks to a considerably recent increase of research in this field, we can now formulate some well-researched answers to these questions.

Keyes (2002), who understands mental health as a continuum from mental disorders to flourishing, defines psychological well-being in terms of subjective satisfaction in three important spheres of functioning: psychological, social, and emotional. Elements that should be taken into account when testing psychological functioning consist of: self-acceptance, positive relations with others, personal growth, purpose in life, environmental mastery, and autonomy. Good social functioning means experiencing social coherence, social actualization, social integration, social acceptance, and social contribution. Finally, emotional well-being is understood as “a cluster of symptoms reflecting the presence or absence of positive feelings about life” (Keyes, 2002: 208).

*Resilience/ego-resiliency* is an important concept trying to answer the question of what makes people function well in face of adversity (Luthar, Cicchetti & Becker, 2000; Charney, 2004; Heszen & Sęk, 2007). Usually it is understood in two ways: as the process of resilience or as ego-resiliency. In the process of resilience there are some risk factors that influence a person (examples of such factors can be: low economic and social status, addictions and mental disorders in family, or disabilities). This influence is balanced by buffer factors like high self-esteem, a sense of self-efficacy (individual characteristics), family cohesion and warmth, close relations (family characteristics), a good-functioning school or having a mentor (external factors). As a result of this, the person functions well despite the adversity (Borucka & Ostaszewski, 2008).

Ego-resiliency is understood not as the process of interacting both internal and external factors, but as personal characteristics that allow a person to overcome adversity. To give some examples of such characteristics – a resilient person might interpret stressful events as challenges and think of them as a normal part of life, believe they can have impact on their life and the reality around them, and have stable and positive emotions etc. (Semmer, 2006; Ogińska-Bulik & Juczyński, 2008).

Finally, Deci & Ryan (2008) add an important, motivational element in the pursuit of flourishing factors. According to their Self-Determination Theory (SDT), people have three basic, culturally universal needs: the need for autonomy, competence, and relatedness. If these three basic needs are fulfilled, people develop the most functional type of motivation – internal, or intrinsic, motivation. This in turn influences their well-being and life-satisfaction (obviously in a positive manner).

These three concepts – the dimensions of flourishing described by Keyes, resilience/ego-resiliency, and the Self-Determination Theory – are some of the most important theories answering the questions presented at the beginning of this section: what does it mean to function well (apart from the absence of disorders), and what factors make us function well? The Growth Resources Model is another concept that may provide us with some important insights into these issues.

### **Growth Resources Model (GRM)**

The Growth Resources Model was developed in order to grasp the key psychosocial resources helping us develop towards the positive end of the mental health continuum (Pasowicz, 2017). The model consists of three major components: positive autonomy, positive belonging, and positive emotionality.

Positive autonomy is defined as a set of key psychosocial resources allowing the individual to cope with reality in a constructive way and to achieve important goals. Positive belonging is defined as a set of key psychosocial resources allowing the individual to build and sustain constructive and satisfactory relations with other people. Finally, positive emotionality is indicated by a dominance of positive emotions over negative emotions in our personal experience (Pasowicz, 2017).

The GRM is based on three most important theoretical and empirical sources: on the non-specific development factors (Brzezińska, 2005; Brzezińska, Kaczan, Piotrowski & Rycielski, 2008), the psychosocial theory of development (Erikson & Erikson, 2013), and on research indicating the importance of positive emotions (Fredrickson, 1998; 2001; 2003; 2013; Fredrickson & Branigan, 2005; Fredrickson, Mancuso, Branigan & Tugade, 2000).

According to Brzezińska (2005; Brzezińska et al., 2008), in order to develop well, people need two sets of factors: the first may be called *autonomy factors* (a sense of self-efficacy and personal control over what is happening around us, and a sense of autonomy in decision-making and in achieving goals), and the second – called *belonging factors* (a sense of security in relations with others, and a sense of good emotional contact with others, a bond, and a feeling of belonging to someone). According to Brzezińska (2005; Brzezińska et al., 2008), not only the level of these factors is important for people's functioning, but also the balance of these two sets of factors. The GRM follows this pattern of two interconnected 'lungs' of development factors, with positive autonomy and positive belonging as the two most important dimensions of the model.

In her concept of the non-specific development factors, Brzezińska<sup>2</sup> defines the psychosocial qualities following the theory of psychosocial development by Erikson (Erikson & Erikson, 2013). That is why the GRM also incorporates the psychosocial qualities described by Erikson (Erikson & Erikson, 2013), but its dimensions include more characteristics than the non-specific development factors. How the qualities presented by Erikson (Erikson & Erikson, 2013) translate into the GRM is presented in detail in Table 1.

Finally, the positive emotionality dimension is based on the growing literature and research on the adaptive importance of positive emotions, with Barbara Fredrickson as one of the leading researchers in this field (Fredrickson, 1998, 2001, 2003, 2013; Fredrickson & Branigan, 2005; Fredrickson et al., 2000). Positive emotions found their place in the GRM also because we can hypothesize about their relation with positive autonomy (Fredrickson, 2013) and positive belonging (Gross,

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1999; Heinrichs, Baumgartner, Kirschbaum & Ehlert, 2003; Ochsner & Gross, 2010) in the form of positive feedback loops.

In order to empirically verify the structure and basic assumptions of the GRM, the Growth Resources Questionnaire was created and tested. The questionnaire may become an important tool for practitioners wanting to help their clients or patients develop and flourish, and also for scientist who are interested in exploring the issue of moving towards the positive end of the mental health continuum.

The questionnaire was tested on a group of 304 subjects, and its basic psychometric parameters, including factor analysis, are presented later in this paper. The questionnaire was also compared with the Polish version of the Mental Health Continuum – Short Form.

## **Growth Resources Questionnaire (GRQ)**

### **Structure of the questionnaire**

The Growth Resources Questionnaire consists of three major scales: the Positive Autonomy Scale, Positive Belonging Scale, and Positive Emotionality Scale. Each of these scales consists of 30 items with a 5-point Likert scale for each item.

The Positive Autonomy Scale and the Positive Belonging Scale consist of simple statements, and a participant declares to what degree each of the statements applies to them ('definitely not', 'rather not', 'hard to say', 'rather yes', and 'definitely yes'). Scoring is very simple – 'definitely not' is 1 point, 'rather not' is 2 points, and so forth up to 5 points for 'definitely yes'. Some of the statements are formulated as negative, and so they have a reversed scoring.

A base of items intended to measure psychosocial resources depicted by Erikson (Erikson & Erikson, 2013) was created, and they were verified by competent judges in terms of how well they represent the resources, and how easy it would be to understand them. Next, 60 items were chosen and are presented in Table 1.

As it might be seen in Table 1, there are 8 stages of psychosocial development singled out by Erikson. In every stage, people face a developmental crises in which they struggle with two opposite forces (i.e. basic trust vs. basic mistrust, or integrity vs. despair and disgust). If they overcome a crisis in a constructive way, people develop a virtue (i.e. hope and wisdom). Each virtue plays an important role in the developmental stages that follow (Erikson & Erikson, 2013).

In the Growth Resources Questionnaire each stage of development is represented by 6 or 7 items, and two stages (number 2 and 6) are represented by 10 items. These stages provide more items in the GRQ, because they most clearly correspond with the non-specific development factors presented earlier in this paper (Brzezińska 2005; Brzezińska et al., 2008).

As the reader might notice, the author decided to name the resources differently than Erickson. The reason for this is threefold: 1) in order to depart from Erickson's virtue names that may seem a bit old-fashioned for modern psychologists; 2) to use terms that are presently used in academic psychology, and 3) to make the autonomy/belonging distinction more clear. Table 2 presents the resources divided into the tool's major scales.

Table 1. Psychosocial resources of the GRM and items intended to measure them

Stage of development	Psychosocial Resources by Erikson	Items	Category of resources in the GRM	Scale	Number of items
I	Hope, basic trust vs. basic mistrust	I think that my future will be good I can't see future for myself After difficult experiences always comes solace I often feel despair I think that people can be trusted I think that people are good	Hope Hope Hope Hope Positive attitude towards others Positive attitude towards others	A* A A A B** B	6
II	Will, autonomy vs. shame and doubt	I consider myself a disciplined person I usually bring things to an end I can be decisive I'm an independent person I often let others decide for me I think that my future depends primarily on me What is happening around me depends on me I can't accept myself I consider myself a valuable person I'm not ashamed of my body	Initiative and perseverance Initiative and perseverance Independence and leadership Independence and leadership Independence and leadership A sense of personal control A sense of personal control Self-esteem Self-esteem Confidence and self-esteem in social context	A A A A A A A A A B	10
III	Purpose, initiative vs. guilt	My life has a meaning I take different actions to achieve goals important to me I'm lazy I have leadership skills In a group I often take the role of a leader I'm a confident person	A sense of meaning (or purpose) Initiative and perseverance Initiative and perseverance Independence and leadership Independence and leadership Confidence and self-esteem in social context	B A A A A B	6
IV	Competence, industry vs. inferiority	I trust my abilities I consider myself a competent person in the areas I'm involved in I consider myself an intelligent person I think I have many different talents I can deal with unexpected problems I feel inferior to others I feel that other people don't respect me	A sense of self-efficacy, competence, and ability A sense of self-efficacy, competence, and ability A sense of self-efficacy, competence, and ability A sense of self-efficacy, competence, and ability A sense of self-efficacy, competence, and ability Confidence and self-esteem in social context Assertiveness and personal borders	A A A A A B B	7

V	Fidelity, identity vs. identity confusion	<p>I'm faithful to my partner</p> <p>I'm loyal to people close to me</p> <p>I have my own path in life</p> <p>I know what I like and what not</p> <p>I have my own life style</p> <p>I know what is most important to me</p> <p>I can't answer the question of who I am</p>	<p>Fidelity</p> <p>Fidelity</p> <p>Well-developed personal identity</p> <p>Well-developed personal identity</p> <p>Well-developed personal identity</p> <p>Well-developed personal identity</p>	<p>B</p> <p>B</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p> <p>A</p>	7
VI	Love, intimacy vs. isolation	<p>I think that I can love another person</p> <p>I have close friends</p> <p>I feel embarrassed when someone shows me affection</p> <p>I can't stand long in a close relationship with one person</p> <p>I feel lonely</p> <p>I can only count on myself</p> <p>I feel that in a close relationship I lose my individuality</p> <p>I'm afraid that when I fall in love, I will "lose my head"</p> <p>I can express my opinion without offending others</p>	<p>Positive relations with others</p> <p>Positive relations with others</p> <p>Positive relations with others</p> <p>Positive relations with others</p> <p>Positive relations with others</p> <p>Positive relations with others</p> <p>A sense of individuation</p> <p>A sense of individuation</p> <p>Assertiveness and personal borders</p>	<p>B</p> <p>B</p> <p>B</p> <p>B</p> <p>B</p> <p>B</p> <p>B</p> <p>B</p> <p>B</p>	10
VII	Care, generativity vs. stagnation	<p>There are many things that I care about</p> <p>I like taking care of other people</p> <p>Doing everything only for myself would be meaningless</p> <p>It's important to me to leave something behind in this world</p> <p>I have different roles in my life</p> <p>I still have new plans and dreams</p> <p>In every situation I want to compete with others</p> <p>I never give up to others</p>	<p>A sense of positive contribution to society</p> <p>A sense of positive contribution to society</p> <p>A sense of positive contribution to society</p> <p>A sense of positive contribution to society</p> <p>A sense of positive contribution to society</p> <p>Initiative and perseverance</p> <p>Ability to cooperate with others</p> <p>Ability to cooperate with others</p>	<p>B</p> <p>B</p> <p>B</p> <p>B</p> <p>B</p> <p>A</p> <p>B</p> <p>B</p>	7
VIII	Wisdom, integrity vs. despair and disgust	<p>I have a big knowledge</p> <p>When I look back on my life, I'm proud of myself</p> <p>When I look back on my life, I feel grateful to others</p> <p>I often criticise others</p> <p>You can learn something important from everybody</p> <p>People get on my nerves</p> <p>The world makes no sense</p>	<p>A sense of self-efficacy, competence, and ability</p> <p>Self-esteem</p> <p>Positive attitude towards others</p> <p>Positive attitude towards others</p> <p>Positive attitude towards others</p> <p>Positive attitude towards others</p> <p>A sense of meaning (or purpose)</p>	<p>A</p> <p>A</p> <p>B</p> <p>B</p> <p>B</p> <p>B</p> <p>B</p>	7

\* Positive Autonomy Scale; \*\* Positive Belonging Scale

‘A’s and ‘B’s in the fifth column indicate if a particular item was classified as part of the Positive Autonomy Scale or the Positive Belonging Scale. Items in the PAS represent resources necessary to reach important life goals and they represent the abilities to govern ourselves, sometimes against our surroundings. Items in the PBS represent resources necessary to build and nourish relationships with others and are more connected with being a part of a bigger, social whole. To what degree the decisions to classify the items to the PAS or to the PBS were accurate will be shown by the factor analysis presented later in this paper.

Table 2. Resources divided into the positive autonomy & belonging scales

Positive Autonomy Scale	Positive Belonging Scale
1. A sense of self-efficacy, competence, and ability	1. A sense of meaning (or purpose)
2. Hope	2. Fidelity
3. Initiative and perseverance	3. Positive attitude towards others
4. Independence and leadership	4. Positive relations with others
5. A sense of personal control	5. A sense of positive contribution to society
6. Self-esteem	6. Confidence and self-esteem in social context
7. Well-developed personal identity	7. A sense of individuation
	8. Assertiveness and personal borders
	9. Ability to cooperate with others

Since the balance of autonomy and belonging resources is important (Pasowicz, 2017), by combining the results of the positive autonomy and belonging scales, we can place each participant in one of the four major sets of results presented in Figure 1. Obviously, we can also score autonomy & belonging together

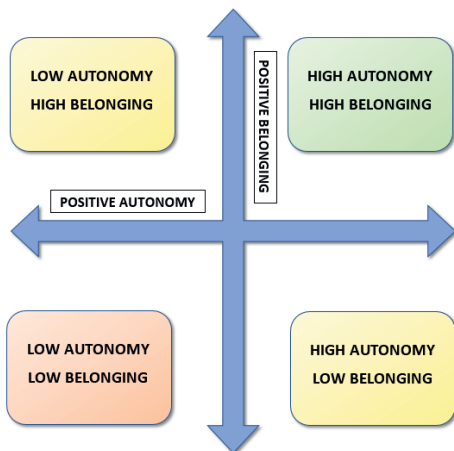


Figure 1. Possible sets of results in Positive Autonomy and Positive Belonging Scales

The Positive Emotionality Scale is somehow different. It also consists of 30 items, but they are not statements, but names of emotions – 15 positive and 15 negative. A participant declares the frequency of experiencing each of the emotions within the last month: ‘very rarely’ (1 point), ‘rarely’ (2 points), ‘hard to say’ (3 points), ‘often’ (4 points), and ‘very often’ (5 points). The list of emotions consists of the basic emotions presented by Ekman (1992), the selected emotions from Plutchik’s psycho-evolutionary theory (Plutchik, 1980; Jarymowicz & Imbir, 2010), and other emotions added as the ones often experienced in our daily life and deemed psychologically important. The decision which emotions to include in the scale was made by competent judges. A full list of the emotions in the Positive Emotionality Scale is presented in Table 3.

Table 3. List of emotions in the Positive Emotionality Scale

Positive emotions	Negative emotions
1. Joy	1. Fear
2. Acceptance	2. Disgust
3. Hope	3. Spite
4. Love	4. Anger
5. Happiness	5. Sadness
6. Admiration	6. Disappointment
7. Pride	7. Despair
8. Curiosity	8. Contempt
9. Delight	9. Anxiety
10. Pleasure	10. Grief
11. Trust	11. Mistrust
12. Fulfilment	12. Hurt
13. Surprise	13. Submission
14. Anticipation	14. Remorse
15. Calmness	15. Surrender

In the Positive Emotionality Scale we are able to calculate a series of indicators. We can calculate the intensity of positive and negative emotions separately, the emotional balance (positive emotions minus negative), the positive versus negative emotions ratio, and also the general intensity of emotions experienced (positive plus negative emotions). Results on this scale may be placed in one of the four categories similar to those presented in the part about positive autonomy and belonging. These categories are as presented in Figure 2.

Similarly to the way autonomy and belonging are understood, positive and negative emotions form two related, but to some extent separated dimensions. This view of positive and negative affects seems to be empirically supported (Watson, Wiese, Vaidya & Tellegen, 1999; Larsen, McGraw & Cacioppo, 2001; Reich, Zautra & Davis, 2003). It is optimal when a person experiences 1) a high level of positive emotions combined with a rather low level of negative emotions at the ratio of



approximately 3:1 (top left). According to the chart presented, other possible sets of results are as follows: 2) high levels of both positive and negative emotions (top right); 3) a low level of positive and a high level of negative affect (bottom right) – the most destructive combination; and 4) low levels of both positive and negative emotions (bottom left).

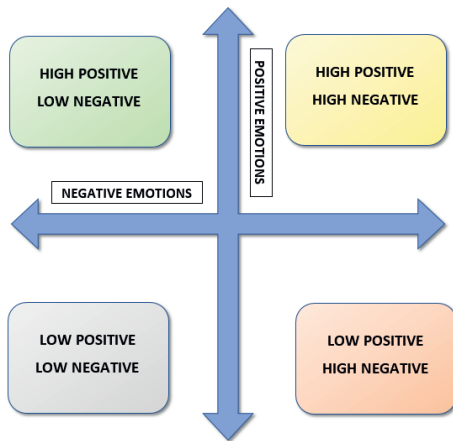


Figure 2. Possible sets of results in the Positive Emotionality Scale

**Basic psychometric properties of the questionnaire**

In order to perform a pilot test of the questionnaire, it was tested on a group of 304 subjects (49 men and 255 women). The participants were students with a secondary education and young working adults with academic degrees (174 and 130 respectively). The age of the participants varied from 17 to 37, with a mean of 22.8. Data analysis was performed with STATISTICA 13 software.

Basic psychometric properties of the three major scales – the Positive Autonomy Scale, the Positive Belonging Scale, and the Positive Emotionality Scale – are presented in Table 4. In the Positive Emotionality Scale, correlations of particular items and Cronbach’s Alphas were measured in relation to positive emotions and negative emotions separately, since it would be pointless to calculate these parameters for positive and negative emotions together. The potential range for each item is 1 to 5.

Table 4. Basic psychometric properties of the GRQ scales

Positive Autonomy Scale (Cronbach’s Alfa = .91)	<i>M</i>	<i>SD</i>	Skew	Correlation with the scale	Cronbach’s Alpha if eliminated
1. I trust my abilities	3.73	0.89	-0.74	.64	.901
2. I can’t see future for myself	4.36	0.9	-1.49	.61	.902
3. I’m lazy	2.93	1.16	0.04	.42	.905
4. I have leaderships skills	3.34	1.11	-0.32	.48	.904
5. What is happening around me depends on me	3.77	0.79	-0.62	.44	.905

6. I can't accept myself	3.7	1.22	-0.66	.56	.903
7. I can't answer the question of who I am	3.8	1.13	-0.81	.53	.903
8. I consider myself a competent person in the areas I'm involved in	3.82	0.87	-0.83	.58	.902
9. I think that my future will be good	4.07	0.76	-0.57	.57	.903
10. I usually bring things to an end	3.88	0.89	-0.84	.41	.905
11. In a group I often take the role of a leader	3.11	1.14	-0.09	.41	.906
12. I think that my future depends primarily on me	4.04	0.81	-0.81	.34	.906
13. I consider myself a valuable person	4.27	0.83	-1.16	.67	.901
14. I have my own path in life	4.04	0.87	-0.7	.56	.903
15. I can deal with unexpected problems	3.83	0.71	-0.41	.52	.904
16. I often feel despair	3.56	1.11	-0.52	.5	.904
17. I take different actions to achieve goals important to me	4.16	0.8	-0.92	.53	.903
18. I can be decisive	4.05	0.87	-1.05	.39	.905
19. When I look back on my life, I'm proud of myself	3.45	1.05	-0.3	.51	.903
20. I know what is most important to me	4.04	0.93	-0.88	.47	.904
21. I think I have many different talents	3.8	0.97	-0.76	.52	.903
22. After difficult experiences always comes solace	3.76	0.95	-0.65	.42	.905
23. I consider myself a disciplined person	3.3	1.14	-0.29	.3	.908
24. I often let others decide for me	3.65	1.01	-0.59	.44	.905
25. I know what I like and what not	4.41	0.62	-0.73	.41	.905
26. I consider myself an intelligent person	4.24	0.69	-0.59	.52	.904
27. I still have new plans and dreams	4.05	0.92	-0.8	.33	.907
28. I'm an independent person	3.63	0.95	-0.37	.41	.905
29. I have my own life style	4.28	0.71	-0.75	.45	.905
30. I have a big knowledge	3.63	0.81	-0.35	.49	.904

<b>Positive Belonging Scale (Cronbach's Alfa = .86)</b>	<b><i>M</i></b>	<b><i>SD</i></b>	<b>Skew</b>	<b>Correlation with the scale</b>	<b>Cronbach's Alpha if eliminated</b>
1. The world makes no sense	4.22	1.05	-1.22	.57	.854
2. I'm faithful to my partner	4.44	0.89	-1.51	.41	.858
3. I think that people can be trusted	3.44	1	-0.49	.48	.856
4. I feel lonely	3.43	1.23	-0.35	.57	.853
5. I like taking care of other people	4.25	0.81	-1.08	.41	.858
6. I feel inferior to others	3.7	1.16	-0.76	.5	.855
7. I feel that in a close relationship I lose my individuality	3.81	1.16	-0.63	.43	.857
8. I feel that other people don't respect me	3.76	1.16	-0.64	.45	.857
9. In every situation I want to compete with others	3.75	1.11	-0.7	.22	.863

10. My life has a meaning	4.1	1	-1.06	.66	.852
11. I'm loyal to people close to me	4.55	0.61	-1.21	.41	.859
12. People get on my nerves	2.92	1.14	0.03	.5	.855
13. I have close friends	4.42	0.79	-1.49	.44	.858
14. I have different roles in my life	4.25	0.75	-0.92	.35	.86
15. I'm a confident person	3.28	1.12	-0.41	.4	.858
16. I can express my opinion without offending others	4.18	0.73	-0.66	.29	.861
17. I never give up to others	3.82	0.92	-0.47	.24	.862
18. I think that people are good	3.66	0.92	-0.6	.46	.857
19. I can only count on myself	3.64	1.12	-0.51	.42	.858
20. There are many things that I care about	4.08	0.8	-1.01	.27	.861
21. I'm not ashamed of my body	3.17	0.27	-0.29	.34	.86
22. I'm afraid that when I fall in love, I will "lose my head"	3.75	0.38	-0.84	.34	.861
23. When I look back on my life, I feel grateful to others	3.89	1.02	-0.93	.38	.859
24. I can't stand long in a close relationship with one person	4.04	1.12	-0.97	.4	.858
25. Doing everything only for myself would be meaningless	2.92	1.52	0.08	.07	.871
26. I often criticise others	3.21	1.09	-0.05	.4	.858
27. I think that I can love another person	4.46	0.82	-1.72	.42	.858
28. It's important to me to leave something behind in this world	4.18	1.03	-1.35	.21	.863
29. You can learn something important from everybody	4.29	0.83	-1.29	.31	.861
30. I feel embarrassed when someone shows me affection	3.63	1.18	-0.52	.51	.855

Positive emotions (Cronbach's Alfa = .84)	<i>M</i>	<i>SD</i>	Skew	Correlation with the scale	Cronbach's Alpha if eliminated
1. Joy	3.97	0.91	-0.71	.65	.825
2. Acceptance	3.8	0.97	-0.62	.62	.826
3. Hope	3.79	0.99	-0.75	.35	.84
4. Love	3.89	0.13	-0.81	.48	.833
5. Happiness	3.84	0.02	-0.62	.73	.819
6. Admiration	3.34	0.16	-0.33	.49	.832
7. Pride	3.11	0.1	-0.22	.5	.832
8. Curiosity	4.07	0.98	-0.94	.45	.835
9. Delight	2.96	1.21	-0.06	.58	.826
10. Pleasure	3.92	0.89	-0.86	.65	.825
11. Trust	3.78	1.05	-0.15	.51	.831

12. Fulfilment	3	1.22	0.29	.61	.825
13. Surprise	2.75	1.03	0.11	.09	.854
14. Anticipation	3.67	1.08	-0.86	.07	.856
15. Calmness	3.31	1.07	-0.29	.37	.84

Negative emotions (Cronbach's Alfa = .9)	M	SD	Skew	Correlation with the scale	Cronbach's Alpha if eliminated
1. Fear	2.88	1.17	0.11	.55	.895
2. Disgust	1.82	1	1.22	.47	.897
3. Spite	3.26	1.21	-0.28	.56	.894
4. Anger	2.86	1.19	0.21	.57	.894
5. Sadness	3.26	1.14	-0.11	.64	.891
6. Disappointment	2.58	1.19	0.34	.66	.89
7. Despair	1.9	1.19	1.18	.73	.888
8. Contempt	1.76	1.07	1.42	.47	.897
9. Anxiety	2.96	1.28	-0.06	.62	.892
10. Grief	2.43	1.23	0.42	.67	.89
11. Mistrust	2.42	1.33	0.75	.52	.896
12. Hurt	2.23	1.26	0.69	.62	.892
13. Submission	1.72	1.07	1.31	.56	.894
14. Remorse	2.48	1.23	0.44	.46	.898
15. Surrender	2.02	1.18	0.84	.58	.893

*The Positive Autonomy Scale.* When we test a new psychometric tool, one of the most important parameters is Cronbach's Alpha, which measures the reliability of each scale. This parameter for the Positive Autonomy Scale is very good – it can be rounded to .91. Items that correlate with the scale strongest (at the level of approx. .6) are items no 1, 2, 8, 9, 13, and they are dedicated to measuring a sense of competency, self-esteem, and hope.

In this scale no items could be eliminated and this way make the Cronbach's Alpha even higher. Items that correlate with the entire scale at the lowest level (approx. .3) are question numbers 12, 18, 23, and 27. They might be replaced or improved in the future.

*The Positive Belonging Scale.* Although this scale has a lower Alpha, it is also at a very good level, rounded to .86. Questions that correlate strongest are item numbers 1, 4, 6, 10, 12, and 18 (correlations at the level of approx. .5 to .6), and they are dedicated to measuring a sense of meaning/purpose, positive relations with others, self-esteem in the social context, and positive attitude towards other people.

There are 3 items that could have been eliminated or changed if we wanted to improve Cronbach's Alpha for this scale. These are question numbers 9, 25, and 28. The item number 25 correlates with the scale at the level of .07, which is

unsatisfactory, and suggests changing this item or replacing it with a better one. Question number 16, 17, and 20 also correlate at a rather low level, but if reduced, they would not improve the Alpha.

*The Positive Emotionality Scale.* Finally, Cronbach's Alphas for the sub-scales measuring emotions are .84 rounded for positive emotions and .9 rounded for negative emotions. The fact that Cronbach's Alpha for these scales are so good is a positive surprise, because various emotions, even if they have the same valence (positive/negative), may represent subjective experiences of very different qualities.

The emotions of joy, acceptance, happiness, pleasure, and fulfilment correlate strongest with the entire scale of positive affect (from .62 up to .73). This may suggest that these emotions are the most representative for positive emotions.

Two emotions could be reduced in order to improve Cronbach's Alpha for positive emotions – surprise and anticipation. They correlate at a very low level of .09 and .07 respectively, which might suggest that the participants did not qualify these emotions as positive, but rather as neutral. This seems to be logical, because surprise might be both a positive experience (a surprise birthday party) and a negative one (an unexpected medical diagnosis). The same applies to anticipation – weather or not it is a positive experience probably depends on the object we anticipate. If it is something negative, we could as well experience negative affect.

As for the negative emotions, a series of them have the highest correlation levels and could be considered as the most representative for negative affect. These are: sadness, disappointment, despair, anxiety, grief, and hurt (correlations at the levels between .62 and .73). In this sub-scale there are no questions that would improve Cronbach's Alpha if eliminated.

Summing up the basic psychometric parameters of the Growth Resources Questionnaire, it is fair to say that the most common indicator of reliability – Cronbach's Alpha – is at a high and satisfactory level in all of the main scales of the questionnaire. The levels of correlations of particular items with the entire scales suggest that there are only few items that need revision or replacement.

### **Factor analysis of the questionnaire**

In order to analyse the structure of the two most important questionnaire scales – the Positive Autonomy Scale and the Positive Belonging Scale – exploratory factor analysis was performed. The results of Cattell's scree test are presented in Figure 3.

In the diagram, we can see that factor number one and factor number two have the highest eigenvalues (13.32 and 4.04 respectively), and with factor number three there begins the scree. Several factors that form the scree still have eigenvalues higher than one (from factor number three on: 2.68, 2.41, 2.1, 1.76, 1.59, 1.54, 1.4, 1.29, 1.25, 1.18, 1.10, 1.07, and 1.03). Despite the fact that a number of factors have eigenvalues higher than 1 (the Kaiser-Guttman criterion), a two-factor analysis was chosen, because 1) factors number 1 and 2 have the highest levels of eigenvalue; 2) several factors starting with factor number 3 form the Cattell's scree, which might suggest that they are redundant; 3) two-factor analysis gives the simplest

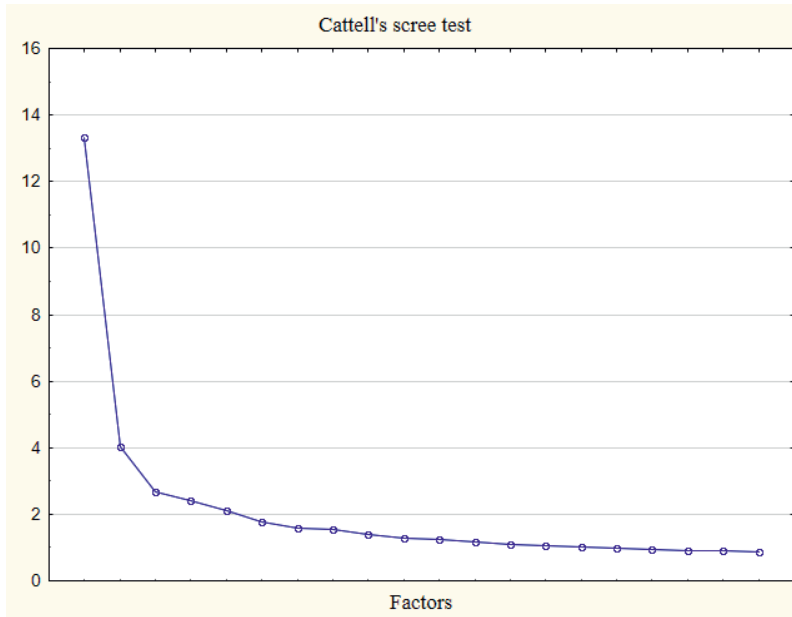


Figure 3. Cattell's scree test results for the PAS and the PBS taken together

and clearest results; 4) it corresponds well with the theory, and 5) such a solution makes most sense when we analyse the factor loadings of two-factors with varimax rotation<sup>3</sup> analysis presented below.

Table 5. Factor loadings of two-factor analysis with varimax rotation

Positive Autonomy Scale	Factor 1	Factor 2
1. I trust my abilities	<b>.647</b>	.218
2. I can't see future for myself	<b>.453</b>	<b>.531</b>
3. I'm lazy	.285	<b>.307</b>
4. I have leaderships skills	<b>.593</b>	-.004
5. What is happening around me depends on me	<b>.431</b>	.248
6. I can't accept myself	<b>.504</b>	<b>.436</b>
7. I can't answer the question of who I am	<b>.398</b>	<b>.494</b>
8. I consider myself a competent person in the areas I'm involved in	<b>.625</b>	.147
9. I think that my future will be good	<b>.458</b>	.5
10. I usually bring things to an end	.294	<b>.311</b>
11. In a group I often take the role of a leader	<b>.554</b>	-.089

<sup>3</sup> Orthogonal rotation was chosen even though the theory assumes that the positive autonomy and the positive belonging factors should be related, because at the level of exploratory analysis the goal is to verify if any structure might be identified in the data analysed. Orthogonal varimax rotation is the most sensitive rotation strategy with respect to identifying factors within a given data set.

12. I think that my future depends primarily on me	<b>.385</b>	.105
13. I consider myself a valuable person	<b>.628</b>	<b>.395</b>
14. I have my own path in life	<b>.556</b>	.267
15. I can deal with unexpected problems	<b>.514</b>	.212
16. I often feel despair	<b>.330</b>	<b>.527</b>
17. I take different actions to achieve goals important to me	<b>.483</b>	.21
18. I can be decisive	<b>.404</b>	.09
19. When I look back on my life, I'm proud of myself	<b>.411</b>	<b>.402</b>
20. I know what is most important to me	<b>.356</b>	<b>.389</b>
21. I think I have many different talents	<b>.647</b>	.055
22. After difficult experiences always comes solace	<b>.329</b>	<b>.339</b>
23. I consider myself a disciplined person	.165	.246
24. I often let others decide for me	<b>.541</b>	-.02
25. I know what I like and what not	<b>.413</b>	.176
26. I consider myself an intelligent person	<b>.637</b>	.048
27. I still have new plans and dreams	<b>.354</b>	.074
28. I'm an independent person	<b>.542</b>	-.051
29. I have my own life style	<b>.516</b>	.076
30. I have a big knowledge	<b>.639</b>	-.064
<b>Positive Belonging Scale</b>	<b>Factor 1</b>	<b>Factor 2</b>
1. The world makes no sense	.265	<b>.596</b>
2. I'm faithful to my partner	.085	<b>.456</b>
3. I think that people can be trusted	-.041	<b>.613</b>
4. I feel lonely	<b>.364</b>	<b>.508</b>
5. I like taking care of other people	.051	<b>.496</b>
6. I feel inferior to others	<b>.637</b>	<b>.308</b>
7. I feel that in a close relationship I lose my individuality	.104	<b>.458</b>
8. I feel that other people don't respect me	.295	<b>.404</b>
9. In every situation I want to compete with others	-.218	<b>.417</b>
10. My life has a meaning	.42	<b>.633</b>
11. I'm loyal to people close to me	.242	<b>.390</b>
12. People get on my nerves	.049	<b>.618</b>
13. I have close friends	.236	<b>.413</b>
14. I have different roles in my life	.287	<b>.307</b>
15. I'm a confident person	<b>.714</b>	.129
16. I can express my opinion without offending others	.214	.255
17. I never give up to others	-.293	<b>.478</b>
18. I think that people are good	-.021	<b>.592</b>
19. I can only count on myself	.037	<b>.498</b>

20. There are many things that I care about	.174	<b>.304</b>
21. I'm not ashamed of my body	<b>.353</b>	.222
22. I'm afraid that when I fall in love, I will "lose my head"	.148	<b>.345</b>
23. When I look back on my life, I feel grateful to others	.074	<b>.472</b>
24. I can't stand long in a close relationship with one person	.072	<b>.43</b>
25. Doing everything only for myself would be meaningless	.081	.051
26. I often criticise others	.022	<b>.486</b>
27. I think that I can love another person	.263	<b>.405</b>
28. It's important to me to leave something behind in this world	<b>.312</b>	.114
29. You can learn something important from everybody	.13	<b>.334</b>
30. I feel embarrassed when someone shows me affection	.24	<b>.468</b>
Factor eigenvalue	9.30	8.06
% of the variance explained	16	13

Factor loadings  $\geq 0,3$  are presented in bold-face type

As presented in Table 5, factor 1 gathers most of the Positive Autonomy Scale items (27 out of 30), and factor 2 gathers most of the Positive Belonging Scale items (25 out of 30). That is why we can identify factor 1 as *the autonomy factor*, and factor 2 as *the belonging factor*. As this is a pilot test and analysis of the first version of the Growth Resources Questionnaire, it gives us some important information on how the two basic scales of the questionnaire might be developed.

*The autonomy factor.* When we analyse factor loadings for factor 1, we can see that three items from the Positive Autonomy Scale have rather unsatisfactory loadings. These are: 3 (I'm lazy), 10 (I usually bring things to an end), and 23 (I consider myself a disciplined person). Such results might suggest that these questions do not correspond with the autonomy factor well enough, and they might be improved or eliminated in the future. Psychologically they represent perseverance (10) and discipline (3 and 23).

Several items from the Positive Belonging Scale were gathered by the autonomy factor: 4 (I feel lonely), 6 (I feel inferior to others), 10 (My life has a meaning), 15 (I'm a confident person), 21 (I'm not ashamed of my body), and 28 (It's important to me to leave something behind in this world). Other belonging items that also seem to have significant influence on the autonomy factor include: a sense of positive relations with others (4), a sense of meaning (10 and 28), and self-esteem in a social context (6, 15, and 21).

Theoretically, self-esteem was divided into two factors: one related more with personal self-esteem, and the one representing self-esteem in a social context, but factor analysis does not support such a division. Items measuring self-esteem in a social context (6, 15, and 21) correlate better with the autonomy factor than with the belonging factor.

*The belonging factor.* 5 items from the Positive Belonging Scale have unsatisfactory loadings in factor 2. These are items number 15 (I'm a confident person),



16 (I can express my opinion without offending others), 21 (I'm not ashamed of my body), 25 (Doing everything only for myself would be meaningless), and 28 (It's important to me to leave something behind in this world). As it was suggested before, it seems that items number 15, 21, and 28 correspond better with the autonomy factor.

Items number 16 (I can express my opinion without offending others) and 25 (Doing everything only for myself would be meaningless) seem to be somehow controversial to the participants, as they have rather low factor loadings with both autonomy and belonging factors, which suggest they should be revised.

A series of items from the Positive Autonomy Scale correlate well with both autonomy and belonging factors. These are items number 2 (I can't see a future for myself), 6 (I can't accept myself), 7 (I can't answer the question of who I am), 9 (I think that my future will be good), 13 (I consider myself a valuable person), 16 (I often feel despair), 19 (When I look back on my life, I'm proud of myself), 20 (I know what is most important to me), and 22 (After difficult experiences always comes solace). These items are intended to measure hope (2, 9, 16, 22), self-esteem (6, 13, 19), and a well-developed personal identity (7, 20), and the results suggest that these psychosocial competencies are related to both autonomy and belonging. Hope is also a part of the positive emotions list, so it is possible to eliminate it from the positive autonomy and belonging scales.

The complex and inter-related theoretical structure of the two most important scales measuring positive autonomy and positive belonging produces some difficulties when we want to perform factor analysis of the GRQ, as quite a few factors have eigenvalues above 1. At the same time, the theoretical assumption that the tool consists of two major factors – autonomy and belonging – seems to find its empirical support: two-factor analysis stays more or less consistent with this theory and provides meaningful information.

Factor analysis also provides us with valuable information on how the questionnaire might be improved in the future. Since it seems that autonomy and belonging factors overlap one another to a certain degree, it seems justified to develop the tool in such a way that these two dimensions form more separate and independent components. It is especially important if we want to measure the balance of these two psychosocial elements.

The factor analysis presented also suggests that it is better to develop a two-factor based model instead of developing an entire profile with multiple factors, because in Cattell's scree test, two factors have significantly higher eigenvalues than the other ones, and two-factor analysis seems to be most meaningful.

### **The GRQ and Corey Keyes' MHC-SF**

Since the Growth Resources Questionnaire is designed to measure the key psychosocial resources helping us develop and flourish, it is worth comparing its results with a questionnaire measuring flourishing. That is why 119 participants who filled up the GRQ were also given the Mental Health Continuum – Short Form (Polish adaptation by Karaś, Ciecuch & Keyes, 2014). The MHC-SF measures subjective satisfaction in three areas: psychological functioning, social functioning,

and emotional functioning (Karaś et al., 2014). Since not all of the variables present normal distribution, Spearman's *rho* correlations were measured. All of them are statistically significant and can be seen in Table 6.

Table 6. Spearman's *rho* correlations of the GRQ and MHC-SF

GRQ/MHC-SF	Psychological well-being	Social well-being	Emotional well-being	General
Positive autonomy	.62	.4	.59	.61
Positive belonging	.59	.45	.58	.62
Autonomy + belonging	.63	.45	.61	.64
Positive emotions	.50	.4	.8	.61
Negative emotions	-.36	-.27	-.48	-.41
Emotions balance*	.52	.4	.75	.61
Emotions ratio	.49	.37	.69	.59
General**	.63	.45	.71	.67

\* positive emotions – negative emotions; \*\* autonomy + belonging + emotions balance

All of the correlations presented above are of medium to high strength, and so, as it was expected, these two diagnostic tools are indeed connected. There is a certain correspondence between the major scales of the MHC (psychological well-being, social well-being, and emotional well-being) and the major scales of the GRQ (positive autonomy, positive belonging, and positive emotionality) – this correspondence can be seen in the correlations above. The most important difference between the GRQ and the MHC-SF is that while the latter measures subjective satisfaction in three dimensions of human functioning, the former tries to capture the psychosocial resources leading to such satisfaction.

It is not a surprise that the strongest correlations are between the scales dedicated to measuring emotions, as Keyes (2002) defines emotional well-being as symptoms of experiencing positive emotions in the subjective experience. What is surprising though, is that positive belonging correlates at a lower level with social well-being than with psychological well-being (.45 and .59).

Correlation of the general results at the level of .67, and the fact that all of the scales of the GRQ correlate with elements measured by the MHC-SF support the hypothesis that the Growth Resources Questionnaire captures psychosocial resources connected with flourishing. Other tests should be performed in the future to further investigate the external validity of the tool.

### Internal correlations

Apart from correlating the GRQ with the MHC-SF, Spearman's *rho* correlations were measured also for the GRQ itself, and they are presented in Table 7. All of the correlations are statistically significant.

The balance of emotions correlates with the emotion ratio at the level close to 1, because these two parameters are very close to each other. The balance of emotions is measured by subtracting negative emotions from positive emotions, and if it is

below zero, it means that a person experiences more negative than positive affect. The emotions ratio is the relation of positive emotions to negative emotions.

Table 7. Spearman's rho correlations of the GRQ

	Positive autonomy	Positive belonging	Autonomy +belonging	Positive emotions	Negative emotions	Emotions balance	Emotions ratio	General
Positive autonomy	1	.7	.92	.6	-.49	.63	.61	.86
Positive belonging	.7	1	.92	.57	-.61	.69	.68	.89
Autonomy +belonging	.92	.92	1	.63	-.6	.72	.7	.95
Positive emotions	.6	.57	.63	1	-.48	.82	.75	.76
Negative emotions	-.49	-.61	-.6	-.48	1	-.88	-.93	-.76
Emotions balance	.63	.69	.72	.82	-.88	1	.99	.9
Emotions ratio	.61	.68	.7	.75	-.93	.99	1	.88
General	.86	.89	.95	.76	-.76	.9	.88	1

It is interesting to see how positive autonomy and positive belonging impact the experiencing of emotions. It seems that both influence the level of positive emotions, and at the same time positive belonging seems to have a greater impact on experiencing less negative emotions.

Positive autonomy correlates with positive belonging at the level of .7, and these results supports the notion based on the factor analysis presented earlier that these two dimensions might overlap each other a bit too much, especially if we want to measure the balance of these two factors.

### Pilot group results

Finally, the results of the pilot test group may be presented. The reader will find them in Table 8.

Table 8. Pilot group results on the GRQ scales

	N	M	SD	Actual range	Skew
Positive autonomy	304	114.68	14.56	64–145	-0.62
Positive belonging	304	115.25	14.05	67–147	-0.42
Auto/belong balance	304	1	0.11	0.64–1.38	0.43
Positive emotions	304	53.28	8.89	27–74	-0.29
Negative emotions	304	36.57	11.49	15–71	0.6
Emotions balance	304	16.64	17.44	-31–53	-0.42
Emotions ratio	304	1.64:1	0.69	0.5:1–4.31:1	0.82
General	304	246.58	40.46	117–330	-0.36

The pilot group represents an almost perfect balance of positive autonomy and positive belonging – none of these factors are at a higher level than the other. It might suggest that the group developed these two sets of psychosocial resources in harmony. Skewness suggests that these two factors are at levels slightly above the average of possible range.

What is very interesting is the emotion ratio. Its mean value at the level of 1.64:1 is well below the approximately 3:1 level that seems to support flourishing (Fredrickson, 2013). The balance of emotions seems to be the Achilles' heel of the pilot group in terms of resources supporting flourishing.

## Conclusions

The Growth Resources Model is a new concept that may provide scientists and practitioners with important insights into the issue of personal development and flourishing (Pasowicz, 2017). In order to develop the model, the first pilot version of the Growth Resources Questionnaire was constructed and tested on a group of 304 subjects.

The questionnaire consists of three major scales: the Positive Autonomy Scale, the Positive Belonging Scale, and the Positive Emotionality Scale. Cronbach's Alpha measurements proved the reliability of the scales to be good (between .8 and .9). Very few of the questionnaire's items need revision in order to improve their correlation with entire scales.

Also the external validity of the questionnaire seems to be satisfactory. The GRQ was compared with the Polish version of Keyes' Mental Health Continuum – Short Form – a questionnaire dedicated to measuring flourishing. All of the scales of the Growth Resources Questionnaire correlate with the scales of the MHC – SF, as was expected.

Factor analysis of the questionnaire was also performed, and it provided somehow mixed results. On the one hand, Cattell's scree test seems to confirm the theoretical structure of the questionnaire with its two most important factors. Two-factor analysis also provides us with the most meaningful and clearest results, with factor 1 and factor 2 gathering most of the positive autonomy items and positive belonging items respectively. On the other hand, several factors have eigenvalue above 1 in the Cattell's scree test, and two-factor analysis explains approximately 30 percent of the variance, which is rather unsatisfactory.

The results of the factor analysis provide us with most important information when we think about improving the questionnaire and the model itself. It seems a good idea to modify the autonomy and belonging scales in such a way that these two factors are more separate, consistent, and independent, with a more clear-cut division. It may also be valuable to shorten the entire tool by eliminating items that proved to be of little value, and to revise some of the decisions made concerning whether an item should belong to positive autonomy or positive belonging.

As the Growth Resources Model is a new concept that requires development and testing, it is the intention of the author to develop a revised version of the Growth Resources Questionnaire based on the results presented in this paper. The revised Polish version could be then validated on a representative group of participants.

## References

- Borucka, A., & Ostaszewski, K. (2008). Koncepcja resilience. Kluczowe pojęcia i wybrane zagadnienia. *Medycyna Wieku Rozwojowego*, 12 (2), 587–597.
- Brzezińska, A.I. (2005). Jak przebiega rozwój człowieka? In A.I. Brzezińska (Ed.), *Portrety psychologiczne człowieka* (pp. 21–39). Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- Brzezińska, A.I., Kaczan, R., Piotrowski, K., & Rycielski, P. (2008). Uwarunkowania aktywności zawodowej osób z ograniczeniami sprawności: czynniki powodzenia i czynniki ryzyka. *Nauka*, 4, 77–100.
- Charney, D.S. (2004). Psychobiological mechanisms of resilience and vulnerability: implications for successful adaptation to extreme stress. *American Journal of Psychiatry*, 161, 195–216.
- Deci, E.L., & Ryan, R. (2008). Self-Determination Theory: A Macrotheory of Human Motivation, Development, and Health. *Canadian Psychology*, 49 (3), 182–185. DOI: 10.1037/a0012801.
- Ekman, P. (1992). An Argument for Basic Emotions, *Cognition and emotion*, 6 (3/4), 169–200.
- Erikson, E.H. (1998). *The Life Cycle Completed*. New York: WW Norton & Company.
- Fredrickson, B.L. (1998). What Good Are Positive Emotions? *Review of General Psychology*, 2 (3), 300–319. DOI: 10.1037/1089-2680.2.3.300.
- Fredrickson, B.L. (2001). The role of positive emotions in positive psychology: the broaden-and-build theory of positive emotions. *American Psychologist*, 56 (3), 218–276.
- Fredrickson, B.L. (2003). The Value of Positive Emotions. *American Scientist*, 91, 330–335.
- Fredrickson, B.L. (2013). Updated Thinking on Positivity Ratios. *American Psychologist*. Advance online publication, 1–9. DOI: 10.1037/a0033584.
- Fredrickson, B.L., & Branigan, Ch. (2005). Positive Emotions Broaden the Scope of Attention and Thought-Action Repertoires. *Cognition and Emotion*, 19 (3), 313–332.
- Fredrickson, B.L., Mancuso, R.A., Branigan, Ch., & Tugade, M.M. (2000). The Undoing Effect of Positive Emotions. *Motivation and Emotion*, 24 (4), 237–258.
- Gross, J.J. (1999). Emotion Regulation: Past, Present, Future. *Cognition and Emotion*, 13 (5), 551–573.
- Heinrichs, M., Baumgartner, T., Kirschbaum, C., & Ehlert, U. (2003). Social Support and Oxytocin Interact to Suppress Cortisol and Subjective Responses to Psychosocial Stress. *Society of Biological Psychiatry*. DOI: 10.1016/S0006-3223(03)00465-7.
- Heszen, I., & Sęk, H. (2007). *Psychologia zdrowia*. Warszawa: PWN.
- Jarymowicz, M., & Imbir, K. (2010). Próba taksonomii ludzkich emocji. *Przegląd psychologiczny*, 53 (4), 439–461.
- Karaś, D., Ciecuch, J., & Keyes, C.L.M. (2014). The Polish adaptation of the Mental Health Continuum-Short Form (MHC-SF). *Personality and Individual Differences*, 69, 104–109.
- Keyes, C.L.M. (2002). The Mental Health Continuum: From Languishing to Flourishing in Life. *Journal of Health and Social Research*, 43, 207–222.
- Larsen, J.T., McGraw, A.P., & Cacioppo, J.T. (2001). Can people feel happy and sad at the same time? *Journal of Personality and Social Psychology*, 81, 684–696. DOI: 10.1037//0022-3514.81.4.684.

- Luthar, S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: critical evaluation and guidelines for future work. *Child Development, 71*, 543–562.
- Ogińska-Bulik, N., & Juczyński, Z. (2008). Skala pomiaru prężności. *Nowiny Psychologiczne, 1* (3), 39–55.
- Ochsner, K.N., & Gross, J.J. (2010). Thinking makes it so: A social cognitive neuroscience approach to emotion regulation. In K. Vohs, R. Baumeister (Eds.). *The Handbook of Self-Regulation*. New York: The Guilford Press.
- Pasowicz, M. (2017). Introduction to the Growth Resources Model. *Annales Universitatis Paedagogicae Cracoviensis. Studia Psychologica, 10*, 23–38.
- Plutchik, R. (1980). *Emotion: A psychoevolutionary synthesis*. New York: Harper and Row.
- Reich, J.W., Zautra, A.J., & Davis, M. (2003). Dimensions of Affect Relationships: Models and Their Integrative Implications. *Review of General Psychology, 7* (1), 56–83. DOI: 10.1037//1089-2680.7.1.66.
- Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive Psychology. An Introduction. *American Psychologist, 55* (1), 5–14. DOI: 10.1037//0003-066X.55.1.5.
- Semmer, N. (2006). Personality, stress and coping. In M. Vollrath (Ed.), *Handbook of Personality and Health* (pp. 73–113). Chichester: Wiley.
- Watson, D., Wiese, D., Vaidya, J., & Tellegen, A. (1999). The Two General Activation Systems of Affect: Structural Findings, Evolutionary Considerations and Psychobiological Evidence. *Journal of Personality and Social Psychology, 76* (5), 820–838. DOI: 10.1037/0022-3514.76.5.820.