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Identity status and emotion regulation in adolescence and early adulthood

Abstract: The article presents the results of a study investigating the links between emotion regulation and identity. The aim of this study was to explore the relationship between the two variables. On the basis of neo-eriksonian theories, an attempt to specify the role of emotion regulation in the process of identity formation was made. The study involved 849 people (544 women, 304 men) aged 14-25. The participants attended six types of schools: lower secondary school, basic vocational school, technical upper secondary school, general upper secondary school, post-secondary school, and university. The research was conducted with the use of two questionnaires: Difficulties in Emotion Regulation Scale (DERS) and Dimensions of Identity Development Scale (DIDS). The analysis of the results points to a partial confirmation of the assumed hypotheses about the differences between people with different identity statuses in respect of the six investigated dimensions of emotion regulation. Also, the hypotheses about the links between the dimensions of emotion regulation and dimensions of identity in the subgroups with different identity statuses were partially confirmed.

Key words: adolescence, early adulthood, emotion awareness, emotion regulation, identity dimensions, identity status

Introduction

Emotion regulation is the process of influencing one's emotions in a way that enables the person to realize his or her goals (Gross, 1998; Gross, Thompson, 2007). Models of emotion regulation have been applied in many subdisciplines of psychology. The results of studies enable the inference that emotion regulation relates to a wide range of domains, from psychopathology (depression - Martin & Dahlen, 2005; anxiety disorder - Campbell-Sills, Barlow, Brown & Hofmann, 2006; bipolar disorder - Phillips, Ladouceur & Drevets, 2008; addictions - Cooper, Frone, Russell & Mudar, 1995), social development (Eisenberg, Sadovsky & Spinrad, 2000), to educational achievements of children (Graziano, Reavis, Keane & Calkins, 2007). In the light of numerous reports pointing to the importance of emotion regulation processes in many vital spheres of human functioning, Brzezińska and Czub (see Brzezińska, et al., 2012) posed a question about links between the processes of emotion regulation and the process of identity formation. The results presented in this paper enable a preliminary explanation of the role of emotion regulation in the processes of identity formation.

Problem

On the basis of a review of definitions of emotion regulation (Bloch, Moran & Kring, 2009), it can be concluded that the synthesis of a processual approach proposed by Gross and R. A. Thompson in 2007, represented by the former author (Gross, 1998) and an approach that concentrates on external factors of emotion regulation developed by the latter author (Thompson, 1994), is now the most exhaustive model of emotion regulation mechanisms. These are the same authors who suggest that emotion regulation is a process of influencing emotions in a way that enables the realization of personal goals. The process, according to Gross and Thompson (2007), occurs both consciously and unconsciously, in a controlled and an automatic manner, and its induction may involve both internal and external factors. Moreover, R. A. Thompson stresses that the process of emotion regulation can refer both to the suppression of emotions and to their maintaining. Regulation may pertain both to negative and positive emotions, and strategies of its influence comprise initiation, modulating, and modification of an emotional response (Gross, 1999). In his opinion, the influence of this process may refer to the

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overall changes connected with an emotion, but also to its particular components like, for instance, physiological or phenomenological aspects.

The scope of the presented notion can be clarified with the use of a differentiation suggested by Cole, Martin and Dennis (2004). It consists in separating the processes of emotion regulation (emotions are regulated), which is the subject of interest in this paper, from the regulative function of emotions, which involves the modulation of other mental processes by emotions (emotions regulate).

A useful, taking into consideration operationalization, manner of defining emotion regulation was proposed by Gratz and Roemer (2004) – the authors of the questionnaire utilized in the study discussed in this article. They distinguished four areas connected with the process of emotion regulation: (1) awareness and understanding of emotions, (2) acceptance of emotions, (3) ability to control impulsive behavior and act according to the set objectives, despite experiencing negative emotions, and (4) ability to flexibly (depending on the situation and personal objectives) select strategies of emotion regulation.

One of the dimensions of emotion regulation distinguished by Gratz and Roemer (2004) is emotion awareness. This suggests that the model formulated by the authors of the DERS questionnaire focuses on the issue of conscious emotion regulation. Therefore, it can be presumed that the scope of the questionnaire is narrower and fits within the concept presented by Gross and Thompson (2007). The authors of the integrated model assume that the processes of emotion regulation can be illustrated on a continuum, with one end defined by consciously initiated processes that are monitored and effortful, whereas the other end is determined by emotion regulation induced automatically and are unconscious and effortless. Consequently, it needs to be assumed that the results discussed below do not comprise the whole range of the emotion regulation processes, and pertain only to the processes that are located closer to the extreme representing the conscious mechanisms.

According to E. H. Erikson, a crucial role in identity formation is played by the structure of ego. In his opinion, one of the basic functions of ego is to integrate personal experience (Erikson, 1968). As Kroger and Marcia (2010) indicate, a stronger ego facilitates the synthesis of experience thus enabling identity achievement. The authors suggest that as a sign of ego strength one may also consider the function of mediation between an internal reality and external demands. This mediatory function enables an individual, for instance, “to cope with a difficult task in the face of interfering feelings” (Kroger & Marcia, 2010, p. 37). Juxtaposition of the integration idea and the mediatory function of ego with the notion of emotion regulation, which consists in modulating emotions in a way that enables an individual to achieve the desired goals (Gross, Thompson, 2007), makes it possible to notice that the scopes of the two notions partially overlap. At the level of conceptual analysis, it seems justifiable to claim that the mechanisms of emotion regulation play a part in the realization of the

integrative and mediatory functions of ego. Thus, it can be assumed that an effective emotion regulation determines, to a certain extent, ego strength. *Ipsa facto*, emotion regulation may be considered an important factor that conditions the development of identity³.

Achieving an identity is, according to Erikson, one of the main tasks of the late adolescence period (Luyckx, Soenens, Goossens & Beyers, 2006). Marcia (1966) adopted Erikson’s view that individuals solve the crisis of late adolescence in different ways. As dimensions describing the way the crisis is solved, he chose intensification of the crisis (manifested through exploration) and commitment making. Superimposition of the two dimensions enabled Marcia to distinguish four identity statuses. Individuals with a low level of both commitment and exploration were defined by Marcia as those possessing the status of identity diffusion. Individuals achieving high scores on the dimension of commitment and low scores on exploration were recognized as having a reflected (foreclosed) identity. People struggling with the crisis, that is those scoring high on the dimension of exploration and low on the dimension of commitments, were labeled as possessing the status of identity moratorium, whereas individuals who after solving the crisis took up commitments were recognized as those with the status of identity achievement (Marcia, 1966).

In order to illustrate the complexity of the process of identity development, I have adopted the neo-eriksonian approach to identity research, proposed by Luyckx et al. (2006). The authors of this approach expanded the two-dimensional model developed by Marcia. With respect to exploration they distinguished two dimensions illustrating distinct phenomena: exploration in breadth, as testing various alternatives before making actual choices, and exploration in depth, as a dimension that illustrates exploration within the choices already made, for instance, through their evaluation. A little later a third dimension of exploration, called ruminative exploration, was added. This dimension was to illustrate unfavorable phenomena connected with exploration (Luyckx, Schwartz, Goossens, Beyers & Soenens, 2008). The authors (Luyckx et al., 2006) also improved the dimension of commitments by distinguishing dimensions of commitment making and identification with commitments. The former dimension describes the degree to which an individual is able to make choices concerning important, from the point of view of identity development, issues, the latter pertains to identification with the choices made by an individual and their sense of confidence in these choices.

As pointed out by Arnett (2000), achieving an identity is a normative developmental task of late adolescence and early adulthood. Achieving an identity is conditioned by the ability to make commitments, which crystallize in the spheres of close relationships, to plan for the future, realize educational plans, or to gather experiences connected with work. Individuals who fulfill the requirements of the environment in these areas in a goal-oriented manner, have greater chances of achieving a

³ The idea about locating the mechanisms of emotion regulation in the sphere of the synthesizing function of ego arose in a discussion with Tomasz Czub.

coherent identity (Luyckx, Klimstra, Duriez, Schwartz & Vanhalst, 2012). Emotion regulation as the mechanism that serves as an integrator of experience, thus enabling identity development, can be considered to be an important factor that defines the effectiveness of functioning in the spheres mentioned above.

This thesis finds confirmation in numerous studies like, for instance, those conducted by Cote and Morgan (2002). The results obtained by these authors indicate that on the basis of an evaluation of the degree of suppression of negative emotions and strengthening those positive ones, it is possible to predict satisfaction with a job and also a tendency to resign from work. An intensive suppression of negative emotions, but also a certain degree of strengthening of the positive ones, is conducive to a lower level of satisfaction with one's job. Similarly, the tendency to resign from work is associated with a high degree of negative emotions suppression. No relationship, though, was observed between strengthening positive emotions and the tendency to resign from work.

In the context of relationships between emotion regulation and spheres vital to identity development described in the present paper the studies of Richards, Butler and Gross (2003) appear to be interesting. These authors observed interactions of couples from the point of view of the regulation strategies they used. Next, they referred the differences in the selection of strategies to the degree to which the individuals were able to recall information appearing in a conversation. The results indicate that people who used predominantly the strategy of suppression could recall the information to a lesser extent. Taking this into consideration, it can be speculated that there exists a relationship between emotion regulation and the quality of intimate relationships. In subsequent sections of the present paper, an attempt to relate the four dimensions of emotion regulation proposed by Gratz and Roemer (2004) to the process of identity formation has been made.

R. A. Thompson and Calkins (1996) suggest that emotion regulation always takes place in a specific context. The context can, to a large extent, determine the effectiveness of emotion regulation. Researchers have also made attempts to establish which regulation strategies are more effective. An example of studies that took up the problem of the effectiveness of regulation strategies were the studies conducted by Gross and John (2003). The authors compared two strategies of emotion regulation: reappraisal and suppression. They searched for relationships between such variables as measures of well-being and the quality of social relationships, and particular strategies of regulation. The obtained results indicate that both the quality of social relationships and measures of well-being (inter alia: autonomy, purposefulness of life, self-acceptance, and positive relationships with others) are positively correlated with a tendency to use the strategy of reappraisal. In the case of the latter strategy, suppression, relationships with the variables mentioned above turned out to be negative.

Aldao, Nolen-Hoeksema and Schweitzer (2010) conducted a meta-analysis that allowed them to distinguish disadaptive strategies of regulation. Their investigations

resulted in the inclusion to this group such strategies as suppression, avoidance, and rumination. Notwithstanding the results mentioned here, some researchers (Gross, 1998; Thompson, 1994; Cole et al., 1994) claim that an important factor that conditions the effectiveness of emotion regulation is flexibility of strategy selection. This means that regulation strategies are effective when their selection is determined by the requirements of the situation in which the regulation takes place (Gratz, Roemer, 2004).

Interesting appears to be a phenomenon connected with differences in the level of fear among individuals with different identity statuses. It turns out that the lowest level of fear characterizes people with identity foreclosure, whereas the highest level can be observed in individuals with the status of identity moratorium. These differences may stem from a defensive attitude of people with identity foreclosure, as opposed to individuals with identity moratorium, who currently undergo the crisis (Marcia, 1980). Moreover, the defensive attitude is often associated with inflexibility of behavior. Consequently, it can be presumed that individuals with identity foreclosure will be characterized by a higher degree of behavior and attitudes inflexibility. This inflexibility may also be visible in the scope of selection of regulation strategies, which may be manifested by a lower level of flexibility by individuals with identity foreclosure. In this context, interesting seem to be the results obtained in the studies conducted by Helson and Srivastava (2001). The authors postulate that there is a link between the status of identity achievement and flexibility of emotion regulation.

As some researchers suggest, emotion awareness and an ability to identify emotions are necessary to take advantage of information carried by emotions in an adaptive way (Palmieri, Boden & Berenbaum, 2009). Also pointing to the significance of emotion awareness are studies concerning the relationships between emotion awareness and different forms of psychopathology (Rieffe, De Rooij, 2012). Moreover, there are reports that indicate that the degree of attention devoted to emotions, which can be considered an aspect of emotion awareness, is associated with a decrease of negative affect (R. J. Thompson, et al., 2011).

In light of the presented premises, it can be surmised that emotion awareness enables an individual to benefit from the informative function of emotions, which, in turn, makes it possible to orientate oneself in the environment, and to identify one's own preferences and desires. An orientation achieved in such a way probably improves the chances of realizing ones desires, and enables people to achieve their goals, despite obstacles. This prompts one to reflect on the importance of emotion awareness in the process of identity formation. First of all, emotion awareness enables commitment making, which, as Luyckx et al. (2012) write, is not synonymous with certainty about the choices made by an individual, nevertheless it offers an opportunity to take up exploration in depth. It is also worth noting that the commitments made by individuals with high levels of emotion awareness may, as a result of their greater coherence with those individuals specific preferences, be more stable over time.

Control over undesirable impulsive reactions and an ability to maintain the desired direction of behavior despite an increasing level of emotional tension is yet another feature of the emotion regulation process taken into consideration by the authors of the questionnaire applied in this study (Gratz, Roemer, 2004). If one assumes that exploration means looking for and considering various alternatives, and that commitments are connected with choosing from a diversity of alternative options (Luyckx et al., 2008), it can be presumed that acting according to the set objectives will be an important factor for both dimensions (exploration and commitments). Making choices, being a central element of commitments, can be understood as a decision that establishes the goals of an individual. In turn, for exploration to lead the individual towards commitments it has to be connected with maintaining certain basic objectives. In both cases, an increase in the level of emotional arousal, or a sudden impulse, can disturb goal-oriented actions. Thus, it can be assumed that the ability to maintain the direction of behavior consistent with the objective is a significant factor in the process of identity formation.

With reference to the links between identity development and emotion regulation presented in this article, the author assumed that in these relationships emotion regulation is an independent variable, and that it, to a certain extent, determines identity development. However, as Gross and Thompson (2007) claim, emotion regulation and its character also depend on the goals of the person. Taking into consideration the fact that identification with commitments is a process of adopting and acting according to the selected values, objectives and beliefs (Luyckx et al., 2006), probably the goals and values established in such a way are important factors supporting the effectiveness of the emotion regulation mechanisms. This influence is predominantly based on internal norms and rules of showing emotions, but also on ones potential stability, or even flexibility or inflexibility.

Hypotheses

The research problem, which conditioned the procedure of analysis of the obtained results, has been formulated in the following question: Do people with different identity statuses differ from one another in respect of emotion regulation dimensions? In the light of the gathered premises, both empirical and theoretical, three hypotheses, concerning differences between individuals with different

identity statuses, have been formulated on the basis of cluster analysis results:

1. the individuals with identity achievement differ from others in that they attain scores that indicate a higher level of emotion awareness and understanding; the lowest level of emotion awareness and understanding can be expected among individuals with identity diffusion and foreclosure;
2. the individuals who undergo moratorium crisis differ from people with other identity statuses in respect of both control over impulses and realization of goal-oriented tasks, achieving scores that point to a low level of emotion regulation within the scope of the investigated dimensions; the lowest level of difficulties in the mentioned areas is expected in individuals with identity achievement;
3. the status of identity achievement is characterized by the greatest access to the strategies of emotion regulation, especially in comparison to identity foreclosure, which is associated with the lowest access to these strategies.

Research methods

Difficulties in Emotion Regulation Scale (DERS/PL).

This tool was developed by Gratz and Roemer (Gratz, Roemer, 2004). The questionnaire comprises 6 dimensions that, in total, include 36 items. The dimensions are the following: (1) nonacceptance of emotion responses, (2) difficulties engaging in goal-directed behavior, (3) impulse control difficulties, (4) lack of emotion awareness, (5) limited access to emotion regulation strategies, (6) lack of emotion clarity.

The Polish adaptation of the scale (DERS/PL), developed by Czub and Brzezińska (see Czub, 2012), includes all of the originally suggested dimensions. However, because of obtaining too low correlation coefficients on the whole scale, 13 items were ultimately excluded from the Polish version of the questionnaire. The excluded items came from all of the dimensions constituting the tool, nevertheless, the greatest number of items were removed from two dimensions: 'lack of emotion awareness' and 'limited access to emotion regulation strategies' (3 items from each dimension). The following is an exemplary item from 'nonacceptance of emotion responses' dimension: "When I am nervous, I am ashamed of what I feel". In Table 1 Cronbach's alpha of all scales of the DERS/PL questionnaire has been given.

Tab. 1. Cronbach's alpha of variables of DERS/PL

nonacceptance	goals	impulse	awareness	strategies	CLARITY
Nonacceptance of emotional responses	Difficulties engaging in goal-directed	Impulse control difficulties	Lack of emotional awareness	Limited access to emotion regulation strategies	Lack of emotional clarity
Cronbach's alpha					
0.80	0.79	0.77	0.66	0.87	0.72

Dimensions of Identity Development Scale (DIDS/PL).

This questionnaire is a tool designed to measure the processes of identity formation. The authors of the original version (Luyckx et al., 2008) developed a tool that comprises 5 dimensions and 25 items. The Polish adaptation of the scale (DIDS/PL) was prepared by Brzezińska and Piotrowski (2010) and, like the original version, includes 25 items with

5 dimensions. Subjects' responses to every position of the questionnaire may range from 0 to 5. In Table 2 Cronbach's alpha coefficients, describing the reliability of particular scales, have been presented. The following is an exemplary item from the 'ruminative exploration' dimension: "I have doubts about what I really want to achieve in my life".

Tab. 2. Cronbach's alpha of variables of DIDS/PL

EB	ED	ER	CM	IC
Exploration in breadth	Exploration in depth	Ruminative exploration	Commitment making	Identification with commitment
Cronbach's alpha				
0.74	0.66	0.72	0.86	0.83

Subjects

In the reported study, 849 people aged 14-25 ($M = 18.26$; $sd = 2.86$) took part. 64.1% ($n = 544$) of the participants were women, and 35.8% ($n = 304$) were men. The subjects belonged to six educational groups: lower secondary school ($n = 252$; 29.6%; $M_{age} = 14.89$; $sd_{age} = 0.54$), basic vocational school ($n = 107$; 12.6%; $M_{age} = 17.87$; $sd_{age} = 0.98$), technical upper secondary school ($n = 94$; 11.1%; $M_{age} = 17.73$; $sd_{age} = 0.61$), general upper secondary school ($n = 84$; 9.9%; $M_{age} = 17.71$; $sd_{age} = 0.53$), post-secondary school ($n = 188$; 22.1%; $M_{age} = 21.17$; $sd_{age} = 1.31$), university ($n = 124$; 14.6%; $M_{age} = 21.77$; $sd_{age} = 1.62$).

Particular educational groups differed significantly in respect of gender ($X^2(5; N = 838) = 112.31$; $p < 0.001$). The greatest disproportions and, at the same time, predominance of women, was observed in the group of post-secondary school students ($M - 5.9\%$; $W - 94.1\%$), a little lower, however also high, domination of women, was spotted in the group of university students ($M - 30.6\%$; $W - 69.4\%$). The only educational group where men dominated was basic vocational school ($M - 56.1\%$; $W - 43.9\%$).

24.9% of the investigated individuals lived in large cities of over 50,000 inhabitants ($n = 211$), 35.5% in small cities of 5,000 to 50,000 inhabitants ($n = 301$) and 36.2% lived in small towns and villages up to 5,000 inhabitants ($n = 307$). The groups representing different places of residence differ significantly in respect of the age of the subjects [$F(2.816) = 61.79$; $p < 0.001$]. The oldest group constitute individuals who live in large cities ($M = 20.04$; $sd = 2.95$). They differ significantly both from people residing in small cities ($M = 17.72$; $sd = 2.55$) and those living in the country, who are the youngest group ($M = 17.61$; $sd = 2.60$). Taking into consideration the average age in particular educational groups (see above), it can be assumed that post-secondary school students and university students more often reside in large cities. This hypothesis is confirmed by the differences in frequency of educational groups in respect of place of living ($X^2(10; N = 838) = 214.45$; $p < 0.001$). 60.2% of university students and 42.8% of post-secondary school students reside in a large city.

Results

(1) Identity status, sex and level of education (cluster analysis)

In order to identify multivariate relationships between dimensions of identity and dimensions pertaining to emotion regulation, first a cluster analysis was conducted to enable the author to distinguish subgroups with similar configuration of identity dimensions. Before the analysis the author removed four univariate outliers, where the criterion was results below or above the third standard deviation from the mean, and nine multivariate outliers, where the criterion was a high Mahalanobis distance value ($p < 0.001$).

After having excluded the outliers, a hierarchical cluster analysis using Ward's method based on squared Euclidian distances for four clusters was conducted. Next, the k-means clustering procedure was applied, entering initial clusters centers obtained from the hierarchical cluster analysis as starting points for the k-means method. The results of the procedure conducted in such a way explain at least 50% of the variance of each of the dimensions of identity ($\eta^2 \geq 0.50$). The four obtained clusters of different size were marked with labels referring to the identity statuses according to Marcia (1966):

- the group of individuals who scored low on the two dimension of commitments, and on exploration in breadth and in depth, and, at the same time, higher than the average on the dimension of ruminative exploration, was assumed to represent the identity diffusion status ($N = 190$; 22.7%);
- the group who scored higher than the average on all of the dimensions of exploration and lower than the average on the two dimensions of commitments, was identified as representing moratorium ($N = 228$; 27.3%);
- the individuals who obtained high scores on the dimensions of commitments and low scores on the dimensions of exploration, were considered to possess the status of identity foreclosure ($N = 234$; 28%);
- the group scoring high on both commitments and exploration scales, except for ruminative exploration, was recognized as the one that to the largest extent represents the status of identity achievement ($N = 184$; 22%).

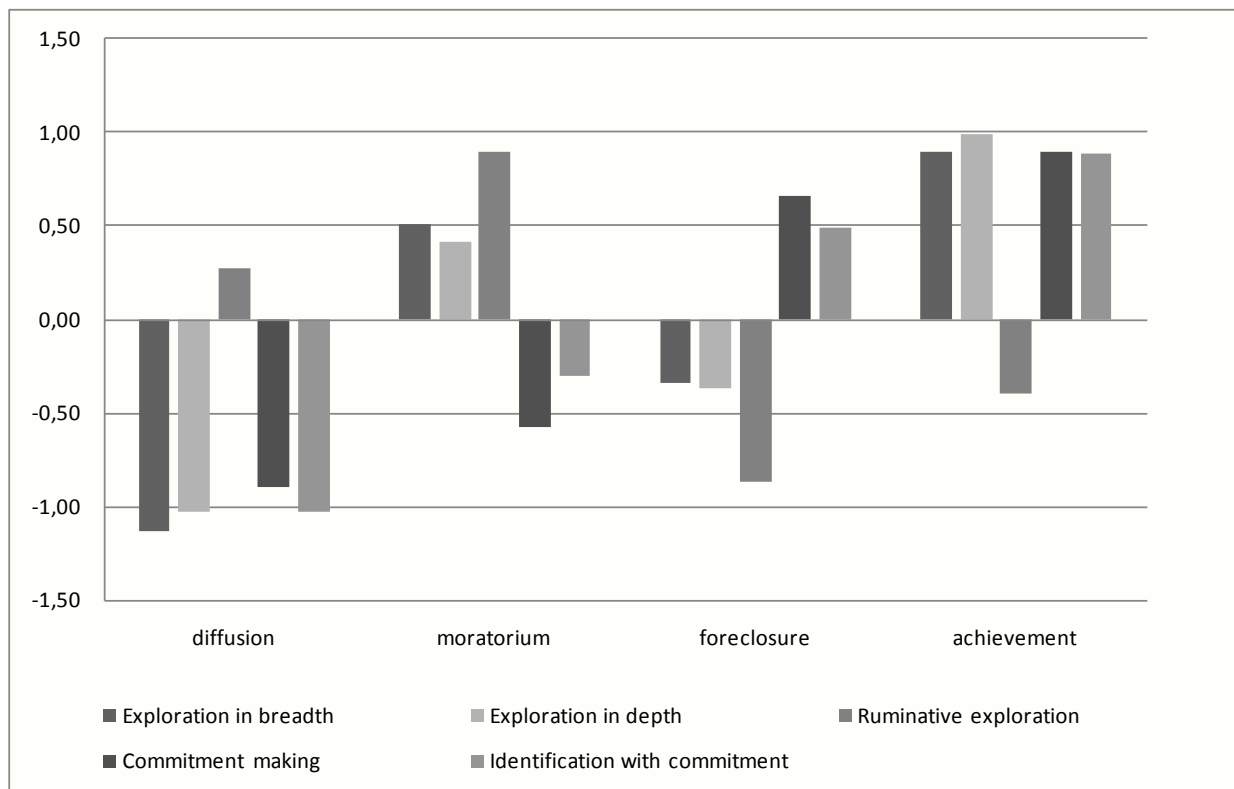


Figure 1. Z-scores for dimensions of identity for four identity statuses

(2) Identity status and gender

An analysis of particular clusters enables one to notice that there are significant differences in the number of women and men ($X^2(3; N = 838) = 19.28; p < 0.001; \phi\text{-Cramer}(p < 0.001) = 0.15$). The greatest differences are associated with the statuses of ‘diffusion’ (M – 29.2%, W – 19.0%),

where men dominate, and ‘achievement’ (M – 16.4%, W – 25.1%), where there are more women. In the case of ‘foreclosure’ (M – 30.2%, W – 25.7%) men constitute the majority, whereas among individuals with ‘moratorium’ women constitute of majority (M – 24.2%, W – 30.2%).

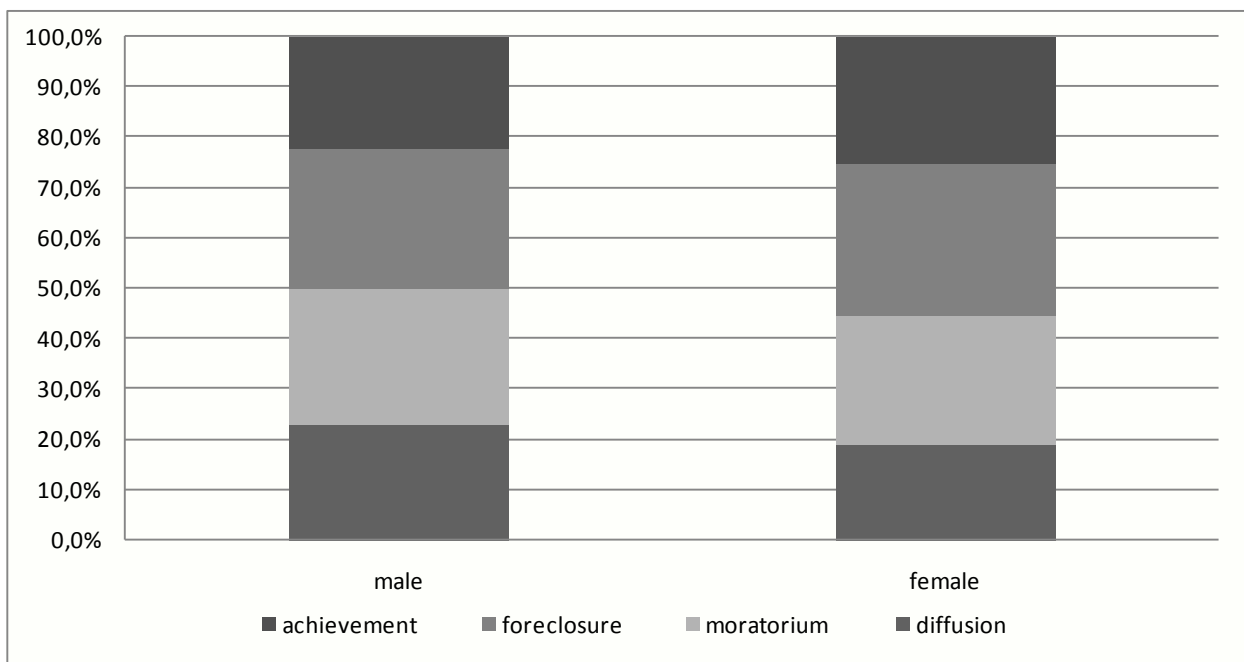


Figure 2. Identity statuses by gender

(3) Identity status and level of education

Differences in the frequency of occurrence of particular identity statuses in the groups of individuals attending different types of schools ($X^2(15; N = 836) = 78.40; p < 0.001; \phi\text{-Cramer} (p < 0.001) = 0.31$) were also observed. Among lower secondary school students the status of identity moratorium is the most frequent (40.9%), whereas the least frequent is identity achievement (20.6%).

Interesting differences pertain to basic vocational school students, among whom the status of identity diffusion may be the most frequently observed (37.3%), and who the least frequently manifest identity foreclosure (14.7%). In turn, among post-secondary school students, in comparison to students from other types of schools, the status of identity achievement can be the most frequently observed (26.1%).

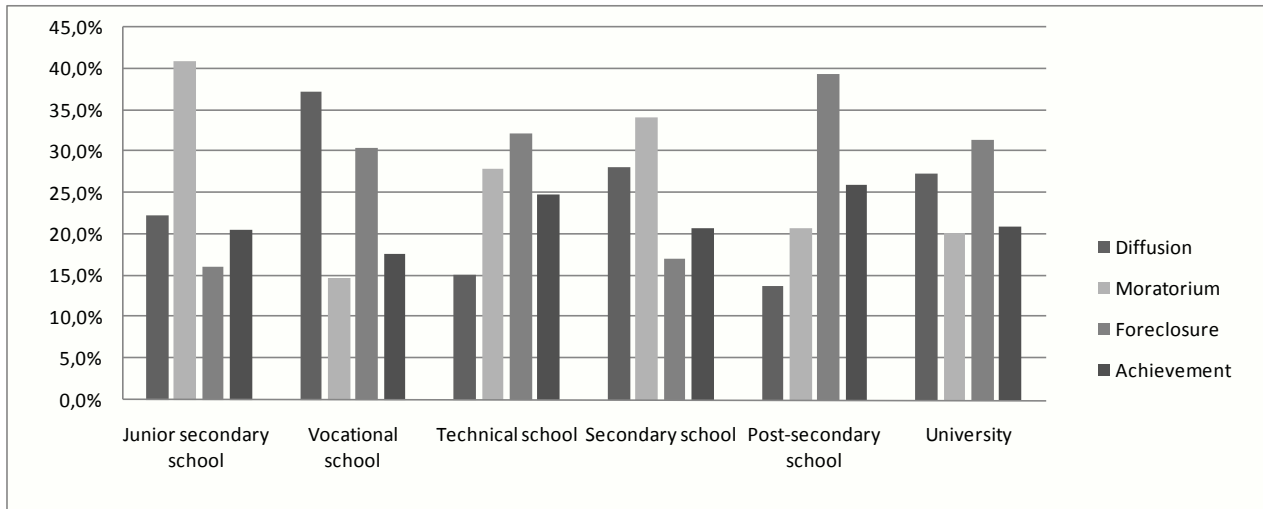


Figure 3. Clusters frequency in educational levels

(4) Identity status and dimensions of emotion regulation

In order to determine whether individuals with different identity statuses differ in respect of any of the dimensions of emotion regulation, a two-way multivariate analysis of

variance was conducted. The overall multivariate effect turned out to be significant [λ Wilks = 0.92; $F(18.2302) 3.66; p < 0.001; \eta^2 = 0.03$].

Tab. 3. Multivariate analysis of variance (MANOVA) and post hoc identity status comparisons based on Tukey HSD tests

Dimensions of emotion regulation	Identity status				$F(\eta^2)$
	Diffusion N=190	Foreclosure N=228	Moratorium N=234	Achievement N=184	
Nonacceptance of Emotional Responses	M=1.29 ^{a,b} sd=0.99	M=1.19 ^a sd=0.88	M=1.51 ^b sd=0.99	M=1.34 ^{a,b} sd=0.96	4.43* (0.02)
Difficulties Engaging in Goal-Directed	M=1.93 ^{a,b} sd=0.92	M=1.92 ^{a,b} sd=1.01	M=2.24 ^{c,d} sd=1.00	M=2.29 ^{c,d} sd=1.02	7.98** (0.03)
Impulse Control Difficulties	M=1.56 ^a sd=1.06	M=1.45 ^a sd=1.04	M=1.71 ^a sd=1.14	M=1.72 ^a sd=1.13	3.06* (0.01)
Lack of Emotional Awareness	M=1.66 ^a sd=0.93	M=1.42 ^b sd=0.91	M=1.38 ^b sd=0.84	M=1.14 ^c sd=0.81	10.37** (0.04)
Limited Access to Emotion Regulation Strategies	M=1.43 ^a sd=1.03	M=1.31 ^a sd=0.92	M=1.72 ^{b,c} sd=0.97	M=1.59 ^{c,b} sd=1.07	7.58** (0.03)
Lack of Emotional Clarity	M=1.20 ^{a,b} sd=0.91	M=1.04 ^a sd=0.82	M=1.28 ^b sd=0.84	M=1.10 ^{a,b} sd=0.91	3.55* (0.01)
TOTAL	M=1.51 ^{a,b} sd=0.67	M=1.40 ^a sd=0.66	M=1.67 ^b sd=0.64	M=1.58 ^{a,b} sd=0.72	6.81** (0.02)

Note. * $p < 0.05$ ** $p < 0.001$ Different indexes next to the mean values indicate significant differences between the clusters (post-hoc Tukey HSD)

The highest level of acceptance of emotional reactions characterizes the individuals with identity foreclosure, who differ significantly in this respect from the people with identity moratorium, who achieve lower scores on this scale. The individuals with identity achievement are characterized by the greatest difficulties in realizing goal-oriented behaviors. Similar results in this area obtain the people with identity moratorium. These

groups differ significantly from the groups of 'foreclosure' and 'diffusion', which are characterized by the lowest level of difficulties in the realization of goal-oriented behaviors. When it comes to difficulties in controlling impulses, no significant differences among the groups were found. In turn, the most significant differences of all the dimensions of emotion regulation can be observed in the case of emotion awareness.

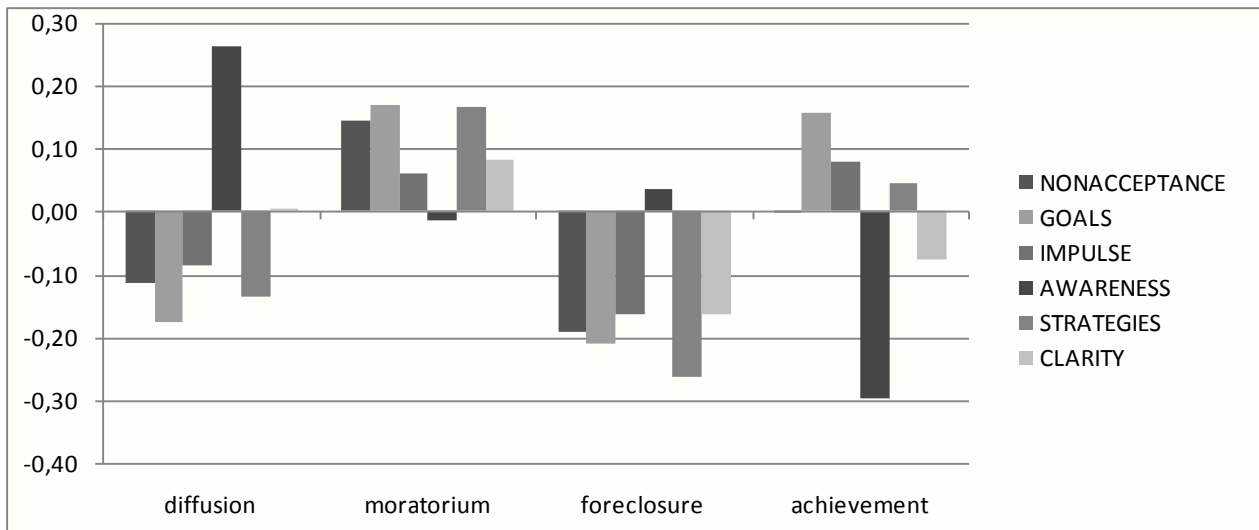


Figure 4. Z-scores for dimensions of emotion regulation for four identity statuses.

Note.

NONACCEPTANCE – Nonacceptance of Emotional Responses
 IMPULSE – Impulse Control Difficulties

STRATEGIES – Limited Access to Emotion Regulation Strategies

GOALS – Difficulties Engaging in Goal-Directed

AWARENESS – Lack of Emotional Awareness

CLARITY – Lack of Emotional Clarity

The highest level of emotion awareness characterizes the group with identity achievement, which differs significantly in this respect from all other groups, whereas the lowest level of emotion awareness characterizes the group of people with identity diffusion and they also differ significantly from other groups. The other groups, i.e. foreclosure and moratorium, do not differ from each other in this respect. The greatest access to the strategies of emotion regulation characterizes the group of people with identity foreclosure, differing in this respect from the groups with the statuses of identity moratorium and achievement. The individuals with identity diffusion differ only from the people with the moratorium status, however, the former group has a greater access to the strategies of emotion regulation. When it comes to difficulties in understanding emotions, differences pertain to the groups with identity moratorium and foreclosure, however, individuals with the status of identity foreclosure understand emotions better than those with identity moratorium (see Table 3).

(5) Structure of relationships between dimensions of emotion regulation and identity status

Due to the fact that differences between particular identity statuses are qualitative, the analysis of correlation (r-Pearson) between the five dimensions of identity and the six dimensions of emotion regulation was conducted within the four identity statuses.

On the basis of the results obtained from correlation analyzes, it can be stated that in the group of people with identity diffusion, relationships between dimensions of emotion regulation and both ruminative exploration and commitment making can be found.

The direction of these relationships indicates that a high level of ruminative exploration is connected with a higher degree of difficulties in emotion regulation. In turn, a higher level of commitment making is associated with a higher level of emotion regulation competences. In the group of people with the moratorium status, a high level of emotion awareness is connected with higher levels of exploration in breadth and in depth, whereas a higher level of access to emotion regulation strategies is associated with a lower level of exploration in breadth. Among the individuals with identity foreclosure, the greatest number of relationships between dimensions of emotion regulation and dimensions of identity can be observed. In the case of exploration dimensions, the results indicate that there is a connection between a low level of emotion regulation competences and a higher level of exploration. When it comes to commitments, the more effective the process of emotion regulation, the higher the level of commitments.

Tab.4 Correlations among DERS scales and DIDS scales in identity statuses

		Exploration in breadth	Exploration in depth	Ruminative exploration	Commitment making	Identification with commitment
Diffusion	ACCEPTANCE	0.04	0.06	0.09	-0.16*	-0.10
	GOAL	0.01	-0.02	0.16*	-0.22*	-0.14**
	IMPULSE	0.12	0.07	0.12	-0.14	-0.16
	AWARENESS	0.13	0.11	-0.05	0.02	0.10
	STRATEGIES	0.11	0.10	0.11	-0.12	-0.16*
	CLARITY	0.05	0.10	0.21**	-0.20**	-0.03
	TOTAL	0.11	0.10	0.16*	-0.21**	-0.13
Moratorium	ACCEPTANCE	0.04	-0.01	-0.02	0.12	0.11
	GOAL	0.08	0.05	0.11	-0.09	0.04
	IMPULSE	-0.01	-0.08	0.11	-0.01	-0.05
	AWARENESS	-0.29**	-0.18*	-0.12	-0.01	-0.01
	STRATEGIES	0.17**	0.01	0.12	0.02	-0.01
	CLARITY	0.03	-0.06	-0.05	0.08	-0.05
	TOTAL	0.05	-0.05	0.07	0.03	0.02
Foreclosure	ACCEPTANCE	-0.02	0.16*	0.14*	-0.15*	-0.15*
	GOAL	0.17*	0.19*	0.11	-0.10	-0.17*
	IMPULSE	0.07	0.08	0.07	-0.09	0.12
	AWARENESS	-0.08	0.01	0.04	-0.07	-0.20**
	STRATEGIES	-0.03	0.16*	0.14*	-0.15*	-0.23**
	CLARITY	-0.10	-0.06	0.07	-0.06	-0.19**
	TOTAL	0.02	0.15*	0.14*	-0.15*	-0.25**
Achievement	ACCEPTANCE	0.01	0.17*	0.12	0.01	-0.07
	GOAL	0.07	0.06	0.10	0.03	-0.17*
	IMPULSE	0.12	0.09	0.09	0.07	-0.15*
	AWARENESS	-0.12	0.00	0.10	-0.16*	-0.23*
	STRATEGIES	0.07	0.14	0.13	0.14	-0.05
	CLARITY	-0.09	0.05	0.10	0.00	-0.11
	TOTAL	0.04	0.13	0.15*	0.05	-0.16*

Note.

* $p < 0.05$ ** $p < 0.01$

NONACCEPTANCE – Nonacceptance of Emotional Responses

IMPULSE – Impulse Control Difficulties

STRATEGIES – Limited Access to Emotion Regulation Strategies

TOTAL – overall result

GOALS – Difficulties Engaging in Goal-Directed

AWARENESS – Lack of Emotional Awareness

CLARITY – Lack of Emotional Clarity

Discussion

The obtained results enable a partial confirmation of the assumed hypotheses. The first hypothesis, pertaining to differences between particular identity statuses in respect of emotion awareness, has been confirmed both in the case of identity achievement, characterized by the highest level of emotion awareness, and in the case of identity diffusion and foreclosure, characterized by the lowest levels of emotion awareness. Such results point to the significance of emotion awareness in the process of forming identity. The hypothesis needs to be refuted in respect of emotion clarity, because, contrary to the assumptions, the highest level of emotion clarity characterizes individuals with the status of identity foreclosure.

The second hypothesis, concerning impulse control and an ability to realize goal-oriented behaviors, has been confirmed by the obtained results. Individuals with identity moratorium experience the most extensive difficulties both

in realizing goal-oriented behaviors and in controlling impulses.

The expected differences between particular identity statuses in respect of an access to emotion regulation strategies (the third hypothesis) have not been confirmed, because the greatest access to these strategies characterizes individuals with the status of identity foreclosure.

In conclusion, it can be observed that the lowest level of difficulties in emotion regulation characterizes individuals with identity foreclosure.

In attempting to explain the unexpected relationships between identity foreclosure and the lowest level of difficulties in emotion regulation it may be useful to consider the results of Helson and Srivastava (2001) studies, in which links between identity foreclosure and strategies of emotion regulation, defined as affective dampening, have been observed. For it turns out that people with identity foreclosure gain the lowest scores on the scale of both negative, and positive emotionality. Helson and Srivastava

treat their results as indications of using by these individuals the strategy of affective dampening that enables a person to avoid experiencing negative, or too intensive emotions. Due to effective suppression, individuals from this group are the least likely to experience intensive emotions, both negative and positive. In this context, it becomes comprehensible why people with identity foreclosure manifest the lowest level of difficulties in the sphere of conscious processes of emotion regulation – thanks to affective dampening they experience emotions less frequently, and this is probably the reason why they declare the smallest number of difficulties in the conscious regulation of emotions.

In the future, in order to verify the above interpretation, it seems necessary to conduct studies with the use of procedures that will enable researchers to go beyond information presented by respondents in questionnaires in the form of self-reports based on phenomenological premises.

On the basis of correlation analyzes, it can be stated that the obtained results enable a partial confirmation of the expectations concerning the relationships between emotion regulation and dimensions of identity within particular identity statuses. As it has been already indicated, individuals with identity foreclosure probably suppress emotions in order to exclude them from their subjective experience. It enables such people to function effectively in the sphere of emotion regulation. The obtained results indicate that two dimensions of exploration, i.e. ruminative exploration and exploration in depth, understood by Luyckx et al. (2008) as a reappraisal of undertaken commitments, are connected with difficulties in emotion regulation. On the basis of these results, it can be presumed that in the case of individuals with identity foreclosure the evaluation of undertaken commitments takes place in situations when the strategy of suppressing negative emotions connected with commitments turns out to be ineffective, and ceases to shield them from experiencing fear and doubts associated with commitments.

Individuals with the status of identity moratorium, probably due to struggling with the crisis, constitute a relatively homogeneous group in respect of emotion regulation. Specific to these people is a positive relationship between the dimensions of exploration in breadth and in depth, and emotion awareness. In line with the understanding of the dimension of emotion awareness proposed earlier, treating it as one of the criteria necessary to synthesize experience, it can be speculated that the development of certain individuals with identity moratorium will proceed towards identity achievement.

The relationships observed in the group of individuals with identity diffusion may imply that difficulties in emotion regulation do not allow these people to make commitments and, probably, contribute to the maintenance of adverse phenomena illustrated by the dimension of ruminative exploration. In this group particularly interesting seems to be the low level of emotion awareness. Such a result may be deemed another confirmation of the importance of this competence in the process of identity formation.

The configuration of the results in the sphere of emotion awareness enables me to conclude that this variable plays a significant role in the development of identity. Emotion awareness, as a dimension of regulation, may be referred to as the function of mediation between external requirements and an internal reality, described by Erikson (Kroger, Marcia, 2010). In this context, deficits in emotion regulation may be understood as deficits in the integrative function of ego.

Due to the lack of possibility to make measurements over time, the presented study does not yield conclusive answers about the development of identity. It reaches, however, the intended goal, which was an exploration of the links between emotion regulation and identity, and thus can serve as a starting point for further analysis.

The main implications for further research in the discussed area are connected with the necessity to conduct longitudinal studies that will enable direct conclusions to be made about the relationships between emotion regulation and the process of identity development. Moreover, due to the limitations connected with the procedure of investigating the processes of emotion regulation with the use of the questionnaire method discussed above, studies conducted with the application of other methods may turn out to be important. This could verify the results obtained so far, for instance, through an introduction of variables illustrating the emotion regulation mechanisms based on physiological markers (see Gross, 2002).

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