Cognitive and affective reactions to success and failure – the quality of feedback as the determinant of self-verifying and self-enhancing motivation[1]

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A study was conducted to ascertain what the dominant self motivation is like – self-verifying or self-enhancing? – in a situation when a person is faced with a negative evaluation of a central personality characteristic. Previous research suggested that affective reactions should follow the pattern predicted by self-enhancement theory by which all individuals would react with positive affect to positive evaluation and with negative affect to negative evaluation. On the other side, cognitive reactions are expected to follow the pattern predicted by self-verification theory which suggests that information consistent with the self-concept should be the most convincing (i.e. cognitive reactions should be influenced by interaction of feedback and self-esteem).

Ninety female respondents were given a false favorable or extremely unfavorable feedback about their achievement on an intelligence test, after which their cognitive and affective reactions were measured. The results revealed that the respondents demonstrated a self-enhancing motivation both in the affective and the cognitive domain, i.e., regardless of their level of self-esteem, those who had failed experienced more negative affect, rated test more unfavorably, assessed it as less accurate, and claimed they had invested less effort to solve the test, than those who were successful. The research imposes conclusion that cognitive reactions to failure are not conditioned only by the degree of negativity or positivity of global self-views, but also by the quality/intensity of unfavorable feedback. This conclusion provides important methodological implications for future research in this area.

Key words: *evaluative feedback, self-esteem, self-enhancement, self-verification, self-concept*

Negative evaluation can seriously threaten an individual's feeling of personal value and their self-image. That is why people tend to consolidate, reorganize and

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integrate negative environmental information about the self in a way that would be acceptable for them, given the existing experience of self (Markus, 1977), or, in other words, we select and reinterpret incoming information about ourselves in a way that would give us a personally acceptable meaning and significance of that information. However, various theories offer various answers about what the dynamics of formation and transformation of self-image under the influence of new, and especially negative, information is. It is believed that the type of information a person seeks, as well as their reactions to positive or negative information about self, depend primarily on the dominant self motivation.

According to self-enhancement theory (Jones, 1973; Jussim, Yen, & Aiello, 1995), people primarily tend to build, maintain and validate a positive self-image and therefore act in ways that would enable them to do so. The motive that regulates this behavior is called the self-enhancement motive. On the contrary, the self-verification motive is manifested as a tendency to preserve the existing self-image, and self-verification theory claims that people act in ways that will enable them to confirm the existing self-image, be it globally positive or negative (Swann, 1983).

Both theories assume that the way of reacting to self-relevant feedback does not depend only on the kind of obtained information – favorable or unfavorable – but also on the kind of self-concept a person has (positive or negative). Namely, self-enhancement and self-verification theories predict different reactions of people who have positive and negative self-images to favorable and unfavorable evaluations. The self-enhancement motive will direct individuals with positive and negative self-concept alike (i.e., those with high and low self-esteem) to obtain positive evaluations and avoid negative ones, because everybody is interested in increasing and confirming the sense of personal worth. Contrary to this, the self-verification motive propels people to seek information that are consistent with their self-image, so that individuals with high self-esteem will accept positive evaluations and those with low self-esteem will accept negative ones, while both will try to disqualify inconsistent evaluations.

Hypotheses derived from the aforementioned theories make it clear that both theories give the same predictions about people with high self-esteem – they both predict that these will prefer positive evaluations and discredit negative ones. However, they differ in predictions about individuals with low self-esteem. Self-enhancement theory claims that these individuals, just like the ones with high self-esteem, will tend to obtain a positive evaluation, while self-verification theory predicts that they will prefer a negative evaluation because it is consistent with their negative self-concept.

Empirical testing of these competing theories have produced mostly inconsistent results, which made scholars orient themselves towards a more precise definition of the factors affecting reaction to evaluation. When summarizing a large body of relevant research, Shrauger (1975) concluded that the self-enhancement motive dominates in the domain of affective reactions,

while the self-verification motive dominates in the cognitive domain. In other words, regardless of the self-image they have, people react by positive affect to positive evaluations and by negative affect to negative evaluations, but are more willing to accept and believe the information that are consistent with their general self-image.

Subsequent research has mainly confirmed Shrauger's conclusion. It was established that negatively evaluated subjects, when compared to positively evaluated ones, expressed less satisfaction with the evaluation, found the evaluator less likeable and demonstrated more depression, anxiety, anger and negative affect, i.e. less positive affect, and this was true regardless of the level of self-esteem of the subjects examined (Dauenheimer, Stahlberg, & Petersen, 1999; Jussim et al., 1995; McFarlin & Blascovich, 1981; Moreland & Sweeney, 1984; Swann, Griffin, Predmore, & Gaines, 1987). As for cognitive reactions, respondents with high self-esteem, when compared to those with low self-esteem, reacted to failure with stronger self-serving attribution (they ascribed failure to external factors and success to internal ones), assessed the evaluator or the technique as less valid, and more often saw the evaluation itself as inaccurate, which all indicated a rejection of inconsistent information about self (Dauenheimer et al, 1999; Jussim et al., 1995; McFarlin & Blascovich, 1981; Moreland & Sweeney, 1984; Swann et al., 1987).

Further research of the self-enhancement and self-verification motives suggested that the centrality of the self-scheme to which evaluation refers to is also a factor that determines subsequent reaction (Dauenheimer et al., 1999). A dimension is considered schematic or central when people assess themselves as extreme on it, when it is of utmost importance to them (Markus, 1977) and/or when they are highly confident of it (Fiske & Taylor, 1991), while for aschematic dimensions the contrary is true.

According to Petersen, Stahlberg, and Dauenheimer (2000), Shrauger's thesis is valid if the dimension from which evaluation is obtained is a central one, because such a dimension is related to a series of other cognitions about one's personality and, as such, is highly resistant to change. On a peripheral dimension, no strong self-verifying motivation is expected, because a change of conviction about such a dimension does not lead to major inconsistencies within the general self-image. The studies of these authors have mainly confirmed the given assumption – in comparison to a peripheral dimension, an inconsistent evaluation of a central personality dimension was followed by a stronger resistance to self-image change, which speaks in favor of self-verification theory, but positive evaluations were followed by positive, and negative evaluations by negative affect, as predicted by self-enhancement theory (Dauenheimer et al, 1999; Stahlberg, Petersen, & Daunheimer, 1999; Petersen et al., 2000).

In a study carried out in natural environment, Swann & Pelham (2002) established that students accepted the roommates who confirmed their self-images in specific domains and rejected those who did not confirm them, but this happened only when those domains were exceptionally important for a

person or when they were very sure of their self-assessment. This tendency was especially dominant in individuals with low self-esteem.

Nevertheless, some research came up with the contradictory results. Anseel & Lievens (2006) who conducted the research in the organizational context showed that people who received negative feedback about their performance tend to be dissatisfied and reject that information. Based on findings of their and many other studies, these authors concluded that in the natural context, i.e. when people are highly involved and care about their performance, self-verification tendencies occur less often than self-enhancement tendencies (Anseel & Lievens, 2006). Also, some studies showed that low self-esteem individuals react to success with even more positive emotions than high self-esteem individuals, which also implies their more dominant need for self-enhancement (Ilies, De Pater, & Judge, 2007).

Studies that tested self-enhancement and self-verification theories have been most often conducted in non-clinical populations, mainly students. However, Baumeister, Tice, and Hutton (1989) established that low self-esteem in non-clinical populations was only relatively low, i.e. only in comparison to people with high self-esteem. Given the fact that these individual's scores belonged to the mid-range of self-esteem scales, their self-image was essentially neutral and not negative. A truly negative self-image is found mainly in certain clinical populations (for example, depressive patients), but experimental studies in this population have remained scarce because of ethical reasons. This has considerably reduced opportunities to directly test the self-verification hypothesis that individuals with negative self-concept prefer negative evaluations.

Some of the rare studies that included clinical population as well, confirmed self-verification theory. For example, Swann et al. (Swann, Wenzlaff, Krull, & Pelham, 1992, Study 1) established that depressive patients preferred interaction partners who saw them negatively to those who saw them positively or neutrally, and, when compared to non-clinical respondents, they wanted their friends and intimate partners to see them less positively (Swann, Wenzlaff, Krull, & Pelham, 1992, Study 2). Moreover, when compared to non-depressed subjects with high and low self-esteem, depressed subjects more often chose and preferred negative feedback, which they also considered more accurate (Giesler, Josephs, & Swann, 1996).

The goal of this study was to compare the predictive power of the theories of self-enhancement and self-verification in a situation when a person is faced with an evaluation of a central personality characteristic. Marsh's findings (1990) suggest that the intellect (i.e. academic achievement), aside from the physical and social self, is one of the most important domains of self-concept in adolescents, while the study of Swann, Pelham, and Krull (1989) demonstrated that intelligence and sociability were the personality characteristics that respondents most often pointed out as their qualities. Therefore, these personality

characteristics can be considered as central or schematic ones for most people. In this study, intelligence was treated as a central personality characteristic about which the feedback was manipulated. It was examined which of the two motives – self-enhancement or self-verification – would govern cognitive and affective reactions to success and failure in the intelligence test.

Method

Procedure and sample. In the first phase of the study, a triage of the self-esteem level was carried out in a sample of 202 students of the first, second and third year of psychology at the University of Novi Sad. Following the procedures applied in previous studies (see, for example, Swann et al., 1987; Swann, Hixon, Stein-Serossi, & Gilbert, 1990; Swann, Pelham, & Krull, 1989; Swann, Stein-Seroussi, & Geisler, 1992), we selected only the respondents with remarkably high and remarkably low self-esteem, i.e. those whose self-esteem scale score was below the 30th or above the 70th percentile established in the sample. This produced a sample of 98 psychology students. As there were very few male students in the sample, these were eliminated, which gave the final sample of 90 female psychology students. The obtained high and low self-esteem groups differed significantly in their self-esteem scores (t=-21.023, p<.001, AM_{LSE}=103.87, AM_{HSE}=131.87; theoretical range of scores is 30–150). The average age of participants was 21.25 years (SD=2.99), and ranged from 19 to 38 years.

The second phase of research was an experiment. Participants took a very challenging computer-based test of intellectual abilities, after which they were given a false favorable or unfavorable feedback. For a feedback on success to have an unambiguous positive or negative meaning for all the respondents, we chose a feedback of a more extreme positive and negative valence. The favorable (positive) feedback was information that a respondent performed better than 85 to 97% of her colleagues (the computer randomly generated a figure from this range), while the unfavorable (negative) feedback was information that a respondent performed better than 5 to 15% of her colleagues (which was also a randomly generated figure). Formulating the feedback relative to the success of the rest of the referent group (other students of psychology) was designed to provide greater credibility of such information. Also, since the test was very challenging, a bad test result should not be unconvincing for the respondents. Crossing the two kinds of feedback and two levels of self-esteem produced four subsamples with the number of participants in them ranging from 22 to 23.

After finishing the test of intellectual abilities, the respondents filled out a questionnaire that measured affective (depression, anxiety, anger, preference of the feedback source) and cognitive reactions (assessment of test characteristics, internal state and effort, and feedback accuracy) to feedback on intellectual abilities. At the end of the experiment participants were debriefed and thanked. During debriefing, none of the participants expressed doubts about the experimental procedure.

Instruments. The global self-esteem scale (Opačić & Bodroža, in preparation), consists of 45 items, of which 30 items measure global self-esteem and the remaining 15 measure the locus of control. In this study, only the part of the scale that measures global self-esteem was used. The scale contains a balanced number of items formulated in positive and negative direction and its internal consistency coefficient was α=.94. The representative items from the scale are "Generally speaking, I am satisfied with myself" and "Sometimes I feel completely useless" (reversed).

The scale for assessment of the test characteristics was constructed purposely for this study. It consists of six seven-point graphic-numeric scales for assessment of

the characteristics of an intelligence test. The offered pairs of attributes were: difficult-simple, boring-interesting, good-bad, objective (unbiased)-subjective (biased), stimulative-unstimulative, and reliable-unreliable. The participants answered by marking a point on the scale that reflected their subjective assessment of a test characteristic. The positive pole of the measured variable describes test as difficult, boring, bad, subjective, unstimulative and unreliable, and thus the variable is labeled "unfavorable test characteristics". The internal consistency of the scale is .69.

The internal states and effort scale (Appendix 1), was also constructed purposely for this study and consists of four items. They are formulated as statements in which the respondents assessed their internal states during the intelligence test and the effort put into solving it. The items are balanced in direction and answered on 5-point Likert scale. The measure of internal states and effort is represented by the summative score on the scale. Positive pole of the measure indicates unfavorable internal states and lack of effort invested in the course of solving the test. The coefficient of internal consistency was α=.78.

One item: "The result I obtained is a good measure of my real abilities", was used to assess the perceived accuracy of the feedback. Respondents answered on the 5-point Likert scale (from "completely disagree" to "completely agree").

The Profile of Affective States – POMS, Form 1 (Popov, 2007) – is a revised, abridged and adapted version of the original Profile of Mood States scale (McNair, Lorr, & Droppleman, 1971). Three affective states (depression, anxiety and anger) were each operationalized by five items in Likert 5-point response format. The participants indicated to what extent each mood state was characteristic of them at a given moment. The obtained internal consistency of the subscales ranged from .75 to .88.

Finally, on a 10-point graphic-numeric scale the participants assessed how much they liked the test of intellectual abilities they had taken. Their assessment represents the measure of preference of the feedback source.

Results

The influence of the predictor variables (feedback, the level of self-esteem and their interaction) on a set of criteria consisting of affective and cognitive reactions to feedback was assessed through multivariate analysis of variance. Significant multivariate effects were obtained for feedback (λ=.480, $F(1,89)$=12.384, p<.001) and self-esteem (λ=.775, $F(1,89)$=3.310, p<.01), but not for their interaction (λ=.928, $F(1,89)$=.882, p>.05). Table 1 shows the main effects of the predictors on the criterion variables.

The effect of feedback accounted for 52% of the variance, while the effect of self-esteem explained about 22.5%. The significant influence of feedback was obtained for all the dependent variables, while self-esteem was a significant predictor only of depression and anxiety.

The participants who had received positive experimental feedback, when compared to those who had received negative feedback, assessed their concentration and mood as being more favorable and claimed to put more effort when solving the intelligence test (internal states and effort: $AM_{pos.}$=13.24, $AM_{neg.}$=11.02), estimated test characteristics as less unfavorable ($AM_{pos.}$=20.89, $AM_{neg.}$=24.52) and stated that test result was more accurate ($AM_{pos.}$=3.14, $AM_{neg.}$=1.69). They also preferred the test more than those who had received negative feedback ($AM_{pos.}$=7.02, $AM_{neg.}$=5.00).

Table 1. Test of the main effects of the predictors

Effect	Dependent variable	F(1,89)	p
Feedback	Unfavorable test characteristics	8.757	.004
	Internal states and effort	11.422	.001
	Accuracy of feedback	60.166	.000
	Preference of the feedback source	17.299	.000
	Depression	22.432	.000
	Anxiety	10.325	.002
	Anger	17.169	.000
Self-esteem	Unfavorable test characteristics	.435	.511
	Internal states and effort	.000	.994
	Accuracy of feedback	228	.634
	Preference of the feedback source	.169	.682
	Depression	4.803	.031
	Anxiety	12.729	.001
	Anger	.052	.821

Negative feedback on test achievement, when compared to positive feedback, was followed by more pronounced affective states of anger, depression and anxiety (anger: $AM_{pos.}$ =5.64, $AM_{neg.}$ =8.24; depression: $AM_{pos.}$ =5.90, $AM_{neg.}$ =8.08; anxiety: $AM_{pos.}$ =7.05, $AM_{neg.}$ =9.11).
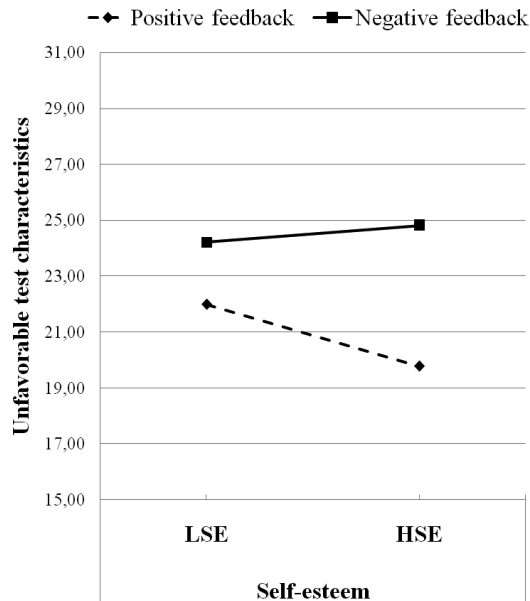

Figure 1. Influence of feedback and self-esteem on assessment of test characteristics
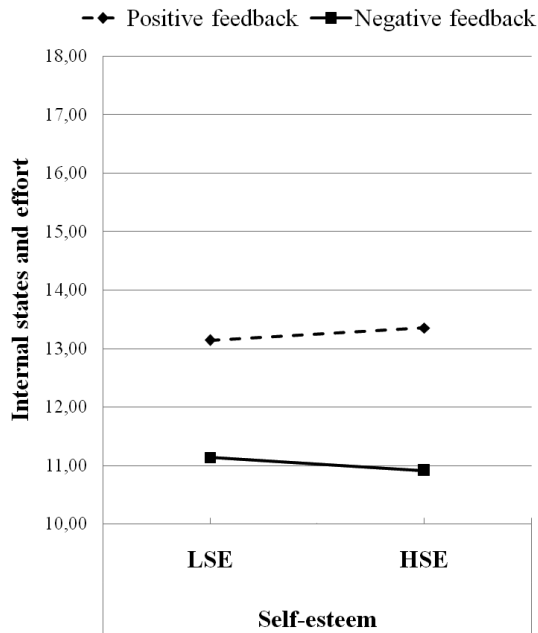
Figure 2. Influence of feedback and self-esteem on assessment of internal states and effort
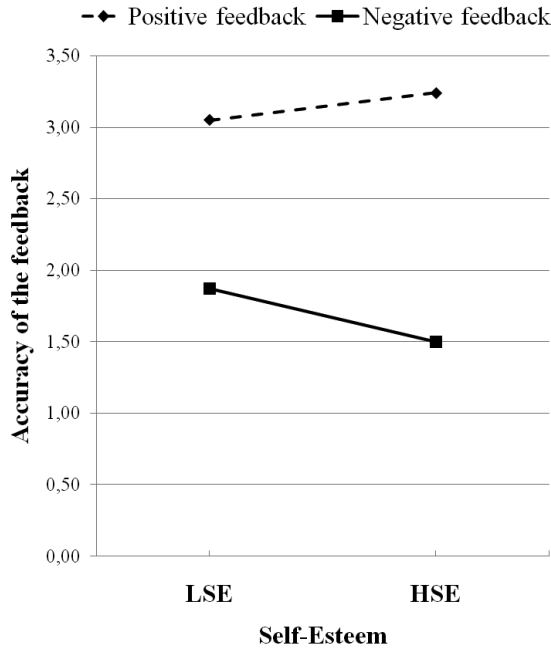

Figure 3. Influence of feedback and self-esteem on assessment of feedback accuracy
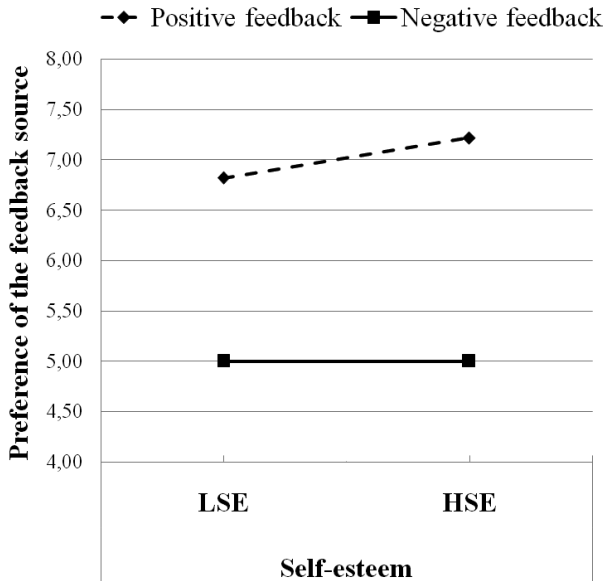
Figure 4. Influence of feedback and self-esteem on the preference of the feedback source
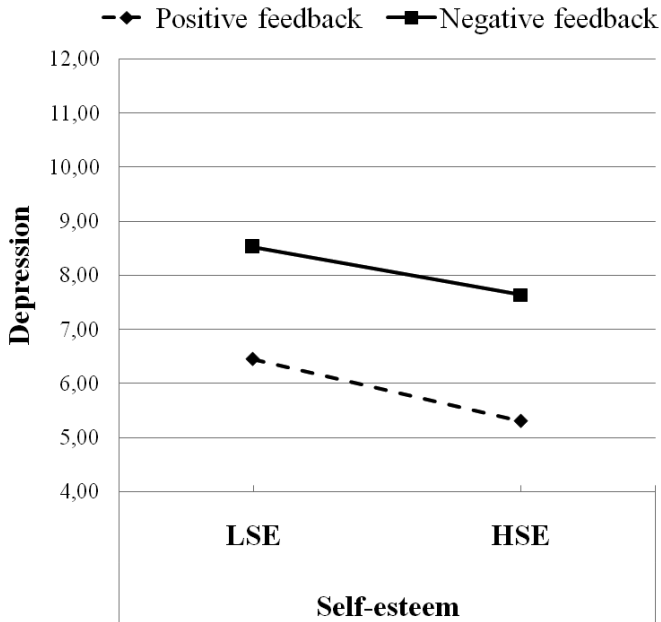

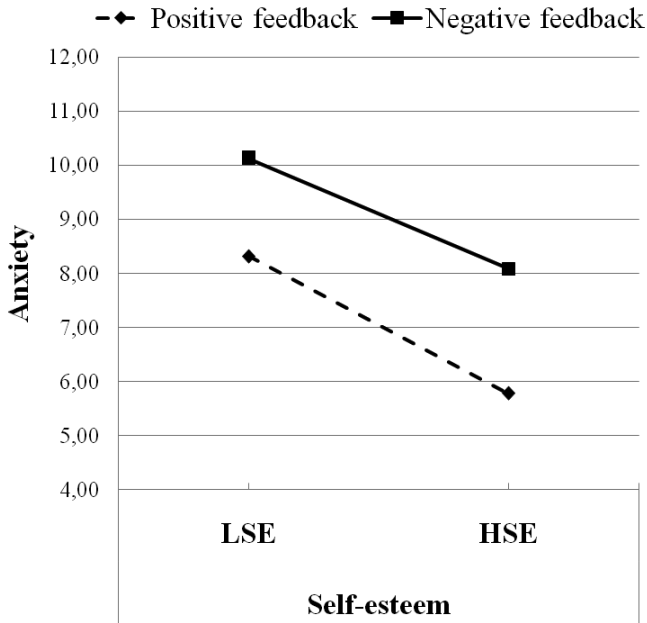*Figure 5*. Influence of feedback and self-esteem on depression

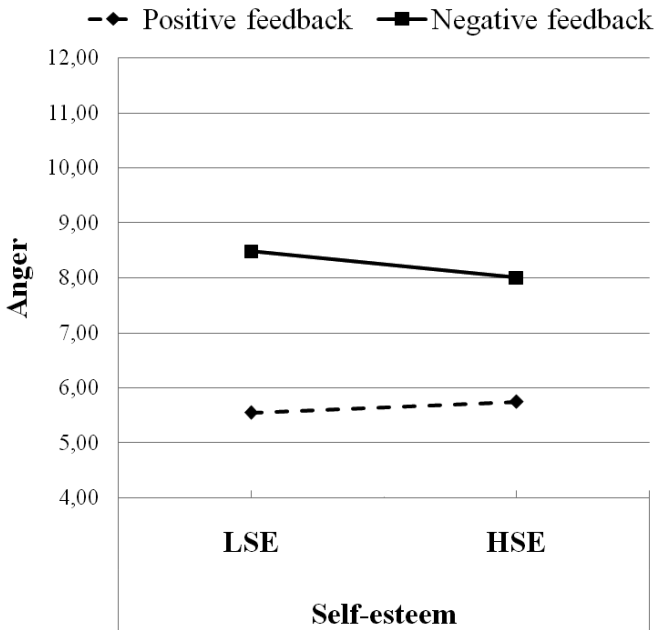Figure 6. Influence of feedback and self-esteem on anxiety

Figure 7. Influence of feedback and self-esteem on anger

In comparison to the respondents with high self-esteem, those with low self-esteem demonstrated stronger depression and anxiety, regardless of the experimental feedback (depression: AM_{LSE}=7.49, AM_{HSE}=6.47; anxiety: AM_{LSE}=9.22, AM_{HSE}=6.94).

DISCUSSION

The aim of this research was to see whether the respondents who had been given favorable or unfavorable information about their intellectual abilities would demonstrate self-enhancing or self-verifying motivation. It was expected that the respondents would react to success by positive affect and to failure by negative affect, and that the most convincing feedback for them would be the one that is consistent with the level of their self-esteem. In other words, we expected that individuals with low self-esteem would assess information about failure as being more convincing, while those with high self-esteem would do so with information about success.

The results of this study were consistent with the predictions of self-enhancement theory (Jones, 1973; Jussim, Yen, & Aiello, 1995; Shrauger, 1975) relating to affective reactions to success and failure. Regardless of their level of self-esteem, respondents demonstrated stronger reactions of anger, anxiety and depression after failure than after success. Besides, when compared to the respondents who allegedly had a bad test result, those who allegedly obtained a good result assessed the test as being more likeable, which also confirmed the expected pattern of affective reactions.

The study also confirmed that people with low self-esteem are significantly more depressed and more anxious than those with high self-esteem, regardless of the experimental feedback. The general propensity of individuals with low self-esteem for negative affective states has been well documented in previous studies conducted in clinical and non-clinical contexts (e.g. Cheung, 2006; Tennen & Herzberger, 1987; Tennen, Herzberger, & Nelson, 1987).

Contrary to the expectations of self-verification theory (Swann, 1983) and Shrauger's hypothesis (1975), it was self-enhancing and not self-verifying motivation that dominated in the domain of cognitive reactions as well. Both the respondents with high and low self-esteem perceived the result on the intelligence test as equally (in)accurate, but those who had received favorable feedback rated it as more accurate than those who had received unfavorable feedback. Additionally, high and low self-esteem individuals alike assessed the test and their internal states as more unfavorable, and claimed they invested less effort in solving the test if they had (allegedly) been unsuccessful, than if they had been successful. It is assumed that assessment of the test and own internal states as adverse allows person to attribute responsibility for the unsatisfactory results to these factors, instead of to their own low abilities. On the other side,

reliable test, good concentration and considerable effort invested into solving the test allows person to take the responsibility for success and, thus, to maintain positive self-image.

Although self-verification theory hypothesized that this pattern would be more dominant in individuals with high self-esteem than in those with low self-esteem, we did not find any significant differences between these two groups. In view of theoretical expectations and the results of previous studies, it remains unclear why the respondents with low self-esteem did not assess internal and external factors of the unpleasant situation (i.e. bad test result) as being favorable, to enable themselves to take more responsibility for failure and thus, to confirm their relatively negative self-image.

One possible explanation for these results could be sought in the intensity of feedback. In previous studies where respondents were given a numeric feedback, either in the form of a percentile score or a scale score, unfavorable feedback has most often been formulated as a test result that positioned a respondent around or somewhat below a half of other respondents (for example, between the 39th and 45th percentile; cf. Knee & Zuckerman, 1996; Koestner & Zuckerman, 1994) or somewhat below a scale's mid-value (for example, the results 4.5 or 5.0 on an 1 to 11 point scale; cf. Swann et al., 1990), which is a feedback that can be characterized as moderately unfavorable.

The feedback on achievement used in this study was extremely unfavorable. Namely, the negative feedback on abilities was formulated as a result that situates a respondent almost to the bottom (between the 5th and 15th percentile) of her referent group (i.e. other psychology students).

One important question arises from this kind of experimental design. As psychology students can be characterized as a sample with above-average cognitive abilities, a markedly negative evaluation of intellectual abilities that came from an extremely poor test result could have been very unconvincing for them. The question related to this is: Did negative feedback as used in this study produce planed effect on the respondent, i.e. was it convincing enough for the participants?

Two characteristics of the test situation were made to make the feedback plausible: the IQ test that participants performed was chosen to be very challenging, and the feedback was defined in relation to success of other psychology students.

The result that shows that participants who failed on the test experienced more negative affective states than the successful participants suggests that feedback had some influence on participants. Therefore, despite the fact that the participants in this study were people who probably have the above average intellectual abilities, feedback that indicated that they performed worse than most of their (equally intelligent) colleagues, caused negative affective reaction, and thus, could be considered convincing. Also, during the debriefing none of

the participants expressed doubts about the experimental procedure. Therefore, we could reject the assumption that a very negative performance feedback was unconvincing for highly intelligent students in this study.

The conclusion that could be drawn from the results related to cognitive reactions to success is that in the situation of extremely negative evaluation, low self-esteem individuals were primarily interested in protecting and enhancing their self-image, instead in verifying their existing (negative or neutral) self concept.

Aside from being very unpleasant and threatening, extremely negative evaluation might have been inconsistent with moderately negative or neutral self concept of low self-esteem individuals (Baumeister, Tice, & Hutton, 1989) examined in this study. In this case, it could be assumed that both motives – self-enhancement and self-verification – would guide cognitive reactions of individuals toward the rejection of the consequences of failure.

Although the design of this study does not allow us to drawn this conclusion directly and with certainty, research by Dauenheimer, Petersen and Stahlberg (Dauenheimer et al, 1999; Petersen et al., 2000, Stahlberg et al., 1999) support this assumption. These authors gave their subjects three kinds of evaluative feedback: one somewhat more favorable than the self-assessed personality characteristic, one consistent with it, and one somewhat more unfavorable than it. The last was neither preferred nor accepted as convincing under any circumstances. Such a result is consistent with the findings of our study which showed that individuals neither preferred nor felt responsible for the performance feedback that was very negative.

There is, also, another possible explanation of the results of this research. The other important question here is: Does higher global self-esteem undoubtedly means more positive intellectual self-concept, or in other words, have maybe both, high and low self-esteem groups from this study had equally positive convictions about their intellectual abilities? The fact that they are already preselected based on their high intellectual abilities (since they are students), makes this question more reasonable.

From the perspective of experimental design of this study, this implies that we could not expect these two groups to react differently to evaluative feedback, because their intellectual self-concept was equally positive. In such a case, specific self-view (i.e. intellectual self-concept) would be a better predictor of reactions to feedback related to specific personal characteristic (i.e. intelligence) than the global self-esteem. Since testing this assumption was not originally the aim of this research, it is not possible to give the exact answer to this question.

Nevertheless, other research that addressed this problem directly may offer relevant information. Dutton & Brown (1997) have found that emotional reactions to success were moderated by the level of global self-esteem, whereas the cognitive reactions were moderated by the specific self-views. Although both low and high self-esteem individuals self-verified their self-concept, they verified their specific self-views, and not their globally positive or negative self-image.

On the other side, Bernichon, Cook, and Brown (2003), who also used specific self-view as the predictor of reactions to feedback on that characteristic, did not find the evidence that low self-esteem individuals are motivated by self-verification. While high self-esteem individuals sought self-verifying feedback about the specific trait that was evaluated (sociability), low self-esteem individuals sought positive feedback about their sociability, regardless of the way they perceived themselves in terms of that personality characteristic. Bernichon et al. (2003) concluded that high self-esteem people could seek self-verifying information, even if it is negative, with no danger of feeling inadequate or incompetent, because they have other sources of self-affirmation. Low self-esteem people, on the other side, are primarily motivated to protect themselves from negative evaluations, because they do not have many other sources of self-affirmation to rely upon when their self-image is threatened.

The results of study by Bernichon et al. (2003) regarding low self-esteem individuals are also consistent with the results of present study. Low self-esteem participants from our study may have also primarily been interested in protecting their self-image in the face of negative evaluation of their intellectual abilities. This tendency might even have been amplified if extremely negative evaluation given had been very threatening for the sense of self-worth.

Still, the inconsistent results of two referred studies show that final answer to the question of what kind of evaluation of personality do low self-esteem individuals seek – self-enhancing or self-verifying – is not yet to be answered with certainty.

Finally, it could be concluded that the motive of verification of the existing self-image can appear in the domain of cognition only in situations when the received negative feedback is moderately inconsistent but not when it is markedly inconsistent, i.e. extremely threatening. When evaluation is extremely negative, the motive of self-enhancement, i.e. the need to maintain positive self-image, becomes dominant.

From the theoretical point of view, the results of this study impose the conclusion that, when formulating hypotheses derived from self-verification theory, it is not justified to speak about the tendency of people with high and low self-esteem towards positive and negative evaluation in general, but primarily about their tendency toward a consistent feedback about specific personality characteristic. This conclusion also implies that individuals faced with an evaluation that is more positive than the existing self-image should perceive such piece of information as unconvincing and therefore reject it, because it is also inconsistent with self-evaluation. This assumption was partly confirmed in the studies of Dauenheimer et al. (Dauenheimer et al, 1999; Petersen et al., 2000, Stahlberg et al., 1999), but further confirmation is nevertheless needed.

We can conclude that a methodologically sound way of testing the self-verification theory would be to give a feedback in relation to the previously established level of a specific personality characteristic. Hypotheses of self-

verification could adequately be tested within a study in which respondents would be given three kinds of feedback – inconsistent favorable, inconsistent unfavorable and consistent – that would be defined directly in relation to self-assessed level of a particular characteristic.

The understanding of high self-esteem as a precondition and correlate of good mental health has been questioned in recent years because it was established that it is sometimes related to a series of dysfunctional modes of behavior, as well as to the need of constant confirmation of personal value, vulnerability of self-image to external threats, and defensiveness in situations of failure (Kernis & Paradise, 2002). Such a form of high self-esteem was labeled "fragile" self-esteem and has most often been operationalized through measures of contingent self-esteem (Kernis, Lakey, & Heppner, 2008; Kernis & Paradise, 2002), through a combination of unstable and high self-esteem (Kernis et al., 2008; Kernis, Cornell, Sun, Berry, & Harlow, 1993; Zeigler-Hill, Chadha, & Osterman, 2008) or through a combination of high explicit and low implicit self-esteem (Jordan, Spencer, Zanna, Hoshino-Browne, & Cornell, 2003; Kernis et al., 2008; Zeigler-Hill, 2006). Fragile self-esteem has also been associated with narcissistic personality structure (Zeigler-Hill, 2006). Unlike individuals with "secure" self-esteem characterized by good mental health and non-defensive behavior in the face of failure, those with fragile self-esteem are strongly motivated to preserve positive evaluation at any price, and it is believed that they are characterized by a strong self-enhancing motivation – even stronger than the one found in persons with low self-esteem (Bosson, Brown, Zeigler-Hill, & Swann, 2003).

That is why a recommendation for future research would surely be that, aside from the level of self-esteem, one should also take into account its quality, i.e. examine differences in self-motivation between people with fragile and secure high self-esteem.

A study comprising clinically depressed patients, non-clinical subjects with low and high self-esteem, and people with narcissistic personality disorder would offer a most adequate insight into individual differences in tendency to use cognitive defense strategies in situations with incongruent positive, incongruent negative and congruent evaluations, i.e. in self-enhancing and self-verifying motivation.

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APPENDIX 1

Answer the following questions by circling a number from 1 do 5, where the numbers mean the following:

1 – completely disagree
2 – mostly disagree
3 – partly agree, partly disagree
4 – mostly agree
5 – completely agree

1. I was in a very good mood for this testing.   1 2 3 4 5
2. I was not particularly well concentrated during the testing.*   1 2 3 4 5
3. I did not try hard while completing this test.*   1 2 3 4 5
4. I was completely focused on the tasks while completing this test.   1 2 3 4 5
(* reverse scoring items)