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May Amusement Serve as a Social Courage Engine?

According to Fredrickson's (1998, 2001) "Broaden-and-Built Theory of Positive Emotions" positive emotions have different effects in social life and are based on different mechanisms than negative emotions do. Moreover positive emotions vary among themselves – there are quality differences between them and they shall not be treated only as a single positive mood. Three simple studies presented here and inspired by the Fredrickson's theory demonstrate that amusement, in comparison to neutral condition as well as to another positive emotion, may serve as a social courage engine. Amused participants were more courageous in the radio (study 1) as well as in the TV interview (study 2) and declared more courage in case of meeting new hypothetical person (study 3).

Keywords: *positive psychology, amusement, emotion, courage, social psychology, self-confidence*

Introduction

The mission of one of the latest brands of psychology - positive psychology - is to understand and foster the factors that allow individuals, communities, and societies to flourish (Seligman & Csikszentmihalyi, 2000). The focus is on developing human well-being knowledge. What role do positive emotions play in this field of interests?

Negative emotions have adaptive functions and evoke automatic specific behavior tendencies. Emotion theorists (Frijda, 1986; Lazarus, 1991) postulated that generally emotions are related to specific action tendencies. For example anger creates a tendency to attack, fear and anxiety link with the flight/fight eagerness and disgust links with the urge to expel.

Although the mentioned point of view is mainly based on the research and data for negative emotions, specific action tendencies have been mentioned to describe the function of specific positive emotions as well. For example, joy is linked with aimless activation, contentment with inactivity and interest with attending (Frijda, 1986). Is this explanation satisfactory?

Fredrickson (Fredrickson & Levenson, 1998) claims that "the action tendencies identified for positive emotions are notably vague and underspecified". Contrary to this traditional approach Fredrickson (1998, 2001) developed new theoretical model which she called "The Broaden-and-Built Theory of Positive Emotions".

"This theory states that certain discrete positive emotions — including joy, interest, contentment, pride, and love — although phenomenologically distinct, all share the ability to broaden people's momentary thought-action repertoires and build their enduring personal resources, ranging from physical and intellectual resources to social and psychological resources" (Fredrickson, 2001). She supports this point of view with numerous discoveries and ample research.

How does it happen? How do we build up our resources through the positive emotions?

As most of negative emotions have distinct face-mimic signals (Ekman, 1992) nearly all positive emotions are "labeled" with the same mimic expression – smile. The nature of smiling is closely bounded to Social Psychology. For example one of the Ekman's co-workers – Fridlund – showed (Fridlund, 1991) that people react with a smile in the real or only believed presence of other people. Moreover Fridlund (1994) claims that smile is a communicate. Hence if smile is a communicate and communication is an act between at least two parties then it may be assumed that at least some of positive emotions – those responsible for most episodes of smiling – are of a social nature. Hence it may be reasonable to look for explanations of how some positive emotions work and what are their functions in the Social Psychology area.

On the other hand some research reveal that happy mood leads to mindlessness (Mackie & Worth, 1989). Happy

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moods are associated with heuristic processing strategies, whereas sad moods are associated with systematic elaboration of information (Bless et al., 1996). Despite the above „negative effects” positive emotions seem to require more scientific attention – diligent studies on positive emotions would allow preparation of a more detailed map of positive emotions and more detailed understanding of positive emotions effects on our behavior.

Amusement as an emotional component of humor

According to Martin (2007) amusement is an emotional response to humor which in turn consists of the four essential components. The remaining three are (a) a social context, (b) a cognitive-perceptual process, and (c) the vocal-behavioral expression of laughter. Amusement - the pleasant emotion associated with humor, which is very well known to most of people¹, may be also described by such terms as *mirth*, *hilarity*, *cheerfulness*, and *merriment*.

Amusement did not attract much attention of the scientific psychology, however humor interested many, sometimes well known², researchers. Thus, although there is no much evidence of what happens with amused people, some conclusions can be reached and predictions made on the humor or laughter knowledge.

As mentioned earlier humor is basically a social phenomenon. We hardly ever joke or laugh on our own and we do it much more often in the presence of other people (Martin & Kuiper, 1999). But even solitary instances of laughter may be called “pseudo-social” in nature as sole people laugh usually when reading a book or watching a TV (or carrying out similar activity) – laughing person somehow is responding to the characters on TV or in a book (Martin, 2007).

Furthermore our ability to create humorous situations and to amuse one another have evolved as a means of providing us with opportunities to play. Play in turn may serve a very important social, emotional and cognitive functions (Bateson, 2005). In fact, all apes (and most mammals) engage in playful activities when they are juveniles. Human beings, unlike most other animals, maintain playful behaviors even in the adulthood, most notably through humor (Martin, 2007). Apter (1991) described playful activities as *paratelic* mode of functioning

1 Is amusement known only to human beings? Van Hooff and Preuschoft (2003) described the facial expression seen in monkeys and apes which they called „the play face”. It occurs while the animals are involved in social play. Moreover Panksepp and his colleagues (Panksepp & Burgdorf, 2000; Panksepp & Burgdorf, 2003) provided intriguing evidence that a form of laughter may even exist in rats. May it be like this that the evolutionary origins of the relaxed open-mouth play face, which in humans seems to have evolved into laughter, appear to go back many millions of years?

2 Darwin (1872), Freud (1905a, 1905b), Eysenck (1942, 1943), Catell (Catell & Luborsky, 1947) or Panksepp (Panksepp & Burgdorf, 2000; Panksepp & Burgdorf, 2003) - they all delivered some articles about humor.

and claims that we turn to *paratelic* and switch back to *telic*³ mode many times each day.

Investigators of the second component of humor - cognitive-perceptual processes involved in it – claim that most often humor seems to be related to incongruity and unexpectedness (Gervais & Wilson, 2005). Koestler (1964) suggested the term *bisociation* to describe the mental processing of humorous situations. *Bisociation* appears when an event or idea may be simultaneously perceived from two (or more) self-consistent but normally unrelated and incompatible frames of reference.

Finally the purpose of smile and/or laughter, as expressive components of humor, is not only to communicate that one is in a playful state, but sometimes actually to induce this state in others as well (Owren & Bachorowski, 2003; Russell, Bachorowski, & Fernandez-Dols, 2003). The potential of laughter to induce positive emotional arousal in listeners is perhaps based on activating certain specialized brain circuits called mirror-neurons (Provine, 2000; Gervais & Wilson, 2005), however this hypothesis need further research. Yet another function of laughter is to influence others: laughter can be a method of supporting someone’s actions (“laughing with”) and on the other hand it may be used to discourage someone’s practices (“laughing at”) (Shiota et al., 2004). Nonetheless when drawing conclusions about amusement on the base of knowledge about laughing and/or smiling we should be aware that laughing and smiling are very culture-specific (Szarota, 2006) as well as that smiling is also an expressive component of other positive emotions.

The last emotional component of humor – emotion of amusement – like other emotions may occur with varying degrees of intensity, ranging up to mirth and yet above to hilarity (Ruch, 1993). Szabo (2003) has shown that exposure to humorous stimuli may increase mood (which is not very surprising). Mobbs (Mobbs et al., 2003) demonstrated that watching humorous cartoons activates reward networks in the limbic system of the brain.

Summing up this short review about humor it is worth to note that in many cultures the sense of humor is seen as one of the most desirable characteristics in a prospective mate, and particularly in women’s choice of a male partner (Feingold, 1992).

The interesting question appears: what is specific for a behavior of amused people and is not just the effect of positive mood?

Positive emotions may have different functions

As Fredrickson (2001) noticed positive emotions vary among themselves. Amusement, *amae*, acceptance, hope, happiness, joy, glee, gladness, cheerfulness, flow, fascination, interest, mirth, pleasure, elation, bliss, ecstasy, delight, contentment, love, pride, gratification, *saudade*, relief⁴

3 *Telic* is a more serious and goal-directed mode.

4 English language has also some adverbs that help to describe

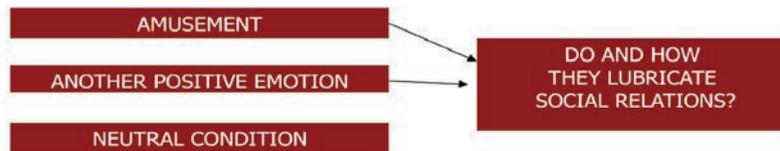


Figure 1. Philosophy of the first study.

– all the above phenomena are related to positive mood and many of them may be labeled as emotion. Sometimes those terms overlap – someone who loves is also happy, although not every happy person is in love (though the first part of this statement is true usually only if the love is happy and mutual). Do all those feelings share exactly the same functions?

To answer this question the author formulates preliminary suggestion of at least two groups of functions that the positive emotions may carry out.

First of all positive emotions may work as a „lubricant” for social interactions – this group covers amusement, *amae*, acceptance, love, hope, happiness, joy, mirth... the list shall remain opened.

The second explicit group are the positive emotions that work as a mechanisms for „gearing and sustaining” our behaviors – flow, fascination, interest, contentment, hope, joy, happiness, love... The emotions in this group carry out similar function as the stress reaction does, however the difference is based on circumstances. Namely stress reaction is highly motivating in a threatening or dangerous situations and the above mentioned positive emotions gear our behaviors in unthreatening situations.

The above list of functions should definitely be longer and shall also be grounded in a diligent analysis. This is a task for conscientious research in the nearest future. Yet the above mind exercise was a step toward preparing the experiments described below. Namely, if it is true that amusement is a lubricant to our social relations then how does it exactly work? Do people become more extravert when amused and that is why amusement lubricates relations? Or maybe amused people become more intimate and that is why relations flourish?

Study 1: courage during radio interviews

The first research compared behaviors of people during radio interview in three experimental conditions: amusement condition, another positive emotion condition, and condition close to neutral. Figure 1 illustrates the problem.

Method

Participants and procedure. 79 solitary trespassers (35 women, 44 men) were recruited at the main passage of campus of the Technical University in Łódź. In the first stage participants were asked for help in choice of the image. In amusement condition participants had to assess funniness of eight pictures of polish comic-grapher Andrzej Mleczko. In another positive emotion condition (further will be called sensitivity condition) the task was to assess the beauty of eight pictures stereotypically taken as beautiful (landscapes, running horses, puppies). Assessment of emotional neutrality of eight Chinese diagrams was a control condition. In a “cover story” the experimenter pretended to be a representative of a publishing house and he was looking for the best images to illustrate the chapters of the new book about emotions.

In the second stage of the experiment radio interviewer standing 50 meters away inquired participants to answer the short question to the radio microphone⁵. The question was “what are your plans for the nearest holidays?”.

Five participants changed their way or answered the phone after the first stage of experiment and that is why only 74 participants undergone full procedure (12 females and 13 males in neutral condition; 9 females and 16 males in amusement condition; 13 females and 11 males in sensitivity condition).

Tested hypothesis. A set of questions was formulated before the study:

H1: Will the amused participants be more willing to take part in the radio interview (higher agreeableness as „lubricant” for social interactions)?

H2: Will the amused participants talk longer in the interview (higher extravert behaviors as „lubricant” for social interactions)?

H3: Will the amused participants tell more (give more intimate information) during the interview (higher intimacy as „lubricant” for social interactions)?

H4: Will the amused participants be more self-confident during the interviews (higher social courage as „lubricant” for social interactions)?

positive states: we may say that someone is amazed, touched, stoned, breathless, inspired or we may also say that people feel harmony (which is popular positive emotion in non-individualistic societies).

5 Radio microphone had the label of radio Żak - a really existing radio broadcaster quite well known by students in Łódź.

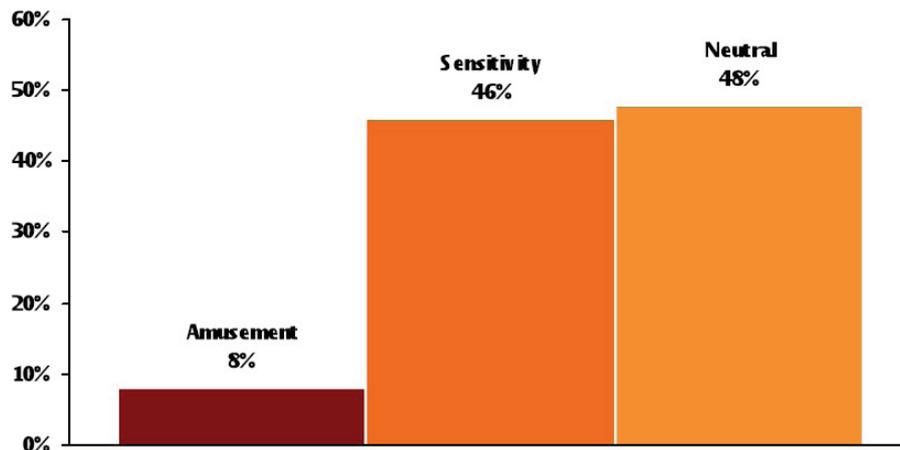


Figure 2. Problems at the beginning of a radio interview (percentage of people who said „mhm”, „eee”, „aahm” at the beginning of an interview).

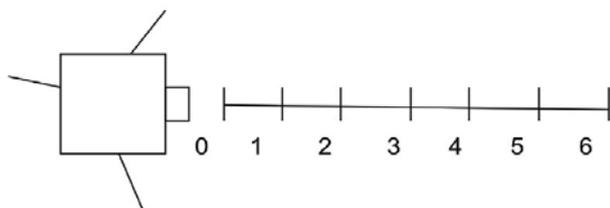


Figure 3. Scheme of experimental field in the second study.

Results

H1: Willingness to take part in the radio interview did not differentiate the participants in both positive conditions (12 and 13 people this is 48% and 54% of participants in amusement and sensitivity condition respectively agreed to take part in the interview); however in neutral condition participants were quite helpful (21 people this is 84% took part in the interview).

H2: An average time of the speech was 8.2 seconds (ranging from 1 s. to 25 s., $SD = 5.4$ s.) and on average interviewees used 13.4 words (ranging from 1 to 57, $SD = 13.2$ words). Nevertheless none of the measures differentiated any groups (time in seconds: $M_a = 8.1$, $SD_a = 6.3$; $M_s = 9.9$, $SD_s = 6.8$; $M_n = 7.2$, $SD_n = 3.6$; words: $M_a = 11.5$, $SD_a = 12.2$; $M_s = 13.0$, $SD_s = 15.6$; $M_n = 15.5$, $SD_n = 11.7$).

H3: Various measures were considered as the indicators of intimacy of speech (analysis of topics; mentioning family or close relatives; talking about emotions), but none of them differentiated the groups.

H4: Measure of self-confidence was constructed as a lack of stammer („mhm”, „eee”, „aahm”...) at the beginning of an interview (37% of interviewed participants did stammered at the beginning). Accordingly such constructed indicator differentiated groups – only one amused participant stammered and in the other two conditions almost half of participants stammered (6 and 10 people in a sensitivity

and neutral condition respectively)⁶ $t(31) = 2.44$; $p < 0.05$; $d = 0.78$ ($M_a = 0.08$, $SD_a = 0.29$; $M_n = 0.46$, $SD_n = 0.51$) and $t(23) = 2.23$; $p < 0.05$; $d = 0.82$ ($M_a = 0.08$, $SD_a = 0.29$; $M_s = 0.48$, $SD_s = 0.52$). Second figure illustrates the results.

Giving a speech to the radio microphone is not easy and almost half of people have some problems at the beginning, unless they are amused.

The study method arranged as natural experiment lacks the measures of manipulation's efficacy. The second big shortcoming are small groups of participants as well as gender imbalance in the amusement condition. Another two experiments try to address the above weaknesses. The first study shall be treated as the first step which helped to choose direction for further experiments – bonding of amusement and social courage.

Study 2: courage during TV interviews

The second study was yet again the natural experiment, however the scheme has changed (TV interviews instead of radio interviews) and design was aimed at more participants taking part in each condition of a full version of study.

Method

Participants and procedure. 50 solitary trespassers (27 women, 23 men) were recruited at the main passage of Łódź (Piotrkowska street). They were informed that the action is called „Portraits of the Cities”. At the beginning participants had to do “relaxing task”: choose the most funny picture out of eight Mleczko's graphics (amusement condition, 25 participants, 14 females and 11 males) and the second group (sensitivity condition, 25 participants, 13 females and 12 males) had to choose the most beautiful picture out of eight beautiful pictures. Next, participants were asked to stand on the line that was made in the front of camera. As they stood in front of camera participants had to answer question “Which values are important for you?”

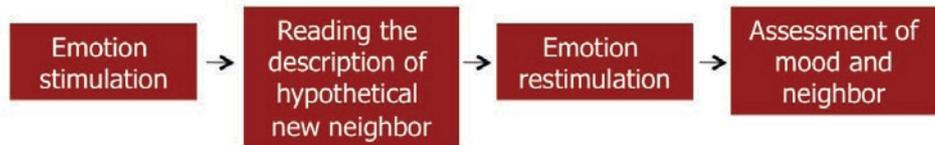


Figure 4. Scheme of the third study.

and after answering it they had to consequently continue their speech answering the question “What do you do to accomplish those values?”. The third figure may help to imagine how the experiment place was prepared.

At the line (1.2 meter long) which was made in the front of camera, six distances were marked (one pavement cobble long – ca. 20 cm. each). Cameraman confidentially noted where the participant stood at the beginning of an interview. Toe closer to camera was decisive.

Tested hypothesis. Will the amused participants stand closer to camera? Will any other differences in behavior be detected?

Results

The effect of higher courage of amused participants replicated. At the beginning of an interview participants in the amusement condition came closer (pavement cobble is a measure) to camera than the participants in the sensitivity condition did $t(48) = 2.2$; $p < 0.05$; $d = 0.59$ ($M_a = 2.0$, $SD_a = 1.5$; $M_s = 3.1$, $SD_s = 1.9$). No other differences in behavior had been detected (no differences in the length or content of the answers).

The effect of larger courage in amusement condition was higher for men than for women: amused men chose significantly closer distance to camera $t(21) = 2.2$; $p < 0.05$; $d = 0.86$ ($M_a = 1.6$, $SD_a = 1.7$; $M_s = 3.3$, $SD_s = 1.9$) than women did $t(25) = 0.8$, $p > 0.05$ ($M_a = 2.4$, $SD_a = 1.3$; $M_s = 2.9$, $SD_s = 1.9$).

The study method arranged as natural experiment lacks the measures of manipulation’s efficacy and this problem is solved in the third experiment. Another problem: may the gender difference be caused by the nature of stimulus as Mleczo’s graphics are (might be?) more funny for males? Third study addresses those problems.

Although standing close to recording camera is rather difficult for most of people, the second study shows that this problem is not so significant when the “actor” is amused, especially when this actor is male and has just seen comic graphics of another male.

Study 3: declared courage in case of meeting another person

In a third study measures of manipulation efficacy has been included (measurement of mood), as well as the stimulus has been changed to less gender-dependent (“recollect something amusing”).

Method

Participants and procedure. 241 solitary trespassers (128 women, 113 men) were recruited at the entrance to the library of Łódź University. They were informed that the experimenter is helping his friend in the Ph. D. research on memory processes.

The first task for the participant was to recollect some memories and answer two questions. In amusement condition (42 women and 38 men) participants had to answer the questions: “when the last time something amused you?” and “how many times a day something amuses you?”. In a sensitivity condition (43 females and 38 men) the questions were: “when the last time something moved/touched you?” and “how many times a day something moves/touches⁷ you?”. Finally participants in a neutral condition (43 females and 37 males) had to answer the winter questions: “when did the last winter finish?” and “how many days a year in Łódź we have a snow?”.

The second task was to read the description of hypothetical person. This description and its translation are attached to this article.

The third task was again related to the first questions. Participants had to recollect some very amusing or very touchy story (amusement and sensitivity conditions respectively) or not very snowy winter (neutral condition). After recollecting task participant had to tell the experimenter when it was (this story or winter), but did not have to reveal this story (nor the winter).

Fourth phase of the experiment was to assess the mood of participant, feelings about the hypothetical neighbor and the courage to start friendship with this person⁸. Instruction was: “In percents, try to assess the following sentences – how much they are true for you? 100% - totally true, 0% - not true at all”. Statements about courage to start friendship were: “I want to start friendship with described person”, “I am keen on starting talk with described person”, “I do not want to invite described person for a tea” (reversed). After recoding the reverse scale, answers to three courage questions were correlated at high level ($0.47 < r < 0.75$) constituting courage indicator. Mood was measured with a statement “Today I have a good mood”.

7 In polish version the question was: “Kiedy ostatnio coś Cię wzruszyło?” what is difficult to translate correctly into English but, as it will be explained further in the text, it has explicitly positive meaning.

8 Hypothetic neighbor was of unknown gender – in description there were no indications of what gender might this person be.

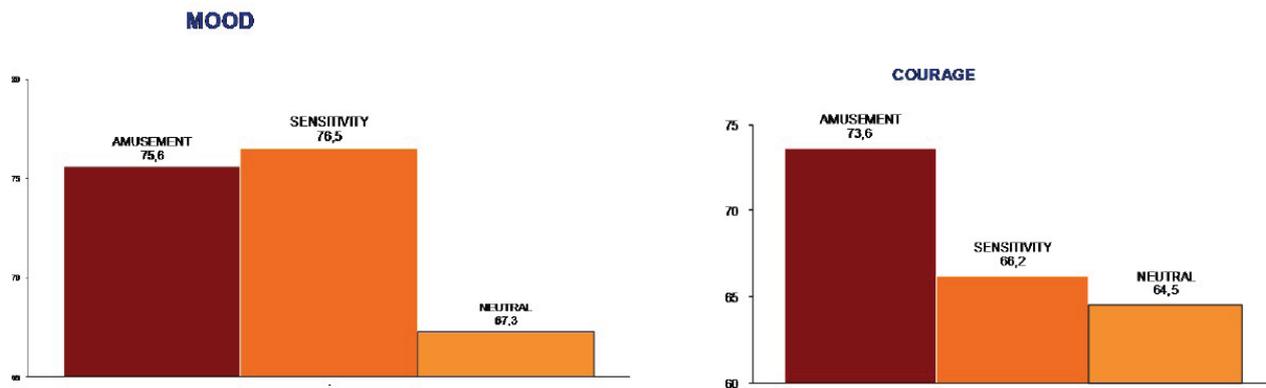


Figure 5. Positive emotions raise mood, however only amusement raised courage.

Fourth figure demonstrates the scheme of the study.

Tested hypothesis. Both emotional conditions will raise the mood of participants, however only amusement will raise the courage to start the friendship.

Additionally, using gender-neutral stimuli (participants chosen those funny memories that were funny for them) the effect of courage will not be stronger for any gender.

Results

Both positive emotion conditions (amusement and sensitivity) increased mood of participants comparing to mood of participants in neutral condition $F(2,238) = 3.6$; $p < 0.05$; $d = 0.37$ ($M_a = 75.6$, $SD_a = 22.2$; $M_s = 76.5$, $SD_s = 22.4$; $M_n = 67.3$, $SD_n = 27.5$).

However only in amusement condition participants declared increased level of social courage $F(2,238) = 4.0$; $p < 0.05$; $d = 0.37$ ($M_a = 73.6$, $SD_a = 20.9$; $M_s = 66.2$, $SD_s = 22.6$; $M_n = 64.5$, $SD_n = 21.8$).

Fifth figure illustrates the results.

Moreover, both men and women were more courageous when amused (M_a female = 73.8, SD_a female = 20.0; M_a male = 73.4, SD_a male = 22.0).

Recollecting amusing stories not only increases our mood but may also change us to dare-devils of social interactions.

General Discussion

In a three studies, conducted by different methods, the results were very similar. Also, although in the first two studies it seemed that the effect may be true only for men, the third study showed that the effect might be gender-universal.

Generally, as Fredrickson (2001) suggested positive emotions might have not only homogenous effect of positive mood on our behavior but their mechanisms might be more various. Amusement, as an emotional component of humor, which in turn might be perceived as adult continuation of

“childish plays”, may serve as a social relations lubricant. Amusement is very “social” emotion and the above experiments show that maybe the mechanism underlying this emotion is based on increasing our social courage (just like kids in playful mood might be less inhibited).

Of course the above described experiments are just one step toward better understanding of huge variety of positive emotions. Comparison between amusement and other positive emotions (not only sensitivity) is necessary⁹. Numerous critical remarks about the first two described research are justified, however those studies were done in the form of natural experiments, what may be a good indicator of actual behaviors (not only declarations) of amused people. The aim of this article was presentation some research problem with first analysis and definitely three experiments shall be replicated and developed in the future to better and more firmly understand social mechanism of amusement.

Described results create new questions: if it is true that amusement makes us more socially courage, then what mechanisms underlie this relation? Maybe we get more self-assured, or maybe we get bigger distance to our “selves” (enlarged distance to our dignity or to lack of our dignity), or maybe we just get less anxious, or... there is a lot of potentially promising hypothesis.

The above described experiments shall be just the beginning of diligent research on amusement and shall be treated as some indicator what amusement might be related to.

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⁹ First attempts have already been done – the first comparison between amusement and pride gave moderately optimistic results gently supporting the above described results.

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