

**Implicit Aspects of Social Influence and the Individual**



## Implicit Aspects of Social Influence in the Context of Modern Research

Intense psychological research into the regularities of verbal social influence started in the 60s of the last century, but the implicit aspects of this process have become the subject of investigation for the last two decades, only. This was largely determined by the fact that the research into behaviour management, control, modification (within the domains of achievement and interpersonal relations), persuasive communication and other important issues, yielded contradictory results on the nature of influence of different characteristics of verbal feedback. Because of the tendency to *a priori* determine social influence (e.g. ideas about the favourable impact of positive evaluation and unfavourable impact of negative evaluation) and/or the neglect of certain characteristics (content, form, quality of evaluation, the manner of administration, etc) totally different feedback was regarded as homogeneous (Abramson, Seligman, & Teasdale, 1978), which, naturally, created quite an inconsistent picture of the regularities of its influence. In the social psychology of the 1980s, gradually emerged a necessity of more subtle differentiation of the characteristics of verbal feedback, which focused researcher's attention on the indirect, implicit aspects of evaluation effect (experience of contingent self-worth, perceived autonomy versus external control). Later research gave more attention to the characteristics associated with the implicit influence of social evaluation, like the manner and form of feedback administration (specific – generalised), attributional and content focused feedback (competence, ability – effort, trait - process), etc.

Based on the current social psychological research, it is possible to define the main criteria for the efficiency of verbal evaluation (Henderlong & Lepper, 2002). Neglect of these criteria is associated with the development of maladaptive behavioural patterns (negative or suppressed affect, surrender to obstacles, avoiding challenges, missing the opportunity to acquire new skills, etc). Therefore, they could be regarded as certain demands set for the use of verbal social feedback. These criteria are reviewed below in more detail.

**1. Sincerity of evaluation.** Some researchers believe that the satisfaction of this requirement is the main condition determining feedback efficiency (Henderlong & Lepper, 2002). Overly general evaluation (“You a real genius”, “You are an angel”, etc) is perceived as insincere (Ginott, 1965; Kanouse et al., 1981; Kohn, 1993; Lepper et al., 1993; O'Leary & O'Leary, 1977). Such an evaluation can easily lose its power of influence if only a person recalls some contradictory experience (mistake, inappropriate feelings or behaviour, etc.). The more general the evaluation is the more probable it is that it will be inconsistent with self-perception or

individual experiences. Moreover, some research shows that as a result of too general evaluation a person might become self-critical and refuse to perform in the future to reduce the dissonance caused by the difference between the positive appraisal and more realistic perception of oneself (Ginott, 1965). Some authors think (Kohn, 1993) that the accentuation of the specific aspects of performance does not result in a big difference between evaluation and self-perception. In achievement situations, the correspondence between the quality of evaluation and the stage of the learning process, turned out to be important in terms of the persuasiveness of evaluation. The persuasiveness of evaluation is also determined by a gradual change of feedback along with the deepening of the learning process (Alden, 1984).

The evaluator's ability to use the corresponding evaluation instrument (Henderlong & Lepper, 2002), an extended pause between the evaluation and performance, during which the evaluator is looking for the relevant response (Kohn, 1933) and other factors can be crucial for the perception of the relevance or sincerity of evaluation.

**2. Focusing the evaluation content on effort.** As people basically explain success and failure in terms of ability and efforts made during performance (Weiner, 1994), part of research concerns the evaluation focusing on ability and efforts (Kamins & Dweck, 1999; Muller & Dweck, 1998; Schunk, 1983, 1984; Schunk & Cox., 1986; Butler, 1987). This kind of research says that it is better to focus the content of feedback on the efforts invested in the activity, rather than the ability. Ability - focused evaluation (this basically concerns praise) might be more effective in terms of immediate results or immediate improvement of the quality of performance or in terms of the strengthening of the belief in positive future performance (Koestner, Zuckerman, & Koestner, 1987; Shunk, 1983; 1994; 1996), but a long-term positive results are mainly obtained when using effort – focused feedback (Elliot & McGregor, 1999; 2002). Ability focused feedback turned out to be effective only in case of success (Shunk, 1983; 1984). At the same time, when looking at the content effect of the evaluation process, we have to take into consideration that the positive effect of effort - focused evaluation is somewhat limited: Its excessive accentuation or failure to perform are often associated with weak abilities, which can be explained by the negative correlation between ability and effort in adult people (Covington, 1984; Nichols, 1978).

**3. Process oriented or process - focused evaluation.** This aspect of feedback is one of the most intensely researched issues today (Henderlong, 2000; Kamins & Dweck, 1999). It became the object of interest back in the eighties when Dweck carried out his sensational studies (Dweck, 1986). In the context of modern research, person - oriented evaluation (ability or trait focused

evaluation is considered an instance of this general category of evaluation) is associated with reduced interest in the activity in case of failure or the expectation of failure (Kamins & Dweck, 1999). According to some studies, person - oriented feedback is less effective only compared to process - oriented feedback. As compared to neutral feedback, it has a positive impact on intrinsic motivation (Henderlong, 2000). However, research conducted with older children (with girls only) within the framework of the same study showed that person - oriented evaluation decreases intrinsic motivation as compared with both process - oriented feedback and neutral feedback. Therefore, we may think that process - oriented evaluation is more effective compared to person - oriented evaluation and that the conditions of neutral feedback are critical and these effects can be mediated by age and gender (Henderlong & Lepper, 2002).

**4. Endogenous evaluation.** It is important that evaluation does not point to the external reasons for the engagement into activity, because this decreases the feeling of autonomy, and, consequently, makes this activity less interesting (Deci et al., 1999; Lepper & Henderlong, 2000; Sansone & Harackiewicz, 2000). Therefore, it will be better if evaluation is perceived as a constituent part of activity, rather than an external reward or punishment, which is provided to a person less often than evaluation and after a relatively long period following the completion of the activity (Carton, 1996).

**5. Informative manner of evaluation.** Another determinant of the effectiveness of evaluation is its informative – controlling dimension, as it is also associated with the perceived autonomy of behaviour. The relevant research mainly supports the effectiveness of informative manner. As for the controlling manner, some studies show that it is neutral in terms of influence (Pittman, Davey, Alafat, Wetherill & Kramer, 1980; Ryan, Mims & Koestner, 1983), whereas other studies demonstrate that controlling manner has a negative effect (Deci & Ryan, 1980, 1985; Boggiano, Main, & Katz, 1991; Kast & Connor, 1985, 1988), which could be explained, in some individual cases, by a relative weakness of controlling evaluation. Informative character of evaluation is important because it points to the competence of the object of evaluation, which increases his/her self-efficiency (Deci & Ryan, 1980, 1985; Harackiewicz & Manderlink, 1984; Sansone, 1986; 1989). The form which is used to convey the information on competence has also to be taken into consideration. In particular, if the information on competence is transmitted in the form of social comparison, it prevents the individual from developing a long-term interest in the given activity and achieving long-term academic success. However, according to some research, information presented in the form of social comparison improves the quality of performance and increases motivation (Blanck, Reis, & Jackson, 1984; Deci, 1971; Koestner,

Zuckerman, & Olsson, 1990). It has to be noted that the given research does not consider the following possibility: When an individual learns to compare one's own achievements with the achievements of others, this may later result in the setting of social - comparison goals versus mastery goals, which can be manifested in a negative affect, frustration, negative motivational outcome and in general helplessness (Ames, 1984; Dweck, 1986; Nicholls, 1984). Therefore, we can assume that the evaluation made in the form of social comparison might cause overdependence on normative comparisons or less perseverance when experiencing failure.

It is important to note that the characteristics listed above could be hardly called requirements, because, as we have seen, positive influence of this or that factor is relative and has a different effect on different personality aspects. For example, process-focused feedback increases intrinsic motivation and improves the quality of performance, but this proves to be true only for long-term learning conditions. In achievement situations (testing, exams, etc), where the quality of performance is especially important, ability – focused feedback turns out to be more effective. Therefore, the above listed factors can be only considered as general recommendations on the use of feedback.

To sum up, the general recommendations on the use of feedback can be formulated as follows: The impact of evaluation will be positive in the long run, if it is sincere, favours the adaptive attributions of performance or indicates that the performance result depends on changeable and controllable factors (e.g. effort), is process – focused, and transmits positive information on personal competence without relying on social comparison (The impact of these variables may be of course mediated by the recipient's age, gender, cultural belongingness, as well as the peculiarities of the actual situation, like conditions for success/failure, limitation of cognitive resources, ego and task involvement, etc).

**Limitations of evaluation related current requirements.** Modern social psychology is abundant with the intermediate variables and processes that determine the impact of evaluation on different personality characteristics (motivation, level of the acquisition of skills, performance level, self-evaluation, etc). It is both theoretically and practically important to continue the study of these variables in the future, but it is also important that this kind of “versatile” knowledge is used for the improvement of the evaluation process and its application to non-laboratory, natural conditions. However, this is quite a difficult task. If we take into consideration the number or requirements set for the evaluation process, on the one hand, and the diversity of real life situations (both specific situations, like achievement situations, education, medicine as well as social and interpersonal relations) on the other hand, it seems

almost impossible to consider the evaluation characteristics having a negative or positive effect in every individual case.

However, the above task seems to be quite achievable if we try to reduce all the above recommendations on producing a positive impact to a single characteristic, which will be represented as a broader category responsible for the main effect typical of all these individual characteristics. It is also desirable to broaden the evaluation content so that in addition to the individual's behavioural manifestation, evaluation with positive implications is safely applied to the individual's personality manifestations, his/her abilities and traits and performance outcomes. Before judging the advisability of such an approach, it makes sense to review and assess some of the criteria proposed by modern research.

**Requirement of process - focused evaluation.** According to the obtained findings (Mueller, & Dweck, 1998; Kamins & Dweck, 1999) it is preferable to use process – focused rather than person/ability focused feedback. Attention, encouragement and evaluation in general have to be directed at efforts and working strategies, which means that an individual has to be praised for the working process (focusing on purpose, effective strategies, willingness to do difficult tasks) rather than the result/product or the ability, responsible for the given result. But in the majority of achievement situations (especially in non-laboratory conditions), receiving information on performance result, on the activity product, often becomes important. It is also natural that in the sphere of interpersonal relations, people are interested in their personal abilities and in how they are evaluated by others. For example, if the evaluation of performance results is accurate, the individual will get useful information which will later help him/her to regulate one's activities (Delin & Baumeister, 1994; Kanouse et al., 1981; Schunk & Zimmerman, 1997; Stipek, 2002). In other words, the realistic interpretation of the outcomes is useful for determining the amount of effort needed, the skills that are difficult to acquire and the aspects of behaviour the individual masters already. Such information might strengthen intrinsic motivation as well as the feeling of control over the future performance. If the evaluation points, in a non-categorical manner, to the achievement standard, it becomes clear for the individual what he/she should achieve in case of a similar challenge. In addition, most activities, including entertaining games, involve, to a certain extent, the achievement component, and, therefore, are related to the level of performance or the product resulting from the given performance. It might happen that performance result is not most important in the performance of the given activity or is considered of a secondary importance, but it still evokes some interest in the individual.

As for the interest in how others evaluate one's own traits and abilities, it is described in a large number of studies as self-enhancement (23: 223-265, 39, 51, 59, 63) or - self-verification (18,

135, 136, 185) need: In course of natural social relations, people spontaneously demand from others to evaluate their personality traits in the form of a comment, praise or criticism and do the same in relation to others. Evaluation of oneself by others can be interesting for different reasons (seeking support or justification, or increasing self-confidence).

Therefore, it is quite logical to look for a characteristic, which, even in case of focusing on trait, ability or result, does not lose its positive implication.

**Requirement of effort - focused evaluation.** Certain conditions, namely the conditions of success and trait/ability - focused evaluation, increase activity related intrinsic motivation as well as the level of performance (Harackiewicz, Baron, Carter, Lehto & Elliot, 1997). However, as it turned out later, in such a case, the individual becomes more vulnerable to failure and avoids challenges, which prevents him/her from the acquisition of new material and a further development of one's own abilities. As a result of activating performance related objectives instead of learning related objectives, the individual does not use learning opportunities if they contain a risk of losing competence (Muller & Dweck, 1998; Kamins & Dweck, 1999). Similar to the abovementioned characteristics, a negative implicit impact of intellect and ability - focused evaluation is that it evokes the feeling of contingent self-worth, which means that the individual believes that his/her value depends on performance level or on some general conditions (Burhans & Dweck, 1995; Dyckman, 1998; Harter, 1990). Thus, modern research shows that even when the intention of intellect/ability - focused evaluation is to cause enjoyment, stimulate effort and a better performance in achievement situations, this does not help to cope with failure. On the contrary. This kind of feedback lowers motivation when experiencing a challenge. However, effort - focused feedback activates learning objectives, enjoyment from experiencing a challenge and the adaptive behavioural pattern for a long time after failure (Mueller & Dweck, 1998; Kamins & Dweck, 1999). This shows that it is more useful to focus evaluation on effort and the related processes, like perseverance, concentration, etc.

At the same time, a number of studies demonstrate that people are often interested in how their efforts are evaluated by others (just as it might be interesting how others evaluate one's traits, abilities or performance outcomes). Also, although most research dealing with evaluation characteristics is often associated with learning, orientation on effort is much more specific in terms of content and can be considered relevant exclusively in achievement situations.

At the same time, the effect of effort-focused evaluation might be positive as long as it is process oriented or is expressed in terms of process (e.g. "You worked diligently, indeed"; "You think hard about the completion of the task"). Due to this, we might consider effort as a

kind of process, as suggested by some authors (Henderlong & Lepper, 2002). When analysing the effect of praise, Henderlong and Lepper say that ability versus effort oriented praise can be regarded as a sub-category of a broader category - person (or trait-focused) versus process (or strategy or effort-focused) category, which seems to be rather questionable. Let us try to formulate effort in terms of a stable characteristic or in terms of trait (e.g. "It is typical of you to be diligent when working"; "It is characteristic of you to make efforts to complete the task"). In the case like this, effort might have the same effect as a stable trait (Some researchers point to the necessity of studying feedback effects in case of the formulating effort in terms of traits, e.g. Muller & Dweck, 1998). Consequently, it might turn out that the orientation of effort – focused feedback on process/person depends on how it is formulated (in the given case on the manner of generalisation), which makes the effort - focused requirement groundless.

As we see, some evaluation characteristics somewhat overlap each other, which requires their clarification and makes it important to unite them under a broader category.

### **Present research (Tasks and objectives)**

#### ***Research objectives***

The purpose of the given research is the unification of the basic characteristics of verbal evaluation, associated with positive influence, into a single broader category. An attempt was made to select the category that would make it possible to safely focus feedback on human behaviour, personality traits, abilities and activity outcomes, and, at the same time, preserve the positive implications of evaluation.

It is true that when simplifying the requirements for feedback application, the effects of some characteristics might be neglected, which, together with the application context and the factors mediating the specificity of the recipient's characteristics, might decrease the ecological validity of evaluation. However, such a simplification will hopefully facilitate effective and constructive utilization of different evaluations in various real life situations.

#### **The evaluation category used in the research and the advisability of its selection**

The relevant broad category representing the requirement for evaluation is generalised versus situation-focused evaluation. Situation-focused feedback implies the evaluation of behaviour, performance outcomes or personality traits in *here and now* situation and does not rule out the possibility that some other time the performance might yield different outcomes and personality manifestations can be very different.



For example, the statement “You showed courage at the crucial moment” implies the evaluation of a trait in this particular situation; “At the crucial moment you acted in a courageous way” – is the evaluation of behaviour in this particular situation; “You managed to convince your friend at the crucial moment” – is the evaluation of outcome. In the context of the given research, generalised feedback is a conclusion derived from an individual behaviour or individual personality manifestation, a generalised evaluation of an individual act, which implicitly rules out the possibility that the given performance might yield different outcomes or the given person might manifest different traits some other time. For example, the statement “You show courage at the crucial moment” automatically rules out the possibility of manifesting the alternative trait, or the statement “You manage to convince your friend at the crucial moment” ignores a different outcome.

The selection of this category is based on two arguments: a) The given category comprises the main implicit aspects associated with other characteristics (experience of contingent/uncontingent self-worth; perceived autonomy) and therefore has a similar impact on a person or favours the development of helpless/adaptive behavioural pattern; b) It is not content related or can be focused on behaviour, ability/trait or performance outcome.

*Implicit aspects of generalised evaluation.* Generalised evaluation as defined above (generalised evaluation used in research often implies exaggeration rather than generalisation; see Ginott, 1965; Kanouse et al., 1981; Kohn, 1993; Lepper et al., 1993; O’Leary & O’Leary, 1977) is mainly associated with a negative implicit influence, which is related to contingent self-worth and perceived autonomy and comprises three aspects:

1. Lack of sensory basis - As generalised evaluation also applies to other situations, it extends the individual’s specific experience, and, consequently, lacks sensory basis. In case of the inconsistency between generalised evaluation and self related beliefs or past personal experience, we also deal with inadequate sensory basis;
2. Expectation to preserve status quo – Generalised evaluation implies that the evaluator expects the permanency of whatever is evaluated (individual’s behaviour, manifestation of his/her personality characteristics or achievement), expectation that the individual will manifest the same personality traits, will behave in the same way or achieve the same results, which might be perceived by the individual as a manipulation attempt (Deci & Ryan, 1985) or a sort of burden. Positive generalised evaluation might have an effect similar to the exaggerated positive appraisal, i.e. the individual might try hard to meet the expectations in the future, which is perceived as a heavy burden (See for comparison McKay, 1992). As for negative generalised

evaluation, similarly to ability – focused negative evaluation, it will, cause despair and a negative affect , i.e. helpless behaviour pattern, which, in case of both generalised evaluation and ability – focused feedback, is attributed to implied permanence of this kind of evaluation (See for comparison Anderson & Jenings, 1980; Clifford, 1986a, 1986b; Meyer & Engler, 1986);

3. Neglect of potential resources – Since generalised evaluation extends to the individual's other activities, and, also, future activities, it becomes a sort of diagnosis, which implies the discount of the possibility of different actions in the future. At the same time, suggestion of predictability implies the limitation of potential resources, and, therefore, contradicts the understanding of a human being as having unlimited potential (Rogers, 1961)

Therefore, the named aspects of generalised evaluation (inadequate sensory basis, expectation of repetition and the discount of potential resources ) decrease the experience of internal control over one's own characteristics and behaviour, limit the individual's empirical freedom and his/her choice to use alternative ways of behaviour, emphasise the conditional nature of values (Rogers, 1961), which has the same negative effect as the person - focused and ability - focused evaluation (Burhans & Dweck, 1995; Covington, 1984; Kamins & Dweck, 1999; Covington & Beery, 1976) as well as social comparison - focused (Harackiewicz, J.,1979 Koestner et al, 1987; Dweck, 1986; Nicholls, 1984) and activity separated evaluation. At the same time, ability versus effort as well as trait versus process, contain the elements typical of generalised evaluation – abstract character (Aspect 1), permanence (Aspect 2) and limited potential (Aspect 3), which proves that compared to them generalisation is a broader category influencing the individual, since it decreases the feeling of autonomy, contributes to the experience of contingent self-worth and develops the helplessness pattern in response to failure (Deci et al., 1999; Lepper & Henderlong, 2000; Sansone & Harackiewicz, 2000).

*Implicit influence of situation – focused evaluation.* According to the definition above, situation – focused evaluation, as the opposite extreme of generalised evaluation, should bare the Signs of the positive implications typical of process-focused feedback (evaluation of strategy, method or effort used manifested in this specific case) and endogenous feedback (like perceived autonomy), which maintains and increases intrinsic motivation in case of failure and develops adaptive behavioural pattern (In the corresponding sources, the negative implication of feedback is mainly associated with the experience of contingent self-value, but the positive influence is not ascribed to the opposite – perception of unconditional positive attention, which can be explained by a complex nature of the favourable climate necessary for obtaining this effect (Rogers, 1961). Therefore, in this research, the relevant positive effect is labelled as the effect of

the recognition of potential resources.) We could distinguish two aspects in this type of evaluation: 1. Adequate sensory basis – As long as situation – focused evaluation does not extend to other (past or future) situations and deals with the individual's immediate, specific experience, it becomes easy for the individual to realise it, which results in the experience of self – control (in the ability to control one's own resources). 2. Recognition of potential resources - Evaluation of the individual's behaviour, ability or trait manifested in the given situation (contrary to its possession or absence, in general) does not limit the individual's empirical freedom and implies that the potential repertoire of manifestations and the individual's potential resources are unlimited. It is clear that this does not fully explain the effect of unconditional/uncontingent positive attention, which would imply positive evaluation of any personality manifestation, but it does emphasise that such a possibility is not excluded (In transactional analysis the feedback that has an effect of the recognition of the person's potential resources is called a conditional stroke (see Стюарт, 1996). As the motivational and cognitive effects of effort and process focused evaluation (development of the adaptive pattern) are mainly explained by the implication of control and possible changes, we can state that situation - focused evaluation covers the implicit aspects of the effects of these characteristics, and, will, consequently, cause the same outcomes.

### ***Research hypothesis***

Stemming from the assumptions above it was expected that generalised feedback would have a negative effect because of the experienced external control (loss of autonomy) and contingent self-worth, whereas situation - focused feedback would result in a positive effect due to perceived autonomy and the recognition of potential resources implied in this category of feedback. In other words, it was expected that the obtained results would confirm the affective, motivational and cognitive effects observed with person versus process and ability/trait versus effort feedback as well as exogenous versus endogenous feedback and social comparison focused feedback (i.e. occurrence of the main components of the helpless versus adaptive behavioural pattern, increase/decrease of internal motivation, negative/positive affect and aversion/approach reactions). In addition, it was expected that generalised feedback and situation-focused feedback would have a different impact on the formation of attitude to a new activity.

Based on these speculations the following hypotheses were formulated:

*Hypothesis 1.* When using generalised evaluation, the activity performed will be experienced as less pleasant than the activity performed in case of situation – focused evaluation. (However,

the unpleasant affect does not have to be expected because the experiment does not accentuate the achievement component). This will weaken intrinsic motivation compared to both situation – focused evaluation and the control group (no-evaluation condition), which will be manifested in the form of avoidance activity (In course of the experiment research participants avoid repeated performance of the activity).

*Hypothesis 2.* Situation – focused feedback will be perceived as more pleasant and will increase motivation compared to no-evaluation condition or control condition which will be manifested in the approach reaction (arrival for repeated performance).

*Hypothesis 3.* Social comparison - focused feedback will have the same effect on intrinsic motivation and perceived pleasantness as generalised feedback due to the fact that they are both related to the experience of contingent self-worth and the loss of autonomy. At the same time, this type of feedback implies the discount of potential resources to a larger extent, due to which the present research might support the results obtained by some of the previous studies. An example could be some changes in self-cognitions manifested in the inaccurate perception of one's own abilities, which can show in the defensive tendency of growth or decline.

*Hypothesis 4.* Since the feedback form has an implicit effect, the individual should be less aware of it. The latest research supports this assumption (McGregor & Elliot, 2002). This research says that contingent self-worth and the experience of the loss of internal control, are mainly revealed in repeated threatening situations (e.g. approaching examination day), rather than immediately or following feedback. Therefore, we can expect that the effect of different forms of feedback will be more clearly manifested in the individual's behaviour (assessed within a certain period after the experiment), rather than in verbally manifested attitude towards activity or the evaluation of one's own abilities. As for the positivity/negativity of feedback, it might not have a tangible effect on the formation of motivation (arrival for the repeated experiment).

*Hypothesis 5.* According to the latest research (Kamins & Dweck, 1999) changes in self-cognitions associated with the loss of self-worth and internal control (underestimation of one's own abilities) take into consideration only the cases of failure but are not revealed in case of success. Since the achievement component is less important in the context of given research, the mentioned changes are to be expected only in case of the administration of negative feedback. Consequently, as a result of negative generalised evaluation research participants are likely to significantly devalue their abilities. In other respect, the effects of situation - focused and generalised feedbacks will not show any differences.

## ***Research methods and procedures***

### **Research participants**

186 students from Tbilisi State University Faculty of Psychology (I – IV year students) volunteered to take part in the experiment. They formed professionally and socially homogenous group.

Age and gender distribution of respondents<sup>1</sup> is given in the table below:

**Table 2.**

Age	Gender		Total
	Women	Men	
16	1	0	1
17	17	1	18
18	40	2	42
19	42	2	44
20	37	3	40
21	27	3	30
22	5	4	9
23	1	0	1
25	0	1	1
Total	170	16	186
Average age	19.2	20.4	19.3
Standard deviation	1.37	1.99	1.46

### **Experiment**

**Part One (Procedure)** Research participants filled in the questionnaire on their personal characteristics. After this specific codes were attached to each questionnaire.

**Part Two (Procedure)** The second part of the procedure started in two weeks after the first interview. It was assumed that a two-week interval would be enough for the participants not to link the two procedures with each other. In the second case research participants were asked to

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<sup>1</sup>. Because of the small number of boys in the experiment and the homogeneity of age, gender and age are not considered in the given research as independent variables

do the exercise created by the author. This exercise was a sort of game and involved 15 problem situations people are likely to face when doing small business. Research participants had to choose one of the two solutions to a problem situation. After this they were given verbal feedback of a definite type and category. 10 versions of the exercise were used in the research. 9 of them were used with experimental groups (differentiated by the type and category of feedback) and 1 with the control group (no feedback). Research participants familiarised themselves with the instruction of the exercise and performed it with the use of the computer. Research participants were told that the exercise helped beginning businessmen to acquire needed skills. To disguise the experimental objectives, we asked the subjects to assist in determining the effectiveness of the exercise. For this purpose, they had to do the exercise and then evaluate its quality using an attitude questionnaire.

### ***Instruction***

*“Here is the exercise that has been created as an auxiliary means for businessmen beginners. Its purpose is to help young businessmen in the acquisition of needed skills. The usefulness of this exercise has not been established yet. We ask you to do this exercise and assess its efficiency (usefulness) using a short questionnaire which will be administered to you after completing the exercise. Your evaluation will be very helpful in the assessment of the efficiency of the given exercise.*

*Since this exercise has not been fully developed, at this point it is impossible to evaluate the quality of your performance. We apologise for this.”*

After completing the questionnaire, the subjects were asked about their intention to take part in a similar experiment or to indicate in the right corner below (+/\_ ) whether they would take part in a similar future experiment containing like exercise. The questionnaire indicated the number of the exercise version performed by the research participant, which reflected the type and category of feedback and the code attached during the first procedure.

After completing the questionnaire measuring the attitude toward the exercise, research participants were asked to evaluate one’s own characteristics using the relevant questionnaire. Research participants completed for the second time the questionnaire they filled in two weeks ago. The identical code was attached to the given questionnaire.

**Part Three (Procedure).** Participants were asked again about their intention to take part in a similar experiment (in one month’s time following the first experiment). We asked the

participants, without reminding them of their intention to take part in a future experiment (Procedure two), whether they were willing to do the exercise similar to the exercise they did one month ago. After the interview, those who were willing to take part were exposed to the procedure aimed at the actualisation of the attitude toward the experiment. For this purpose participants were given the instruction and several actions were taken (Participants received the feedback used in the first exercise). To disguise the actual purpose of the procedure (attitude actualisation) we asked participants to recall the exercise as accurately as possible.

After completing the given procedure and interviewing participants, we informed the volunteers that they could come for the experiment any day from 10:00 to 15:00 during the following month.

During the next month we recorded the number of participants that came for the experiment at the scheduled time. To those who arrived we apologised that the computer was temporarily broken and for this reason they were asked to come in two week's time. We explained to the participants who arrived in two week's time the real purpose of the experiment and thanked them for cooperation.

### **Feedback conditions**

Type of feedback determined by its form and feedback category determined by valence (positive- negative valence) were used as independent variables. Out of 8 feedbacks, 4 were formulated as the evaluation of ability/trait and the other four as the evaluation of the result.

#### ***Type of feedback***

By the form of feedback we singled out three types of feedback: situation - focused, generalised and social comparison - focused feedback.

*Situation – focused feedback* (Type 1). The content of feedback used in this case implies the admission of the individual's potential resources. What is evaluated is the outcome of behaviour or the manifestation of a personal trait/characteristic in the given situation. This evaluation applies to the given situation only and does not rule out the occurrence of a different behaviour or a different manifestation of personality characteristics some other time.

Examples: 1. “*You have demonstrated courage.*” 2. “*You have managed to impress your clients and have maintained their trust*”. In Example 1 specific behaviour is evaluated as a manifestation of a trait/characteristic rather than a behaviour pattern typical of this person. Evaluation is not extended to other situations. Therefore, it is assumed that the same individual may manifest different behaviour or traits in other situations, which, does not mean that the

given evaluation is wrong. Example 2 demonstrates the evaluation of behavioural outcome, which does not imply that the same outcome is expected in other situations.

*Generalised feedback* (Type 2). The implicit content of feedback used in this case discounts the individual's potential resources. It derives conclusions from a specific behaviour or personality manifestation, makes a generalised assessment of the behavioural act, which implicitly discounts the manifestation of a different characteristic/ability or the occurrence of a different behavioural outcome some other time. Therefore, it implies that the given manifestation has to be expected also in other situations.

Examples: 1. "You are a courageous person." 2. "You manage to impress people and maintain their trust." Example 1 contains a conclusion derived from an individual's behaviour or a personality manifestation, a generalised assessment, which implicitly discounts the manifestation of a different trait/ability by the same person some other time, and, therefore neglects the person's potential. In Example 2 a specific behavioural outcome is generalised, which discounts the probability of a different response and, at the same time, shows that the same outcome is expected in any other situation.

*Social comparison - focused feedback* (Type 3). The content of feedback implies a comparative evaluation of the individual's ability/trait or behaviour, which implicitly disregards the person's individuality and uniqueness. Social comparison is clearly associated with a relative self-worth and external control, because it emphasises a relative value of the evaluated behaviour or trait or underlines the fact that any evaluation is meaningful only in the context of comparison with other social groups, i.e. has no independent value.

Examples: 1. "You are more courageous than other people." 2. "Compared to others you better manage to impress people and maintain their trust." A generalised conclusion is derived from an individual behaviour about the individual's immanent ability and characteristics, which has only relative meaning based on comparison with the abilities of other people. At the same time, it implies permanence, which means that the evaluated characteristics can never be manifested to a different extent.

### ***Feedback category***

Feedback categories are presented in the form of *positive* ("You understood the clients' real needs"), *negative* ("You were not able to understand the clients' real needs") and *mixed* (participants are exposed to positive and negative evaluations interchangeably) feedback.

Therefore, the named forms and categories resulted in the total of 9 (3/3) combinations, given in the table below.



**Table 1.**

Category Type	Positive	Negative	Mixed
1	I	IV	VII
2	II	V	VIII
3	III	VI	IX

Consequently, 10 groups of participants were formed: - 9 experimental and 1 control group (no-feedback condition)

*Neutral feedback*

After the exercise all the participants were given neutral feedback containing the information on the completion of the *exercise*. We introduced this kind of feedback because participants could think that the performance of exercise without feedback suggested neglect of their activity. This point has not been taken into consideration in some research (Anderson et al., 1976; Koestner et al., 1989; Sarafino et al., 1982).

**Dependent variables**

Participants' interest in the activity (performance of exercise) or intrinsic motivation, evaluation of the exercise by participants, affect shown by participants (emotions demonstrated in course of the exercise) and their self-cognitions (evaluation of one's own abilities/characteristics) were identified as dependent variables, because these are the variables used in the research into the occurrence of the helpless/adaptive behavioural pattern as well as the effects of ability versus effort focused feedback, process versus person focused feedback, contingent self-worth and perceived autonomy (Burhans & Dweck, 1995; Schunk, 1994, 1996; Kamins & Dweck, 1999; Muller & Dweck, 1994; Elliot & Church, 1997).

*Intrinsic motivation* – To study the interest in the exercise, we used: 1. Participants' report on the satisfaction experienced in course of the exercise, experienced excitement and interest (attitude measurement); 2. Participants' report on their desire to take part in a similar experiment (behavioural intention); 3. Presence for the new experiment at the scheduled time, in one month from the previous experiment.

To avoid the impact of confounding variables associated with external control and the experience of one's relative worth as well as the other motivating factors (ego-involvement, behavioural limitations, reward), we used the following measures: 1. Material for exercise was irrelevant to participants' personal and professional interests, which diminished its importance; 2. The novelty of exercise ruled out the experience acquired during its previous performance,

and, therefore, the expectation of reward; 3. Participants were volunteers and were sure about the confidentiality of their participation, due to which they acted freely during the experiment (Participants were told that they could interrupt the performance of the exercise and refuse to take part in the experiment in case they experienced discomfort); 4. The exercise was presented as a method under development, which ruled out participants' false expectation regarding the method, i.e. it could not be perceived as an important diagnostic tool. The instruction served the same purpose, since it clearly stated that the exercise did not intend to determine the level of performance; 5. Experiment did not provide for time limitation or any other restrictions.

*Enjoyment from doing the exercise and its evaluation.* To measure participants' affective and evaluative attitude to the exercise, we used an attitude measurement questionnaire. Affective attitude was determined by responses to two questions on the experienced enjoyment and excitement, whereas the evaluative attitude was determined by responses to three questions about the usefulness and importance of the exercise. A 7 point scale (-3; +3) was used for attitude measurement. Behavioural tendency related to the exercise was determined by participants' intention regarding the participation in a similar future experiment.

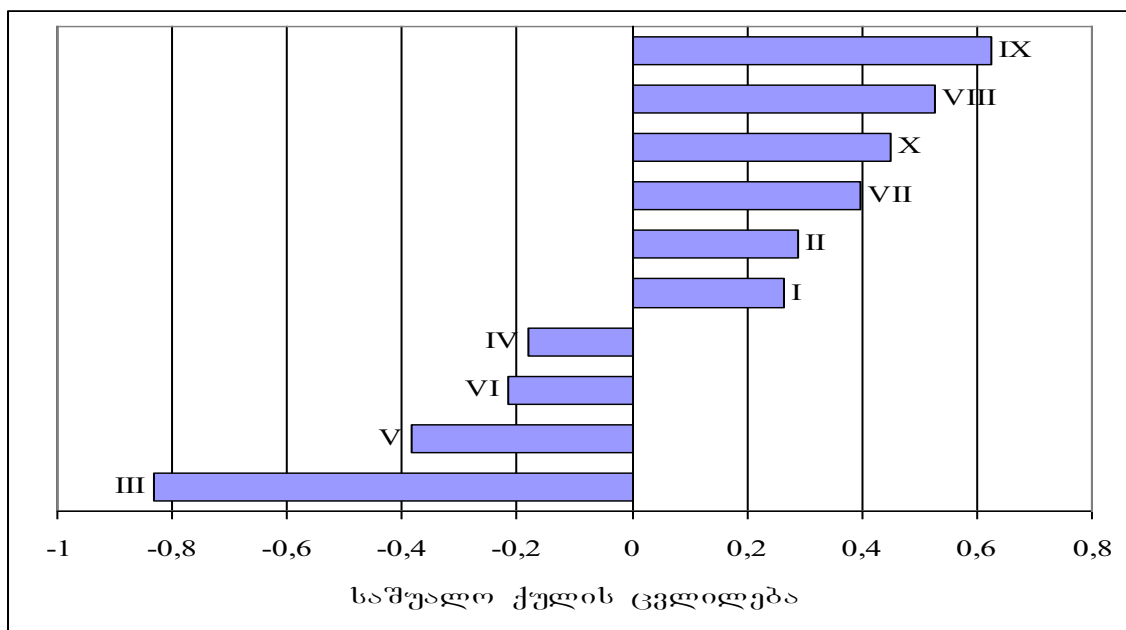
*Evaluation of one's own traits:* Self-evaluation questionnaire was composed of two parts. In part I, participants were asked to indicate on the 7 point scale (-3; +3), to what extent certain traits were characteristic of them. Participants were given the following traits for evaluation: 1. Being realistic; 2. Being able to get an insight into people's real wishes; 3. Flexibility in thinking; 4. Endeavour to actualise oneself; 5. Impressing others; 6. Goal directedness; 7. Creativity; 8. Intuition.

In the second part of the questionnaire research participants had to indicate to what extent they wanted to have each trait developed. The purpose of the procedure was to exclude those participants who thought that the traits they possessed were underdeveloped or were developed to the desirable extent. (Such cases are basically associated with the relationship between the real self and the ideal self. Too big difference between these two as well as their full coincidence, suggest defensiveness and, consequently, point to the fact that the conditions for self-worth are especially important (Мадди, 2002: 423-424; Blaine & Crocker, 1993; Baumeister, smart & Boden, 1996; Jourdan, Spencer & Zanna, 2003; Jordan et al., 2003). Besides, it was interesting to find out whether manipulations with feedback would influence the desirability of these traits.

## **Experimental results**

**Evaluation of one’s own traits by research participants.** Administration of different types of feedback during the performance of the exercise yielded different results in terms of the evaluated “actual” intensity of possessed traits (Diagram 1).

**Diagram 1. Post-experimental changes in the average evaluation of the “actual” intensity of possessed traits by administered feedback**



#### Changes in average score

The average evaluation of the “actual” intensity of the possessed traits increased with those participants who received Type 2 positive (Group II), Type 1 positive (Group I) and 1, 2, and 3 mixed type feedback (Groups VII, VIII, IX ). The same applies to the changes in the control group (Group X). At the same time, the average evaluation of the “actual” intensity of possessed traits decreased in those groups where participants received Type 1, Type 2 and Type 3 negative feedback and Type 3 positive feedback ( Groups IV, V, VI, III).

Single factor dispersion analysis (ANOVA) showed, that before the experiment, the groups receiving different feedback did not differ from each other in terms of the average showing for trait intensity ( $F < 1$ ,  $Sig = 0.837$ ), whereas, the post-experimental difference between the average group showings was statistically Significant ( $F > 1$ ,  $Sig = 0.052$ ). This proves that the changes in average evaluation are the result of the experimental manipulation.

Neither did the experimental groups differ in terms of the average evaluation of the “desirable” intensity of the possessed traits before the experiment ( $F < 1$ ,  $Sig = 0.675$ ). After the experiment

the difference between average evaluations turned out to be statistically insignificant ( $F > 1$ , but  $Sig = 0.069$ ).

**Table 2. Direction of post-experimental changes in the evaluation of the “actual” intensity of traits and the statistical significance of the named changes**

Group	Direction of changes in evaluation	Statistical Significance of changes (Sig)
I	Decrease	0.04
II	Increase	0.02
III	Decrease	0.04
IV	Decrease	0.64
V	Decrease	0.01
VI	Decrease	0.03
VII	Increase	0.68
VIII	Increase	0.67
IX	Increase	0.50
X	Increase	0.05

**Paired-Samples T Test** (Table 2) showed statistically Significant changes in the evaluation of the intensity of “actual” traits in groups I, II, III, V, VI and X. As the changes in the control group (Group X) are a natural reaction to the performance of exercise and cannot be attributed to the administration of feedback, and these changes turned out to be statistically Significant ( $Sig = 0.05$ ), the Significance of changes in the experimental groups could be only assessed in comparison with the changes that took place in the control group.

**Independent-Samples T Test** showed important changes in groups III, V and VI. (Table 3).

**Table 3. Comparison of the control group with the experimental groups by post-experimental changes in the evaluation of the “actual” intensity of traits.**

Groups	I	II	III	IV	V	VI	VII	VIII	IX
Error probability	0.233	0.46	0.02	0.06	0.001	0.01	0.22	0.07	0.59

(Sig)									
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Applied procedure - **Independent-Samples T Test**

In Groups VII, VIII, and IX or in the mixed feedback groups, where participants were interchangeably given positive and negative feedback, research participants showed increased evaluation of those traits, in relation to which they received positive feedback (traits **1, 3, 5, 7**) and the decreased evaluation of those traits, in relation to which they received negative feedback (traits 2, 4, 6, and 8). However, these tendencies turned out to be statistically insignificant (Table 4).

**Table 4. Statistical Significance of changes in mixed feedback groups**

	Sig
Changes in the evaluation of traits subject to positive feedback (1,3,5,7)	0,182
Changes in the evaluation of traits subject to negative feedback (1,3,5,7)	0,900

Applied procedure - **Paired Samples Test**

Compared to the groups with Type 2 feedback, the groups with Type 3 feedback (III, VI, IX), showed a stronger tendency of the devaluation of traits, but this tendency turned out significant only in case of the positive feedback (Table 5).

**Table 5. Statistical Significance of changes in Groups II and III**

Groups	Changes in trait evaluation	Statistical Significance of change (Sig)
II	,2868	0.04
III	-,0833	

**Affective and evaluative attitude to the exercise** - Feedback category had a certain impact on the affective and evaluative attitude to the exercise. In particular, enjoyment experienced during its performance, experienced excitement as well as the importance of the exercise (specific as used for the development of businessmen's skills and general as a method) was more positively evaluated by those research participants, who received positive feedback than by the participants who received negative feedback. However, as measured by the Independent Samples Test, the

difference turned out to be statistically Significant only in case of the experienced enjoyment and excitement (Mean= 2.36,1.67; Sig =0.000) and for the specific importance of the exercise (Mean= 1.65, 1.10; Sig =0.012). Affective and evaluative attitude to the exercise was significantly influenced by feedback type (Table 6).

**Table 6. Statistical Significance of the differences between the evaluation of the exercise by the type of feedback**

<b>Evaluative component</b>	<b>Groups</b>	<b>Total evaluation of the exercise (Mean)</b>	<b>Statistical Significance of the difference (Sig)</b>
<b>Enjoyment and excitement</b>	I, IV, VII	2.40	0.027
	II, III, V, VI, VIII, IX	2.10	
<b>Specific importance</b>	I, IV, VII	1.88	0.001
	II, III, V, VI, VIII, IX	1.27	
<b>General importance</b>	I, IV, VII	1.99	0.044
	II, III, V, VI, VIII, IX	1.64	

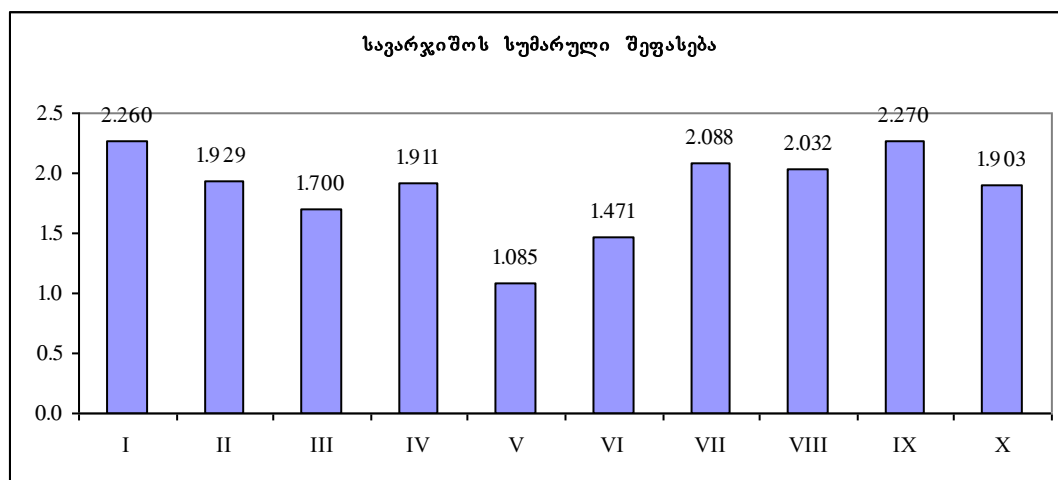
In those group where Type 1 feedback was used, research participants evaluated the exercise more positively than the groups with Type 2 and 3 feedback. As measured by the Independent Samples Test, statistically Significant difference was observed in case of the evaluation of enjoyment and excitement (Mean= 2.40, 2.10; Sig=0.027), as well as the specific (Mean= 1.88, 1.27; Sig =0.001) and general (Mean= 1.99, 1.64; Sig =0.044) importance of the exercise. (During the calculations an attempt was made to unite those groups where Type 2 and 3 feedback was used, which did not change the overall picture. The same results were obtained where calculations were made for the total evaluation of the specific and general importance of the exercise).

Compared to the control group, Group I gave a better evaluation of the exercise, whereas Groups V and VI had much lower showings. This concerned the evaluation of perceived enjoyment and excitement, as well as the specific and general importance of the exercise. (Group I –

Enjoyment and excitement I=2.64, X=2.27, Sig=0.05; Specific importance: I=2.08, X=1.69, Sig=0.04; General importance: I=2.06, X=1.75, Sig=0.05) (Group V - Enjoyment and excitement V=1.657, X=2.27, Sig=0.03; Specific importance: V=0.44, X=1.69, Sig=0.0; General importance: V=1.157, X=1.75, Sig=0.03 ); (Group VI - Enjoyment and excitement: VI=1.447, X=2.27 Sig=0.02; Specific importance: VI=1.23, X=1.69 Sig=0.01; General importance: VI=1.736, X=1.75, Sig=0.04). Group IX also gave a positive evaluation of the exercise (Diagram 2.), which was caused by high showing for the evaluation of the general importance of the exercise ( Enjoyment and excitement: IX=2.562, X=2.27, Sig=0.24; Specific importance: IX=1.937, X=1.69, Sig=0.33; General importance IX=2.312, X=1.75, Sig=0.04).

**Diagram 2. Total for the evaluation of the exercise by the experimental groups and the control group (for all the three issues in the questionnaire)**

**Total for the evaluation of the exercise**



Relationship between the exercise related intention (desire to repeatedly participate in the experiment) and the type of administered feedback did not prove to be statistically significant (Contingency Coefficient =0.158, Approx. Sig=0,192). Irrespective of the type of feedback received, most research participants intended to take part in a like experiment, which shows that the discount of potential resources does not affect exercise related behavioural intention (Pearson Chi-Square: Value=4,743 (a), df=3, Asymp. Sig (2 sided) = 0, 192).

Correlation between the feedback category and exercise related behavioural intention proved to be significant (Contingency Coefficient=0.235, Approx. Sig = 0,013). Intention not to take part

in a similar experiment (observed in case of 20,8%) was mainly recorded with the research participants who received negative feedback (Table 7).

**Table 7. Behavioural intention by feedback category**

Feedback category	Intention to participate			
	Yes		No	
	%	N	%	N
Positive	92,9%	52	7,1%	4
Negative	79,2%	42	20,8%	11
Mixed	96,5%	55	3,5%	2
Control	95,0%	19	5,0%	1
Total	90,3%	168	9,7%	18

The above result was supported by all the corresponding tests (Table 8).

**Table 8. Significance of relationship between feedback category and the desire to participate in a similar exercise as measured by Chi-Square Tests**

	Value	df	Asymp. Sig (2-sided)	Exact Sig (2-sided)	Exact Sig (1-sided)
Pearson Chi-Square	4,251(b)	1	,039		
Likelihood Ratio	4,380	1	,036		
Fisher's Exact Test				,052	,036

The groups that received Type 2 and 3 feedback, did not show statistically significant difference in terms of the negative intention to take part in a similar experiment (Pearson Chi-Square = 0.058 (b), df= 1, Asymp.Sig (2-sided)=0.810; Likelihood Ratio=0.058 (b), df= 1, Asymp. Sig (2-sided)=0.810)

**Activity related motivation** – 13 research participants (7% of the total number of research participants) did not take part in the repeated interview about the intention to participate in like experiment. Therefore, the given statistical analysis was applied to the responses of 93% of research participants or 173 students.



85% of the students who were repeatedly interviewed in one month's time about their intention to participate in a similar experiment showed like intention.

Out of the students that arrived for the experiment, among positive, negative and mixed feedback groups, prevail the students from Group I (93.8%), Group IV (92.9%) and Group VII (45%), who received Type 1 feedback. Correlation between feedback administration and presence for the experiment was measured by the relevant  $\chi^2$  based tests - Contingency Coefficient and Cramer's V used for the tables larger than 2X2.

Out of the groups with Type 2 and 3 feedback (II (43.8%), V(27.8%), VIII(27.8%) and III(15.8%), VI(0%), IX(31.3%) ) much fewer students were present for experiment than those from control group X(50%) and Type 1 feedback group, which shows that the implicit discount of potential resources affects activity related motivation. In particular, discount of potential resources (Type 2 and 3 feedback) weakens activity related motivation, whereas the admission of potential resources (Type 1 feedback) increases this kind of motivation (Contingency Coefficient=0.56, Sig=0.000; Cramer's V=0.48, Sig=0.000).

Out of the groups that received positive feedback more participants arrived for the experiment (49%) than those from the groups subject to negative feedback (37,5%), although the correlation between the feedback category received and arrival for the experiment did not prove to be statistically significant (Sig=.248. See Table 9).

**Table 9. Correlations between feedback category and presence for the experiment as measured by Chi-Square Tests**

	Value	df	Asymp. Sig (2-sided)	Exact Sig (2-sided)	Exact Sig (1-sided)
Pearson Chi-Square	1,336(b)	1	,248		
Likelihood Ratio	1,340	1	,247		
Fisher's Exact Test				,311	,170

**Table 10. Percentage of participants present for the experiment by feedback type**

Groups	Present		Absent	
	%	Number	%	Number
Groups I, IV, VII. Feedback type 1	74%	41	26%	14

Groups II, V, VIII. Feedback type 2	32,7%	18	67,3%	37
Groups III, VI, IX. Feedback type 3	15,7%	9	84,3%	46

The highest percentage of students present for the experiment (Table 10) were from the groups to which Type 1 feedback was applied (74%), and the minimum number of students belonged to the groups with Type 3 feedback (15%). Difference between these two was proved to be statistically significant (Table 11.)

**Table 11. Significance of the relationship between feedback type and the presence for the repeated experiment as measured by Chi-Square Tests**

	Value	df	Asymp. Sig (2-sided)
Pearson Chi-Square	37,625(a)	2	,000
Likelihood Ratio	39,230	2	,000

Comparison of the behavioural impact of Type 2 and 3 feedback (Table 12) revealed statistically significant difference (Table 13). This suggests that Type 3 feedback causes a stronger avoidance reaction than Type 2 feedback.

**Table 12. Percentage of participants present for the exercise by groups with Type 2 and 3 feedback**

Type of feedback	Present		Absent	
	%	Number	%	Number
Type 2 (Groups II, V, VIII)	32,7%	18	67,3%	37
Type 3 (Groups III, VI, IX )	15,7%	9	84,3%	46

**Table 13. Significance of the difference between the groups that received Type 2 and 3 feedback as measured by Chi-Square Tests**

	Value	df	Asymp. Sig	Exact Sig	Exact Sig

			(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	4,051(b)	1	,044		
Likelihood Ratio	4,126	1	,042		
Fisher's Exact Test				,045	,037

Binary Logistic Regression analysis showed that it is possible to predict the increase/decrease of activity related motivation, and, consequently, predict behaviour (presence/absence for the experiment) by the type of feedback.

**Table 14. Omnibus Tests of Model Coefficients**

		Chi-square	df	Sig
Step 1	Step	38,138	2	,000
	Block	38,138	2	,000
	Model	38,138	2	,000

**Table 15. Model Summary**

Step	-2 Log likelihood	Cox & Snell R <sup>2</sup>	Nagelkerke R <sup>2</sup>
1	168,435	,221	,417

**Table 16. Classification Table**

Actual			Predicted		
			Being present for experiment		% of accurate prediction
			Yes	No	
Step 1	Being present for experiment	Yes	37	25	59.7
		No	13	78	85.7
Total					75.2

**Table 17. Variables in the Equation**

			S.E.	Wald	df	Sig	Exp(B)
Step 1	Type I/II Type/III	1,404	,256	30,177	1	,000	4,071
	Constant	-2,314	,507	20,821	1	,000	,099

Goodness of fit of the regression model is determined by 2LL. By introducing predictor variable – **feedback type**, the value of 2LL became 168,435 (Table 15), which is less than its initial value by 38.138. (Table 14). Decrease of this value suggests improved model description. Difference expressed by Chi-square turned out to be Significant (Table 14: Sig=0.000).

Coefficient of determination (Nagelkerke R<sup>2</sup>) shows the part of dispersion explained by logistic regression. In the given case the part of dispersion explained by logistic regression is 41.7% (Table 15).

Classification table (Table 16) shows that the prediction of the avoidance of participation in the next experiment is more accurate than of the presence to take part in the experiment or the number of participants that were actually present for the experiment was 62 (37+25)<sup>2</sup>, but according to this model 37 would be accurately predicted, which constitutes 59%, whereas the number of absent participants was 91 and out of them 78 (85%) would be accurately predicted. The total for accurate prediction is 75%, which is quite a high showing. Consequently, we can state that the type of feedback significantly improves the prediction of presence for the next experiment.

According to Binary Logistic Regression, the type of feedback received during the performance of exercise significantly improves the prediction of behaviour (75%) (NagelkerkeR<sup>2</sup>=0,417;  $\chi^2=38,138$ ; Sig=0,000).

Regression analysis shows (Tables 18-21) that feedback category does not have a high predictive value.

**Table 18. Omnibus Tests of Model Coefficients**

		Chi-square	df	Sig
Step 1	Step	12,127	1	,215
	Block	12,127	1	,215
	Model	12,127	1	,215

**Table 19. Model Summary**

Step1	-2 Log likelihood	Cox & Snell R <sup>2</sup>	Nagelkerke R <sup>2</sup>

<sup>2</sup> Except for the experimental group

	134,191	,013	,03
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**Table 20. Classification Table**

Actual			Predicted		
			Being present for experiment		% of accurate prediction
			Yes	No	
Step 1	Being present for experiment	Yes	0	43	0
		No	0	56	100
Total					56.6

**Table 49. Variables in the Equation**

		S.E.	Wald	df	Sig	Exp(B)	
Step 1	Positivity/ Negativity	-,472	,409	1,329	1	,249	,624
	Constant	,511	,298	2,936	1	,087	1,667

Coefficient of determination - Nagelkerke  $R^2=0,03$ , which means that the part of dispersion explained by logistic regression is only 3% (Table 19). By introducing predictor variable – **feedback type**, the value of 2LL becomes 134,191, which is less than the initial value by 12,127 (Table 18). The decrease of this value means the improvement of the descriptive value of the model. The difference is expressed as Chi-square, but its value is not significant (Table 18. Sig=0.215).

### **Analysis of Results and Conclusions**

As expected (Hypothesis 1 and 2), the performance of exercise turned out to be less pleasant for the participants, who received generalised feedback compared to the research participants receiving situation- focused feedback. In Groups I, IV and VII, research participants gave more

positive evaluation not only to the enjoyment and excitement experienced during the exercise, but also to its specific and general importance (The fact that as compared with the control group, the most positive affective attitude was observed only in Group I, which received positive situation – focused feedback and the least positive attitude was recorded with Group V, which received generalised negative feedback, can be explained by the influence of feedback category, or its positive or negative nature, on the affective and evaluative attitude toward the exercise.) As for the impact of the type of feedback on intrinsic motivation, it turned out that generalised evaluation weakens intrinsic motivation not only in comparison with situation – focused evaluation, but also compared to no-feedback condition. This supports the previous findings on the implicit effect causing the experience of contingent self-worth, and, consequently, confirms expected results (Hypothesis 1 and 2.)

The results of Binary Logistic Regressive Analysis (Tables 15 and 16), according to which feedback type significantly (75%) improves the prediction of behaviour, i.e. repetition of behaviour in case of situation – focused feedback (prediction probability =59%) and avoidance of activity in case of generalised feedback (prediction probability =85%), confirms the assumption that generalised evaluation causes avoidance reactions, manifested in the avoidance of repeated performance of activity, whereas situation – focused evaluation causes approach reaction, manifested in repeated performance (Hypothesis 1 and 2).

As we see, different effect of generalised and situation – focused feedback on the evaluation of one's own traits was revealed only in case of negative feedback (no significant differences were revealed through the manipulation of positive feedback): As a result of generalised feedback, research participants gave a more negative evaluation of their own traits (significant change in evaluation), whereas situation – focused feedback did not have any significant impact. These results are in line with the findings obtained through the manipulation, in success/failure conditions, of the feedback characteristics associated with contingent self – worth (Schunk, 1983; Mueller & Dweck, 1998), and, therefore, confirm the primary assumption (Hypothesis 5).

In accordance with Hypothesis 3, generalised evaluation and social comparison focused feedback turned out to have a similar effect on the perceived pleasantness of exercise, excitement experienced during its performance and the evaluation of the importance of the exercise. The showings of research participants that received social comparison focused feedback were lower compared to the showings received in case of situation – focused feedback and were not significantly different from those recorded in case of generalised feedback.

Also, these types of feedback significantly reduced intrinsic motivation of research participants. The same, although weaker effect, was received in case of generalised evaluation. As for the evaluation of one's own characteristics, as predicted by Hypothesis 3, participants manifested defensive reactions which showed in the decreased evaluation of one's traits both in case of positive and negative feedback.

As expected (Hypothesis 4) the impact of the type of feedback (generalised and situation-focused feedback) was much stronger revealed in the participants' overt behaviour (presence for the repeated experiment) than in the verbally expressed attitudes towards activity (the impact of the type of feedback on behavioural intention turned out to be insignificant) and the evaluation of one's traits (different impact of Type 1 and 2 feedbacks was manifested only in case of negative feedback). This confirms the assumption that the changes related to contingent self-worth do not have an immediate manifestation and are revealed in case of an impeding situation containing some threat (Intention to take part in a similar experiment was recorded with most participants irrespective of the type of feedback received, whereas the actual presence for the experiment was observed mainly with those participants who received situation – focused feedback).

Therefore, the above results confirm the hypotheses made, according to which generalised versus situation-focused nature of feedback, as a relatively general feedback category, reflects the main cognitive and affective changes associated with the experience of the loss of self-worth and internal control, which was demonstrated in the research into the implicit influence of different characteristics of feedback. Consequently, it has been proved that it is possible to maintain the positive implications of verbal evaluation without considering the requirements that are thought to be very important up to now (discount of ability/trait – focused feedback and feedback focused on performance outcome).

Interesting conclusions can be derived from some other results of the given research, due to which they are worth mentioning in this context. For example, the changes that took place in the control group (increased evaluation of one's traits following the activity, positive character of affective and evaluative attitude toward the activity, weak motivation) makes us think that moderately pleasant activity, per se, has a rewarding impact on the individual; it improves the individual's perception of one's own abilities and changes the attitude to the activity in the positive direction, but to evoke the motivation necessary for repeated behaviour it is still important to receive external evaluation implicitly pointing to the individual's unconditional self-worth.

In addition, the given research proves that similar to generalised feedback, social comparison focused feedback has a negative impact on certain cognitive and behavioural aspects. This kind of evaluation (in case of both positive and negative feedback) has an especially destructive impact, because along with the devaluation of one's own abilities and the manifestation of the avoidance reaction (avoidance of an activity), the individual attaches more importance to the given activity, which might cause negative disposition. As we see, research participants from group IX, who received social comparison - focused mixed feedback, gave a more positive evaluation of the exercise than the control group. In particular, they gave a high evaluation to the exercise as a general method.

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