

The role of the different aspects of academic motivation and competitiveness in explaining self-handicapping

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Abstract: In the present research on self-handicapping, the goal was to examine the role of different types of academic motivation according to the level of self-determination. Since the existing research on self-handicapping has examined only the role of interpersonal competition, we also aimed to explore the role of different kinds of competition, i.e., the role of the reasons that motivate people to participate in competition, and the role of the reasons for the avoidance of competition. 748 high school students participated in the study. Regarding the role of academic motivation in self-handicapping the prevailing role of amotivation stood out. Intrinsic motivation predicted self-handicapping negatively, but extrinsic motivation proved to be a positive predictor. The factor structure of the Academic Motivation Scale only enabled differentiation of the reasons for education on the level of three basic types. With regard to the role of the different dimensions of competitiveness in self-handicapping, results show that those denoted by fear of failure and self-worth protection proved to be more characteristic of self-handicapping than those defined by a high valuation of the importance of quality of task accomplishment. Among others, our research suggests that by diverting students away from hypercompetitive values, functionality of self-handicapping can be decreased.

Key words: academic motivation, competitiveness, self-handicapping

Vloga različnih vidikov učne motivacije in tekmovalnosti pri pojasnjevanju samooviranja

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Povzetek: Prvi cilj pričujoče raziskave samooviranja je bil raziskati vlogo različnih tipov učne motivacije z ozirom na nivo samodeterminiranosti. Ker se pri samooviranju raziskovalni izsledki nanašajo zgoj na vlogo medosebne tekmovalnosti, smo v raziskavi ugotavljali tudi vlogo različnih dimenzij tekmovalnosti, t.j. vlogo vrste tekmovalnosti, vlogo razlogov za sodelovanje v tekmovalnih situacijah ter vlogo razlogov za izogibanje tekmovalnim situacijam. V raziskavi je sodelovalo 748 gimnazijk in gimnazijcev. Na področju učne motivacije rezultati pri samooviranju kažejo dominantno vlogo amotivacije. Intrinzična motivacija se je izkazala kot negativni, ekstrinzična pa kot pozitivni prediktor samooviranja. Z ozirom na rezultate faktorske analize Lestvice motivacije za izobraževanje smo vlogo razlogov za izobraževanje pri samooviranju lahko ugotavljali na nivoju treh osnovnih tipov. Glede vloge različnih dimenzij tekmovalnosti pri samooviranju rezultati kažejo, da so za samooviranje bolj

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značilne dimenzije tekmovalnosti, ki jih označuje strah pred neuspehom in potreba po zaščiti občutka lastne vrednosti, kot tiste, pri katerih je v ospredju kvaliteta izvedbe naloge. Rezultati raziskave med drugim napotujejo k sklepu, da je z odvrcaanjem učencev od hipertekmovalnih vrednot mogoče manjšati funkcionalnost samooviranja.

Ključne besede: učna motivacija, tekmovalnost, samooviranje

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With this research we aimed to contribute to more profound understanding of self-handicapping. Given the present lack of data on the relationship of self-handicapping to different types of motivation for education, we wished to explore the role of different types of motivation from the perspective of self-determination theory (Deci & Ryan, 1985, 2000).

In accordance with the evolving multidimensional view of competitiveness, the second goal of the present research of self-handicapping was to explore the role of different kinds of competition (Ryckman, Hammer, Kaczor, & Gold, 1990; Ryckman, Hammer, Kaczor, & Gold, 1996), the role of the reasons that motivate people for competition (Franken & Brown, 1995) and the role of the reasons for the avoidance of competition (Franken & Prpich, 1996).

A multidimensional approach to academic motivation

In exploring motivation theorists have made a distinction between intrinsic and extrinsic motivation (e.g., Deci, Vallerand, Pelletier, & Ryan, 1991; Harter, 1981). Intrinsic motivation refers to performing an activity for the pleasure and satisfaction derived from it, while extrinsic motivation refers to engaging in an activity as a means to an end (Deci, 1975). Later, in the light of a multidimensional view of motivation, self-determination theory proposed four types of extrinsic motivation (Deci & Ryan, 1985, 2000). External regulation, the least self-determined type of extrinsic motivation, refers to behavior that is determined through rewards and constraints. Next along the autonomy continuum is the construct of introjected regulation. These behaviors are controlled in part by the environment, but also by internal reward/punishment contingencies (e.g., ego enhancement, guilt, shame, or obligation). Identified regulation refers to behaviors that are performed by choice because the individual judges them to be important. Integrated regulation represents the most autonomous kind of extrinsic motivation. It occurs when regulations are fully assimilated with the self, though the goals are still extrinsic and do not reflect inherent enjoyment or interest in the task.

Intrinsic motivation, as the prototype of self-determined activity, is placed at the self-determined pole of the continuum (Deci & Ryan, 2000). Initially, theorists argued that intrinsic motivation was unidimensional in nature. Later, Vallerand

(Vallerand et al., 1992; Vallerand, 1993; Vallerand, Blais, Briere & Pelletier, 1989) proposed a tripartite taxonomy of intrinsic motivation: intrinsic motivation to know, to accomplish, and to experience stimulation. Intrinsic motivation to know refers to the desire to perform an activity for the enjoyment one receives while exploring, learning, and understanding new things. Intrinsic motivation to accomplish refers to the desire to perform an activity for the pleasure and satisfaction that one receives from accomplishing or creating new things. Finally, individuals who participate in an activity for the pleasure and satisfaction derived while experiencing pleasurable intellectual or physical sensations are intrinsically motivated to experience stimulation.

Amotivation refers to the lack of intentionality, and therefore, to the relative absence of motivation. For education amotivated individuals do not believe that they can influence future events. They are characterized by lack of initiative and by negative or conflict emotions toward school tasks. They avoid school obligations and do not expect any long term result, such as finishing school year or assuring themselves better life in the future, nor are they stimulated by interesting discussions or excellence of achievements (Deci & Ryan, 1993). Regardless of whether they are amotivated for education because they do not value school tasks as important or because they do not feel competent to accomplish them, they have to face the fact of increased likelihood of the failure due to minimalistic effort and persistence.

Competitiveness

More scientific attention was paid to the field of competitiveness in the last decade, but in view of the complexity of competitiveness there are still not enough scientific findings available that could define competitiveness more precisely from a psychological perspective. Earlier theories emphasize the one-dimensional perspective of competitiveness (Deutsch, 1949; Johnson & Johnson, 1989; Kohn, 1986), while more recent research is based on findings of its multi-dimensional structure (Deutsch, 1990; Fülöp, 1992; Griffin-Pierson, 1990; Maruyama, 1995; Ryckman et al., 1990; Ryckman et al., 1996).

More recent findings (Fulop, 1999) refer competitiveness to different psychological characteristics of the individual that are derived from the rate of domination of a certain type of motive in that individual. According to Kobal and Kolenc (2008) the relevant motives are the following: to win and eliminate the other person, to be better than the other person, to achieve the criterion of excellence, to do something better and thus make progress, and to test one's own capabilities.

Many authors have tried to define competitiveness in different fields or even find out the index or rate of competitiveness of an individual. Smither and Houston (1992) state that competitiveness is manifested in a social situation when an individual becomes motivated to beat the opponent or achieve a defined goal. Helmreich and Spence (1978) define competitiveness as a desire to win which is based on how an

individual perceives the social environment. For this situation, the existence of an opponent or a group of competitors is typical, which represent a criterion in a competitive situation. Competitiveness is a multi-dimensional construct, where two dimensions are characteristic: competition against the others and struggling to do a task better than the other person. For the first dimension mutual competitiveness is characteristic, which is manifested through the wish of the competitor to beat the others. The second dimension is about struggling to reach the defined goals: not only to do something better than the others but to do it the best one can (Griffin-Pierson, 1990).

Of high interest is Ryckman's postulation of competitiveness (Ryckman et al., 1990, 1994, 1996), in which the author differentiates two particular ways individuals engage in the interpersonal process within achievement settings: hyper-competitiveness and personal development competitiveness. Hyper-competitiveness is a motive for which it is typical that the individual tries to achieve a goal irrespective of the means, using various techniques from manipulation to exploitation etc. It aims towards competition and winning by avoiding failure. The individual (or the group) aims to beat or eliminate the other persons and thus feel superior to them, and usually compete also in situations that are not of a competitive nature.

Personal development competitiveness on the other hand is a motive, whereby the main emphasis is not on winning, but on one's own personal development, which is the result of the experience that the individual has gained in competitive situations. The individual is focused on discovery of his/her potentials and on constant critical relation to self-improvement. While doing this, the individual follows the standards of excellence and thus wants to make progress and do something as well as one can.

Franken and Brown (1995) have defined three motives for why people participate in competitive situation: (1) the need to win; the possibility of winning or losing means that the individual who wants to be a winner inevitably has to enter the competition and defeat the opponent, (2) the need to improve the performance even if one does not win in competitive situations, and (3) the motivation to put forth effort in competitive situations.

Taking into account that it is not necessary that one prefers difficult tasks if he/she wants to perform well, the authors also differentiate between (4) the preference for difficult tasks and (5) the wish to perform well in competitive situations.

Regarding avoidance of competition, Franken and Prpich (1996) state three reasons. Self-image concerns refer to the individual's fear about the consequences of competition as related to the outcome: fear of failing or looking bad. Performance concerns refer to the individual's fear about the consequences of competition as concerns the process of performing a task: self-consciousness, nervousness and the need to meet high expectations of others.

One of the important reasons for disliking competition is that competition involves evaluation, and evaluation can interfere with the ability to master, learn, or perform (Franken & Prpich, 1996). Distraction of attention due to evaluation

(sensitivity to being watched, self-focused attention, approval/disapproval, concentration/distraction, self-conscious/self-assured, strength/weakness focusing) is a construct akin to Sarason's (1984) construct of task-irrelevant cognitions.

Self-handicapping

Berglas and Jones (1978) defined self-handicapping as “any action or choice of performance setting that enhances the opportunity to externalize failure and to internalize success” (p. 406). Self-handicapping is characterized by two principles of attribution (Jones & Berglas, 1978; Kelly, 1972). First, the discounting principle means that by putting in front impediments such as lack of effort or being drunk the night before exam, self-handicappers are able to blur the connection between ability and performance and to proactively alter the meaning or implications of the anticipated failure. Indeed, Covington and Omelich (1979) found that following failure, individuals are judged as less incompetent when they invest little effort but have an excuse available. Second, the augmentation principle holds that self-handicappers are also able to rely on the favorable implications of successful performance meaning that success in spite of impediment represents high ability (Baumeister & Scher, 1988).

Motivational factors of self-handicapping have been extensively researched from both the achievement motivation and goal perspective. The weight of evidence from the achievement motivation perspective suggests that self-handicapping primarily serves a protective function (Berglas & Jones, 1978; Covington, 1992; Martin, 1998; Midgley & Urdan, 1995; Rhodewalt, 1994). Similarly, from the goal perspective it seems evident that performance-avoidance goals facilitate self-handicapping, whereas performance-approach goals seem to have an opposing or neutral role (Elliot & Church, 2003; Urdan, 2004).

How to lower functionality of strategies such as self-handicapping, i.e., how to create conditions for individuals to work the best they can and not only to invest minimal effort to avoid failure? Teachers and parents are advised to enhance students' perceived control (Martin, 1998) and incremental theory of intelligence (Dweck, 1991). According to Covington (1992) it is of the greatest importance to relativise school achievement as a determinant of self-worth and encourage students to persist at inner and not external standards.

Aims of the study

Existing research reveals the importance of social comparison as a situational factor of self-handicapping; participants self-handicapped more if they anticipated public comparison of the results (e.g., Kimble, Kimble & Croy, 1998). In the 90' the field of competition was subjected to a significant change of paradigm as multidimensional approach exposed also positive aspects of competition in the field

of education (Deutsch, 1990; Fülöp, 1992). Since the existent research examines the role of interpersonal competition in self-handicapping, from the multidimensional perspective the goal of the present research was to determine the role of (1) different attitudes to competition (Ryckmann et al., 1990, 1996), (2) reasons that motivate people for competition (Franken and Brown, 1995) and (3) the reasons for the avoidance of competition (Franken and Prpich, 1996).

Furthermore, we hypothesized that in self-handicapping, beside the fear of failure, the reasons for education have an important role. The existent research (Knee and Zuckerman, 1998) does not differentiate the role of different types of intrinsic and extrinsic motivation in self-handicapping: in the sense of general motivational orientations authors reported low level of self-determination in self-handicapping individuals. The goal of the present research was to examine the role of different types of academic motivation in self-handicapping. We hypothesized that self-handicapping was associated with less autonomous types of extrinsic academic motivation (Deci & Ryan, 2000), such as external regulation and especially introjection, which refers to regulation of self-esteem and self-worth, as well as with amotivation, characterized by low effort, low learning habits, low knowledge, and, hence, a greater possibility of failure.

Method

Participants

In all, 748 students from nine grammar schools in nine Slovene major cities participated in the study: 371 (49.6%) boys and 377 (50.4%) girls. Their age range was 15 to 19 years ($M = 16.95$, $SD = 1.20$). Average school grade - 1 (unsufficient) to 5 (excellent) - was 3.6. In the first year of the grammar school were 185 (24.7%) participants, in the second year 191 (25.5%), in the third year 182 (24.3%) and in the fourth year 190 (25.4%).

Research instruments

Self-Handicapping. The instrument was the Self-Handicapping Scale (Jones & Rhodewalt, 1982), which is comprised of 25 statements designed to assess an individual's proclivity to display self-handicapping behavior. For each statement (e.g., "I sometimes don't study very hard before exams so I have an excuse if I don't do as well as I hoped.") students were asked to indicate their level of agreement on a six-point Likert scale ranging from 0 (*disagree very strongly*) to 5 (*agree very much*). The scale exhibits acceptable internal consistency ($\alpha = .79$) and test-retest reliability ($r = .74$ after one month) (Rhodewalt, 1990). Cronbach's alpha of Slovenian translation ($\alpha = .65$) indicates low, but acceptable reliability. The predictive ability

as well as construct validity of the scale is confirmed by a number of studies (e.g., Rhodewalt, 1990).

Academic Motivation. The Academic Motivation Scale – High school version (AMS-HS 28; Vallerand et al., 1992) is a 28-item scale measuring intrinsic and extrinsic motivation as well as amotivation, according to self-determination theory's multidimensional perspective. The scale consists of seven subscales, each consisting of four items representing a response to the question: 'Why do you go to school?'. For each item students were asked to indicate their level of agreement on a seven-point Likert-type scale ranging from 1 (*does not correspond at all*) to 7 (*corresponds exactly*). A high score on a subscale indicates high endorsement of that particular academic motivation. The subscales that measure intrinsic motivation are: To Know (e.g., "Because I experience pleasure and satisfaction while learning new things."), Toward Accomplishment ("For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments."), and To Experience Stimulation ("For the pleasure that I experience when I am taken by discussions with interesting teachers."). Three subscales reflect extrinsic motivation: External Regulation ("In order to obtain a more prestigious job later on."), Introjected Regulation ("Because of the fact that when I succeed in school I feel important."), and Identified Regulation ("Because I think that a high-school education will help me better prepare for the career I have chosen."). The seventh subscale is Amotivation ("Honestly, I don't know; I really feel that I am wasting my time in school.").

According to the Kaiser criterion and with principal components analysis we extracted five factors – and not seven as given in the original factor structure (Vallerand et al., 1992). It was not possible to distinguish subtypes of intrinsic and extrinsic motivation or to compute scores for autonomous/controlled motivation. With extraction limited to three factors we were able to discern the original three-factor structure. Reliability for the intrinsic motivation scale with 12 items was $\alpha=0.90$, for the extrinsic motivation scale with twelve items $\alpha = .82$, and $\alpha = .86$ for the amotivation scale including four items. The α -coefficients were consistent with the range given in Vallerand et al. (1992, 1993).

Competitiveness. The 26-item Hypercompetitive Attitude Scale (HCA; Ryckman et al., 1990) was used to measure hypercompetitiveness. Each item (e.g., "I find myself being competitive even in situations which do not call for competition.") is scored along a 5-point Likert-type scale, with responses ranging from 1 (*never true of me*) to 5 (*always true of me*). Adequate reliability of the HCA (i.e., $\alpha = .65-.85$) has been reported in English samples (Ryckman et al., 1990, 1997); for the Slovenian version of the scale the reliability was $\alpha = .71$ (Kobal et al., 2004) and in the present research $\alpha = .82$.

The 15-item Personal Development Competitive Attitude Scale (PDCA; Ryckman et al., 1996) was used to measure personal development competitiveness. Each item (e.g., "Through competition I feel that I am contributing to the well-being of others.") is scored along a 5-point Likert-type scale, with responses ranging from

1 (*never true of me*) to 5 (*always true of me*). Researchers report adequate internal consistency of the English version of the PDCA scale, with α -coefficients ranging from .87-.91 (Ryckman et al., 1996). For the Slovenian version of the scale the reliability was $\alpha = .69$ (Kobal et al., 2004) and for the present research $\alpha = .84$.

We applied the 19-item Competitiveness/Mastery Questionnaire (CMQ; Franken & Brown, 1995) to measure different reasons for participating in a competitive situation: (1) the importance of winning (e.g., "It is important to me to do better than other on a task."), (2) the satisfaction that comes from improving one's performance (e.g., "I find satisfaction in exceeding my previous performance even if I don't outperform others."), (3) the degree to which competitive situations motivate to put forth a greater effort (e.g., "I try harder when I am in competition with others."), (4) the satisfaction that comes from performing well (e.g., "I find satisfaction in working as well as I can."), and (5) the degree to which they prefer difficult tasks (e.g., "I prefer to work in situations that demand a high level of skill."). The participants were asked to indicate on a Likert-type scale the degree to which the items were »*Not at all like me*« (1) to »*Very much like me*« (5). Franken and Brown (1995; Franken & Prpich, 1996) reported α -coefficients of the subscales ranging from 0.68-0.83. With principal components analysis and according to the Kaiser criterion four factors were extracted; items relating to improving performance and those relating to performing well joined in the same factor, which was labeled Improving performance on a task well done. In the present research internal consistency for Need to win was $\alpha = .79$, for Motivation to put forth effort $\alpha = .74$, for Improving performance on a task well done $\alpha = .75$ and for Preference for difficult tasks $\alpha = .65$.

To measure the reasons for avoidance of competition three instruments were used. The 8-item Self-Image Concerns Scale (SIC; Franken & Prpich, 1996) was used to measure self-image concerns due to expected potential negative *outcome* in the competitive situation. Items (e.g., "When I am in the competitive situation I worry about the consequences of performing poorly.") are scored along a 5-point Likert-type scale, with responses ranging from never true of me (1) to always true of me (5). Higher scores indicate greater self-image concerns. Franken and Prpich (1996) report a high reliability of the scale ($\alpha = .89$), which was determined for the Slovenian version as well ($\alpha = .87$).

In order to measure perceived negative influences of the competitive situation on the *process* of task execution itself, the 4-item Performance Concerns Scale (PC; Franken & Prpich, 1996) was applied. Items (e.g., "I dislike competitive situations because they make me apprehensive and nervous.") are scored along a 5-point Likert-type scale, with responses ranging from 1 (*never true of me*) to 5 (*always true of me*). Higher scores indicate greater performance concerns. In comparison to Franken and Prpich' (1996) reported reliability ($\alpha = .84$), the reliability of the Slovenian version of the scale was similar ($\alpha = .80$).

The 16-item Distraction of Attention Scale (DIST; Franken & Prpich, 1996) was used to measure distraction of attention due to evaluation. Items (e.g., "I tend

to lose my concentration when people evaluate me.”) are scored along a 5-point Likert-type scale, with responses ranging from 1 (*never true of me*) to 5 (*always true of me*). Higher scores indicate greater distraction of attention due to evaluation. Franken and Prpich (1996) reported high internal consistency of the scale ($\alpha = .90$), which was established also for the Slovenian version ($\alpha = .86$).

Procedure

The research was done by agreement with the school principals during regular class hours where teachers were absent. In approximately 40 min the participants completed the booklet of questionnaires, which in the first part elicited demographic information and in the second part variables regarding competition, self-handicapping, and, finally, motivation for education.

Results

Intercorrelation among self-handicapping and included variables

The analysis showed a number of statistically significant relationships with self-handicapping. The intercorrelations among the variables appear in Table 1. Self-handicapping was most strongly and positively associated with all three reasons for avoidance of competition: the performance concerns, self image concerns and distraction of attention, as well as with amotivation for education. The participants higher in dispositional self-handicapping also reported higher hypercompetitiveness. Participants higher in self-handicapping reported a lower preference for difficult tasks, lower intrinsic academic motivation, lower personal development competitiveness, lower satisfaction that comes from improving performance on a task well done, and lower motivation to put forth effort. No statistically significant relationship with self-handicapping was found for the need to win or for extrinsic academic motivation.

Variables predicting self-handicapping

We used stepwise multiple regression to determine which of the independent variables contribute significantly to the multiple regression model. An inclusion criterion of $p = .90$ removed Motivation to put forth effort, Personal development Competitiveness, Preference for difficult tasks and Improving performance on a task well done. Each of the eight steps in the analysis showed a statistically significant change in the variance accounted for the self-handicapping (R^2 change ranged from .277 in the first model to .004 in the last model, with F change in first five models $p < .001$ and in last three $p < .05$). Table 2 indicates that a combination of eight (out of twelve) predictors in the final regression model accounted for 41% of the

variance in self-handicapping. The strongest positive predictor of self-handicapping proved to be distraction of attention due to evaluation, followed by amotivation and hypercompetitiveness. Furthermore, self-image concerns, extrinsic motivation and performance concerns all showed a significant impact on self-handicapping. The beta coefficients for the need to win and for intrinsic motivation emerged as negative, indicating that participants with a higher need to win and a high intrinsic academic motivation tend to self-handicap less.

Table 1. *Bivariate correlations among self-handicapping and included variables*

Variable	Self-handicapping
Hypercompetitiveness	.165*
Personal development competitiveness	-.216*
Performance concerns	.388*
Self-image concerns	.389*
Distraction of attention	.524*
Need to win	-.035
Motivation to put forth effort	-.095*
Preference for difficult tasks	-.275*
Improving performance on a task well done	-.136*
Intrinsic motivation	-.252*
Extrinsic motivation	.031
Amotivation	.307*

Note. * $p < .01$, two-tailed.

Table 2. *Final model of stepwise multiple regression*

Predictor	β	b	$SE\ b$	t
Constant		32.125	2.759	11.643**
Distraction of attention	.340	.370	.040	9.183**
Amotivation	.233	.487	.065	7.526**
Performance concerns	.098	.288	.123	2.334*
Hypercompetitiveness	.215	.190	.035	5.349**
Need to win	-.240	-.662	.111	-5.962**
Intrinsic motivation	-.122	-.101	.028	-3.585**
Extrinsic motivation	.100	.083	.029	2.883*
Self-image concerns	.103	.173	.081	2.147*

Note. Adjusted $R^2 = .41$, $F(8, 728) = 63.32$, $p < .001$ (using the stepwise method).

* $p < .05$. ** $p < .001$.

Discussion

In the present research we aimed to examine the role of the different kinds of competitiveness, the role of the different motives for participation and for avoidance of competition, as well as the role of different kinds of intrinsic and extrinsic motivation, in self-handicapping strategies.

The role of academic motivation in self-handicapping

Firstly, regarding the role of academic motivation in self-handicapping, amotivation proved to be dominant. Amotivation was positive predictor of self-handicapping (in strength after distraction of attention and the need to win). Amotivation for education, due to minimalistic effort and persistence, increases the likelihood of failure in school-related situations (Ryan & Deci, 2000). Anticipated school failure due to the jeopardized role of abilities to a great extent threatens the individual's self-worth, and is at the same time intertwined with the expectations of important persons. Our results show that in amotivated individuals self-handicapping represents a way of maintaining the image of unrealized potentials. Therefore for self-handicapping individuals school is still important, which may represent the last chance for teachers to channel that avoidance-orientation into task-orientation.

Secondly, our findings show intrinsic motivation being negative predictor of self-handicapping. Similarly, in high self-handicapping individuals, other researchers also report low levels of intrinsic goals (Garcia et al., 1995; Knee & Zuckerman, 1998; Sobral, 2004; Thomas & Gadbois, 2007). If self-handicappers do not enjoy tasks in the educational process and do not spend a lot of time developing ability in that domain, we may assume that this leads to the low perceived efficiency and hence to a higher need for self-esteem and self-worth protection.

Thirdly, extrinsic motivation proved to be a positive predictor of self-handicapping, but because the results of the factor analysis did not allow us to distinguish subtypes of extrinsic and intrinsic motivation, we can only assume that self-handicapping is associated with less autonomous types of extrinsic academic motivation. The question of the role of autonomy of academic motivation in self-handicapping, apart from the given insight on the level of the three main types, remains open.

Reasons for the dislike of competition and self-handicapping

In stating that self-worth protection represents a prevalent reason for achievement in school, above all in competitive situations, Covington (1979) indirectly stressed the question of the role of competitiveness in self-handicapping. In our research, regression analysis showed all three reasons for the dislike of competition as important predictors of self-handicapping. Not surprisingly, self-handicapping showed

the highest correlation precisely with distraction of attention due to evaluation. In accordance with findings that self-handicappers doubt their ability and see failure as the final proof of low ability (Martin, 1998; Rhodewalt, 1994), present results indicate that self-handicappers in competitive situations focus on information concerning failure and its consequences, which interferes with task-focusing. By increasing the likelihood of failure, inner distractors threaten the self-handicapper's ability image and thereby increase the need for self-handicapping.

Furthermore, as it is positively predicted by performance concerns, our results show self-handicapping in competitive situations can also represent a means of creating "breathing space" (Depepe & Harackiewicz, 1996, p. 874) that is necessary for focusing on a task and avoiding anticipated process consequences, such as: self-awareness, nervousness and the need to meet the expectations of others.

Self-image concerns emerged as important positive predictor of self-handicapping. Self-handicappers seem to be concerned about the consequences of the failure, i.e., about deleterious consequences of competition with regard to the outcome itself (losing or doing poorly). Results show that by self-handicapping one tries to alleviate the consequences of the failure by ascribing it to the circumstances in which it originated.

Reasons for participating in competition and self-handicapping

Results show that the need to win is a significant negative predictor of self-handicapping, in strength right after distraction of attention. In interpreting these results we must consider that the concept of winning, measured as "being superior to others" by Franken and Brown's (1995) Need to win scale, seems to be understood differently by the Slovene participants in our research than by American students. Franken (Franken & Brown, 1995; Franken & Prpich, 1996) states that having a win orientation is not adaptive since it is about defeating others regardless of means. In Slovenian participants it was found that the need to win refers more to performing at one's best in order to defeat others, since it was positively correlated with intrinsic and extrinsic academic motivation and with a preference for difficult tasks (Šimek, 2008). Our results indicate that by having a low need to win, the self-handicapper is not focused on defeating others with best performance.

Possible reasons for participating in competition (motivation to put forth effort in a competitive situation, improving performance on a task well done, and a preference for difficult tasks) were all negatively correlated with self-handicapping, but they did not emerge as significant predictors of self-handicapping. To sum up, these results lead us to the conclusion that long-term focusing on a task, coupled with satisfaction in developing one's abilities in competitive situations, enhances the development of better coping skills with regard to school work, and, hence, results in a lower need for self-handicapping.

The role of attitudes to competition in self-handicapping

We found that in self-handicapping, hypercompetitiveness that derives from basic perceived inferiority and hence from self-protective achievement orientation, and personal development competitiveness, as manifested in task orientation and learning, i.e., factors that make failure less threatening and hence less likely to evoke self-protective strategies, play different roles. Regression analysis showed hypercompetitiveness as a positive predictor of self-handicapping. Creating false image of unrealized potentials, which self-handicappers try to achieve by creating obstacles to successful performance, appears to be just another way of manipulating oneself and others. In self-handicapping, preventing failure by any available means seems to be of central importance. Hypercompetitive and self-handicapping individuals both highly value relative achievement (in comparison to others) and perceive others as obstacles to their success and self-worth, while learning, ability development and striving toward inner standards of excellence are not in the foreground (Jones & Berglas, 1978; Ryckman et al., 1990). Accordingly, correlation analysis showed that personal development competitiveness is not characteristic of self-handicappers. Similarly, Ross et al. (2003) found that individuals high in personal development competitiveness ruminate less about failure and see it as feedback for further effort investment.

How to explain the apparently contradictory finding that hypercompetitiveness predicts self-handicapping positively, while need to win predicts negatively? Although relative position in comparison to others is paramount in both individuals with high a need to win as well as among hypercompetitive individuals, the need to win is associated with goal attainment with correct performance, while hypercompetitiveness is characterized by goal attainment regardless of means. Hypercompetitiveness as the positive predictor indicates that self-handicapping is more about preventing failure regardless of means: creating or alleging obstacles represents a way of manipulating with the impression other people have about the individual's ability.

Let us, after having looked at the specific results, sum up the findings of the role of competitiveness in self-handicapping. Contrary to the research findings that show competition as an important situational factor facilitating self-handicapping (e.g., Kimble et al., 1998), our findings reject the traditional stereotype of competition being of itself an important facilitating factor of self-handicapping. According to the change of paradigm in understanding competition in the field of education (Deutsch, 1990; Fülöp, 1992, 2006), in self-handicapping our results affirm the relevancy of distinguishing between dimensions of competitiveness which, by focusing students on demonstrating ability/preventing failure increase self-worth motivation, and those that enhance task-orientation and are perceived as a challenge of interpersonal comparison.

In the psychological and pedagogical literature positive aspects of competition in the field of education have been accentuated only somewhat more than a decade

(Fülöp, 2006), and, therefore, teachers generally still lack the knowledge necessary to take full advantage of them and prevent negative consequences of competition. It is of great importance to emphasize that competition, and not as traditionally thought only cooperation, has to be learned. For example, students have to learn how to establish positive relationship among the rivals (Fülöp, 2001; Maruyama, 1995) and how to cope with failure and win gracefully (Smart, Fülöp and Pergar Kuščar, 2006). Our research suggests that by diverting students away from hypercompetitive values in competition, the functionality of self-handicapping can be decreased.

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