Achievement Goal Orientations and Self Handicapping as Mediator and Moderator of the Relationship between Intrinsic Achievement Motivation and Negative Automatic Thoughts in Adolescence Students*

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Abstract
The main purpose of this study was to examine the mediator and moderator role of self-handicapping and achievement goal orientations variables on the relationship between negative automatic thoughts intrinsic achievement motivation in high school students. 586 high school students, ranging in age from 14 to 20 (M = 16.08), adolescence students attending different departments of the high school in Denizli participated in the study as subjects. The relationship between negative automatic thoughts and intrinsic achievement motivation was fully mediated by learning goal orientation. However, the relationship between negative automatic thoughts and intrinsic achievement motivation was partially mediated by self-handicapping. Hierarchical regression analysis indicated that self-handicapping and learning and performance goal orientations variables did not moderate the relationship between negative automatic thoughts and intrinsic achievement motivation.

Key Words
Negative Automatic Thoughts, Self Handicapping, Achievement Goal Orientation, Intrinsic Motivation, Adolescent, High School Students.

Achievement motivation is an evaluation of the individual of his performance as success or failure relating to the perfection standards in case of a competitive context about the task (Weiner, 1972). In achievement motivation theory, McClelland, Atkinson, Clark and Lowell (1953) posit that in a competitive environment and in a situation of achieving a certain task, people will behave according to two motives defined as avoidance failure motivation and achievement motivation. Intrinsic motivation is defined as action and energy which enable individuals' behaviors to be inclined to internal target behavior instead of external factors (Deci & Ryan, 1985). Individuals with intrinsic motivation study to learn and want success as they get pleasure from it. Individuals having extrinsic motivation want success to get a prize or to avoid being punished (Steinberg, 2007). Furthermore, students' achievement reasons are another important problem domain apart from some factors determining the students' achievement motivation in the class. Students set goals aimed at wishing lecture success (Dweck & Leggett, 1988). They may aim to show off others learning or performance. In other words, they move according to one of the two different targets which are defined as learning oriented or performance oriented. Goal orientation (Aim Style) is to make clear
individual’s tendency in order to set him goals and make plans (Malouf et al., 1990). Learning oriented individuals try to achieve the tasks to be fulfilled to have interest and ability. However; performance oriented people want to be successful in order to prove the capabilities for the tasks to be accomplished and demonstrate how successful they are. The basic aim of the people who have one of the two target orientations is to do the task to be accomplished (Elliot, 1999). In a study done by Steele-Johnson, Beaurregar, Hoover and Schmidt (2000), they found out that students finding the task appropriate are learning oriented and these students have high intrinsic motivation. In the same study, no meaningful correlation was found between being performance oriented and intrinsic motivation. In some of the similar studies, there is a positive correlation between intrinsic motivation and learning oriented and a negative correlation between intrinsic motivation and performance orientation (Colquitt & Simmering, 1998; Elliot & Church, 1997).

As well as the researchers’ concern for the achievement motivation, they kept an interest in the studies related to the factors preventing the motivation. Intrinsic achievement motivation is a product of cognitive and emotional processes. That is to say, individual is motivated by considering the advantages. However, some individuals could be believed in the case of having negative beliefs that they will not succeed. These individuals have negative automatic thoughts. Negative automatic thoughts are the negative expressions underlying the belief systems of individuals (Nock & Kazdin, 2002). Negative automatic thoughts are one of the basic assumptions of the cognitive approach. Beck (1976) who is one of the important representatives of the cognitive approach considers negative automatic thoughts as regular feature of our cognitive process. Beck (1995) generally refers to three types of automatic thoughts. The first one is disturbing thoughts having no objective evidence. The second type automatic thoughts may be accurate, but the result is disturbing. The third type automatic thoughts may be accurate but dysfunctional. Each of these kinds of thoughts increases anxiety or makes the individual reluctant to approach the task (Murdock, 2004 p. 225). One of the problems affecting lots of adolescent students’ success is that the student will achieve the suggested target or not. If he thinks he will not fulfill the goal, he will be reluctant to achieve the goal. He criticizes himself with negative thoughts cruelly saying “I cannot do that, I am already untalented” (Kearns, Forbes, & Gardiner, 2007). Negative automatic thoughts reduce the individual’s achievement motivation related to the study. In a study which examines the relationship between negative automatic thought and success, it has been pointed out that individuals with negative automatic thoughts are more unsuccessful (Calvete, Estevez, Arroyabe, & Ruiz, 2005). In another study, it was found that individuals having negative automatic thoughts tend to see themselves as unsuccessful (Schneiering & Rapee, 2004). Another reason impeding individual’s intrinsic achievement motivation is self-handicapping. Self-handicapping is defined as creating personal right excuses preventing individual’s success when potential failure occurs in a task to be carried out (Berglas & Jones, 1978). In other words, self-handicapping behaviors can be defined as behaviors patterns and achievement hindrance like delaying academic task and behaviors, spending time with friends thus leaving no time left, finding excuses and not studying enough (Urdan & Midgley, 2001). Self-handicapping is a motivational strategy some students use in order to get rid of other’s perceptions relating to lack of talent (Midgely & Urdan, 2001). In reality, it was pointed out that students whose self-handicapping behaviors are high have more low self-esteem (Harris & Snyder, 1986; Thomas & Gadbois, 2007; Zuckerman, Kieffer, & Knee, 1998, Zuckerman & Tsai, 2005). Furthermore; adolescents’ motivation decreased as the level of self-handicapping increased (Kimble, Kimble & Croy, 1998). In a study carried out by Elliot and Church (2003), a negative correlation was found between self-handicapping and need for success. Also, between self-handicapping and intrinsic motivation (Deppe & Harackiewicz, 1996) and between self-handicapping and being task-oriented (Standage, Treasure, Hooper, & Kuczka, 2007) was found correlated negatively. On the contrary; it was figured out that there is a positive correlation between self-handicapping behaviors and performance goal orientation (Midgley & Urdan, 2001; Urdan, 2004) and between performance avoidance goal orientation and fear of failure (Elliot & Church, 2003). In addition to this, self-handicapping behaviors are expected to affect the academic success negatively. In many studies, it was found that students having high self-handicapping behaviors are unsuccessful at school (McCrea & Hirnt, 2001; Rhodewalt, 1994; Urdan, 2004; Zuckerman et al., 1998; Zuckerman & Tsai, 2005). When it is looked at the studies about self-handicapping behaviors whether they make a difference or not in terms of gender, conse-
quences different from each other was obtained. For instance, in a study carried out by Warner and Moore (2004), it was found that girls in high school tended to use more self-handicapping strategies. Moreover; they found that boys having self-handicapping behaviors tended to work study less, on the other hand; girls with same the behaviors were giving fewer places to active study practice. Furthermore; girls’ handicapping themselves is connected to weak harmony and low academic success. However; it was found that boys have more self-handicapping behaviors than girls in different conditions (Dietrich, 1995; Hirt, Deppe, & Gordon, 1991; Kimble et al., 1998; Midgley & Urdan, 1995; Rhodewalt & Davision, 1986; Rhodewalt & Hill, 1995; Sherrer & Arkin, 1989).

This Study
This study focused on the direct and indirect role of the variables which increase and decrease intrinsic motivation. As negative automatic thoughts decreases intrinsic motivation because of the anxiety while the individual is doing the task, it is expected to decrease individual’s success (Calvete et al., 2005). Similarly; instead of approaching to a task that individual is likely to fail from achievement tasks, self-handicapping by creating excuses may decrease individual’s intrinsic motivation (Deppe & Harackiewicz 1996). In addition to this, one of the factors affecting the intrinsic motivation positively is individual’s being learning oriented. Especially, parents may put pressure on their children for high marks because of lots of entrance exams in our country. Likewise; while there is no correlation between adolescents perceiving the achievement pressure from parents and learning orientation, a positive correlation was found in terms of performance orientation (Kapikiran & Acun-Kapıkıran, 2009). Namely; parents’ high achievement expectation from their children may encourage children to be performance oriented. In the light of theoretical and conceptual discussions above, in this study the goals are identified: The first aim of this study is to examine whether the negative automatic thoughts and intrinsic motivation have direct and indirect roles among the following concepts; Learning orientation, performance orientation self-handicapping. The second aim of the study is to test whether the negative automatic thoughts and intrinsic motivation have moderating role among the following concepts; Learning orientation, performance orientation self-handicapping.

Method

Subjects
The subjects for this research were all high school students in central district of Denizli. They were all students enrolled in high school during the spring semester of 2007. The total 586 students involved in this study, 344 of whom were female and 242 of whom were male. The subjects differed in 14- 20 years of age and most of them were at the age between 15 and 17.

Measures
A questionnaire on personal details was used in order to determine the factors; kinds of high school, gender, age level of success in previous year of students participating in the study. In addition, Automatic Thoughts Scale developed by Hollon and Kendall (1980) was used in order to assess negative automatic thoughts of individuals. The scale has been adapted to Turkish for two times by Aydin and Aydin (1990) and Şahin and Şahin (1992). The Scale of Achievement Goal Orientation developed by Midgley et al. (1998) was used, as well. It has been adapted to Turkish by Akin and Çetin (2007). Self-handicapping Scale was also used with the aim of measuring self-handicapping behaviors to academic studies of students. The scale was developed by Midgley, Arunkuman and Urdan (1996), and the translation of scale into Turkish, its coherence and its cohesion were fulfilled by Özgungör (2008). The intrinsic motivation to achievement was measured by the substructure of setting intrinsic objectives belonging to Motivation and Learning Strategies Scale. MSLQ developed by Pintrich Smith, Garcia, and McKeachie (1991). The scale was adapted to Turkish by Büyüköztürk, Akgün, Karadeniz, Kılıç, and Demirel (2007).

Procedures
The factors of being attainable and kinds of high school were taken into consideration on the point of determining the subjects. It took approximately 35 minutes subjects to answer the questions of scale.

Analyses
For the analyses of the research; hierarchical regression analysis, correlational analysis, and descriptive statistics by SPSS 14. 0 pack program were used. Mediation-Influence Calculation and Sobel Test were employed, as well.
Results

Correlations among related Variables and Mediating Conditions

The study found that variables were on a normal distribution as indicated by Skeweness and Kurtosis analyses which were of firstly conducted analyses in order to determine the relationship among variables. There was a significant relationship between learning goal orientation, self-handicapping, intrinsic motivation, and negative automatic thoughts. However, there was not a significant relationship between negative automatic thoughts and performance orientation. There was a negative correlation between learning goal orientation, intrinsic motivation, and negative automatic thoughts while there was a positive correlation between self-handicapping and performance orientation. In addition, the research indicated that there was a negative correlation between intrinsic motivation and both self-handicapping and performance orientation; but it has a positive correlation with learning goal orientation. Also, there was a negative correlation between self-handicapping and performance orientation, whereas there was a positive correlation between self-handicapping and learning goal orientation.

Mediating Role of Learning Goal Orientation

Firstly, the result of regression analysis carried out to determine mediating conditions of learning orientation showed that there was a significant relationship between: a) learning goal orientation and negative automatic thoughts, b) negative automatic thoughts and intrinsic achievement motivation, c) intrinsic motivation and learning goal orientation. The result indicated that the relationship between negative automatic thoughts and intrinsic achievement motivation was fully mediated by learning goal orientation. In this model, the interaction effect of learning goal orientation on negative automatic thoughts and intrinsic achievement motivation was assessed at β=.25 x .55=-.14 (Mediation models, 2011).

Mediating Role of Performance Orientation

The result of regression analysis of mediation in performance orientation showed that there were no required conditions in order to determine the mediating role of the relationship between negative automatic thoughts, intrinsic achievement motivation and performance orientation, hence mediation test was not done.

Mediating Role of Self-handicapping Behaviors

In this case, regression analysis was carried out in order to investigate whether the relationship between negative automatic thoughts and intrinsic achievement motivation was mediated by self-handicapping. The results showed that there was a significant relationship between: a) self-handicapping and negative automatic behaviors, b) automatic thoughts and intrinsic achievement motivation, c) intrinsic achievement motivation and self-handicapping. It was also found that the relationship between negative automatic thoughts and intrinsic achievement motivation was partially mediated by self-handicapping behaviors.

Examining of Moderation

Another purpose of this study is to examine the moderating role of the interaction of learning goal orientation, performance orientation and self-handicapping behaviors with negative automatic thoughts in intrinsic motivation. With the aim of this, a multiple hierarchical regression analysis was executed by SPSS 14 pack program in order to determine the moderating role of the means: (a) negative automatic thoughts x learning goal orientation, (b) negative automatic thoughts x performance orientation, (c) negative automatic thoughts x self-handicapping in intrinsic achievement motivation by controlling the gender variable (Baron & Kenny, 1986).

The variables were standardized to reduce problems associated with multicollinearity (Frazier, Tix, & Baron, 2004). The result of the analysis showed that the moderating role of the variables; learning goal orientation, performance orientation and self-handicapping in automatic thoughts and intrinsic achievement motivation were not statistically significant.

Discussion

A regression analysis was carried through in order to determine whether mediation met conditions suggested by Baron and Kenny (1986), or not. And the result indicated that negative automatic thoughts were significant estimates of intrinsic achievement motivation. In other words, individual’s negative thoughts related to result of any task could reduce his studying motivation (Murdock, 2004). There was also a significant relationship between learning goal
orientation which was the first mediator variable and negative automatic thoughts. In addition, it was found that the correlation between learning goal orientation and intrinsic achievement motivation was positive on average. These results are strongly supported by earlier studies (Brown & Huning, 2010; Colquitt & Simmering, 1998; Pintrich, 2000). It was investigated as the second areas of this study that if negative automatic thoughts and intrinsic motivation were mediated by performance orientation, or not. The results indicated that there was a positive and significant correlation between performance orientation and intrinsic achievement motivation. These results conflict with some of findings obtained in earlier studies on the relationship between performance orientation and intrinsic achievement motivation. A number of studies showed that there was a positive and significant correlation between performance orientation and intrinsic achievement motivation (Malmberg, 2008; Pintrich) while some showed that there was no significant relationship (Steele-Johnson et al., 2000). More importantly, the results of some other studies were completely conflicting (Colquitt & Simmering, 1998). The third mediator variable in this study was self-handicapping. However, before examining the mediating role of self-handicapping in negative automatic thoughts and intrinsic achievement motivation, the result of regression analysis for mediating conditions indicated that there was a positive and significant correlation between negative automatic thoughts and self-handicapping. In addition, it was found that there was a significant relationship between self-handicapping and intrinsic achievement motivation, but it was a negative correlation. This result is supported by some of earlier studies (Elliot & Church, 2003; Deppe & Harackiewicz, 1996; Kimble, Rodewalt & Hill, 1995; Kuczka & Treasure, 2005; Pintrich). After that, the mediating role of self-handicapping in the relationship between negative automatic thoughts and intrinsic achievement motivation was examined. The results showed that the relationship between negative automatic thoughts and intrinsic achievement motivation was partially mediated by self-handicapping. It was found in a research carried out by Schniering and Rapee, (2004) that people whose negative automatic thoughts are in a high degree have little success. Another study found that there was a positive correlation between self-handicapping and intrinsic achievement motivation while self-esteem and the performance of exam were partially mediated by performance orientation (Elliot & Church, 2003).

The second purpose of this study was to fulfill a hierarchical regression analysis of the moderating role of learning goal orientation, performance orientation and self-handicapping in the relationship between negative automatic thoughts, and intrinsic achievement motivation. Hierarchical regression analysis carried out by controlling gender variable indicated that learning and performance orientations and self-handicapping variables did not moderate the relationship between negative automatic thoughts and intrinsic achievement motivation. Brown and Huning (2010) examined the moderating role of learning and performance orientations in satisfaction of job. However, the moderating role of being both learning and performance oriented towards the satisfaction of job was not statistically significant. In a comprehensive study performed by Elliot and Church (2003), it was also indicated that there was a positive correlation between self-handicapping, fear of failure, being performance oriented and pessimistic defensiveness. Moreover, it was seen that gender did not make so much difference as to affect the moderators in these variables.

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