

Automatic Negative Thoughts and Defensive Pessimism among Young Adults

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Abstract:

Human beings can control their thoughts and subsequently control their behaviour. However, some individuals feel that their thoughts are controlling them and can't prevent them from occurring. When thoughts appear as facts, truth or more important, and when individuals fail to diffuse from them, it leads to psychological suffering and hampers their daily functioning. The current research objective is to understand how negative thoughts can have an impact on the strategies used to prevent anxiety on a daily basis, also known as defensive pessimism, to explore if there is any difference in defensive pessimism and automatic negative thoughts among males and females. The study sample consisted of 124 respondents who were selected using simple random sampling, from which 62 were males and 62 were females. The Automatic thoughts questionnaire and Defensive Pessimism questionnaire was administered to the participants. The acquired data was statistically analysed using correlation, regression and t tests. Results revealed that there is a positive correlation between automatic negative thoughts and defensive pessimism. And automatic negative thoughts do predict defensive pessimism. The results from the t test indicate that there is a significant difference in automatic negative thoughts among males and females. On the other hand, there is no significant difference in defensive pessimism among males and females.

Keywords:*Anxiety, Automatic Negative Thoughts, Behaviour, Defensive Pessimism, Psychological suffering and Young Adults.*

1. Introduction:

Automatic Negative Thoughts: According to cognitive theories, it is our thoughts that guide our feelings, behaviour and make up for most of our personality traits. Among various theories, Aaron Beck proposed the concept of cognitive distortions which are dysfunctional ways of thinking and thought processes. There are numerous factors which contribute to the development of distorted cognition such as a person's genetic predisposition, their life experiences, the knowledge that they accumulate and their learning. These take shape during their childhood which tends to affect and contribute to a person's fundamental beliefs, which ultimately make a person more susceptible to various problems (Seligman & Reichenberg, 2014). There are various levels at which our cognition can be categorized into, among which, one of them is automatic thoughts. These are thoughts or images that form in response to everyday triggers in our environment. These thoughts and images can be both positive and negative.

Leung & Wong (1998) found that cognitive distortions such as overgeneralization, catastrophizing and personalizing play a major role when it comes to internalizing problems in adolescents. Such distortions can lead to the development of various disorders and psychological suffering such as depression, anxiety, self-esteem issues and many more. These distortions are more likely to occur when individuals experience cognitive fusion. Steven Hayes coined the term 'cognitive fusion' where people get stuck to their thoughts and end up being fused or in fusion with the thoughts. This leads individuals to experience the inability to separate the thoughts that they experience from themselves and they perceive it as reality. In an article published by National Science Foundation in 2005, according to a research study it was found that on an average, human beings have 12,000 to 60,000 thoughts per day out of which 80% of those thoughts are negative and 95% of those are repetitive (Colier, 2019). In a

similar study done by (Leahy, 2005) it was found that, 85% of what individuals think and worry about never really takes place. With the remaining 15% of the worries that did happen, it was found that in 79% of the subjects, they discovered that either they could handle the difficulty better than what they had expected. They concluded that 97% of worries are baseless and result from an unfounded pessimistic perception.

Defensive Pessimism: Defensive pessimism can be described as a strategy that individuals with anxiety generally use. It is the system of setting low desires and afterward considering, in concrete and distinctive detail, all the things that may turn out badly in a particular situation. Individuals who are achievement oriented, use defensive pessimism as a strategy that fuels a powerful urge for success and an intense dread of disappointment. People who are defensive pessimists feel extremely anxious and feel that things are out of control before the performance and enter the task expecting the worst despite the fact that they have done well in similar circumstances previously. This is how they respond to their anxiety and think of all possible solutions for the impending task.

There are two important components to defensive pessimism namely, negative expectation and reflectivity. These theoretical concepts serves two purposes to shield self-esteem from conceivable disappointment by setting a lower level of expectation that is practical and that which helps manage anxiety about conceivable disappointment by persuading the individual to effectively consider and anticipate upcoming occasions (Norem & Cantor, 1986a; Showers & Ruben, 1990).

Norem and Cantor (1986b) say that the anxiety that comes from potential failures does not necessarily lead to poor performance. Rather, this strategy helps the individual by transforming this anxiety into a motivating force. This negative thinking may help the individual to perform better thereby increasing his/her efforts to avoid the negative outcomes

from occurring. Defensive pessimism although having some positive outcomes do have negative outcomes. Cantor and Norem (1989) suggest that these outcomes may be an immediate result of the manners by which pessimists see the world or side-effects of the strategy. Because the defensive pessimists set low desires for progress and mentally reflect about the potential downsides, they translate tasks in the specific domain as anxiety, and this brings about elevated levels of stress and pressure. Norem (2001) research concluded that defensive pessimists relatively face difficulties when it comes to academic goals. They experience more stress, feel more anxious and feel that they are in less control of their goals. Further studies have also shown that defensive pessimists are less satisfied with their performances (Norem& Cantor, 1986a, 1986b; Norem& Illingworth, 1993).

Defensive pessimism in collectivistic culture: In western culture emphasis is placed on concepts like individualism and self-enhancement (Heine & Lehman, 1995; Heine et al., 1999; Heine, 2001). On the other hand, in Asian cultures self-criticism is given importance. Self-criticism is seen as a constructive process where failures indicate the areas that need work and urge the individual to put in more effort. Experimental evidence supports the contention that Asian's show little proof of self-enhancing biases (Yik et al., 1998): they in general are more accepting of the data that demonstrates their failure (Heine et al., 2000), are more likely to recall negative events (Meijer et al., 1999) and their self-assessments are more influenced by disappointments rather than victories (Kitayama et al., 1997). The literature review on defensive pessimism is compatible with the Asian context and Asian qualities.

Early Maladaptive schemas are themes or patterns that individuals have regarding themselves, others and the world which develop during childhood and lead to cognitive distortions which are dysfunctional. In a study by El-Gilany, A., El-Bilsha, M. and Ibrahim, A (2013) assessed the gender difference in maladaptive cognitive schemas between orphan

males and females in Egypt who were between the age of 6 – 18 years. They found that the total mean score for early maladaptive schema questionnaire-short form was significantly higher for females than males.

The intensity of negative thoughts varies from people to people. In a study by Palos, R and Viscu, L (2014) on Rheumatoid arthritis patients with mean age of 49.4, they used the automatic thoughts questionnaire and found that patients with rheumatoid arthritis obtained higher scores in automatic thoughts questionnaire when compared to those who did not have this illness.

As seen before, early childhood experiences play an important factor in the development of automatic negative thoughts. Donnelly, R., Renk, K., Sims, V. and McGuire, J. (2011) examined intergeneration correlation of automatic thoughts where they explored the relationship between the automatic thoughts of parents with their college going children and their automatic thoughts. The results indicated that a relationship existed between the parents and their college children's automatic thoughts. A significant difference existed with respect to gender where a mother's automatic positive thoughts were better predictors of their college children's automatic positive thoughts.

Wong, S. (2008) highlighted the important role of cognition in anxiety. The study explored the relation of cognitive distortions such as core beliefs, dysfunctional attitudes, automatic thoughts and irrational beliefs with respect to test anxiety of undergraduate students. After performing multiple regression analysis it found that core beliefs as a whole was a significant predictor of anxiety, where specifically it was a negative view of self that was a significant predictor.

Many individuals use various coping strategies in order to cope with a stressful or an unpleasant situation and this is done consciously when compared to defence mechanisms. Similar coping strategies were found to be used by diabetes patients in New Zealand. Clarke and Goosen (2009) investigated the mediating effects of coping strategies in the relationship between negative thoughts and depression whose age ranged from 28 to 88 years. It was found that automatic negative thoughts, emotion focused coping and depression were significantly correlated and that emotion focused coping served as a partial mediating factor between automatic negative thoughts and depression.

Gender differences were studied among defensive pessimists. Perry and Skitka (2009) study found that women high on defensive pessimism performed better in math test in high stereotype threat condition. The study also revealed that women who were allowed to reflect about the possible outcomes of the test showed decreased anxiety when compared to women who were distracted and therefore unable to ruminate. Another study examined the underlying factor structure of the defensive pessimism construct and its relation with achievement motives. Lim, L. (2009) conducted a study on 542 Singaporean undergraduate students, this resulted in the finding that defensive pessimism is a two factor construct consisting of negative expectations and reflectivity. Study 2, done on 160 undergraduate students revealed that mastery predicted reflectivity factor, competition indirectly predicted negative expectation factor and negative expectation factor predicted the reflectivity factor of defensive pessimism. The study also revealed that there is a significant gender difference in the negative expectation subscale and total Defensive Pessimism score where it was observed that women obtained a higher score.

Defensive pessimism and perfectionism share common features such as negative thinking, fear of failure, negative expectations and an inclination to safeguard self-esteem. A study conducted by RoyChowdhury, S., (2016) examined the relationship between perfectionism and defensive pessimism. They used Defensive Pessimism Questionnaire- Revised (DSQ-R) and Multidimensional Perfectionism Scale (FMPS). Through Pearson correlation and regression analysis it was found that perfectionism scores can predict defensive pessimism.

Mental and physical health of optimists is better when compared to defensive pessimists. The study conducted by Hosogoshi, H., Kodama, M (2009) assessed the health of defensive pessimists in relation to how they accepted their negative thinking. The study was done among college students where study 1, compared the self-esteem among defensive pessimists, strategic optimists and depressed persons. In study 2, the General health questionnaire (GHQ28) was administered to the three groups and the general health was compared. The study revealed that defensive pessimists who had better health were more accepting of their pessimistic thinking style.

A study conducted by Bumanglag, Alyonna Marie &Diwa, Genevie& Ponce, Guia& Nob, Rene. (2018) examined the impact of test anxiety and its dimensions (emotionality and worry) on the individual's performance in licensure examination. It also aims to study if defensive pessimism can act as a moderator in this relationship. Results indicated that worry negatively predicts performance and emotionality is a positive predictor, when worry is kept under control. The study also found that defensive pessimism weakens the impact of worry on assessment performance, but does not fill in as a moderator in the connection between emotionality and assessment results.

After going through various research work related to automatic negative thoughts and defensive pessimism, it was seen that most of the studies were done in a specific population

such as on children with anxiety, depression, self-handicapping behaviours, in adults with rheumatoid arthritis and diabetes or as a moderator to measure test anxiety. Very few studies have been conducted on the normal population and fewer on young adults. Much work on automatic thoughts and defensive pessimism was done more than 10 years ago, which requires updating, since there have been changes in lifestyle, use of technologies and innovation and coping strategies.

Objectives:

1. To explore the relationship between automatic negative thoughts and defensive pessimism among young adults.
2. To assess the impact of automatic negative thoughts on defensive pessimism among young adults.
3. To ascertain differences between males and females with respect to automatic negative thoughts among young adults.
4. To identify differences between males and females with respect to defensive pessimism among young adults.

Hypothesis:

1. There will be no significant relationship between automatic negative thoughts and defensive pessimism among young adults.
2. Automatic negative thoughts might have an impact on defensive pessimism among young adults.
3. There will be a significant difference between males and females with respect to automatic negative thoughts among young adults.
4. There will be a significant difference between males and females with respect to defensive pessimism among young adults.

5. 2. Methodology:

2.1. Subjects: The sample was selected through the process of simple random sampling from the young adult population. The age group of the sample is 18 - 25 and both males and females were targeted. Through simple random sampling method, the final sample was selected and the size is 124 from which 62 are males and 62 are females.

2.2. Design: Exploratory research design was used since not much research has been conducted on young adults when it comes to automatic negative thoughts and defensive pessimism.

2.3. Measurement Tools used:

a. Automatic Thoughts Questionnaire: This is a 30 item questionnaire which was developed by Philip C. Kendall and Steven D. Hollon in 1995. The test measures the frequency of automatic negative thoughts that one has about self. The test also measures 4 factors related to automatic thoughts which are personal maladjustment and desire for change, negative self-concepts and negative expectations, low self-esteem, and helplessness. The instrument has an alpha coefficient of 0.97 which shows high internal consistency and was validated by correlating with beck depression inventory and MMPI depression scale.

b. Defensive Pessimism Questionnaire: It is a 12 item questionnaire which was developed by Julie K, Norem in 2001. The test measures defensive pessimism. It is a 7 point likert scale ranging from 1(not at all true of me) to 7(very true of me). The Cronbach alpha coefficient was found to be .78 for this composite scale.

2.4. Procedure:

Data for the current research was collected through online Google forms. Demographic details related to the individual respondents were collected such as their initials/name, age, gender and education qualification. The online form consisted of a total of 42 items which had multiple choices. The respondents were asked to be as honest as possible

since there are no right or wrong answers. They were also informed about confidentiality and that their responses will be used solely for academic purposes only.

2.5. Data Analysis:

For analysing the collected information, statistical analysis was carried out. Correlation was used to measure the relationship between automatic thoughts and defensive pessimism. Regression was used to evaluate the impact of automatic thoughts on defensive pessimism. Lastly, t-test was used to learn if there were any differences between males and females in automatic thoughts and defensive pessimism.

3. Results:

From our sample of 124 participants, 62 were females and 62 were males. The age group of the sample was between 18 - 25 with a mean age of 21.38. The results obtained for automatic negative thoughts and defensive pessimism is explained below.

Table 1: Descriptive statistics performed on the sample

	N	Mean	Max	Min	SD
Automatic negative thoughts	124	63.62	140	31	21.08
Automatic negative thoughts - females	62	67.02	140	37	23.06
Automatic negative thoughts - males	62	60.23	108	31	18.45
Defensive pessimism	124	58.30	84	20	12.47
Defensive pessimism – females	62	59.40	84	20	12.73
Defensive pessimism – males	62	57.19	81	29	12.21

Descriptive statistics was performed on both the variables with the entire sample as well as with males and females separately. From table 1 it is seen that the mean score obtained for the entire sample for automatic negative thoughts is 63.62 with a standard deviation of 21.08. When the analysis was performed separately, it was found that for automatic negative thoughts females have a higher mean score of 67.02 when compared to males who have a mean score of 60.23. Such is not the case when it comes to defensive pessimism where even though the overall mean score is 58.3 with a standard deviation of 12.47, there is not much difference seen in the mean score of females and males, where females obtained a mean score of 59.4 while males obtained a mean score of 57.19.

Table 2: Correlation between Automatic Negative Thoughts and Defensive Pessimism

Variables	R
Automatic negative thoughts	0.39
Defensive pessimism	

Correlation coefficient statistical analysis was performed, to see if Automatic negative thoughts and defensive pessimism are related. The correlation coefficient (r) value obtained is 0.39. This indicates that there exists positive correlation between automatic negative thoughts and defensive pessimism. From this, it can be inferred that Automatic negative thoughts and Defensive pessimism are partially related and can have an influence to some extent on some people.

Table 3: Regression to explain the impact of predictor variable on dependent variable

R	R square	Adjusted R square	Standard Error	Sig.
0.397	0.157	0.151	11.49	0.000

Predictor (constant): Automatic Negative Thoughts
 DV: Defensive Pessimism

Regression analysis was performed in order to understand whether automatic negative thoughts can predict defensive pessimism in individuals. From table 3 it can be observed that R square value is 0.157 which indicates that 15.7 Percent of the variance in defensive pessimism can be predicted by automatic negative thoughts. Hence, it can be inferred that automatic negative thoughts have slight impact on defensive pessimism of the study sample.

Table 4: t test for Gender difference on Automatic Negative Thoughts.

Automatic negative thoughts	N	Mean	SD	t value
Female	62	67.01	23.06	
Male	62	60.22	18.45	1.81*

*Significant at $p < 0.05$

To assess the gender difference 't' test was performed on the sample of 124 respondents. From the table 4, it can be observed that the computed t value is 1.81 ($p < 0.05$), which is greater than the critical value 1.65. One tail test values was considered for this test. Thereby, indicating that there is a significant difference among males and females with respect to automatic negative thoughts. Women obtained a higher score in automatic negative thoughts than men.

Table 5: t test for Gender difference on Defensive Pessimism.

Defensive pessimismN	Mean	SD	t value
Female62	57.40	12.73	
Male62	57.19	12.21	0.98 (NS)

NS: Not significant

Another t test was performed on a sample of 124 respondents to understand if there exists any difference between males and females with respect to defensive pessimism. From table 5, it can be seen, that the calculated $t=0.98$ is not significant and therefore this indicates that there is no significant difference among males and females with respect to defensive pessimism.

4. Discussion:

The results from Table 2 indicate that there exists relationship between automatic negative thoughts and defensive pessimism. In the study done by Yamawaki, et al.(2004), it was found that defensive pessimists use their frequent negative self-thoughts and anxiety to try and perform well in tasks. Another study conducted by RoyChowdhary, S.(2016), found that defensive pessimists and perfectionists often experience a lot of negative thinking and have an immense fear of failure. Defensive pessimism in itself is a strategy that involves setting low expectations, thinking negatively and attempting to prevent the occurrence of possible negative outcomes (Prayson, 2014) Individuals utilize their negative detail-oriented thinking and anxiety to safeguard against possible negative outcomes. Finally, the current research also supports and strengthens the earlier researches done and found that there exists positive relationship between automatic negative thoughts and defensive pessimism.

From table 3, it can be perceived that automatic negative thoughts do predict defensive pessimism. However, automatic negative thoughts do not seem to be the strongest predictor. In the study done RoyChowdhary, S.(2016), it can be seen that perfectionism can predict defensive pessimism and it seems to be a stronger predictor. In the study conducted by Lim, L.(2009), it was found that mastery and competition were significant predictors. So all the above mentioned studies provide proof that there are many predictors to defensive pessimism, and automatic thought is one among them. It may not be a significant predictor because many factors come into play with respect to defensive pessimism.

From table 4, one can see that there is a significant difference between males and females with respect to automatic negative thoughts. Similar results obtained by El-Gilany, et al. (2013) who also found females having a higher mean average of automatic thoughts when compared to males for the sample whose age ranged from 6 - 18 years. Even though the age of the sample between the two studies is different, it can be interpreted that automatic negative thoughts does not change with age but will remain higher in females than males irrespective of the individual's age.

However, there was no significant difference between males and females with respect to defensive pessimism. In a study conducted by Perry and Skitka (2009) significant gender differences were found between males and females in terms of defensive pessimism where females had lower levels of anxiety as well. An important factor affecting the score could be the participants were subjected to a high threat condition, unlike the subjects in this study. Culture could also play an important role since a study by Lim, L (2009) found that having negative expectations and a competitive nature among Singaporean students resulted in significant gender differences where females obtained higher scores than males.

6. Conclusion:

Thoughts, beliefs and opinions play an important role in the lives of many people and affect them both positively and negatively. When it comes to negative thoughts, depending upon the intensity of it, it hampers with our functioning and may cause various psychological disorders such as anxiety, depression, obsessive compulsive disorder etc. Defensive pessimism as a cognitive strategy is used by many people who experience anxiety, since it helps individuals manage anxiety by setting lower expectations and involves thinking about the worst possible outcome of the situation. Some may argue that this strategy is effective and has in fact helped them plan their work or make better decisions. However, being a defensive pessimist can influence your goals and hamper your performance when used as a strategy on a regular basis. One of the objectives of the study was to understand whether automatic negative thoughts that an individual has plays a significant role in defensive pessimism. Automatic negative thoughts do seem to help harness the negative expectations part of defensive pessimism. The results indicated that there are gender differences in automatic negative thoughts, which is supported by review of literature. On the other hand, there was no gender differences found with respect to defensive pessimism. Though the research has established a relationship between automatic negative thoughts and defensive pessimism, future research can look into variables which better influence and impact defensive pessimism.

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