

Does the Anger Rumination has an Effect on the Employee Creativity

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Abstract

Individuals, especially in the management level, who are distinguished with their employee identity in their respective workplaces in the unity of social life, highly interact with each other. It is evident that in this process wherein the individuals interact with each other, their attitudes towards each other affect the process of creating mutual behaviors and perceptions. On one hand individuals may harm each other through unethical or counterproductive behaviors and on the other hand, even if there is no intention to harm, the behavior of the individual with whom one interacts can be perceived as aggressive. All these scenarios cause anger rumination in individuals, which can be defined as one's contemplating over the reasons of behavior or attitudes through anger while spending a lot of time. Meanwhile, anger can be defined as creating a negative emotion towards any cognitive assessments, psychological changes and tendencies of action. That this process of creating emotions is evaluated for a long period of time via rumination may lead to the assumption that the affects of the employee change due to anger rumination. On the other hand, the employee creativity emerging during the activities of individuals in their respective workplaces depend on a highly emotional evaluation. This study has been prepared to determine whether, especially in the case of white-collar workers experiencing anger rumination, that has an effect on their individual creativity. The relation between the anger rumination and the employee creativity constitutes this study's distinctive aspect. The data obtained from this research propose that the creativity is a basic need of companies and that determining the impact level of the anger rumination on the creativity and taking counter-measures against the anger rumination may contribute to the building of an innovative company in a competitive market.

Keywords: anger, anger rumination, employee creativity

1. Introduction

In recent years, the study of multiple emotional states and intra-organizational behaviors as well as rumination has emerged as an attractive field of study. While anger is generally considered as an emotion, anger rumination is defined as contemplating on this emotion and a cognitive process, which is reflected in the individual's behaviors. Rumination can be defined as recurrently contemplating over and analyzing an event while anger rumination means that the details of an event causing anger are re-analyzed and contemplated over by the individual continuously remembering this event. Deffenbacher (2011) studied the difference between the internal and external triggers of anger. Determinant situations such as getting stuck in a traffic jam constitute the external conditions that unveil the anger whereas thoughts and memories such as thinking about the ending of a relationship, that may stimulate anger, can be considered as the internal conditions that trigger this emotion. Individuals evaluate anger-stimulating events through cognitive evaluation, similar to the process of creativity (Sukhodolsky et al., 2001). Anger rumination is examined in four dimensions: an individual's angry memories, angry afterthoughts, understanding causes of anger and thoughts of revenge (Sukhodolsky et al., 2001). These four dimensions can be realized only if the individual uses his/her creativity so as to obtain different and original outcomes in his/her cognitive system. "Creativity" is a concept that is examined in a number of disciplines, among which are arts, science, social networks and online communication. Environmental variables as well as the cognitive system of the individual affect the individual creativity that provides a significant competitive advantage for companies if managed properly and efficiently (Zaman et al., 2010). In light of these data, the aim of this study is to examine the relation between the individual creativity and the anger rumination, which is one of the cognitive systems that affect the individual creativity skills.

2. Theoretical Background

2.1 Anger Rumination and Employee Creativity

Anger rumination is considered as continuously contemplating over the past anger-stimulating experiences. Rumination is generally associated with psychological distress and poor physical health (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008; Watkins, 2008). Rumination causes the individual to obsessively focus on bad experiences and to prolong and intensify emotional distress (Thomsen, 2006). In addition, anger rumination is associated, especially in daily life, with risky behaviors such as impulsivity and aggression (Anestis, Anestis, Selby, & Joiner, 2009; Gilbert, Cheung, Irons, & McEwan, 2005; Sukhodolsky, Golub, & Cromwell, 2001). Individuals experiencing anger rumination tend to have difficulty to forgive those who have mistreated them, which causes their emotional intelligence to influence their cognitive intelligence and as a result, the individual exhibits attitudes and behaviors that reflect this influence (Barber, Maltby, & Macaskill, 2005).

Rumination is defined as the “compulsively focused attention on the symptoms of one's distress, and on its possible causes and consequences, as opposed to its solutions” (Nolen-Hoeksema, 1991). Martin and Tesser (1996) define thoughts causing rumination as conscious thoughts that are focused on general topics and that may emerge even in the absence of immediate environmental stimuli. On the other hand, anger rumination is the individual's tendency to repetitively analyze his/her problems, concerns and distress without carrying out any positive actions (Nolen-Hoeksema, 1991; Watkins, 2008). The individual experiencing anger rumination constantly contemplates over and analyzes an angry memory or relation and consequently, searches for different methods related to this memory. These conditions do not create any behavioral change that may positively affect the emotional state of the individual while causing the adaptive emotion regulation to decrease (Lyubomirsky, Kasri, Chang, & Chung, 2006; Lyubomirsky & Nolen-Hoeksema, 1993). That the individual is in search of cause and effect that may prevent the occurrence of an adaptive process in the individual's emotions towards other individuals or existing situations may suggest that the individual experiencing anger rumination has the ability to produce maladaptive, original and different ideas, as it is seen in individuals with high level of creative thinking.

The concept of creativity, that can be associated, in this study, with the anger rumination which defines a routine state of emotion and even a negative emotional state, is mainly studied by behavioral scientists (such as psychologists and educationalists) as well as by experts in innovation and administrative studies, economists, public relation experts and political scientists. Although, both fields of study have different meanings, they also have some similar aspects. Stein defines creativity as “a process that results in novelty which is accepted as useful, tenable or satisfying by a significant group of others at some point in time.” One of the first researches in the field, Amabile states while explaining creativity: “A product or response is creative to the extent that appropriate observers independently agree it is creative.” (Sousa, Pellissier, & Monteiro, 2012). The examination of various definitions shows that creativity must absolutely provide two basic principles: novelty and originality (Sadi & Dubaisi, 2007). West and Farr (1990) defines as “the intentional introduction and application within a job, work team or organization of ideas, processes, products or procedures which are new to that job, work team or organization and which are designed to benefit the job, the work team or the organization.” employee creativity is, on the other hand, a function of personality factors, cognitive style and ability, relevant knowledge and motivation (Woodman et al., 1993).

Creativity enables the employees to benefit from a wide range of knowledge and experience while developing new ideas and solving problems. Creativity is defined as the function of the interaction between the personality traits of the employees and their approach to work (Amabile, 1996, Woodman, Sawyer, & Griffen, 1993). This definition emphasizes the importance of the personality traits of the employees in the development and application of their creativity. Moreover, the individual creativity of the employees is also affected, in addition to individual's personality traits, by social facilitation, characteristics of physical environment, and task and time constraints. The past experiences occurred due to these environmental variables result in that the individual creativity is built with a greater impact. The creative applications of the individual in the workplace can motivate the individual towards becoming more creative according to the outcomes of past experiences (Woodman & Schoenfeldt, 1990).

According to this statement, employee's relations in the workplace, interaction with other employees and emotional states caused by the workplace affect the creativity of the employee (Chae, Seo, & Lee, 2015). These traits of the employees, who analyze their past experiences and improve their creativity levels by evaluating the workplace and their communication and relation with other employees, provided the basis of this study for examining the assumption that anger rumination, that can be experienced in line with the employees' relations, affects this relation. Anger rumination, which is defined as constantly contemplating over an angry memory,

causes individuals to continuously analyze their past anger, their communication with other individuals as well as wrong and right reactions in this communication process. Constantly contemplating over and analyzing a past experience and deciding new reactions in line with the results of these experiences prove the common characteristics of anger rumination and individual creativity.

Therefore, this study examines the relation between the anger rumination and the employee creativity separately. The aim of this study is to determine the possibility of impact of a personality trait, which identifies an emotional state, on the organizational behaviors and attitudes of the employees.

3. Research Hypotheses and Model

The study examines the effect of anger rumination on individual creativity in light of the above-described theoretical background. The research hypothesis is as follows in accordance with these approaches.

H1: Anger rumination has a positive effect on employee creativity.

H2: Employees' Angry Memories has a positive effect on employee creativity.

H3: Employees' angry Afterthoughts has a positive effect on employee creativity.

H4: Employees' Understanding Causes of Anger has a positive effect on employee creativity.

H5: Employees' Thoughts of Revenge has a positive effect on employee creativity.

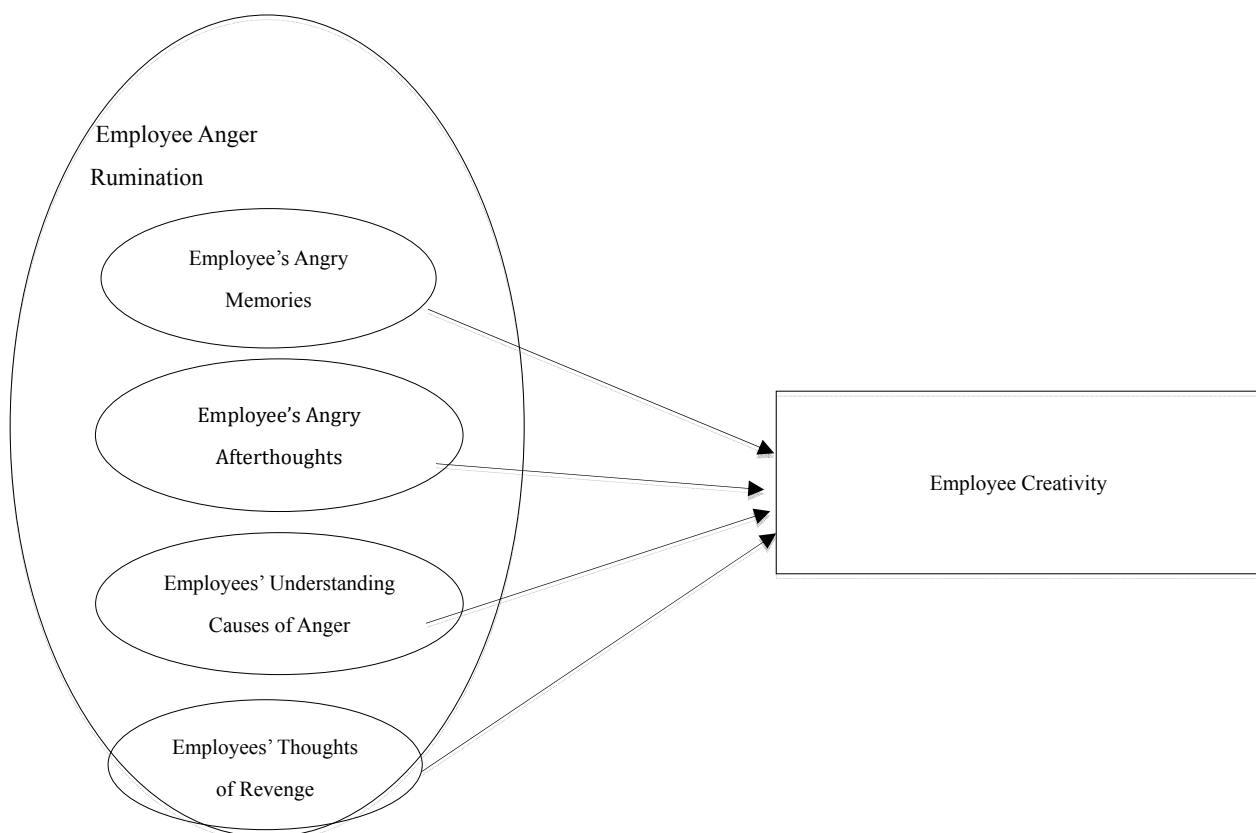


Figure 1. Research model

4. Research Method

The research data were analyzed via statistical package software program.

4.1 Scales, Sampling and Research Constraint

Five-level Likert scale is used for testing the above-mentioned hypotheses, the Likert range on the scale being between "Strongly Agree" and "Strongly Disagree". Items for the measurement of the anger rumination are developed by adapting from the "Anger Rumination Scale" developed by Sukhodolsky et al. in 2001, which consists of 19 items while the employee creativity is adapted from the scale used by Shalley and Gilson (2004) in

their study.

Convenience sampling method is used in the study; however, the problem of ‘generalization’ of the convenience sampling method creates a constraint for the study. Moreover, another constraint of the study is that the research is carried out with only the employees residing in Istanbul. The aim of the research is to study the effect of the anger rumination on the employee creativity. Although there are a number of researches on anger rumination in the field of psychology both in Turkey and the world, no research wherein the relation between the anger rumination and the employee creativity has been tested is found. Thus, the research provides an original approach to the relevant field thanks to the relation of the anger rumination with the employee creativity.

In the study, a total of 250 questionnaires were used in the field with 134 returns. As the questionnaires which comprise answering errors on the part of the participants are excluded from the research, a total of 122 questionnaires were used for analysis within the framework of the research.

4.2 Reliability of the Measurement

Cronbach’s Alpha values of the scales were examined to test the reliability of the scales used in the research, which resulted in 88% employee anger rumination reliability and 95% employee creativity reliability at a 0.05 significance level. When Kaiser-Meyer-Olkin measure of sampling adequacy was applied to the employee anger rumination scale, a significance value of 0.000 and a KMO value of 0.827 were obtained. These values prove the scales suitable for factor analysis.

5. Analysis and Findings

Anger rumination levels of employees after the factor analysis applied to the data to test the hypotheses of the research are given in Table 1.

Table 1. Factor analysis results

Name of factor analysis	Factor Group’s Reliability (Cronbach’s Alfa Coefficient)	Items	Factor Loads
Employee’s Memories	Angry 0,81	• I have difficulty forgiving people who have hurt me.	0,658
		• I feel angry about certain things in my life.	
		• I ruminate about my past anger experiences.	0,640
		• I think about certain events from a long time ago and that still make angry.	0,754 0,709
		• I have had times when I could not stop being preoccupied with a particular conflict..	0,627
Employee’s Afterthoughts	Angry 0,86	• I re-enact the anger episode in my mind after it has happened.	0,720
		• When something makes me angry, I turn this matter over and over again in my mind.	0,832 0,625
		• Whenever I experience anger, I keep thinking about it for a while.	0,634
		• After an argument is over, I keep fighting with this person in my imagination.	0,641
		• I keep about events that angered me for a long time.	0,797
Employees’ Understanding of Anger	Causes 0,71	• I think about the reasons people treat me badly.	0,797
		• When someone provokes me, I keep wondering why this should have happened to me.	0,775
Employees’ Thoughts of Revenge	0,71	• I analyze events that make me angry.	0,738
		• I have long-living fantasies of revenge after the conflict is over.	0,453
		• When someone makes me angry, I cant stop thinking about how to get back at this person.	0,651 0,862
		• I have day dreams and fantasies of violant nature.	

The application of the factor analysis to the data to test the hypotheses of the research shows that the employee anger rumination measure is divided into four factors: angry memories of employees, angry afterthoughts of employees, understanding causes of anger and employees' thoughts of revenge. The factor loads of these dimensions and the Cronbachs' Alpha values proving the reliability of these factors are given Table 1.

In the study, the effect on the employee creativity of angry memories of employees, angry afterthoughts of employees, understanding causes of anger and employees' thoughts of revenge, which were obtained in the measurement of anger rumination of employees, is determined by regression analysis. Accordingly, the results of the regression analysis are given in Table 2-6, while angry memories of employees, understanding causes of anger and employees' thoughts of revenge have a positive effect on the employee creativity, it is found that angry afterthoughts of employees do not have a significant effect on the employee creativity.

Table 2. Regression analysis of employees' anger rumination and employee creativity

Model	B	Beta	Significance	R	R ²
Employee Anger Rumination	0,644	0,787	0,000	0,787	0,62
Dependent Variable: Employee Creativity					

Table 3. Regression analysis of employees' angry memories and employee creativity

Model	B	Beta	Significance	R	R ²
Employee Angry Memories	0.601	0.443	0.000	0.443	0.196
Dependent Variable: Employee Creativity					

Table 4. Regression analysis of employees' angry afterthoughts and employee creativity

Model	B	Beta	Significance	R	R ²
Employee Angry Afterthoughts	0.017	0.015	0.870	0.015	0.032
Dependent Variable: Employee Creativity					

Table 5. Regression analysis of employees' understanding causes of anger and employee creativity

Model	B	Beta	Significance	R	R ²
Employees' Understanding Causes of Anger	0.301	0.257	0.004	0.257	0.066
Dependent Variable: Employee Creativity					

Table 6. Regression analysis of employees' thoughts of revenge and employee creativity

Model	B	Beta	Significance	R	R ²
Employees' Thoughts of Revenge	0.238	0.203	0.002	0.203	0.041
Dependent Variable: Employee Creativity					

Table 2-6 shows the relations between the employee creativity and the factors of anger rumination. Table 3 indicates, the relation between the angry memories of the employees and the employee creativity is analyzed, which shows a significant and positive relation between the employees' angry memories and the employee creativity. Table 4 remarks the relation between the employees' angry afterthoughts and the employee creativity, but no significant effect of the angry afterthoughts on the employee creativity is found. Employees' understanding causes of anger in the Table 5 and employees' thoughts of revenge in the Table 6 model both show a significant and positive relation with the employee creativity. Research model loadings of each question item is shown in Table 1 and the results in Table 2-6 indicate that employee angry memories, employees' understanding causes of anger and employees' thoughts of revenge have a positive association with employee creativity, thus H1, H2, H4 and H5 are accepted. Specifically, when an employee has an anger rumination i.e. he thinks about certain events from a long time ago and that still makes him angry, has long-living fantasies of revenge although the conflict is over or when someone makes him angry for the second time, if he can not stop thinking about how to get back at that person; he has a better opportunity to develop his creativity. Also if it becomes a routine by thinking the anger experience over and over again; this thinking process does not support any creativity skills or thoughts. We could not find any statistical association between employees' angry afterthoughts and employee

creativity, and H3 was not supported. Finally, our results indicate that anger rumination explains 62% of variance ($R^2 = 0,62$) in employee creativity.

6. Research Findings and Suggestions for Future Research

Anger rumination is the process of rethinking and analyzing the past experience after the moment of anger, contemplating the past angry memories and evaluating the pieces that have led to the angry memory by bringing them together. That the individuals experiencing anger rumination bring these attitudes, behaviors and cognitive states together shows a parallel process to the individuals' actions during the moment of creativity, such as rethinking and testing novel and original ideas and frequently re-handling the problem so as to provide a new solution. The results of the research findings show that the creativity of the employees are affected by rethinking past experiences and events related to angry memories, by using their cognitive systems, which focus on cause and effect relation, to understand the causes of anger as well as by constantly creating new ways and scenarios to exact revenge after an anger-stimulating event. This characteristic is based on the fact that individuals show parallel behaviors both in rethinking and analyzing angry memories and using their creativity. The behavior of the individual, who continues to contemplate over the angry memory, also has an effect on the individual's creativity in the workplace. However, employees' angry afterthoughts, which reflect a more stable mood with respect to the other factors of the anger rumination, do not have a significant effect on creativity. Creativity is intrinsically a personality trait that focuses on constantly questioning and analyzing what's different and on establishing a cause and effect relation. That the anger rumination factors, that promote establishing a cause and effect relation and engaging in new and different activities, have an effect on the individual creativity of employees and that the anger rumination factor, that induces a stable behavior and thinking, does not have any effect, both can explained by this rationale.

In the study, anger rumination and individual creativity variables of employees are measured in the province of Istanbul by using the items adapted from the above-mentioned scales. Application of these scales to larger populations for measuring the anger rumination and creativity of employees in the workplace may provide more generalizable results. Additionally, by introducing the anger rumination, which is accepted as a research subject generally in the field of psychology, into the literature of management after correlating it with different variables, more specific results can be obtained. In this context, further impact factors can be evaluated in the measurement of the individual creativity of employees.

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