Changes in daily self-esteem in response to negative task-related work events:

Neuroticism as a moderator

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Abstract

The goal of the present study was to investigate the relationship between negative task-related work events and daily self-esteem with Hypothesis 1 stating that negative task-related work events have a negative influence on daily self-esteem in employees. Furthermore, we investigated whether the personality trait neuroticism influences this relationship where the relationship is strengthened in people with high levels of neuroticism. Based on the Stress as Offense to Self theory, failing to attain a goal at work, might instigate individuals to evaluate themselves as incompetent with consequently a decrease in self-esteem. Negative task-related work events can be seen as goal failure and we therefore expect a negative relationship with self-esteem. People high on neuroticism have a tendency to experience more frequent and intense increases in negative affect in daily life. We therefore expect neuroticism to strengthen the relationship between negative task-related work events and daily self-esteem. The study was conducted online and consisted of two parts: a one-time baseline questionnaire with questions about personal background, personal characteristics, work conditions and well-being, and a series of daily questionnaires on 10 consecutive workdays. Ninety six working individuals participated in the study. To investigate the main effect and interaction effects, we used a multiple hierarchical regression analysis. No relationship was found between negative work events and self-esteem. Neuroticism also did not alter the relationship. More research on the topic is needed to make any practical implications.

Keywords: Negative task-related work events, daily self-esteem, neuroticism, Stress as Offense to Self theory

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When we consider an average working week of 35 hours, this would mean most adults spend approximately 1,750 hours a year at work. Achieving or pursuing goals makes up a great part of our working time. Goal failure poses a threat to the self, by making an individual feel incompetent or insecure about their abilities. Task underperformance can be seen as a negative task-related work event and consists of goal failure (Pindek, 2020). Underperformance can consist of a mistake, an accident or not achieving the expected tasks over time and is therefore conceptualized as a source of stress for employees (Pindek, 2020). Stressors like performance constraints and obstacles to goal attainment have negative consequences to an individual's self-view (Semmer et al., 2019). According to the Stress as Offense to Self theory (SOS), achieving and maintaining a positive self-view is a basic need and threats to self-esteem generate strain (Semmer et al., 2019). Thus, failing to attain a goal at work, might instigate individuals to evaluate themselves as incompetent with consequently a decrease in self-esteem (Semmer et al., 2019).

People do not only have goals with regard to work; for many people the primary goal in life is to be happy. Other goals can be "work toward higher athletic capabilities" or "accept others as they are" (Emmons, 2003). Previous research suggests that negative life events can have a negative influence on our self-esteem (Dehart & Pelham, 2006). This can possibly be due to the goal failure, making an individual feel incompetent or insecure. For example, not achieving higher athletic capabilities can be seen as a negative event resulting in a negative influence on our self-esteem. However, as stated before, we spend a lot of our time at work thus we might expect a similar effect of negative work events on our self-esteem.

Figure 1 presents our conceptual model which was tested in a daily diary study. Fluctuations in self-esteem were captured in response to negative work events to check if

there is indeed a similar effect as found by Dehart and Pelham (2006). Therefore, investigating whether negative work events influence employees' self-esteem will extend the current literature on negative events and self-esteem to a work setting.

We also add to the current literature by investigating moderating effects of neuroticism on the relationship between negative work events and self-esteem, one of the Big Five characteristics (John & Srivastava, 1999). People high on neuroticism tend to be more reactive to negative events (Wrzus et al., 2021). We therefore expect neuroticism to moderate the relationship between negative work events and self-esteem.

Figure 1.

Proposed relationships among the variables.
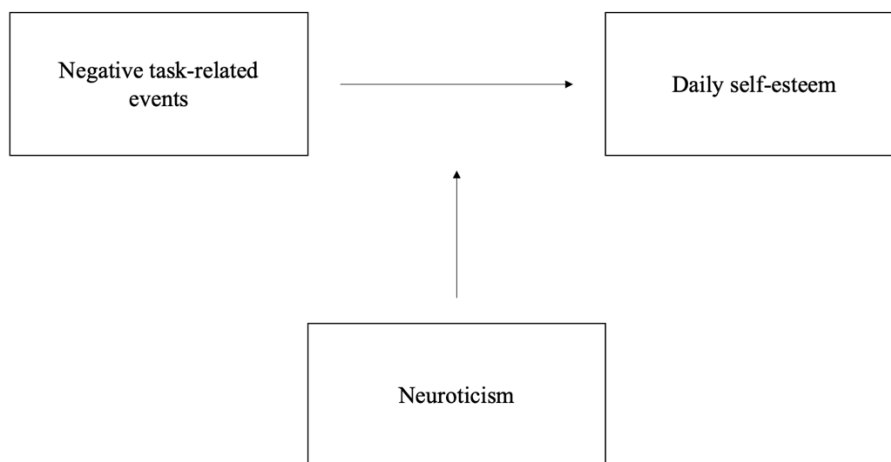
Negative task-related work events and state self-esteem

The literature distinguishes between trait self-esteem and state self-esteem. Trait self-esteem refers to conscious, considered, and controlled self-evaluations about individuals' abilities and skills. State self-esteem refers to more unconscious, automatic self-evaluations in response to daily events. State self-esteem is therefore also referred to as daily self-esteem (Nezlek & Plesko, 2001). Self-esteem consists of different components; personal, relational and collective self-esteem. Personal self-esteem refers to feelings of competence and talent, relational self-esteem is based on relationships with significant others and collective self-

esteem is based on the value of one's social group (Hauke & Abele, 2020). Self-esteem is positively related to psychological well-being; the extent to which individuals are functioning at an optimal level (Gardner, 2020). Not functioning at an optimal level may cause stress and this can in turn thwart or threaten to thwart important goals (Semmer et al., 2019). Threats to self-esteem are thus important triggers of stress according to the SOS theory causing people to not achieve certain goals (Semmer et al., 2019). However, according to Pindek (2020), this also works the other way around; not achieving certain goals in terms of task underperformance is stressful, resulting in a negative influence on self-esteem. Cross-sectional data shows a decrease in self-esteem in individuals who failed a high and specific goal (Höpfner & Keith, 2021).

People can experience various work events, which can be categorized into task-related, personal, social-self, and social-other events (Schmitt et al., 2022). Furthermore, the work events are divided into positive and negative events. Work events can have an influence on employees' health and well-being. Especially when we focus on negative, stressful events, research suggests this to be an indicator of poor health and well-being (Sonnentag & Frese, 2003). Failing to attain a goal like not being able to complete a task at work, might have serious consequences for an individual's well-being. We will therefore focus our study on negative task-related work events. These events may differ for each individual depending on their profession (e.g., a teacher will be confronted with different events than a surgeon). However, in general, negative task-related work events concern all the negative events that refer to tasks (e.g., not being able to complete tasks, making task-related errors).

Negative task-related events can be seen as goal failure, posing a threat to our self-esteem by making us feel incompetent or insecure about our abilities (Pindek, 2020). Goal failure can have implications for self-conscious emotions like shame or guilt. Because of these emotions, negative effects on self-esteem may occur (Semmer et al., 2019). We

therefore suppose that negative task-related work events will decrease the daily self-esteem by causing emotions of incompetence, insecurity about abilities, shame or guilt.

Hypothesis 1: Negative task-related work events are negatively associated with daily self-esteem.

Neuroticism as a moderator

The strength of the relationship between negative task-related events and daily self-esteem may differ between people. Previous research has shown moderating effects from personality characteristics like trait self-esteem on the relationship between negative life events and daily self-esteem (DeHart & Pelham, 2006). Research also suggests that people differ in their reactions to events, depending on their personality traits (Denissen et al., 2019). Mixed emotions, like the ones resulting from goal failure, increase after the occurrence of a negative event (Barford et al., 2020). Neuroticism is the Big Five Trait that is most strongly associated with negative affect. This is partly because people high on neuroticism have a tendency to experience more frequent and intense increases in negative affect in daily life (Barford et al., 2020). Because of the individual differences in experiencing emotions, people also differ in their reactions to events as stated by Denissen and collegues (2019). Neuroticism could therefore possibly predict the individual differences in the relationship between negative task-related events and daily self-esteem. We therefore want to investigate whether the impact of negative task-related events can possibly be increased depending on the personality characteristics of neuroticism.

Neuroticism refers to the tendency to experience negative affect like anxiety or sadness, how readily one perceives situations as threatening or stressful, and the response to such situations with greater negative affect (Wrzus et al., 2021). High levels of neuroticism result in a tendency to perceive situations readily as threatening or stressful. Negative task-related work events might therefore get a more negative load to them. People with high levels

of neuroticism are then more reactive to negative task-related work events. This might in turn strengthen the negative relationship between negative task-related work events and daily self-esteem. Literature already suggests that trait anxiety, a related concept to neuroticism, moderates the impact of negative life events such that the effect was the strongest at high trait anxiety scores (Drake, 2014). However, the moderating effect of neuroticism on the impact of negative task-related work events has yet to be determined.

The literature already reveals that self-esteem can be negatively influenced by neuroticism (Fadda & Scalas, 2016). Since people with high scores on neuroticism are more reactive to negative events because of higher levels of negative affect, this might strengthen the negative influence of negative task-related events on daily self-esteem.

Hypothesis 2: Neuroticism moderates the negative effect of negative task-related events on state self-esteem, such that the relationship is stronger when neuroticism is high and weaker when neuroticism is low.

Method

Participants

To test the hypotheses, we conducted a survey study consisting of a baseline survey and 10 daily questionnaires. Ninety-eight working adults from various occupational backgrounds were recruited to participate in a 10-day diary study. People were admissible to the study when they (1) worked at least 20 hours a week and (2) had sufficient English skills to answer the survey questions. Two participants were removed because they did participate in the daily surveys but not in the baseline survey, resulting in a total of 96 participants. Participants live in The Netherlands (54.2%), Germany (16.7%), and other countries. The age of the 96 participants ranged from 16 to 62 years with a mean age of 35.8 ($SD = 13.3$); the years of employment of the participants ranged from less than a year to 37 years. Of the sample, 62.5% were women and 58% attained a university degree. 36.5% of the participants

worked 35-40 hours per week on average. 33.3% of the participants worked over 40 hours per week on average. Participants were occupied in different work sectors including hospitality, marketing, health care and education among others.

Design

The study was actualized online through the Qualtrics Survey Software and consisted of two parts: a one-time baseline questionnaire with questions about personal background, personal characteristics, work conditions and well-being and a series of daily questionnaires on 10 consecutive workdays. Participants were first invited by email to participate in the baseline questionnaire. Participants who completed the baseline questionnaire were then invited by email to complete one survey per day on Monday till Friday for two weeks at the end of the workday. In the daily surveys, questions were asked about the work events one has experienced and the behaviour and well-being at work. Participants were recruited through the social networks of two bachelor's students and one master's student in 2022 and six bachelor's students in 2023. Therefore, the study was both conducted in June 2022 ($n = 54$) and March 2023 ($n = 42$). As incentive, participants who completed the baseline survey and at least five daily surveys received a feedback report. Furthermore, participants who completed the baseline survey and at least five daily surveys were eligible to enter into the prize draw which consists of 3 X 50 euros. The research plan was evaluated and approved by the Ethical Committee of Psychology of the University of Groningen (RUG).

Measures

The study was part of a bigger project and therefore not all survey variables are reported here. The following measures were included in this thesis.

Negative task-related work events

There was a total of six items relating to negative task-related work events included in the daily surveys, for example "you were unsuccessful with accomplishing or progressing

with a work goal, project, or task" (Schmitt & Scheibe, 2022). Participants reported whether they experienced these situations at work at the day of the survey, and how much impact they had on them, that is, if they had important consequences for them. The negative task-related work events were measured on a 5-point scale ranging from 1 *(did not experience this situation; no impact)* to 5 (*situation experienced; very significant impact*). This scale format was changed into 1-4 during the analysis so that we in the end measured the impact of the negative work event. A reliability check is not applicable for this scale since the occurrence of one negative work event does not necessarily mean another has to occur as well.

Daily self-esteem

Daily self-esteem was measured with three modified items from the Rosenberg self-esteem scale (Rosenberg, 1989). The three items were rated on a 5-point scale from 1 (*not at all*) to 5 (*extremely*). The items were included in all daily surveys, in which the modifications of the items turned into "Today, I took a positive attitude toward myself", "Today, I felt that I have a number of good qualities", and "Today, on the whole, I was satisfied with myself" (a = 0.894).

Neuroticism

Participants completed items from the Mini-IPIP (Donnellan et al., 2006) to indicate the levels of neuroticism. These items were included in the baseline questionnaire. Two of the four items were reverse-coded ("I am relaxed most of the time" and "I seldom feel blue"). The four items (e.g., "I get upset easily") were rated on a 5-point scale rating from 1 (*very inaccurate*) to 5 (*very accurate*). Recoding the two reverse-coded items resulted in Cronbach's alpha was 0.634.

Control variables

Age and business sector have been chosen as control variables. First, age has been chosen because this might possibly be an independent variable influencing the well-being of

individuals and therefore the daily self-esteem (Ulloa et al., 2013). Second, business sector has been chosen as a control variable because some occupations may be more influential on individuals' well-being than others, therefore making it a possible independent variable (Yan & Shi, 2019). For the control variable 'business sector' we created a dummy variable in order to check for differences between the sector "*health and social welfare*" (1) and all the other sectors (0). This is because we expect the health and social welfare sector to be highly demanding as has been found in previous research (Sluiter, 2006).

Type of analysis

To investigate the main effect and interaction effect we ran a multiple hierarchical regression analysis using IBM SPSS Statistics-28. In preparation for the regression analysis, assumptions of linearity, normality, homoscedasticity, and multicollinearity were checked and a correlation analysis has been done. The plots showed no problems with linearity and normality (see Figure A1). Furthermore, the scatterplot of the residuals also showed no differences in variances and therefore no violations of homoscedasticity have been made (see Figure A2). The multicollinearity test of the independent variables showed no correlation coefficients of .50 or higher as can be seen in the correlation table, meaning that all the assumptions are met. We also checked for outliers in the independent and dependent variables, no data points had to be removed.

<div align="center">

Results

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Descriptive analyses

Table 1.
Descriptives and correlations between study variables

		M	SD	1	2	3	4	5
1	Age	35.76	13.31	-	0.013	-.370	-.101	0.90
2	Business sector	0.034	.182	.013	-	.113	-.038	.103
3	Negative task-related events	1.92	.388	-.370	.113	-	-.100	.195
4	Neuroticism	2.80	.709	-.101	-.038	-.100	-	-.253
5	Daily self-esteem	3.23	.636	.090	.103	.195	-.253*	-

Note. N = 96, except for negative task-related events (N = 16). *. Correlation is significant at the 0.05 level (2-tailed).

Table 1 presents descriptives and correlations among all variables. The business sector was changed into a dichotomous variable with 1 referring to the "health and social welfare" sector and 0 to all other sectors. The mean of the business sector shows the percent of who were coded 1. For negative task-related events, neuroticism, and daily self-esteem the responds on the multiple items were taken together resulting in a mean score.

As can be seen in Table 1, age and business sector were unrelated to negative task-related events and daily self-esteem. They are therefore not further considered in the regression analysis.

Testing Hypothesis 1: Negative task-related events and daily self-esteem

The first hypothesis stated that negative task-related work events are negatively associated with daily self-esteem. To test this hypothesis, a multiple hierarchical regression analysis was conducted. After data analysis, Hypothesis 1 turned out to be not significant (B = .246; SE = .396, p = .545; see Table 2). Furthermore, the R-Squared value is .212, indicating that negative task-related events account for 21.2% of the variance in daily self-esteem. This means that there is still a lot of variance in self-esteem unexplained.

Testing Hypothesis 2: Neuroticism as a moderator

Hypothesis 2 states that: neuroticism moderates the negative effect of negative task-related events on state self-esteem, such that the relationship is strengthened when neuroticism is high and weakened when neuroticism is low. This interaction term was calculated by first centering the independent variable and the moderator. Next, the centered variables were multiplied creating the product term for the moderator. Analysis shows that hypothesis 2 was also found not to be significant (B = -1.350; SE = .746) with a p-value of 0.095 and a R-Squared value of .381. This suggests that neuroticism does not have a moderating effect on the relationship between negative task-related events and daily self-esteem.

Table 2.

Coefficients

Model		B	SE	β	Sig.
1	(constant)	3.316	.158		<.001
	Negative task-related work events	.246	.396	.154	.545
	Neuroticism	-.411	.243	-.419	.114
2	(constant)	3.290	.146		<.001
	Negative task-related work events	.555	.403	.347	,193
	Neuroticism	-.430	.224	-.438	.079
	Interaction term (negative events X neuroticism)	-1.350	.746	-.456	.095

   a. Dependent Variable: Self-esteem

Discussion

We inferred from the SOS theory and the literature on underperformance that negative task-related events can have a negative effect on daily self-esteem through goal failure (Pindek, 2020; Semmer et al., 2019). However, we found that there was no relationship between negative task-related work events and daily self-esteem. In other words, experiencing negative task-related work events does not influence our daily self-esteem according to the data. Furthermore, we investigated whether people high and low on the trait neuroticism react differently to these negative task-related work events. This turned out not to be the case; people did not appear to differ in the way they react to negative task-related work events. Because there is very few research on the effects of negative task-related work events on daily self-esteem it is difficult to state whether the SOS theory just completely doesn't apply or whether it depends on the sample or conditions of this research.

Research on organizational stress due to goal failure suggests the stress to be detrimental to individuals' well-being (Sonnentag & Frese, 2003). However, self-esteem is seen as an aspect of well-being but has not yet been investigated as a dependent variable. DeHart and Pelham (2007) did show fluctuations in self-esteem in response to negative life events. They however had their participants fill out the surveys twice a week for three consecutive weeks. This study thus took place for a longer period of time with next significant results. This may indicate that changes in self-esteem do not take place on a daily basis but take more time to develop. Another explanation for our non-significant results comes from the cognitive adaptation theory from Taylor (1983) and research on the positive effects of stressful life events. Experiencing a stressful event, in our case a negative task-related event, can serve as a positive catalyst for positive change in self-concept (Updegraff & Taylor, 2021). This positive change includes feeling more

competent, stronger and better capable of coping with another crisis (Updegraff & Taylor, 2021). When an employee for example experiences a negative task-related work event, but nevertheless overcomes it eventually, this may boost their feeling of competence and in turn boost their self-esteem.

Practical implications

First, more research is needed in order to infer practical implications from the research data. It seems that negative task-related work events do not influence daily self-esteem according to the data. However, it is too soon to draw conclusions. As previous research has shown, negative events negatively influence our self-esteem (Pindek, 2020). Organizations could therefore try to prevent negative work events from happening by monitoring the workload. Our data demonstrates that negative task-related work events do not tackle self-esteem in a short period of time. However, it could be that the relationship becomes significant when events become more intense or are present a long time. Another implication is therefore the strengthening of people's self-esteem in order to keep the relationship from arising. Future research should therefore explore whether the relationship between negative task-related work events and self-esteem becomes significant when events are more intense or present for a long time.

Strengths and limitations

A strength of the current study is that we used a field study. In this way we leave the participants in their natural environment. This makes the external validity of the study relatively high. Because of the natural setting, the results are more likely to reflect real life work situations in comparison to laboratory research.

A limitation of the present analysis concerning the dynamics of self-esteem is the use of aggregated data. We created a mean across all days of the study. This will in turn only show us differences between individuals and not within individuals across days. This means,

we do not know whether there are changes in self-esteem within a person from day to day. The use of within-person information in future research might give us more insight in the dynamics of self-esteem from day to day. Moreover, self-esteem is mostly seen as a pretty stable variable (Orth & Robins, 2014). If this is indeed the case, it will be difficult for dynamic variables like negative work events to make a change. Future research on this topic should therefore use a longitudinal study design in order for the negative work events to have enough time to create an effect on self-esteem.

Furthermore, we only assessed the personal component of self-esteem by using negative task-related work events as independent variable. Since there is also a relational and collective component of self-esteem, as mentioned before, social events can possibly threaten self-esteem as well and should therefore in the future also be taken into consideration. Finally, a relatively low Cronbach's alpha (.634) of the items on neuroticism was found. There are other and longer scales on the Big Five Traits like the Big Five Inventory (BFI). Using more items from this inventory in future research might increase the Cronbach's alpha and neuroticism will then be measured more reliably.

Conclusion

The present research analyzed the relationship between negative task-related work events and self-esteem. Furthermore, the personality trait neuroticism was taken into consideration as a moderator that could possibly influence this relationship. The relationship between these events and self-esteem should exist according to the SOS theory whereby the stress of not attaining a goal, that is a task-related event, causes a decrease in self-esteem. However, the data does not support this theory and more research is therefore necessary to support or disprove the theory. Neuroticism did also not affect the relationship.

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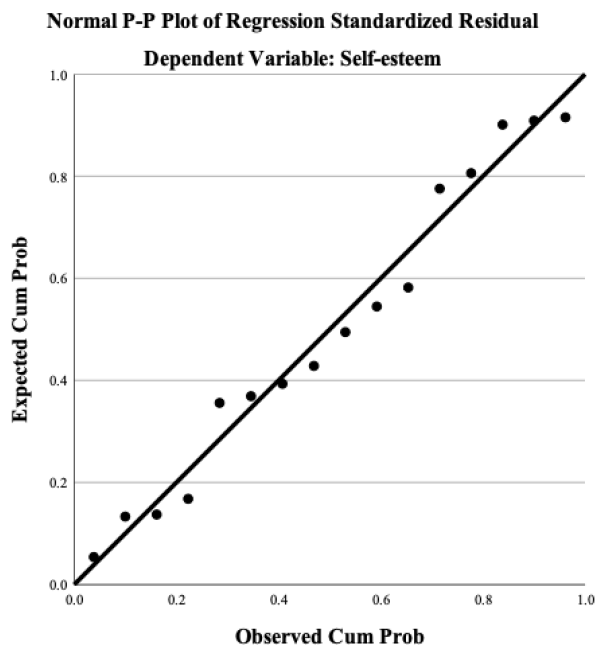Yan, M., & Shi, K. (2019). Subjective well-being and job types: new evidence from China. Economics and Culture, 16(1), 24–31. https://doi.org/10.2478/jec-2019-000

Appendix

Figure A1

Test for normality

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Self-esteem

Figure A2

Test for homoscedasticity

Scatterplot
Dependent Variable: Self-esteem