

## Job Stress and Counterproductive Work Behaviour: Negative Affectivity as a Moderator

Samuel O. Salami

Department of Guidance and Counselling, Kampala International University, Kampala, Uganda

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**Abstract:** The study investigated the relationship between job stress and Counterproductive Work Behaviour (CWB) and the moderator effect of negative affectivity on the relationship. Measures of job stress, negative affectivity and counterproductive work behaviour were administered on 422 secondary school teachers randomly selected from southwest Nigeria. Data were analyzed using hierarchical multiple regression. Job stress and negative affectivity were positively correlated with CWB. Negative affectivity moderated the relationship between job stress and CWB such that high levels of CWB occurred when job stress and negative affectivity were both high. The clinical implication of providing counselling interventions for reducing negative affectivity and facilitating positive affectivity and removal of stress from the researchers environment by employers were discussed.

**Key words:** Stress, negative affectivity, CBW, teachers, negative affect, Uganda

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### INTRODUCTION

There is a growing interest among organizational researchers on the topic of Counterproductive Work Behaviour (CWB). CWB refers to behaviour of employees that harms an organization or its members (Spector and Fox, 2002) and it includes such acts as theft, sabotage, verbal abuse, withholding of effort, lying, refusing to cooperate and physical assault (Penney and Spector, 2005). Over the years, researchers have investigated similar set of behaviours using different terminologies which included: organizational delinquency (Hogan and Hogan, 1989), organization-motivated aggression (O' Leary-Kelly *et al.*, 1996), organizational retaliatory behaviours, workplace aggression and workplace deviance (Robinson and Bennett, 1995), revenge and intimidation (Gallagher *et al.*, 2008) and antisocial behaviour in organizations (Lee *et al.*, 2005).

To date, most research in this area has focused attention on identifying environmental antecedents of CWB such as job stressors and identifying personality traits such as affectivity that may increase an individual's propensity to engage in CWB (Penney and Spector, 2005). Although, many researchers agree on the interactionist perspective in investigating the contributions of both person and environmental variables in predicting behaviour, few have studied both with CWB in the same study (Aquino *et al.*, 1999; Penney and Spector, 2002; Skarlicki *et al.*, 1999).

Moreover, while a number of studies in this area have examined the relationships between job stressors and

CWB in America, United Kingdom, Europe and other countries to the knowledge of the present researcher, no study has been done among Nigerian organizations on such a topic. The purpose of this study is threefold: to investigate the relationship between job stressors and CWB, to examine the relationship between negative affectivity and CWB and to assess the moderating effect of negative affectivity on the relationship between job stressors and CWB.

**Counterproductive work behaviour:** The growing interest in CWB is because CWB is a common occurrence in organizations and can have a tremendous negative impact on both organizations in terms of low productivity, increased insurance costs, lost or damaged property and increased turnover (Leblanc and Kelloway, 2002; Penney and Spector, 2002) and the people in terms of increased dissatisfaction (Keashly *et al.*, 1994) and expressed job stress. A useful framework for understanding CWB derives from the job stress literature.

According to Spector (1998), the job stress model asserts that environmental stressors are perceived by individuals as such, leading to the experience of negative emotions such as anger or anxiety which may be followed by reactions to the stressors called job strains. Job strains can be classified as psychological, physical or behavioural (Jex and Beehr, 1991). Behavioural strains are means for individuals to cope with the stressors either by reducing the emotions elicited by the stressor (e.g., drinking alcohol, avoiding work) or by eliminating the stressor itself (e.g., talking with the supervisor,

developing a solution) (Penney and Spector, 2002). Behavioural strains such as yelling at a co-worker, staying home from researchers and decreasing researchers quality or quantity can be described as CWB. While the psychological and physical consequences of stressors in the workplace are worrisome in and of themselves, the behavioural effects are of primary importance to employers and subsequently are the focus of this study.

**Job stress and Counterproductive Work Behaviour (CWB):** Job stress can be defined as the experience of unpleasant, negative emotions such as tension, anxiety, frustration, anger and depression resulting from aspects of researchers. This study adopted the structure of the Occupational Stress Questionnaire (OSQ) (Salami, 2003) as the theoretical framework of research.

This is similar to the Occupational Stress Indicator (OSI) constructed by Cooper *et al.* (1988a). Cooper *et al.* (1988a, b) argued that stressful transactions are a product of two intervening systems: people both exert impact on and respond to their environments. In short, the process of stress depends on the person's appraisal of the situation which is what determines whether the situation is stressful or not. Stress occurs when the magnitude of the stressor exceeds the individual's capacity to cope.

**OSI has 6 sources of job stress namely:** Factors intrinsic to the job, management role, relationships with others, careers and achievement, organizational structure and climate and home/work interfaces (Siu *et al.*, 2002). However, seven sources of stress contained in the items of OSQ (instrument section) was used in this study because it was based on data collected from workers in different organizations in Nigeria which included the teachers, nurses, civil servants and industrial workers (Salami, 2007). It is believed that the seven sources of stress in OSQ namely: workload, interpersonal problems, time pressure, working conditions, leadership problems, inadequate facilities and personal problems are applicable to the secondary school teachers in Nigeria.

Counterproductive Work Behaviour (CWB) consists of volitional acts that harm or intend to harm organizations and their stakeholders (e.g., clients, coworkers, customers and supervisors) (Fox *et al.*, 2001). Specific CWBs include abusive behaviour against others, aggression (both physical and verbal), purposely doing work incorrectly, sabotage, theft and withdrawal (e.g., absence, lateness and turnover).

Other examples of CWB are emotional abuse, bullying, mobbing, deviance, aggression, retaliation and intimidation (Gallagher *et al.*, 2008). A number of job stressors have been linked to the performance of CWB

including role ambiguity, role conflict, workload, organizational constraints and interpersonal conflict (Fox *et al.*, 2001; Miles *et al.*, 2002; Penney and Spector, 2002). In a recent study, Gallagher *et al.* (2008) found that job tension was significantly correlated with intimidation, a form of CWB.

An explanation for relation between job stressors and CWB can be based on the Hobfoll (1989) conservation of resources (COB) theory. According to this theory, people strive to protect and retain resources under stressful conditions. Hence, it is proposed that individuals may perform counterproductive researchers behaviour as a reactive mechanism primarily cued by stressful circumstances that interact with their personality thus allowing them to protect themselves from future resource losses (Gallagher *et al.*, 2008).

An alternative explanation for the relationship between job stressors and CWB was that stressors may provoke, trigger or cue individuals to engage in CWB such as workplace aggression as a form of retaliation or attempt to restore justice to an unfair situation (Fox *et al.*, 2001; Hershcovis *et al.*, 2007). Therefore, it is expected that the experience of job stress will be positively correlated with performance of CWB among the teachers.

**Negative affectivity:** Negative affectivity is defined as the extent to which individuals experience distressing emotions such as hostility, fear and anxiety (Watson and Clark, 1984). Individuals who are high in negatively affectivity are more sensitive and more reactive to negative events (Douglas and Martinko, 2001). Berkowitz (1993) was of the view that although, people act aggressively when they feel bad (state negative affect), those who are high in negative affectivity are more likely to have the propensity to feel bad more often.

They are more likely to experience distress and dissatisfaction, focus on their failures and dwell on the negative side of life in general (Watson and Kendall, 1989). High NA reflects a wide range of negative states including fear, anger, guilt, disgust, loneliness and self-dissatisfaction (Watson and Kendall, 1989). Research evidence have shown that negative affectivity was positively correlated with counter productive work behaviour (Aquino *et al.*, 1999; Douglas and Martinko, 2001; Penney and Spector, 2002; Skarlicki *et al.*, 1999). Similarly, Fox *et al.* (2001) found that negative affectivity related to both CWB towards organization and CWB toward persons. Penney and Spector (2002) asserted that when confronted with stressful conditions, high-negative affectivity individuals may ascribe more malicious motives to the actor leading

to increased negative emotional arousal which may lead to CWB. Individuals low in negative affectivity, on the other hand may give the actor the benefit of doubt and attribute the behaviour to more benign causes, enabling them to proceed without feeling the need to respond or retaliate with CWB.

Also, there are research evidences to show that negative affectivity mediates or moderates the relationship between job stressors and researchers strains (Cassar and Tattersall, 1998; Lazuras *et al.*, 2009; Spector *et al.*, 2006). Research findings have indicated that persons under stressful conditions, who report high levels of negative affectivity are more likely to report counterproductive work behaviour (Douglas and Martinko, 2001; Fox *et al.*, 2001; Penney and Spector, 2002; Tepper *et al.*, 2001). An explanation for this is that persons high in negative affectivity are believed to experience a hyper-responsivity mechanism as a response to perceived stressors (Spector, 1998).

This phenomenon is similar to over-reaction such that behaviours are not necessarily in line with appropriate responses in a given situation. In addition to their potential fear of changing jobs, persons high in negative affectivity are likely to remain in unsatisfying jobs (Gallagher *et al.*, 2008; Perrewe and Spector, 2002).

Based on trait activation theory, this form of commitment may lead to hyper-responsive assertive behaviours activated only under stressful conditions, similar to the fight or flight phenomena (Gallagher *et al.*, 2008). Thus, stressful working conditions may provide the contextual cues that elicit counterproductive work behaviours. Persons high in negative affectivity may lash out in an effort to protect their own self-interests, rather than seek social support as an alternative coping mechanism. Therefore, it is proposed that while passive, less assertive tactics have been reported in previous literature e.g., wasting time (Gallagher *et al.*, 2008), persons high in negative affectivity will be more likely to perform counterproductive work behaviours under high job stress.

**Hypotheses:** Based on empirical evidences and theoretical background from the reviewed literature, the following hypotheses were proposed:

- H<sub>1</sub> : Experience of job stress will be positively correlated with counterproductive work behaviour
- H<sub>2</sub> : Negative affectivity will be positively correlated with counterproductive work behaviour
- H<sub>3</sub> : Negative affectivity will moderate the relationship between job stress and counterproductive work behaviour such that the relationship will be stronger for individuals high in negative affectivity than for individuals low in negative affectivity

## MATERIALS AND METHODS

**Participants:** In total, 422 secondary school teachers (males = 200, females = 222) randomly selected from 5 states in southwest Nigeria were the respondents. The mean age for the sample was 36.75 years (S.D. = 4.30 years, range = 21-55 years). Levels of education of the teachers include, Nigeria Certificate in Education, NCE, B.A.Ed./B.Sc.Ed; B.A./B.Sc. and P.G.D.E.; M.Ed. The teaching experience of the teachers range from 2-26 years.

**Measures:** Occupational Stress Questionnaires (OSQ) is a 50-item questionnaire that measures occupational stress factors viz: workload, interpersonal problems, time pressure, working conditions, leadership problems, inadequate facilities and personal problems (Salami, 2003). Items are responded to on a 5-point Likert scale, ranging from strongly disagree, 1 to strongly agree, 5. Range of scores is 50-250. The coefficient of internal consistency (Cronbach's alpha) of the scale was  $\alpha = 0.85$ . The OSQ has impressive norms and correlates highly ( $r = 0.75$ ) with the stress scale by Cooper *et al.* (1988a, b).

**Negative affectivity:** The ten-item negative affectivity scale of the Positive and Negative Affect Schedule (PANAS; Watson *et al.*, 1988) was used to assess negative affectivity. The negative affectivity scale of the PANAS consists of 10 words that describe negative emotions (e.g., afraid, scared, hostile).

Participants were asked to indicate the extent to which they generally feel each emotion on a five-point Likert scale ranging from very slightly or not at all to very much. The Coefficient alpha for the negative affectivity scale in the current study was 0.87. The construct validity of the negative affectivity scale has been demonstrated by its correlations with measures of psychological distress (Watson *et al.*, 1988).

**Counterproductive workplace behaviour:** The Counterproductive Workplace Behaviour Checklist (CWB) (Spector *et al.*, 2006) was used with 45 item-CWB-C that described behavioural reactions and they were asked to indicate how often they performed each behaviour. The 45 item CWB-C was designed to be scored as either overall (all items) or as two subscales that are classified into CWB directed toward the organization or people. Responses were made on a 5-point frequency scale ranging from never to every day. The CWB has good internal consistency for self-report and peer-report versions ( $\alpha = 0.89$  and  $0.97$ , respectively). For this study the internal consistency Cronbach's alpha coefficient with the present sample was  $\alpha = 0.88$ .

**Control variables:** Demographic variables included in this study (gender, age and tenure) were used as control variables. These variables have been shown by previous researchers to have influence on the job stressor CWB relationships (Gallagher *et al.*, 2008; Penney and Spector, 2005). Gender was controlled for with a 0 representing females and a 1 representing males. Tenure was based on number of years employed with the current organization. Age was based on age of respondents in years.

**Procedure:** The respondents were administered the questionnaires in the secondary schools with the help of some research assistants who were three undergraduates and three postgraduate students. Informed consents of the teachers and the school authorities were obtained. Of the 500 questionnaires distributed, 450 were returned giving a return rate of 90%. However, only 422 (84.4%) were properly filled and used for data analysis while 28 were incompletely filled and were discarded. The confidentiality of the information obtained from the respondents was guaranteed.

**RESULTS**

The data obtained were analyzed using hierarchical multiple regression analysis in order to establish the relationship of job stress (independent variable) and affectivity (moderator variable) to counterproductive work behaviour (dependent variable). Using the recommendations of Cohen *et al.* (2003) the interaction between job stress and the moderator variable (negative affectivity) in predicting CWB was tested. In step 1, I entered the three control variables. In step 2 and 3, I entered the main effects and in step 4, I entered the interaction terms as discussed in this study.

Results in Table 1 shows that of the control variables, only gender was significantly correlated with CWB ( $r = 0.20$ ,  $p < 0.05$ ). Job Stress ( $r = 0.32$ ,  $p < 0.05$ ) and negative affectivity ( $r = 0.34$ ,  $p < 0.05$ ) were significantly correlated with CWB. These results provided support for the first and second hypotheses.

Table 2 shows the results from the hierarchical moderated regression of negative affectivity. First, after controlling for organizational tenure, age and gender in step 1, job stress ( $\beta = 0.32$ ,  $p < 0.05$ ) in step 2, independently explained 8% of the variance in CWB, supporting hypothesis 1. In the third step, negative affectivity was significantly related to CWB ( $\beta = 0.20$ ,  $p < 0.05$ ) supporting hypothesis 2.

In the final step of the regression analysis, the interaction term of job stress x negative affectivity ( $\alpha =$

Table 1: Means, standard deviations and intercorrelation matrix of the demographic, predictor variable and CWB

Variables	M	SD	1	2	3	4	5	6
Tenure	9.65	9.32	-					
Age	36.75	4.30	0.50*	-				
Gender <sup>a</sup>	-	-	-	0.19*	0.05	-		
Job stress	113.85	3.80	0.07	0.08	0.01	-		
N.A.	28.72	4.56	-0.10	-0.15	0.02	0.36*	-	
CWB	60.08	7.60	0.05	0.20*	0.20*	0.32*	0.34*	-

N = 422, Gender<sup>a</sup> = (0 = female, 1 = Male), N.A.= Negative Affectivity, CWB = Counterproductive work behaviour, \* $p < 0.05$

Table 2: Hierarchical multiple regression analyses predicting CWB from job stress and negative affectivity

Predictors	R	R <sup>2</sup>	$\Delta R^2$	$\Delta F$	DF	$\beta$	t
Step 1	0.20	0.04	-	1.53	3.418	-	-
Tenure	-	-	-	-	-	0.04	0.07
Age	-	-	-	-	-	-0.3	0.05
Gender	-	-	-	-	-	0.14	1.34
Step 2	0.35	0.12	0.08	5.84*	1.417	-	-
Job stress	-	-	-	-	-	0.32*	7.56*
Step 3	0.40	0.16	0.04	3.48*	1.416	-	-
Negative affectivity	-	-	-	-	-	0.20*	3.53*
Step 4	0.47	0.22	0.06	4.76*	1.415	-	-
Job stress x NA	-	-	-	-	-	0.28*	6.42*

NA = Negative Affectivity, CWB = Counterproductive work behaviour, \* $p < 0.05$  (2-tailed test)

0.28,  $p < 0.05$ ) was significantly related to CWB and provided additional 6% to the explanation for the variance in CWB. This is an indication that as job stress increases, CWB increases only for those with high negative affectivity. Job stress among employees low in negative affectivity did not increase their CWB. Thus, hypothesis 3 was supported.

**DISCUSSION**

The finding that job stress has significant association with Counterproductive Work Behaviour (CWB) in the workplace supported hypothesis 1. This is consistent with job stress literature suggesting significant correlations between job stressors and CWB (Fox *et al.*, 2001; Gallagher *et al.*, 2008; Miles *et al.*, 2002; Penney and Spector, 2002, 2005).

An explanation for these findings could be that employees who experienced job stressors such as interpersonal conflict, leadership problems, organizational constraints, heavy workload, organizational injustice etc., might have perceived the situation as unfair and reacted in such a way as to restore justice by reducing inputs (organization-targeted aggression) or act in a counterproductive manner to rebalance the in put-output ratio (Cohen-Charash and Spector, 2001). In contrast, Aquino *et al.* (1999) argued that those who feel that their distributions are unfair are likely to blame the source of the decision and target the person responsible for the unfair distribution.

Therefore, distributive injustice might lead to supervisor and organization-targeted aggression. Procedural injustice might likely lead employees to retaliate by engaging in aggression against the organization as processes and procedures are determined and implemented at the organizational level (Aquino *et al.*, 1999). Interpersonal conflict is a trigger that can predict interpersonal, coworker-targeted aggression.

In contrast, stressors that are situational constraints may interfere with an individual's task performance or goals at work (e.g., availability of resources). Situational constraints may lead to negative emotions such as frustration because they can prevent the employees from attaining their desired objectives and in turn are associated with organizational but not interpersonal aggression, a form of CWB (Hershcovis *et al.*, 2007).

Hypothesis 2 stated that negative affectivity will be positively related to CWB. The results obtained indicated that negative affectivity was positively correlated with CWB thereby supporting hypothesis 2. These results corroborate the research of previous researchers who reported that persons who report high levels of negative affectivity are more likely to report counterproductive work behaviour such as abusive or aggressive behaviour toward coworkers, sabotage, stealing and wasting time (Aquino *et al.*, 1999; Douglas and Martinko, 2001; Fox *et al.*, 2001; Penney and Spector, 2005; Skarlicki *et al.*, 1999; Tepper *et al.*, 2001).

However, the findings from this study contradicted the research of some researchers who reported that negative affectivity did not correlate significantly with CWB (Douglas and Martinko, 2001; Gallagher *et al.*, 2008; Hepworth and Towler, 2004). An explanation for the significant correlation found between negative affectivity and CWB in this study was that individuals high in negative affectivity were more sensitive to minor frustrations and irritations and were more likely to experience negative emotions such as anxiety, guilt, anger, rejection, sadness and distress.

They perceived the world more negatively than low negative affectivity individuals. When they were confronted with stressful conditions the high negative affectivity individuals might have ascribed more malicious motives to the actor leading to increased negative emotional arousal which might subsequently lead to CWB. Individuals low in negative affectivity, on the other hand, might have given the actor the benefit of doubt and attributed the behaviour to other more benign causes, enabling them to proceed without feeling the need to respond or retaliate with CWB.

The third hypothesis predicted that negative affectivity would moderate the relationship between job

stress and CWB. Significant interaction was found between job stress and negative affectivity when CWB was the criterion variable. Stronger relationship was found between job stress and CWB for individuals high in negative affectivity than for individuals low in negative affectivity. These results support the work of previous researchers who reported that negative affectivity moderated the relationship between job stress and CWB (Gallagher *et al.*, 2008; Penney and Spector, 2005; Skarlicki *et al.*, 1999).

They reported that high negative affectivity individuals were more likely to engage in retaliation (CWB) under job stressors than low-negative affectivity individuals. An explanation for the findings from this study could be that individuals high in negative affectivity appear to use more counterproductive means to cope with job stressors. The moderator results suggest that an individual's personality may impact how he/she responds to job stress.

Results from this study have some implications for career development of the teachers. The finding that job stress is a stronger predictor of counterproductive work behaviour will help to inform educational administrators, policy makers and teachers in the school system of the need to reduce the levels of job stress in the schools among teachers and thereby prevent CWB.

This is because of the disastrous consequences of counterproductive work behaviours among the teachers. The educational administrators can achieve this by keeping workloads of teachers at manageable levels, removing role conflicts and role ambiguity in the work of the teachers. Working conditions of the teachers including their job facilities should be improved. Furthermore, the finding that negative affectivity predicts CWB as well as moderates the relationship between job stress and CWB points to the need for the educational administrators, counselling and industrial/organizational psychologists to consider the joint effects of job stress and individual's negative affectivity levels.

From the results of this study, low level of negative affectivity was associated with low CWB and high level of negative affectivity was associated with high level of CWB even with high job stress. Therefore, individuals high in negative affectivity will benefit more from the counselling psychologists intervention programmes designed for reducing job stress and negative affectivity and improving positive affectivity of the teachers.

## **RECOMMENDATIONS**

Also, it is suggested that individuals who possess some personality tendencies that may predict CWB

should be screened out of the organization during the selection process. In order to be able to interpret the results of this study adequately, there is need to point out a particular limitation. This is the use of cross-sectional design in the study which prevents the determination of causality. Future studies could embark on longitudinal research in order to be able to draw cause-and-effect conclusions.

### CONCLUSION

It can be observed that this study has been able to show that job stress and negative affectivity were predictors of CWB and that negative affectivity was a moderator of the job stress-CWB link. Also, findings from this study has contributed to the understanding of counterproductive researchers behaviour by showing that CWB does not occur in a social vacuum. Rather, individual and situational/contextual factors play significant roles in determining whether individuals will perform CWB.

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