

The effects of abusive supervision on cyberloafing behavior

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Abstract. With the development of the Internet, cyberloafing becomes the workplace problem for many organizations. It will negatively influence organisations' productivity and performance. In this study, we examined the direct and indirect relationship (via meaningful work) between abusive supervision and cyberloafing, based on the theory of social cognition and social exchange. Data collected from 183 participants were analysed using hierarchical regression. The results showed that abusive supervision has a significant positive impact on cyberloafing, both directly and indirectly. We suggest that organizations should reduce abusive supervision by leaders and take measures to cultivate employees' sense of work meaning. Keywords : abusive supervision, cyberloafing, meaningful work

1 Introduction

According to the report released by the China Internet Network Information Center, as of June 2022, the number of Internet users in China has reached 1.051 billion. The Internet can meet people's various needs, such as online shopping, communication and online education. Gradually it becomes an indispensable part of daily life. In the era of knowledge economy, Internet technology has flourished and has become an important force to promote China's economic development. In particular, due to the impact of the epidemic, network office plays an important role in supporting the fight against the COVID-19, resuming work and production and stabilizing employment. It has brought great convenience to enterprises, made information exchange between colleagues more convenient, and improved work efficiency. However, working online also makes employees vulnerable to the temptation of network information, engaging in behaviors unrelated to the task, such as viewing news push and browsing short videos. Scholars refer to the spontaneous use of the company's network by employees to engage in non-work-related private Internet surfing during work as cyberloafing [1]. To achieve personal interests and purposes, employees can engage in cyberloafing while pretending to be working hard, which are hidden, universal and harmful.

This kind of counterproductive behavior may have some positive effects on employees, Wang Shuanglong pointed out that moderate cyberloafing can alleviate employees' job burnout and reduce negative emotions. Other studies have also shown that the supplement

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of personal resources such as self-esteem and self-control ability can be achieved through cyberloafing, which may bring better mental health. However, cyberloafing is viewed as more destructive for the organization in most studies, in which have confirmed that cyberloafing will bring hidden dangers to the information security of the organization [2]; reduce employees' job performance and satisfaction[1] and increase psychological pressure[3]. In addition, some cyberloafing, such as distributing inappropriate remarks and spreading indecent videos, may also make enterprises subject to legal punishment.

Therefore, it is important to study the antecedents of cyberloafing, which can help managers take targeted measures to reduce that. Previous studies have investigated the antecedents through different theoretical perspectives. Wagner based on the self-depletion theory[4], Askew based on the theory of planned behavior[5] and Sheikh.based on the big five personality model[6] found the effects of sleep deprivation, cyberloafing attitude and individual personality characteristics on cyberloafing.

However, some scholars point out that the research on the antecedents of the cyberloafing behavior is still in its infancy stage and needs to be further explored. Therefore, this study aims to explore the influence mechanism of abusive supervision on cyberloafing, from the perspective of social cognitive and social exchange theory. Abusive supervision refers to subordinates perceptions of the extent to which their supervisors engage in the sustained display of hostile verbal and non-verbal behaviors, excluding physical contact[7]. Although some scholars have revealed the relationship between the abusive supervision and cyberloafing, the research on the mediating mechanism is still far from enough. Previous studies have focused on personality characteristics and emotional factors to reveal the indirect relationship. For example, Lim confirmed that abusive supervision is more likely to lead to cyberloafing under the intermediary role of emotional exhaustion when employees' organizational commitment is low[8]. Research found that the environment will affect cognitive judgment of employees and then affect their behavioral choices. From the cognitive perspective[9], this study introduces the indirect effect of meaningful work, and combines social cognitive theory(SCT) and social exchange theory(SET). We believe that the abusive supervision will cause the reduction of employees' perception of the meaning of work, and block the intrinsic motivation of active work. Therefore employees will take the non-productive behavior of cyberloafing to reduce their efforts to work driven by the psychology of revenge. On this basis, this study proposed that the relationship between abusive supervision and cyberloafing is mediated by meaningful work.

In summary, this study constructed a research model with the meaningful work as mediator, and explored the direct and indirect effect of abusive supervision on cyberloafing from the theoretical viewpoint of SCT and SET. The research model is presented in Fig. 1.

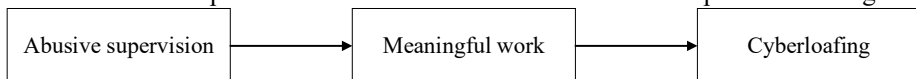


Fig. 1. Research model.

2 Hypothesis development

2.1 Abusive supervision and cyberloafing

Abusive supervision refers to the persistent verbal or nonverbal hostile behaviors that subordinates perceive from their leaders, excluding physical contact. Ignoring subordinates and breaking promises are the most typical behaviors. Many scholars have shown that abusive supervision can cause psychological stress and invite resistance from employees, such as counterproductive behaviors[10] and aggressive behaviors. SET argues that the

relationship among colleagues is maintained through a fair exchange of resources based on the principle of reciprocity[11]. The benefits employees perceive they receive from the organization will directly affect their contribution to the organization. Thus, when the organization or supervisor provides the resources that employees need, they will feel obligated to work hard and adopt positive attitudes to repay the organization. On the contrary, when employees are treated unfairly, they tend to achieve psychological balance through retaliatory behaviors, such as generating work slackness and cyberloafing. Cyberloafing is defined as a set of non-work related online activities for personal reasons, particularly through the company's Internet. This study suggested that abusive supervision can lead to work deviant behaviors such as cyberloafing. Abusive supervisors treat employees improperly, ignoring, denying their abilities or even embarrassing them in front of the public. All of those represented a continuous emotional and psychological hostile treatment, which is highly likely to cause anxiety among employees[12], and reduce organizational commitment. SCT and SET offer a possible explanation to link abusive supervision to cyberloafing. Abusive supervision conveys a hostile information to the subordinates. Reasonably, they will act out of negative reciprocity to retaliate against the supervisor by resorting to confrontational behavior. Nevertheless, influenced by Chinese tradition, employees will not confront them directly to avoid being fired. It is possible for them to adopt behaviors that are not easily perceived to express dissatisfaction[13], such as cyberloafing. Hence, we proposed the following hypothesis.

H1: There is a positive relationship between abusive supervision and cyberloafing.

2.2 The mediating role of meaningful work

Meaningful work is the feeling of individuals' perception of the value and importance of the work they engage in[14], which plays an important role in the formation of intraindividual motivation for work. Social relationship networks formed in work situations can transmit both instrumental and affective resources, which play a pivotal role in influencing employees' interpretation and perception of meaningful work. Due to the requirement to regularly transmit information related to work tasks, a close network of friends is formed between supervisors and employees. Consequently, leaders interact more with their subordinates, having a greater impact on employees' meaningful work. According to SCT, leadership styles will have an impact on subordinates' cognition. This paper believes that abusive leadership will affect subordinates' perception of meaningful work through the following aspects: firstly, abusive leaders will treat subordinates in ridicule, ignorance or even abuse way, lowering employees' self-esteem and ultimately hindering the source of meaningful work. Secondly, abusive leaders cannot provide guidance and suggestions about work. Moreover, employees will not be given timely and effective feedback. They will feel that they are losing the support of superiors, that their experience or opinions are unaccepted or even not important at all. They can not be inspired when performing difficult tasks. Gradually, they perceived isolated and their basic psychological demands are not satisfied. All of those seriously affected the perception of the importance of their work. Finally, abusive supervisors may not assign important tasks to their subordinates because they thought they were incompetent. Lacking of authorization, employees had no opportunity to express potential and realize self-development needs, thus reducing the possibility of developing meaningful work. We formulated the following hypothesis.

H2: Abusive supervision is negatively and significantly related to the meaningful work.

Studies have shown that meaningful work has a positive impact on job satisfaction, and prosocial organizational behaviors[15]. Meanwhile, meaningful work plays an important role in inhibiting counterproductive behaviors[16] such as absenteeism, late arrival, early departure and dimission. According to SCT, employees' cognitive factors affect their

behaviors. So they tend to believe that the work they do is extremely important for those employees who have high meaningful work. They have a high passion for their work tasks and will seize the opportunity to use their talents to work hard. We believe these employees will not spend much time on cyberloafing[17]. On the contrary, for those employees who have low meaningful work, they do not perceive the value brought by their work. To make up for the lack of emotion, they may resort to counterproductive behaviors that disengage from the organization, such as cyberloafing. So we proposed the following hypothesis.

H3: There is a negative relationship between meaningful work and cyberloafing.

On top of that, this paper further proposed that meaningful work mediates the relationship between them. SCT suggests that leadership style, as a situational factor, can influence employees' perceptions and further change their behaviors. Abusive supervision hampers undermines employees' self-confidence, self-esteem and interest in work. Furthermore, employees with low meaningful work will be reluctant to put more effort into work and take actions to compensate for the lack of cognitive and emotional resources by cyberloafing. So we argued that abusive supervision can reduce meaningful work and thus cut down the occurrence of cyberloafing. Hence, we proposed the following hypothesis.

H4: Meaningful work mediates the relationship between abusive supervision and cyberloafing.

3 Methodology

3.1 Research sample

Data were collected using questionnaire survey. We collected 206 questionnaires by snowballing, like forwarding them through the WeChat group. The invalid questionnaires with short response time and obvious patterns of answers were eliminated. A total of 183 usable data were retained for analysis, with a valid recovery rate of 88.8%.

3.2 Measurement tools

All measures used in this survey were adopted from the established scales, with both good reliability and validity. All items were measured on a five-point Likert scale with employees choosing from "1 - strongly disagree" to "5 - strongly agree".

Abusive supervision. We measured abusive supervision using thirteen items adapted from Tepper. For example: "My supervisor puts me down in front of others". The Cronbach's alpha reliability of the scale in this study was 0.971.

Meaningful work. A nine-items scale was adapted from Steger. For example: "I understand how my work contributes to my life's meaning". The Cronbach's alpha reliability of the scale in this study was 0.963.

Cyberloafing. A six-items scale was adapted from Blau to measure cyberloafing. And we refer to the scale adapted to the Chinese situation, which was deleted and tested on the basis of Zhou Enxi's scale. For example: "during working hours, I will shop online for personal goods". The Cronbach's alpha reliability of the scale in this study was 0.902.

4 Data analysis

In this study, confirmatory factor analysis were conducted with Amos 24.0. And SPSS 25.0 was used to conduct descriptive statistical analysis, correlation analysis, validity and reliability test, common method variance test and research hypothesis test.

4.1 Confirmatory factor analysis

Amos 24 was used to perform confirmatory factor analysis on each variable. The results are shown in table 1. The results showed that revealed that the hypothesized three-factor model has the best fitting degree, which is significantly better than all other models. It revealed that the discriminant validity of the three constructs is satisfying and therefore the variables can be used for the next regression analysis.

Table 1. Confirmatory factor analysis.

model	X ²	df	X ² /df	RMSEA	CFI	TLI
Three-Factor Model	713.49	337	2.117	0.078	0.935	0.927
Two-Factor Model 1	1076.209	341	3.156	0.109	0.872	0.859
Two-Factor Model 2	1483.099	343	4.324	0.135	0.802	0.782
One-Factor Model	1724.884	344	5.014	0.149	0.76	0.737

Note(s): Three-Factor Model: AS,MW,CY; Two-Factor Model 1: AS,MW+CY; Two-Factor Model2:AS+MW,CY; One-Factor Model:AS+MW+CY. + indicates fusion.

4.2 Common method variance

Each employee participating in the study was asked to answer all variables in the same report, which may have common method variance. We used Harman test for principal component analysis. The results showed that the variance explained by the first factor was 33.77%, indicating that there was no serious common method bias problem in this study.

4.3 Descriptive statistics and correlation analysis

In the valid sample, males accounted for 38.8%, others are females. In terms of age group, 18% were below 25, 26.2% were 26-35, 21.3% were 36-45, 30.6% were 46-55, 3.8% were over 55. Those below high school accounted for 5.5%, those in technical secondary school accounted for 14.2%. About 68.3% of them were undergraduate. And graduate and above made up 12%. Working years statistics showed that 11.5% were working for less than one year, 8.2% for 1-3 years, 9.3% for 4-5 years, 13.1% for 6-10 years, 13.1% for 11-20 years, and 44.8% for more than 20 years. The means, standard deviations, and correlation coefficients of each variable are presented in Table 2. The results showed that there was a positive correlation between abusive supervision and cyberloafing ($r=0.609$, $p<0.001$), a negative correlation with meaningful work ($r=-0.619$, $p<0.001$), and a negative correlation between meaningful work and cyberloafing ($r=-0.596$, $p<0.001$).

Table 2. Descriptive statistics and correlation analysis of variables.

variable	M	SD	1	2	3	4	5	6	7
gender	1.610	0.489	1.000						
age	2.760	1.180	-0.125						
edu	3.860	0.720	0.124	-0.396**					
years	4.430	1.792	-0.124	0.844**	-0.319**				
AS	1.627	0.830	-0.061	0.017	-0.063	-0.164*	(0.847)		
MW	4.148	0.820	0.025	0.107	0.049	0.223**	-0.619**	(0.85)	
CY	2.028	0.853	-0.070	-0.053	-0.014	-0.147*	0.609**	-0.590**	(0.789)

Note(s): ** $p<0.01$, * $p<0.05$, Values on the diagonal represent the square root of the average variance

4.4 Validity and reliability tests

Table 3 shows the results of the reliability and validity tests. The standardized loadings of the items are above 0.6. The average variance extracted values are all greater than 0.5, indicating that each variable has good convergent validity. The square root of AVE is greater than the correlation coefficient of each variable, indicating that the discriminant validity of each variable is good. Furthermore, the composite reliability were above 0.7 and the Cronbach's α was above 0.9, which indicated that each scale has good reliability.

Table 3. Reliability and validity of the main variables.

Variable	Standardized load range	CR	AVE	the square root of AVE	Cronbach's α
AS	0.738-0.911	0.97	0.717	0.847	0.971
MW	0.763-0.932	0.959	0.722	0.850	0.963
CY	0.636-0.94	0.907	0.623	0.789	0.902

4.5 Hypothesis testing

This paper used SPSS25 to test the research hypotheses using hierarchical regression analysis. Table 4 presents the regression relations of variables. As can be seen from Table 4, Model 4 shows that there is a significant positive relationship between abusive supervision and cyberloafing ($\beta=0.629$, $p<0.001$) after controlling for the demographic variables of gender, age, education, and years of work. Thus H 1 was supported.

As shown in Model 2, after controlling for demographic variables, abusive supervision significantly affected employees' meaningful work ($\beta=-0.595$, $p<0.001$), and H 2 was supported. A negative indirect effect of 0.358 ($\beta=-0.358$, $p<0.001$) from abusive supervision to cyberloafing was found with meaningful work as mediator in Model 6. The results presented that the effect of abusive supervision on cyberloafing decreased from 0.629 ($p<0.001$) to 0.415 ($p<0.001$) The three conditions for the mediating effect to be established were satisfied, suggesting that meaningful work plays a mediating role, and H 4 was supported. Furthermore, as shown in model 5, there was a negative effect between meaningful work and cyberloafing ($\beta=-0.602$, $p<0.001$), and therefore H 3 was supported.

Table 4. Hierarchical regression results of abusive supervision on cyberloafing.

variable	MW		CY			
	1	2	3	4	5	6
gender	0.068	0	-0.145	-0.072	-0.103	-0.072
age	-0.163	0.052	0.165	-0.061	0.067	-0.043
edu	0.11	0.077	-0.033	0.002	0.033	0.03
years	0.209**	0.038	-0.171**	0.009	-0.045	0.023
AS		-0.595***		0.629***		0.415***
MW					-0.602***	-0.358***
R ²	0.082	0.403	0.047	0.377	0.354	0.448
ΔR^2	—	0.32	—	0.33	0.307	0.071
F	3.995	23.878	2.198	21.406	19.383	23.762

Note(s): *** $p<0.001$, ** $p<0.01$, * $p<0.05$

5 Discussions

This study aims to explore the mediating effect of meaningful work between abusive supervision and cyberloafing through SCT and SET. The implementation of abusive supervision will reduce meaningful work by destroying self-esteem and interest in work, thus reducing their efforts to work and triggering cyberloafing.

This study revealed the direct and indirect relationship between abusive supervision and cyberloafing and enriches the literature on the influence of leadership style on meaningful work. Different from most previous studies, this paper introduced the cognitive factor of meaningful work as a mediator to enrich the research on the mediating mechanism of the relationship between them based on the social cognitive theory.

We put forward the following proposals. First, managers should reduce abusive supervision in the management process, give subordinates enough respect and support and build a strong relationship between them. Secondly, the organization should also take various effective measures, such as creating a good team atmosphere, to cultivate the meaningful work. Finally, the organization should censor the management style of candidates in the promotion process to minimize the number of abusive leaders at the top.

This study still has some limitations. First, data was collected by forwarding, so the sample distribution was not uniform, which had a certain impact on the universality of the conclusions. If a larger range of random sampling can be carried out, the results will be more convincing. Second, all the variables in this study are self-reported by employees. Although the results showed that there is no serious common method variance, it still cannot be completely ruled out. Third, this study only explores the mediating effect of abusive supervision on cyberloafing. In future research, we can explore the moderating effect on this process, such as individual personality traits or values.

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