

Research Article

Mitigating the Negative Emotional Effect of Workplace Ostracism on Knowledge Hoarding in Hotel Employees: Beneficial Roles of Core Self-Evaluation and Proactive Personality

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This study delved into the relationship between workplace ostracism and knowledge hoarding among employees, a critical concern for corporations striving for innovation. Leveraging Affective Events Theory (AET), we hypothesized that workplace ostracism fosters knowledge hoarding, potentially mediated by negative emotions. In addition, we proposed that proactive personality and core self-evaluations could moderate this connection. Utilizing a time-lagged research design, survey data were gathered from 332 employees in Pakistan's hospitality service sector. Our findings revealed that workplace ostracism indeed spurred knowledge hoarding, with negative emotions acting as a mediator. Moreover, we observed that this link was stronger among individuals with lower levels of proactive personality and core self-evaluation, in line with our hypotheses. From a practical standpoint, our study provides management with valuable insights for mitigating knowledge hoarding and workplace ostracism. Overall, our contribution lies in the development and validation of a moderated mediation model that sheds light on the overlooked dynamics between workplace ostracism and knowledge hoarding among hotel employees in the Asian context of Pakistan.

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Introduction

Efficient knowledge transfer has been considered to be a key element in bringing about innovations and advancements, particularly in service-oriented organizations^{[1][2]}. Although knowledge sharing appears to be a pre-requisite for the innovative performance of service-oriented organizations, empirical evidence suggests that knowledge is not being shared sufficiently in such organizations^[3]^[1]. A survey poll conducted by a Canadian news agency, *The Globe and Mail*, showed that 76% of employees in North America withheld relevant organizational knowledge from their co-workers^[4]. This finding supported more recent findings showing that knowledge hoarding exerts negative effects on employees' job satisfaction and psychological well-being^{[1][5]}.

Considering the importance of knowledge sharing, extensive research has been done to determine the factors that could potentially determine what contributes to employees' knowledge sharing behaviors (e.g., Connelly and Kelloway^[6], Latilla et al.^[7], Choi et al.^[8]). Extant research indicates that despite the presence of factors that encourage knowledge sharing within organizations, employees still tend to hoard knowledge within organizations^[9]. In practical terms, knowledge hoarding means that an individual withholds knowledge or information that may be requested by others. According to Evans et al.^[10], knowledge hoarding is a deliberate attempt by an employee to hide knowledge that is requested by colleagues.¹ Although knowledge hoarding may enhance individual performance at work^[11], it is associated with many negative workplace behaviors, such as low employee performance in work units, problematic interactions between colleagues, and bullying of employees by their co-workers or supervisors^{[12][13]}. In this study, we expected knowledge hoarding to stifle innovation, which would eventually lead to reductions in organizational efficiency and productivity.

The primary antecedent variable of knowledge hoarding we examined in the current study pertained to workplace ostracism. By definition, workplace ostracism is the degree to which an employee observes or perceives that she/he is excluded at the workplace by others^{[14][15]}. Workplace ostracism lowers social interaction for ostracized employees, as well as his/her levels of work engagement and service performance^{[16][15][17]}. More specifically, workplace ostracism leads to lower family satisfaction^{[14][18]}, lower organizational citizenship behavior^[14], emotional exhaustion^{[19][20]} and higher instances of deviant workplace behaviors^[21].

Although scholars are focusing more on workplace ostracism, to our knowledge, only a few studies have investigated workplace ostracism and its workplace outcomes in the hospitality service sector; these outcomes concern counterproductive work behaviors^[17], proactive customer service performance^[22], and employee service performance^[16]. Although many studies on workplace ostracism have been conducted in the field of management, little is known about the impact of workplace ostracism on a deviant workplace behavior like knowledge hoarding, especially within the hospitality service sector^[22]. Due to the pervasiveness of workplace ostracism in the hotel service sector and its negative impact on employee performance^[23], there is a call for more studies to focus on workplace ostracism in the hotel service sector, as well as other service sectors like nursing^[17]. Responding to this call for further investigations, the first aim of this study examined whether or not workplace ostracism could lead to knowledge hoarding among hotel employees in Pakistan.

Zhao and Xia^[11] showed that the relationship between workplace ostracism (predictor) and workplace hoarding (outcome) could be a curvilinear one with individuals high in political skill exhibiting a U-shaped curve representing relatively high knowledge hoarding when perceived workplace ostracism was at their low- and high-ends. The authors explained this interesting trend through the Conservation of Resources (COR) theory. When workplace ostracism initially proceeds from low to moderate, an ostracized employee would engage less in knowledge hoarding and more in knowledge sharing to improve his social status in the organization. However, when workplace ostracism starts to increase from moderate to high, the perception of being ostracized would become more salient and imminent, and an ostracized employee would engage more in knowledge hoarding upon the realization that his/her pro-social behaviors failed to improve his/her social standing. Knowledge hoarding under this scenario also serves as a way for an ostracized employee to conserve his/her resources (both mental and physical) and increase his bargaining power or influence within the organization.

Although we acknowledge the logicity of these explanations, it must be mentioned that the psychological mechanisms underlying the workplace ostracism-knowledge hoarding relationship, encompassing cognitive and emotional well-being, have not been well-examined in the extant literature thus far, and hence this study aimed to explore the mediating and moderating psychological mechanisms that can better explain the causal link between workplace ostracism and knowledge hoarding. Specifically, we examined whether the relationship between workplace ostracism and knowledge hoarding was mediated by the emotions of hotel employees. We chose the factor of

negative emotions as a mediator because workplace ostracism has been shown to exert negative effects on the mental health of employees^[24]. More specifically, we drew upon Weiss and Cropanzano's^[25] Affective Events Theory to explain how the experience of negative emotions by ostracized employees at their workplaces could lead to knowledge hoarding behaviors.

Heeding the call for more studies on the moderators that affect the impact of workplace ostracism on knowledge hoarding behaviors^{[26][17]}, we examined the conditions under which the relationship between workplace ostracism and knowledge hoarding behaviors was strengthened or weakened. As individuals with high levels of proactive personality actively seek out changes that are favorable to self-development (Harvey et al.^[27]), and spontaneously adapt to changes in their working environments^[28], we expected that proactive employees would be less likely to engage in knowledge hoarding after encountering workplace ostracism.

In addition to proactive personality, we chose core self-evaluation (CSE) as another moderator. As employees with high levels of CSE tend to exhibit high levels of psychological well-being^[29], optimism and resilience^[30], and self-esteem^[31], we expected that employees with high levels of CSE, like proactive employees, would be less likely to engage in knowledge hoarding after encountering workplace ostracism.

In the following paragraphs, we provide a detailed conceptual background of the variables included in this study and the hypotheses regarding their inter-relationships.

Literature Review and Hypotheses

Linking Workplace Ostracism to Knowledge Hoarding

Ostracism is the degree to which an individual observes that he/she is being excluded by others^[32]. Ostracism persists across various social settings, which include business corporations and organizations^[26]. Isolating certain colleagues during social interaction at the workplace, moving an employee to an isolated location, leaving a place when an employee enters, not responding to greetings of co-workers, and avoiding eye contact are all some examples of ostracism^{[33][34]}. Workplace ostracism includes three important features. First, it does not necessarily involve the motivation to cause damage to the target^[33]. This is because people sometimes ignore other colleagues when they are pre-occupied with their tasks at work^[11]. Second, workplace ostracism

occurs when individuals of a group are unwilling to welcome another person into their group due to the pre-existence of a strong group identity^[34]; therefore, ostracism perceived by one individual may not be perceived by others who were already part of an in-group^[33]. Third, workplace ostracism relates to “the omission of positive attention from others rather than the commission of negative attention”^[33]. Since the element of attention is missing, workplace ostracism could pose a serious risk to an individual’s sense of belonging to an organization^[35]. Previous research showed that workplace ostracism affected the victims more negatively than other types of mistreatment such as workplace aggression^[19]. Workplace ostracism has also been shown to damage the psychological and physical well-being of employees, their organizational commitment, service performance, and job satisfaction^[16].

In the extant literature, Ferris et al.,^[14] through the *Workplace Ostracism Scale*, showed a positive correlation between workplace ostracism and workplace withdrawal behaviors while Zhao et al.^[17] showed positive links between workplace ostracism and counterproductive workplace behaviors (organizational and interpersonal), moderated by one’s levels of proactive personality and political skill. Kouchaki and Wareham^[36] further showed that workplace ostracism led to unethical pecuniary behaviors mediated by galvanic skin responses. All these aforementioned deviant workplace behaviors can share links with knowledge hoarding, which we perceive as an egocentric/self-centered behavior that seeks to increase an employee’s control over important organizational or work-related information, which may increase his/her power and influence in the organization^[37]. In line with previous studies showing that knowledge hoarding occurred in settings where workplace ostracism created a work culture low on interpersonal trust and ethical standards^{[3][12][38][11]}, we hypothesized that:

- H1: *Workplace ostracism would be positively related to knowledge hoarding behaviors of employees.*

Negative Emotions as Mediator

Experiencing negative treatment at the workplace in the form of ostracism can engender negative outcomes at both the individual and organizational levels. At the individual level, such consequences are expressed in the form of cardiovascular diseases and negative emotions^[39]. Watson and Pennebaker^[40] described these negative emotions as the feelings of depression, anxiety, sadness, anger, and anxiety that the individuals experience in a specific situation or state. As such, we invoked

the Affective Effects Theory (AET) to examine how negative emotions can play a mediating role in the relationship between workplace ostracism and knowledge hoarding. A central idea of AET is that an individual's emotional response serves as an intermediary link between work-related events and behavioral outcomes. According to Weiss and Cropanzano^[25], each member of an organization will inevitably experience emotional reactions to various work-related events, which will in turn affect their daily work attitudes and behaviors. Some scholars have validated the important intermediary role of negative emotions in transforming work management features (e.g., supervisory support) into work-related attitudes and behaviors (e.g., organizational commitment, job satisfaction) in a causal chain^{[41][42]}. For instance, the negative emotion of hostility has been shown to mediate the relationship between leader mistreatment and deviant workplace behaviors^[42]. In this paper, based on AET, we proposed that workplace ostracism could act as a proximal cause of negative emotions because employees are perfectly capable of reacting emotionally to the workplace ostracism they experienced^[25]. A key objective of AET is to encourage scholars to examine the affective state changes of any person and the subsequent behaviors affected by such emotional states, followed by inferring how such states could have arisen initially from certain workplace events experienced by employees^[25]. Given these facts, we predicted that when an employee is ostracized at his/her workplace, he/she would experience a negative social event that sets the foundation for the emergence of negative emotions (i.e., feelings of disappointment and sadness arising from exclusion from social activities of colleagues), which would eventually culminate in the form of knowledge hoarding behaviors.

In other words, we hypothesized that:

- H2: *Negative emotions would mediate the relationship between workplace ostracism and knowledge hoarding behaviors.*

Moderating Role of Proactive Personality

According to Bateman and Crant^[43], a person with a proactive personality is unaffected by situational forces and can bring about change in the working environment. Having a proactive personality enables an individual to identify different opportunities and make organizational changes effectively^[44]. Research on proactive personality showed that individuals vary in terms of proactivity and the ability to initiate change in their working environment (e.g., Allen et al.^[45], Brown et al.^[46]).

Importantly, Bateman and Crant^[43] differentiated between proactive and non-proactive employees. Proactive employees find opportunities easily, demonstrate initiative, and bring about positive change, whereas non-proactive employees show little or no initiative and are less likely to identify new opportunities for initiating change in their working environments^[43].

Given these facts, we expected that proactive employees would actively accommodate or adapt to changes in their working environments despite situational constraints that can be brought about by workplace ostracism^[28]. These employees will not respond by hoarding knowledge but will actively seek out opportunities to generate new ideas for improving their work performance^[47]. On the other hand, non-proactive employees face difficulty in changing their environment to deal with work-related stress and tend to accept the current situation as it is^[43]. Under events of workplace ostracism, if the employee cannot cope with his/her feelings of exclusion, it is possible that he/she may engage in knowledge hoarding as a form of coping mechanism for alleviating the effects of such negative emotions and to conserve their emotional resources (see also Zhu et al.^[22], for a similar view). Knowledge hoarding is more likely to apply to non-proactive employees than to proactive employees as the latter tend to create social ties with friendly colleagues through their prosocial behaviors when confronted with workplace ostracism^[15]. Specifically, proactive employees will strive to improve their inclusionary status in their organizations and share their knowledge with others by voicing their recommendations for improvements to organizational procedures and taking charge of initiating functional changes in their organizations^{[48][15]}. In simple terms, this means that proactive employees would be less affected by situational factors and demonstrate a lower tendency to hoard knowledge than non-proactive employees between situations of low and high workplace ostracism. In view of these facts, we hypothesized that:

- H3: *Proactive personality would moderate the relationship between workplace ostracism and knowledge hoarding of employees such that this relationship would be stronger for employees with lower levels of proactive personality than for employees with higher levels of proactive personality.*

Moderating Role of Core Self-evaluation

To understand why an employee would feel ostracized at work and hoard knowledge, knowledge about his/her personality is crucial for explaining such deviant employee behaviors. One of the significant examples in predicting employee behavior is the construct of CSE^[49], that is, how individuals assess

themselves regarding their capability, competence, and capabilities. According to Judge et al.^[50], CSE is a composite personality construct that includes four component traits: (i) *self-esteem* [general feeling and perception of one's worth, Carson et al. (1997)], (ii) *generalized self-efficacy* [general belief in one's ability to succeed^[51]], (iii) *locus of control* [belief in one's ability to control life events (Strauser et al., 2002)], and (iv) *non-neuroticism* [ability to maintain emotional stability in the presence of disappointments, anxiety, and stress (Eysenck and Eysenck, 1968)].

At the workplace, CSE affects how an individual fosters social exchange relationships within the workplace^[52]. Specifically, it has been found that employees with low self-efficacy and external locus of control tend not to challenge the status quo and destructive/toxic behaviors of their leaders or supervisors^[53]. Such employees also tend to endure and accept misdemeanors committed by their supervisors and leaders, and are afraid of changing the contextual or situational factors that promoted such destructive leadership^[54]. By contrast, employees with high levels of CSE widely view themselves as competent individuals having control over their life events and self-worth^[55], and tend to endorse more optimistic outlooks on life than individuals with low levels of CSE^[30].

According to AET^[25], an employee's personality plays an important role in appraising different work-related events and can influence changes in employee behaviors. Linking this fact to CSE, employees with low levels of CSE may feel insecure or threatened after experiencing workplace ostracism and subsequently compel themselves to hoard knowledge as a coping strategy for protecting their psychological well-being. On the other hand, individuals with high levels of CSE have been found to apply more proactive coping strategies that alleviate the strain of daily stressors and problems^[56]. Specifically, when encountering workplace ostracism, individuals with high levels of CSE will confront the situation and explore possibilities for changes or improvement rather than dwell on negative emotions and engage in knowledge hoarding. In view of these arguments and reasonings, we thereby hypothesized that:

- H4: *CSE would moderate the relationship between workplace ostracism and knowledge hoarding such that this relationship would be stronger for employees with lower levels of CSE than for employees with higher levels of CSE.*

Research Model

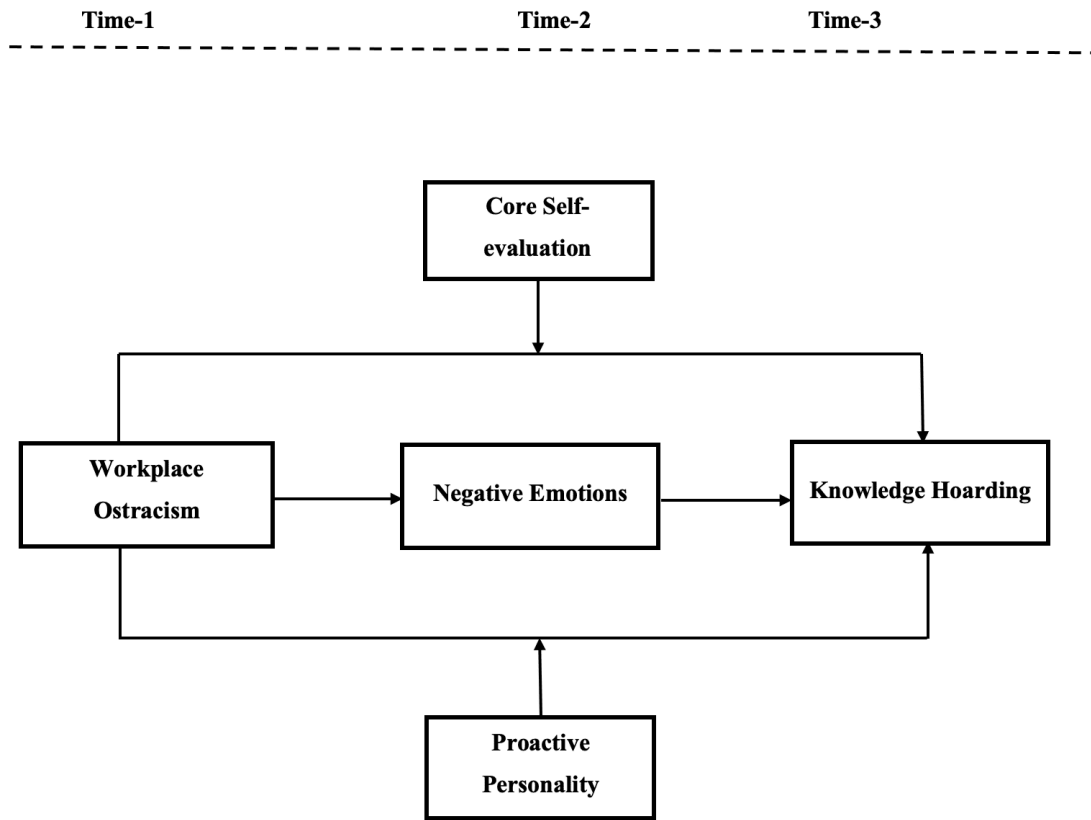


Figure 1. A moderated mediation model showing Negative Emotions (NE) as a mediator between Workplace Ostracism (WO) and Knowledge Hoarding (KH), and Proactive Personality (PP) and Core Self-evaluation (CSE) as moderators of the effect of Workplace Ostracism on Knowledge Hoarding

Methods

Participants and Data Collection

Data were collected by conducting a temporally segregated field survey of employees at different hotels in Pakistan at three different time points. We gained access to these companies through our personal contacts. Any employee who expressed willingness to participate in the study were provided with a cover letter, a consent form, and questionnaires. The cover letter described the purpose of the study and provided participants the assurances that their survey data would be kept private and confidential. Informed consent was obtained from all participants before their official participation,

and all data were collected anonymously and treated with strict confidentiality. Data were collected over three time lags to alleviate common method biases^[57]. All stages of the survey study were reviewed and approved by the ethics review board of Capital University of Science and Technology, Pakistan. All procedures conducted were non-invasive and in perfect alignment with established ethical guidelines.

At time-1, we measured workplace ostracism, core self-evaluation, and proactive personality. We circulated 600 sets of questionnaires and received 510 completed and usable questionnaires, which amounted to a response rate of 85%. After 15 days, at time-2, we measured negative emotions from all employees who completed the time-1 questionnaires. We received 405 completed questionnaires at time-2, which pertained to a response rate of 67% (computed based on the initial distribution of the questionnaires to 600 employees). After another time lag of 15 days, at time-3, we measured knowledge hoarding. We received 332 completed questionnaires, which pertained to a final response rate of 55%. Close to two-thirds of these respondents were male (65%). We recorded their age and years of working experience (tenure) in ranked categories. Their age ranged from 21 to 25 years (61.1 %), 26 to 30 years (33.5 %), and 31 to 35 years (5.4 %). 81.1 % and 18.9 % of them had working experience ranging from 1 to 5 years, and from 6 to 10 years, respectively.

Time-lagged Survey Measures

Excluding the questionnaire on negative emotions, all questionnaires were measured on a 7-point Likert scale of agreement ranging from “1” (strongly disagree) to “7” (strongly agree), with the median value of “4” representing a neutral stance (neither agree nor disagree), and values “2” (somewhat disagree), “3” (slightly disagree), “5” (slightly agree), “6” (somewhat agree) representing intermediate levels of agreement/disagreement. Negative emotions were measured based on a 7-point Likert scale of frequency ranging from “1” (never) to “7” (always), with values “2” (rarely), “3” (occasionally), “4” (sometimes), “5” (frequently), “6” (usually) representing incremental levels of frequency between the two extremes. Scale scores were computed for each questionnaire by summing and averaging the self-report ratings from each respondent.

At time-1, workplace ostracism was measured using a 10-item scale developed by Ferris et al.^[14]. Sample items include “Others left the area when you entered” and “Others ignored you at work.” The scale’s reliability in this study was found to have a Cronbach’s alpha value of 0.71.

Core self-evaluation was measured using a 12-item scale developed by Judge et al.^[49]. Sample items include “*When I fail, I feel worthless*” and “*When I try, I generally succeed.*” The scale’s reliability in this study was found to have a Cronbach’s alpha value of 0.75.

Proactive personality was measured using a 17-item scale developed by Bateman and Crant^[43]. Sample items include “*If I see something I don't like, I fix it*” and “*I enjoy facing and overcoming obstacles to my ideas.*” The scale’s reliability in this study was found to have a Cronbach’s alpha value of 0.89.

At time-2, employees’ negative emotions were measured using a five-item scale used previously by Watson and Clark^[58]. A sample item is “*You felt worthless*” and “*You felt as though you might have a breakdown.*” The scale’s reliability in this study was found to have a Cronbach’s alpha value of 0.81.

At time-3, knowledge hoarding was measured using a four-item scale developed by Evans et al.^[10]. Sample items include “*I avoid releasing information to others in order to maintain control*” and “*I control the release of information in an effort to present the profile I want to show.*” The scale’s reliability in this study was found to have a Cronbach’s alpha value of 0.85.

Results

Model Fit, Convergent and Discriminant Validity Analysis

Considering the self-report nature of the data, confirmatory factor analysis (CFA) was conducted to assess the discriminant validity of variables. We followed the suggestions of Anderson and Gerbing^[59] and compared a five-factor model (with each survey measure representing a separate factor) with a one-factor model (with all survey measures loaded on one factor). CFA results indicated that the unconstrained multiple-factor model showed better fit indices than the single-factor model. As shown in Table 1, the five-factor model yielded better fit indices than the one-factor model. The model fit indices for the hypothesized five-factor model fell within an acceptable range with .93 for CFI, .92 for TLI, and .04 for RMSEA, values which indicated adequate fit^[60].

Model Type	No. of Factors	χ^2	df	RMR	RMSEA	IFI	TLI	CFI
Hypothesized	5	1227.32***	757	.06	.04	.93	.92	.93
All-in-one	1	4233.54***	874	.13	.10	.57	.54	.56

Table 1. Confirmatory Factor Analysis (CFA) Indices

Note. $N = 332$. $\chi^2 =$ chi-square, $df =$ degrees of freedom, $CFI =$ Comparative Fit Index, $TLI =$ Tucker-Lewis index, $IFI =$ Incremental Fit Index, $RMSEA =$ Root Mean Square Error of Approximation, $RMR =$ Root Mean Residual

*** $p < .001$

Table 2 shows the composite reliability (CR), average variance extracted (AVE), and maximum shared variance (MSV) values of the survey measures. The MSV values of all five variables (.16 -.37) were less than their AVE values (.50 -.57), showing the presence of discriminant validity. The AVE values of all five variables were .50 and above, and lower than their corresponding CR values (.87 -.93), showing the presence of convergent validity based on the criteria set by Hair et al. [61].

Variable	CR	AVE	MSV	M	SD	Min.	Max	1	2	3	4	5
1. Workplace Ostracism	.91	.53	.23	4.72	.669	2.31	6.60	.71				
2. Negative Emotions	.93	.57	.37	4.74	.968	1.40	6.80	.64***	.81			
3. Knowledge Hoarding	.87	.51	.16	4.86	1.01	1.50	6.25	.57***	.44***	.75		
4. Proactive Personality	.89	.50	.33	4.45	.792	1.80	6.10	-.55***	-.52***	-.64***	.89	
5. Core self-evaluation	.91	.54	.29	3.78	.560	1.75	6.00	-.23***	-.19***	-.24***	.14**	.85

Table 2. Descriptive Statistics, Reliability and Validity Indices, and Correlational Matrix of Survey Variables

Note. $N = 332$. **CR** = Composite Reliability, **AVE** = Average Variance Extracted, **MSV** = Maximum Shared Variance, **M** = Mean, **SD** = Standard Deviation, **Min.** = Minimum, **Max.** = Maximum. Cronbach's alpha values belonging to each scale (reported in Methods section) are shown in bold on the diagonal of the correlational matrix.

** $p < .01$, *** $p < .001$

Correlational Analysis

As shown in Table 2, workplace ostracism correlated significantly and positively with negative emotions [$r(332) = 0.64, p < .001$] and knowledge hoarding [$r(332) = .57, p < .001$] to a moderately high degree. Negative emotions correlated significantly and positively with knowledge hoarding [$r(332) = 0.44, p < .01$] at a moderate level. These correlational findings supported our first two hypotheses. In addition, proactive personality correlated negatively and significantly with knowledge hoarding [$r(332) = -0.64, p < .001$] to a moderately high degree, supporting our expectation that employees with higher levels of proactive personality would exhibit lower levels of knowledge hoarding.

Mediation Analysis

Mediation analysis was done using the bootstrapping procedure proposed by Preacher and Hayes^[62]. We implemented a macro (PROCESS) model 4 developed by Preacher and Hayes^[62] in IBM SPSS 20. We set the bootstrap sample size at 5,000, following the recommendation of Preacher and Hayes^[62].

Table 3 shows results supporting Hypothesis 2: workplace ostracism was found to have an indirect effect on knowledge hoarding through negative emotions [Sobel test effect (two-tailed, normality-assumed) = 0.15, $SE = 0.035$, $Z = 4.29$, $p = .009$]. Results were further confirmed by the 95% bootstrapped confidence intervals (0.07, 0.19), which showed no zero terms within the lower and upper limits of the Sobel test effect. This showed that there was indeed a significant reduction in the overall variance (derived from the impact of workplace ostracism on knowledge hoarding) after including negative emotions as a mediator. As for the three sets of direct effects, they were all highly significant and positive ($0.33 \leq \beta \leq 0.45$, $4.67 \leq t \leq 11.03$, $ps < .001$) [see Table 3].

	Direct Effect	R ²	F	β	SE	T	p-value
		0.31 ^{***}	89.32 ^{***}				< .001
1.	Direct effect of WO on NE			0.45 ^{***}	0.04	11.03	< .001
		0.36 ^{***}	74.64 ^{***}				< .001
2.	Direct effect of WO on KH			0.38 ^{***}	0.06	6.72	< .001
3.	Direct effect of NE on KH			0.33 ^{***}	0.07	4.67	< .001
Tests of Indirect Effects based on Normal Distribution							
				Effect	SE	Z	p-value
	Bootstrap result for indirect effect			0.15 ^{**}	0.035 ^a	4.29 ^{**}	.009
				Effect	SE	LL 95% CI	UL 95% CI
	Indirect effect of WO on KH through NE			0.15 ^{**}	0.04	0.07	0.22

Table 3. Mediation Analysis with Negative Emotions as Mediator and Knowledge Hoarding as Dependent Variable

Note. N= 332. WO = Workplace Ostracism, KH = Knowledge Hoarding, NE = Negative Emotions, LL = Lower level, UL = Upper level, CI = Confidence Interval. ^a SE shown to the accuracy of three decimal places to ensure the precision of Z-score computation.

** $p < .01$, *** $p < .001$

Hierarchical Moderation Analysis

In the moderation analysis, centering was performed for all regressors to circumvent the issue of multicollinearity^[63]. Significant interactions were plotted for simple slopes analysis of employees falling into “low” ($M - 1 SD$) and “high” ($M + 1 SD$) groups/categories around the mean^[64] [see Figures 2 and 3].

In the analysis, two steps were involved: first, the independent variable and moderator were entered independently, and then the product variable representing the interaction between the independent

variable and the moderator was added. Table 4 shows results supporting Hypothesis 3. Workplace ostracism exerted a significant direct positive effect on knowledge hoarding ($\beta = 0.25, t = 3.51, p < .001$) while proactive personality exerted a significant direct negative effect on knowledge hoarding ($\beta = -0.13, t = -2.16, p = .031$). Workplace ostracism x proactive personality interaction was also found to be significant ($\beta = -0.19, t = -2.11, p = .036$). Altogether, the predictors explained 29% of the variance in the dependent variable of knowledge hoarding. The positive association between workplace ostracism and knowledge hoarding was found to be significant for employees in the low proactive personality category (simple slope $\beta = 0.37, t = 5.28, p < .001$), but not for employees in the high proactive personality category (simple slope $\beta = 0.12, t = 1.09, p = .281$). A simple slopes test showed that the strength of this workplace ostracism-knowledge hoarding relationship was stronger for employees with low levels of proactive personality than for employees with high levels of proactive personality (simple slope effect = 0.25, $t = 3.33, p < .001$). Figure 2 depicts this difference in association strength between employees with low and high levels of proactive personality.

Variable	R^2	ΔR^2	F	Constant	β	SE	T	p-value
	0.29***	0.06	44.66***					< .001
				3.12				
WO					0.25***	0.07	3.51***	< .001
PP					-0.13*	0.06	-2.16*	.031
WO x PP					-0.19*	0.09	-2.11*	.036
Direct Effect of WO on KH for Low and High PP levels					β	SE	T	p-value
PP Low ($M - 1SD$)					0.37***	0.07	5.28***	< .001
PP High ($M + 1SD$)					0.12	0.11	1.09	.281
Simple Slopes Difference between Low and High PP Levels					Effect	SE	T	p-value
					.25***	.075 ^a	3.33***	< .001

Table 4. Moderation Analysis with Proactive Personality as Moderator and Knowledge Hoarding as Dependent Variable

Note. $N = 332$. For simple slopes test, 1 SD for PP variable = 0.79. WO = Workplace Ostracism, PP = Proactive Personality, KH = Knowledge Hoarding. R^2 relates to the proportion of variance in KH explained by all predictors while ΔR^2 relates to the increase in model variance explained by the addition of the product variable WO x PP. ^a SE shown to the accuracy of three decimal places to ensure the precision of T-score computation for the Sobel test effect.

* $p < .05$, *** $p < .001$

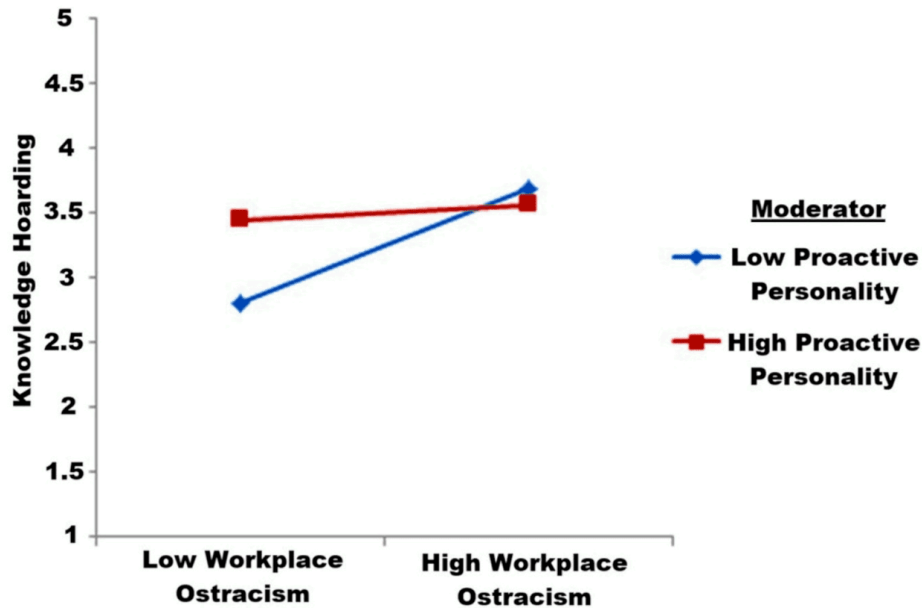


Figure 2. Interaction effects of Workplace Ostracism (WO) and Proactive Personality (PP) on Knowledge Hoarding (KH). For ease of representation, the antecedent variable WO was subdivided into low and high groups that scored, respectively, one standard deviation below and above the centered mean value. Likewise, the moderator PP was divided into low and high groups in the same fashion.

Table 5 shows results supporting Hypothesis 4. Like the findings shown above, workplace ostracism exerted a significant direct positive effect on knowledge hoarding ($\beta = 0.25$, $t = 3.58$, $p < .001$) while CSE exerted a significant direct negative effect on knowledge hoarding ($\beta = -0.21$, $t = -3.75$, $p < .001$). Workplace ostracism x CSE interaction was also found to be significant ($\beta = -0.13$, $t = -2.16$, $p = .031$). Altogether, these predictors explained 25% of the variance in the dependent variable of knowledge hoarding. The positive association between workplace ostracism and knowledge hoarding was found

to be significant for employees in the low CSE category (simple slope $\beta = 0.35$, $t = 5.07$, $p < .001$), but not for employees in the high CSE category (simple slope $\beta = 0.15$, $t = 1.36$, $p = .177$). A simple slopes test showed that the strength of this workplace ostracism-knowledge hoarding relationship was stronger for employees with low levels of CSE than for employees with high levels of CSE (simple slope effect = 0.20 , $t = 2.85$, $p = .005$). Figure 3 depicts this difference in association strength between employees with low and high levels of CSE.

Variable	R ²	ΔR^2	F	Constant	β	SE	T	p-value
	0.25***	0.06	36.44***					< .001
				3.39				
WO					0.25***	0.07	3.58***	< .001
CSE					- 0.21***	0.06	- 3.75***	< .001
WO x CSE					- 0.13*	0.06	- 2.16*	.031
Direct Effect of WO on KH for Low and High CSE levels					β	SE	T	p-value
CSE Low (M - 1 SD)					0.35***	0.07	5.07***	< .001
CSE High (M + 1 SD)					0.15	0.11	1.36	.177
Simple Slopes Difference between Low and High CSE Levels					Effect	SE	T	p-value
					0.20**	0.07	2.85**	.005

Table 5. Moderation Analysis with Core Self-Evaluation (CSE) as Moderator and Knowledge Hoarding as Dependent Variable

Note. $N = 332$. For simple slopes test, 1 SD for CSE variable = 0.56. **WO** = Workplace Ostracism, **CSE** = Core Self-evaluation, **KH** = Knowledge Hoarding. R^2 relates to the proportion of variance in KH explained by all predictors while ΔR^2 relates to the increase in model variance explained by the addition of the product variable **WO x CSE**.

* $p < .05$, ** $p < .01$, *** $p < .001$

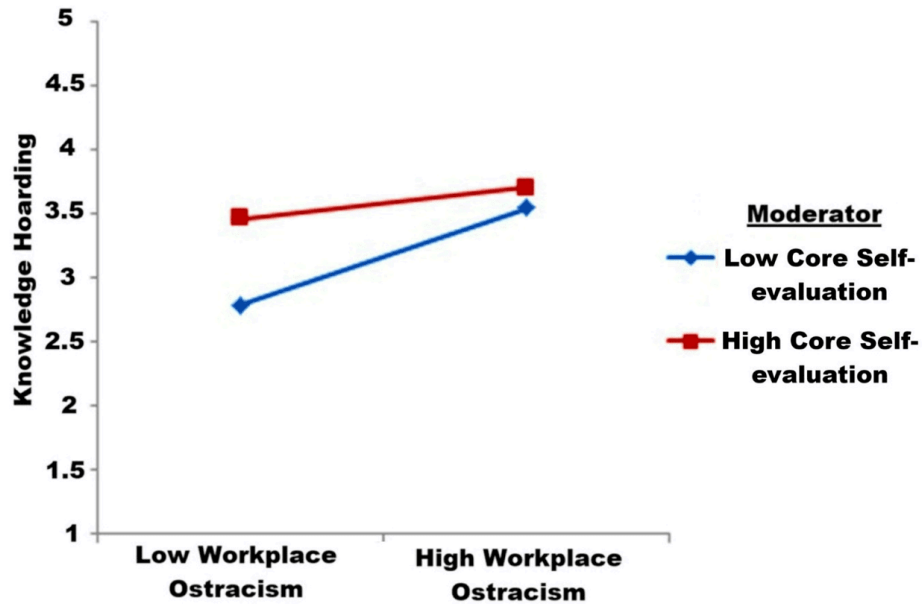


Figure 3. Interaction effects of Workplace Ostracism (WO) and Core Self-evaluation (CSE) on Knowledge Hoarding (KH). For ease of representation, the antecedent variable WO was subdivided into low and high groups that scored, respectively, one standard deviation below and above the centered mean value. Likewise, the moderator CSE was divided into low and high groups in the same fashion.

Discussion

The current study expanded the literature on workplace ostracism in the tourism and hospitality industry, in which ostracism exists but still needs to be further explored^[65]. To our knowledge, this is the first study that highlighted workplace ostracism as an antecedent of knowledge hoarding behaviors among hotel employees. Drawing upon AET, we proposed and empirically tested a conceptual model to examine how workplace ostracism could lead to knowledge hoarding behaviors through negative emotions and the impact of two moderators: proactive personality and CSE. Findings showed that workplace ostracism was positively related to employees' knowledge hoarding behaviors, both directly and indirectly, through negative emotions. Employees who experienced more workplace ostracism reported greater instances of knowledge hoarding behaviors through the intermediary effect of negative emotions. Specifically, we regard workplace ostracism as an interpersonal

antecedent variable since ostracism can only occur in a social context where one feels excluded from social interactions^{[14],[66]}. Social information or contextual cues derived from interpersonal interactions (either positive or negative) could affect employees' work attitude and behavior^[67] and we highlighted this predictive relationship through the mediating influence of negative emotions.

Our findings can be related conceptually to previous findings by Ayoko et al.^[68], in which negative workplace events (i.e., conflicts between supervisors and employees) were found to lead to negative emotions and counterproductive work behaviors. Our findings also relate well to the theoretical notion that employees' emotions or affectivity (either positive or negative) could affect their attitudes and commitment toward ensuring optimal organizations productivity (Organ and Ryan, 1995; Weiss and Cropanzano, 1996). Specifically, concerning AET, the mediating and direct effects exerted by negative emotions on knowledge hoarding demonstrated knowledge hoarding as an affect-driven behavior that was underlain by fluctuating moods or emotions^[25]. Most probably, knowledge hoarding was driven by employees' implicit or subconscious memories of the negative emotions they felt during antecedent events of workplace ostracism^[69].

Regarding moderating effects, our findings showed that employees with higher levels of proactive personality exhibited a weaker association between workplace ostracism and knowledge hoarding than their counterparts with lower levels of proactive personality. These findings replicated previous findings by Sarwar, Khan, and Mujtaba^[70] and suggested that proactive employees are better at managing ostracism-related stress and less likely to engage in withdrawal behaviors (i.e., a withdrawal of useful information in this case) that would harm organizational operations or productivity. Our findings also suggested that proactive employees are less likely to consider knowledge hoarding as a means to improve their work performance since this behavior stifles the generation of new ideas for work improvement^[47].

Likewise, we showed that employees with higher levels of CSE exhibited a stronger association between workplace ostracism and knowledge hoarding than their counterparts with lower levels of CSE. These findings extended previous findings of CSE as a significant moderator in the family domain (i.e., in linking uncivil domestic behaviors to psychological distress, see Lim and Tai^[71]) to the work domain. Importantly, our findings suggested that employees with higher levels of CSE are much better than their counterparts with lower levels of CSE at coping with the stress and negative emotions that accompany workplace ostracism^[56].

Practical Implications

Knowledge gleaned from management research like ours can be harnessed as a tool to help employers and managers from different industries identify better solutions for managing human resources. As our main findings showed that workplace ostracism gave rise to negative emotions and knowledge hoarding behaviors, we recommend that employers and managers take active steps to reduce workplace ostracism. As workplace ostracism can be reduced through cooperative goal interdependence^[72], which requires individuals to work together to develop problem-solving strategies, managers can set tasks with goals that require collective team effort and decision-making. At the same time, a team-based reward system (see, e.g., Bamberger and Levi^[73]) can also be established to assign awards and recognition to teams that demonstrate high degrees of mutual respect, cooperation, and productivity.

At a higher organizational or corporate level, workplace ostracism can be reduced by encouraging a collaborative work culture that promotes open discussion, equal treatment, and fair compensation for all staff members^[74]. Ideally, such policies should be complemented by a non-stressful working environment that promotes individual autonomy^[75], teamwork^{[72][74]}, and positive emotions (Jang and Namkung, 2009).

Moreover, employers should take the initiative to hire individuals with high levels of proactivity and CSE, as these individuals would be naturally inclined toward displaying knowledge sharing and proactive behaviors^[76]. Together with such hiring practices, the design and establishment of an online knowledge management system (e.g., through Microsoft Teams) may offer a transparent and cost-effective way for employees to share knowledge within a big corporation with lots of employees. Legal rules and policies should also be set in place to ensure that employees can freely express themselves through this digital medium without fear of persecution.

Limitations and Future Directions

Besides the contributions mentioned above, we acknowledge some limitations that future studies should address. Because negative emotions can emanate from activities beyond the work domain, such as social undermining in the family domain^[77], future studies can investigate antecedent variables arising from family or other non-work domains. Likewise, as negative emotions have been shown to contribute to deviant workplace behaviors that differed from knowledge hoarding among

Pakistani nurses [e.g., customer service sabotage^[78], absenteeism from work^[77]], future studies on hotel employees can investigate other types of work-related outcome variables. It will also be interesting to know if our conceptual model can be applied to explain the relationship between workplace ostracism and knowledge hoarding of employees from other service-oriented industries or sectors (e.g., hospital nurses^{[78][77][79]}). Lastly, as people living in collectivistic Asian societies tend to be more sensitive to the negative emotions displayed by their communication partners than their Western counterparts living in Europe and North America^[80], future studies can consider investigating the differential impact of negative emotions on mediating the relationship between work-related antecedent and outcome variables across different national cultures.

Conclusion

This study showed that knowledge hoarding could arise as an outcome behavior emanating from workplace ostracism and the negative emotions attached to such events of ostracism. The positive impact of workplace ostracism on knowledge hoarding was mitigated by the presence of high levels of proactive personality and CSE. Findings from mediation analysis supported AET by highlighting knowledge hoarding as an affect-driven behavior that can harm organizational productivity and the generation of innovative ideas. On the other hand, findings from moderation analysis suggested that employees with higher levels of proactive personality and CSE are better than their co-workers with lower levels of proactive personality and CSE at managing or coping with ostracism-related stress and negative emotions. To reduce the negative effects of workplace ostracism on work performance, we argued for organizational initiatives that focus on cooperative teamwork and goal setting, as well as recruitment strategies that focus on hiring individuals with high levels of proactive personality and CSE. The adoption of such procedures or policies can proceed in tandem with further investigations into the variables that are antecedent to or consequent to negative emotions in all relevant service sectors. Taken together, the findings and implications from this study provided new insights into the under-studied relationship between workplace ostracism and knowledge hoarding among hotel employees within the Asian context of Pakistan.

Notes

Running head: Impact of Workplace Ostracism on Knowledge Hoarding

Footnotes

¹ As such, knowledge hoarding has also been termed “knowledge hiding” in simpler terms^{[3][38]}. In this paper, we chose to use “knowledge hoarding” in adherence to its use by Evans et al.^[10], who developed the knowledge hoarding questionnaire we used in this study (see Methods). Conceptually, however, we neither perceive nor regard “knowledge hoarding” and “knowledge hiding” as different, and hereby advice readers to regard both sets of terms as referring to the same construct.

References

1. ^{a, b, c}Halberstadt J, Timm J-M, Kraus S, Gundolf K. Skills and knowledge management in higher education: How service learning can contribute to social entrepreneurial competence development. *Journal of Knowledge Management*. 23: 1925-1948.
2. ^ΔHan S-H, Yoon D-Y, Suh B, Li B, Chae C. Organizational support on knowledge sharing: a moderated mediation model of job characteristics and organizational citizenship behavior. *Journal of Knowledge Management*. 23: 687-704.
3. ^{a, b, c}Connelly CE, Zweig D, Webster J, Trougakos JP. Knowledge hiding in organizations. *Journal of Organizational Behavior*. 33: 64-88.
4. ^ΔOFFERGELT F, SPÖRRLE M, MOSER K, SHAW JD (2019). "Leader-signaled knowledge hiding: Effects on employees' job attitudes and empowerment." *Journal of Organizational Behavior*. 40: 819-833.
5. ^ΔJIANG Z, HU X, WANG Z, JIANG X (2019). "Knowledge hiding as a barrier to thriving: The mediating role of psychological safety and the moderating role of organizational cynicism." *Journal of Organizational Behavior*. 40: 800-818.
6. ^ΔConnelly CE, Kelloway EK. Predictors of employees' perceptions of knowledge sharing cultures. *Leadership & Organization Development Journal*. 24: 294-301.
7. ^ΔLATILLA VM, FRATTINI F, PETRUZZELLI AM, BERNER M (2019). "Knowledge management and knowledge transfer in arts and crafts organizations: Evidence from an exploratory multiple case-study analysis." *Journal of Knowledge Management*. 23: 1335-1354.
8. ^ΔChoi W, Kim SL, Yun S. A social exchange perspective of abusive supervision and knowledge sharing: Investigating the moderating effects of psychological contract fulfillment and self-enhancement motive. *Journal of Business and Psychology*. 34: 305-319.

9. ^aHISLOP D, ^bBOSUA R, ^cHELMS R (2018). *Knowledge management in organizations: A critical introduction*. Oxford University Press.
10. ^a, ^b, ^cEvans JM, Hendron MG, Oldroyd JB. Withholding the ace: the individual-and unit-level performance effects of self-reported and perceived knowledge hoarding. *Organization Science*. 26: 494-510.
11. ^a, ^b, ^c, ^dZhao H, Xia Q (2017). "An examination of the curvilinear relationship between workplace ostracism and knowledge hoarding." *Management Decision*. 55: 331-346.
12. ^a, ^bConnelly CE, Zweig D. How perpetrators and targets construe knowledge hiding in organizations. *European Journal of Work and Organizational Psychology*. 24: 479-489.
13. ^aHOLTEN A-L, ^bHANCOCK GR, ^cPERSSON R, ^dHANSEN ÅM, ^eHØGH A (2016). "Knowledge hoarding: antecedent or consequent of negative acts? The mediating role of trust and justice." *Journal of Knowledge Management*. 20: 215-229.
14. ^a, ^b, ^c, ^d, ^e, ^fFerris DL, Brown DJ, Berry JW, Lian H. The development and validation of the Workplace Ostracism Scale. *Journal of Applied Psychology*. 93: 1348-1366.
15. ^a, ^b, ^c, ^dWilliams K (2001). *Ostracism: The power of silence*. Guilford Press.
16. ^a, ^b, ^cLEUNG AS, WU L, CHEN Y, YOUNG MN (2011). "The impact of workplace ostracism in service organizations." *International Journal of Hospitality Management*. 30: 836-844.
17. ^a, ^b, ^c, ^d, ^eZhao H, Peng Z, Sheard G (2013). "Workplace ostracism and hospitality employees' counterproductive work behaviors: The joint moderating effects of proactive personality and political skill." *International Journal of Hospitality Management*. 33: 219-227.
18. ^aLIU J, KWAN HK, LEE C, HUI C (2013). "Work-to-family spillover effects of workplace ostracism: The role of work-home segmentation preferences." *Human Resource Management*. 52: 75-93.
19. ^a, ^bO'REILLY J, ROBINSON SL, SCHABRAM K (2014). "The impact of ostracism on well-being in organizations." In R. A. Giacalone & M. D. Promislo (Eds.), *Handbook of unethical work behavior: Implications for individual well-being* (pp. 107-122). New York, NY: Routledge.
20. ^aWu LZ, Yim FHK, Kwan HK, Zhang X (2012). "Coping with workplace ostracism: The roles of ingratiation and political skill in employee psychological distress." *Journal of Management Studies*. 49: 178-199.
21. ^aJAHANZEB S, FATIMA T (2018). "How workplace ostracism influences interpersonal deviance: The mediating role of defensive silence and emotional exhaustion." *Journal of Business and Psychology*. 33: 779-791.
22. ^a, ^b, ^cZhu H, Lyu Y, Deng X, Ye Y (2017). "Workplace ostracism and proactive customer service performance: A conservation of resources perspective." *International Journal of Hospitality Management*. 64: 62-7

- 2.
23. [^]Gkorezis P, Panagiotou M, Theodorou M. Workplace ostracism and employee silence in nursing: the mediating role of organizational identification. *Journal of Advanced Nursing*. 72: 2381–2388.
24. [^]HEAPHY ED, DUTTON JE (2008). "Positive social interactions and the human body at work: Linking organizations and physiology." *Academy of Management Review*. 33: 137–162.
25. ^{a, b, c, d, e, f}Weiss HM, Cropanzano R (1996). "Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work." *Research in Organizational Behavior*. 18: 1–74.
26. ^{a, b}Balliet D, Ferris DL. Ostracism and prosocial behavior: A social dilemma perspective. *Organizational Behavior and Human Decision Processes*. 120: 298–308.
27. [^]Harvey S, Blouin C, Stout D. Proactive personality as a moderator of outcomes for young workers experiencing conflict at work. *Personality and Individual Differences*. 40: 1063–1074.
28. ^{a, b}PARKER SK, BINDL UK, STRAUSS K (2010). "Making things happen: A model of proactive motivation." *Journal of Management*. 36: 827–856.
29. [^]Creed PA, Lehmann K, Hood M. The relationship between core self-evaluations, employment commitment and well-being in the unemployed. *Personality and Individual Differences*. 47: 310–315.
30. ^{a, b}Bono JE, Judge TA. Core self-evaluations: A review of the trait and its role in job satisfaction and job performance. *European Journal of Personality*. 17: S5–S18.
31. [^]JUDGE TA, VAN VIANEN AE, DE PATER IE (2004). "Emotional stability, core self-evaluations, and job outcomes: A review of the evidence and an agenda for future research." *Human Performance*. 17: 325–346.
32. [^]Williams KD (2007). "Ostracism: The kiss of social death." *Social and Personality Psychology Compass*. 1: 236–247.
33. ^{a, b, c, d}ROBINSON SL, O'REILLY J, WANG W (2013). "Invisible at work: An integrated model of workplace ostracism." *Journal of Management*. 39: 203–231.
34. ^{a, b}Xu E, Huang X, Robinson SL (2017). "When self-view is at stake: Responses to ostracism through the lens of self-verification theory." *Journal of Management*. 43: 2281–2302.
35. [^]Baumeister RF, Leary MR. The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*. 117: 497–527.
36. [^]KOUCHAKI M, WAREHAM J (2015). "Excluded and behaving unethically: Social exclusion, physiological responses, and unethical behavior." *Journal of Applied Psychology*. 100: 547–556.

37. [△]Burkhardt ME, Brass DJ. Changing patterns or patterns of change: The effects of a change in technology on social network structure and power. *Administrative Science Quarterly*. 34: 104-127.
38. [△][ⓐ]Zhao H, Xia Q, He P, Sheard G, Wan P (2016). "Workplace ostracism and knowledge hiding in service organizations." *International Journal of Hospitality Management*. 59: 84-94.
39. [△]HOGH A, HOEL H, CARNEIRO IG (2011). "Bullying and employee turnover among healthcare workers: a three-wave prospective study." *Journal of Nursing Management*. 19: 742-751.
40. [△]Watson D, Pennebaker JW (1989). "Health complaints, stress, and distress: exploring the central role of negative affectivity." *Psychological Review*. 96: 234.
41. [△]Wegge J, Dick RV, Fisher GK, West MA, Dawson JF (2006). "A test of basic assumptions of Affective Events Theory (AET) in call centre work." *British Journal of Management*. 17: 237-254.
42. [△][ⓐ][ⓑ]MAYER DM, THAU S, WORKMAN KM, VAN DIJKE M, DE CREMER D (2012). "Leader mistreatment, employee hostility, and deviant behaviors: Integrating self-uncertainty and thwarted needs perspectives on deviance." *Organizational Behavior and Human Decision Processes*. 117: 24-40.
43. [△][ⓐ][ⓑ][ⓒ][ⓓ][ⓔ]Bateman TS, Crant JM. The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*. 14: 103-118.
44. [△]Crant JM. Proactive behavior in organizations. *Journal of Management*. 26: 435-462.
45. [△]Allen D, James W, Evans J, Hawkins S, Jenkins R. Positive behavioural support: definition, current status and future directions. *Tizard Learning Disability Review*. 10: 4-11.
46. [△]Brown DJ, Cober RT, Kane K, Levy PE, Shalhoop J. Proactive personality and the successful job search: A field investigation with college graduates. *Journal of Applied Psychology*. 91: 717-726.
47. [△][ⓐ][ⓑ]Choi H-S, Thompson L. Old wine in a new bottle: Impact of membership change on group creativity. *Organizational Behavior and Human Decision Processes*. 98: 121-132.
48. [△]Tornau K, Frese M (2013). "Construct clean-up in proactivity research: A meta-analysis on the nomological net of work-related proactivity concepts and their incremental validities." *Applied Psychology*. 62: 44-96.
49. [△][ⓐ][ⓑ]JUDGE TA, EREZ A, BONO JE, THORESEN CJ (2003). "The core self-evaluations scale: Development of a measure." *Personnel Psychology*. 56: 303-331.
50. [△]JUDGE TA, LOCKE EA, DURHAM CC, KLUGER AN (1998). "Dispositional effects on job and life satisfaction: The role of core evaluations." *Journal of Applied Psychology*. 83: 17-34.
51. [△]Bandura A. Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*. 84: 191-215.

52. [△]NEVES P, CHAMPION S (2015). "Core self-evaluations and workplace deviance: The role of resources and self-regulation." *European Management Journal*. 33: 381-391.
53. [△]Thoroughgood CN, Padilla A, Hunter ST, Tate BW (2012). "The susceptible circle: A taxonomy of followers associated with destructive leadership." *The Leadership Quarterly*. 23: 897-917.
54. [△]PADILLA A, HOGAN R, KAISER RB (2007). "The toxic triangle: Destructive leaders, susceptible followers, and conducive environments." *The Leadership Quarterly*. 18: 176-194.
55. [△]JUDGE TA, KAMMEYER-MUELLER JD (2011). "Implications of core self-evaluations for a changing organizational context." *Human Resource Management Review*. 21: 331-341.
56. [△][‡]KAMMEYER-MUELLER JD, JUDGE TA, SCOTT BA (2009). "The role of core self-evaluations in the coping process." *Journal of Applied Psychology*. 94: 177-195.
57. [△]PODSAKOFF PM, MACKENZIE SB, PODSAKOFF NP (2012). "Sources of method bias in social science research and recommendations on how to control it." *Annual Review of Psychology*. 63: 539-569.
58. [△]Watson D, Clark LA (1992). "Affects separable and inseparable: On the hierarchical arrangement of the negative affects." *Journal of Personality and Social Psychology*. 62: 489-505.
59. [△]Anderson JC, Gerbing DW. Assumptions and comparative strengths of the two-step approach: Comment on Fornell and Yi. *Sociological Methods & Research*. 20: 321-333.
60. [△]HU LT, BENTLER PM (1999). "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives." *Structural Equation Modeling: A Multidisciplinary Journal*. 6: 1-55.
61. [△]HAIR, J.F., BLACK, W.C., BABIN, B.J., ANDERSON, R.E., & TATHAM, R.L. (2014). *Multivariate Data Analysis* (7th ed.). Harlow, UK: Pearson.
62. [△][‡][‡]PREACHER KJ, HAYES AF (2004). "SPSS and SAS procedures for estimating indirect effects in simple mediation models." *Behavior Research Methods, Instruments, & Computers*. 36: 717-731.
63. [△]COHEN, J., COHEN, P., WEST, S. G., & AIKEN, L. S. (2003). *Applied multiple correlation/regression analysis for the social sciences*. Hillsdale, NJ: Erlbaum.
64. [△]AIKEN, L. S., WEST, S. G., & RENO, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. Sage.
65. [△]HSIEH H, KARATEPE OM (2019). "Outcomes of workplace ostracism among restaurant employees." *Tourism Management Perspectives*. 30: 129-137.
66. [△]Ferris DL, Chen M, Lim S. Comparing and contrasting workplace ostracism and incivility. *Annual Review of Organizational Psychology and Organizational Behavior*. 4: 315-338.

67. [△]Venkataramani V, Dalal RS (2007). "Who helps and harms whom? Relational antecedents of interpersonal helping and harming in organizations." *Journal of Applied Psychology*. 92: 952-966.
68. [△]Ayoko OB, Callan VJ, Härtel CE. Workplace conflict, bullying, and counterproductive behaviors. *The International Journal of Organizational Analysis*. 11: 283-301.
69. [△]Barsade SG, Ramarajan L, Westen D. Implicit affect in organizations. *Research in Organizational Behavior*. 29: 135-162.
70. [△]Sarwar A, Khan MM, Mujtaba BG (2017). "Despotic leadership, workplace ostracism and knowledge hoarding: A serial mediation model." *SAM Advanced Management Journal*. 82: 4.
71. [△]LIM S, TAI K (2014). "Family incivility and job performance: A moderated mediation model of psychological distress and core self-evaluation." *Journal of Applied Psychology*. 99: 351.
72. ^{a, b}Wu L-Z, Ferris DL, Kwan HK, Chiang F, Snape E, Liang LH (2015). "Breaking (or making) the silence: How goal interdependence and social skill predict being ostracized." *Organizational Behavior and Human Decision Processes*. 131: 51-66.
73. [△]Bamberger PA, Levi R. Team-based reward allocation structures and the helping behaviors of outcome-interdependent team members. *Journal of Managerial Psychology*. 24: 300-327.
74. ^{a, b}Yang J-T (2007). "Knowledge sharing: Investigating appropriate leadership roles and collaborative culture." *Tourism Management*. 28: 530-543.
75. [△]DUBRIN, A. J. (2013). *Fundamentals of organizational behavior: An applied perspective*. Elsevier.
76. [△]MCCORMICK BW, GUAY RP, COLBERT AE, STEWART GL (2019). "Proactive personality and proactive behaviour: Perspectives on person-situation interactions." *Journal of Occupational and Organizational Psychology*. 92: 30-51.
77. ^{a, b, c}Sarwar A, Irshad M, Zhong JY, Sarwar S, Pasha R (2020). "Effects of social undermining in families on deviant workplace behaviours in Pakistani nurses." *Journal of Nursing Management*. 28: 938-947.
78. ^{a, b}SARWAR A, ABDULLAH MI, HAFEEZ H, CHUGHTAI MA (2020). "How does workplace ostracism lead to service sabotage behavior in nurses: A conservation of resources perspective." *Frontiers in Psychology*. 11:850.
79. [△]Sarwar A, Naseer S, Zhong JY (2020). "Effects of bullying on job insecurity and deviant behaviors in nurses: Roles of resilience and support." *Journal of Nursing Management*. 28: 267-276.
80. [△]POWELL GN, FRANCESCO AM, LING Y (2009). "Toward culture-sensitive theories of the work-family interface." *Journal of Organizational Behavior*. 30: 597-616.

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