

What Drives Creativity in the Workplace? Exchange and Contextual Variables in Their Relationship to Supervisor and Self-Report Creativity

Aaron Cohen^{*}, Avi Vainberg

Department of Public Administration, School of Political Science, University of Haifa, Israel

Received November 30, 2022; Revised February 20, 2023; Accepted March 12, 2023

Cite This Paper in the Following Citation Styles

(a): [1] Aaron Cohen, Avi Vainberg, "What Drives Creativity in the Workplace? Exchange and Contextual Variables in Their Relationship to Supervisor and Self-Report Creativity," *Universal Journal of Management*, Vol. 11, No. 2, pp. 33 - 48, 2023. DOI: 10.13189/ujm.2023.110201.

(b): Aaron Cohen, Avi Vainberg (2023). *What Drives Creativity in the Workplace? Exchange and Contextual Variables in Their Relationship to Supervisor and Self-Report Creativity*. *Universal Journal of Management*, 11(2), 33 - 48. DOI: 10.13189/ujm.2023.110201.

Copyright©2023 by authors, all rights reserved. Authors agree that this article remains permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

Abstract This study aimed to assess the association between exchange and situational variables and schoolteachers' creativity. Hypotheses are based on the fairness heuristic theory and the exchange theory. The explanatory model included perceived justice, organizational culture, psychological well-being, psychological contract breach, transactional and relational obligations, and demographic control variables. The dependent variable was self-report and principal report creativity. Two different samples of Israeli teachers were surveyed, the second one a year after the first. The first survey (N = 191) asked teachers and their principals about their perceptions regarding creativity. In the second sample (N=146), perceptions were reported only by the teachers. The findings showed that teachers' perceived well-being has a solid relationship with the principal report of creativity in the first sample and self-report creativity in both samples. In addition, the first sample found a robust positive association between procedural justice and creativity (principal report and self-report). The findings also showed a positive association between employee relational obligations and self-report creativity in both samples. Interestingly, no noteworthy differences were found in the correlates of self-reported creativity and principal-reported creativity. The findings suggest that employees' positive mood should be a fundamental goal for employers who expect high levels of creativity from their teachers. In addition, employers should provide employees

with a supportive and just work environment that encourages creativity.

Keywords Creativity, Justice, Organizational Climate, Psychological Well-Being, Psychological Contract Breach, Transactional and Relational Obligations

1. Introduction

Creativity — the invention of new and practical ideas by individuals or groups — can have many forms and functions in organizations, from entrepreneurial start-ups to well-established enterprises. The growing need for creativity affects organizations and jobs [1]. Therefore, it is unsurprising that organizational creativity and creative thinking have become an influential and popular issue among organizational behavior scholars [2], [3], [4]. In the current competitive economy, there is a growing need for knowledge. Therefore, creativity in organizations is necessary for reacting to progressing technology, changing environments (such as the pandemic era), organizational structures and plans, innovative rivals, and customers' changing needs [5], [6], [7]. Creativity is also essential for the teaching profession across all levels educational environment and the teaching process [8], [9], [10]. Creativity is necessary for human development and

benefits education and the economy [11]. The COVID-19 pandemic increases the importance of creativity in teaching and learning activities [12], [13].

Because of the value of creativity to organizational success and the educational process success [11], studies have attempted to explore the factors and processes that can increase organizational creativity. Studies have examined personal determinants of creativity, such as individuals' moods and emotions [14], [15]. Some studies revealed that positive moods have a significant relationship with creativity [16], while others found more complex relationships between positive and negative moods and creativity [17], [18]. In addition, there is empirical evidence that stress is negatively correlated with creativity [19]. Employees' well-being is an excellent demonstration of this variable [20] and will be examined in this study.

There is support for a positive association between organizational climate and creativity [21]. More specifically, organizational climate that encourages creative thinking and performance will represent this type of climate in this study. Other studies have focused on fairness and equity variables [22]. These variables will be represented here by organizational justice (relational and procedural) and by the transactional and relational obligations of the employee and the employer. Another variable that represents an exchange relationship is a psychological contract, as there are findings that psychological contract breaches reduce creativity [23]. Other results showed complex and unstable relationships between organizational justice dimensions and creativity [24]. This study will also examine demographic control variables such as gender, marital status, and tenure in school in their relationship to creativity [25].

Few studies have examined exchange and contextual variables in their relationship to creativity. Yet, creativity is the outcome of "the complex mosaic of individual, group, and organizational characteristics and behaviors occurring within the salient situational influences existing at each

level of organization" [26], [27]. Creativity can be better understood as the interaction of three elements: Person \times Task \times Situation paradigm [28]. There is a need for studies that will apply comprehensive and integrated models that will examine the cumulative effects of personal, exchange, and contextual variables on creativity.

Thus, this study will advance an integrative model of the association between the exchange, contextual variables, and creativity. The model will be examined in two samples of Israeli teachers. The first survey examined the relationships between hypothesized correlates and creativity as reported by the teachers and their principals. A year later, data were collected from another sample to examine the stability and, more specifically, the temporal validity of the first survey's findings. The second study examined only self-reported creativity. Such a design enables an essential comparison between the correlates of creativity in two studies and possible differences between self-reported and principal report creativity. Few studies have compared correlates of creativity measured by two sources in the same sample.

2. Theoretical Framework and Research Hypotheses

Figure 1 presents the research model, and the hypotheses resulting from it will be shown in the following sections.

2.1. Organizational Justice and Creativity

Elements of the work setting have a substantial impact on creativity [3]. Organizational justice represents employees' perceptions of whether the organization has treated them fairly [29]. The expected effect of organizational justice is to encourage creativity and innovation as well as other positive outcomes, but only a few studies have examined this relationship [30], [31].

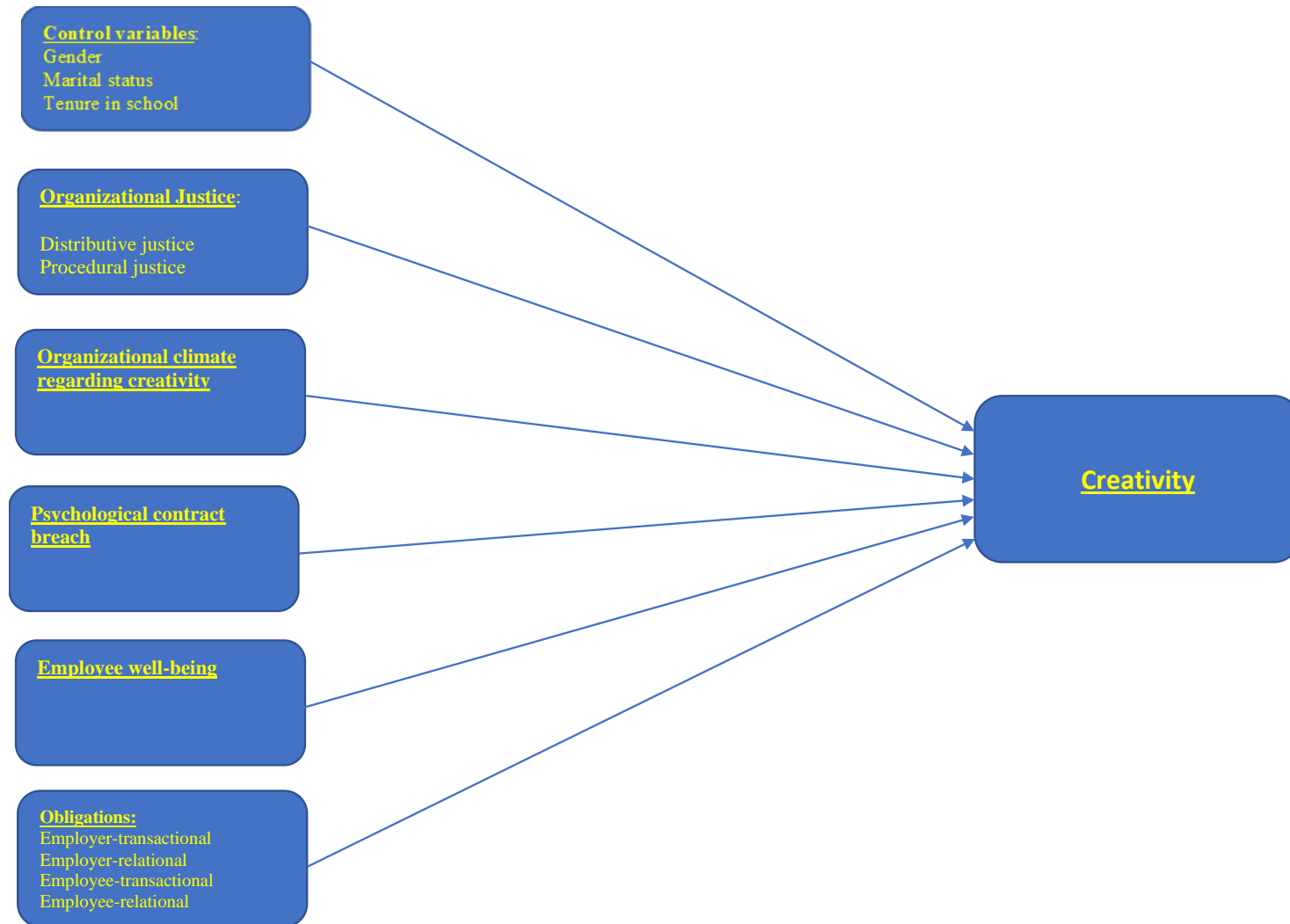


Figure 1. Research Model

The fairness heuristic theory [32] advances a theoretical framework to explain why workplace justice is associated with creativity. According to this theory, people whose relationships with authorities are ambiguous rely on their impressions of fairness. In other words, employees with strong beliefs in justice have positive perceptions of creativity about their organization and may respond with enhanced creativity [20], [32]. Emotions also explain how justice may affect creativity. Feelings of injustice in the workplace lead to negative emotions.

On the other hand, perceptions of justice cause positive emotions. Positive emotions have also been shown to facilitate creativity, whereas negative emotions hinder creativity [30]. Research findings showed a direct relationship between positive emotions and creativity. When employees feel they are treated fairly, they will likely feel positive emotions that encourage creativity. Conversely, negative emotions resulting from perceptions of unfairness will lead to negative feelings that will prevent creativity [33], [34].

2.1.1. Distributive Justice and Creativity

Organizational justice is composed of three dimensions. Distributive justice is based on the equity theory. According to this logic, when employees feel they are compensated fairly, they will develop a higher perception of distributive justice [35]. When employees feel a balance between their contribution to the organization (inputs) and their rewards, they will be more willing to respond with higher levels of performance, organizational citizenship behavior, and creativity [36]. On the other hand, when employees believe that their organization fails to produce rewards that match their inputs, they will respond by performing only their required responsibilities and significantly reduce their organizational citizenship behavior [37]. Although employees may be able to be creatively successful, if they perceive unfair distributions compared to peers, their creative work may be reduced [38]. This is likely why Hannam and Narayan [34] found a positive association between distributive justice and creativity, which provided the basis for our first hypothesis. In addition, Akram et al. [39] found in a sample of Chinese employees that distributive justice reduced the negative impact of abusive leadership on creativity.

Hypothesis 1: Distributive justice is positively related to creativity

2.1.2. Procedural Justice and Creativity

Procedural justice is composed of two dimensions: formal procedures and interactional justice. Formal procedures have to do with the formal processes regarding the fair distribution of organizational resources. Interactional justice refers to how the procedures are delivered to the employees [35], [40]. When employees feel that the administrative processes are fair and the way they are explained is clearly defined, they will think that

they are treated fairly by the organization [36], [41]. Fairness perceptions are important motivators in increasing employee creativity [42]. Employees with high perceptions of procedural justice feel valued and will reciprocate with high levels of creativity [38]. The cognitive evaluation theory also suggests that contextual variables are an essential motivator for creativity. This was supported by studies that examined the relationship between procedural justice and creativity [38], [34]. Also, suppose employees are allowed to express their opinions of the justice procedures in the organization. In that case, they will feel freer to express their opinion and contribute to the organization's creativity stages [38]. Employees who speak their voice in the organization's justice procedures will feel safer and more motivated to present creative ideas [34]. Akram et al. [39] found that procedural justice reduced the negative impact of abusive leadership on creativity.

All this is the basis for our second hypothesis, which is:

Hypothesis 2: Procedural justice (formal procedures and interactional justice) is positively related to creativity.

2.2. Organizational Culture for Creativity

Organizational culture can affect employees' creativity [43], [6]. A culture that encourages creativity is a culture that tolerates risk-taking ideas and suggestions, allowing employees to be provocative, challenging, and imaginative. In a creative culture, it is safe to present provocative ideas and be a risky and explorative signal that the organization can tolerate failures [44], [45]. In such a culture, high achievers' employees will flourish [44], [45]. There is growing support in the literature that psychological perceptions of workplace innovation are likely to motivate better performance [46]. An environment of creativity supports the assimilation of new ways of working, new methods, new approaches, and different views. In a culture of creativity, there will be greater tolerance for how creative ideas are presented, valued, and supported. In a creative culture, employees will be more inclined to suggest new ideas and, as a result, will get involved with and feel an attachment to the organization. In sum, organizational climate helps set the organization's tone, and employees increase or decrease creativity accordingly [48], [47].

An organizational climate that supports exploring new ways needs to be established so the employees can develop their creativity [6]. Ekvall and Ryhammar [49] contended that a creative climate comprises support, freedom, and challenge. This climate also tolerates uncertainty and openness [46]. Additionally, Yeh-Lin and Liu [46] highlight Woodman et al.'s [27] contention that organizational climate for creativity can affect creativity in both directions. It can increase employees' creativity but also can decrease it. Creativity depends on individual abilities and motivation, but the organizational environment, particularly regarding creativity, can enhance or weaken it depending on how much support it signals to

the employees [27]. Thus, we arrive at our third hypothesis.

Hypothesis 3: Organizational culture for creativity is related positively to creativity.

2.3. Employee Well-being and Creativity

Well-being in the organization results from the interaction between individual attributes and the work setting [50]. Researchers tend to perceive "happiness" as psychological or subjective well-being [5]. When resources in a workplace are readily available, and employees are optimistic about their work, they are prone to involvement in activities that are valuable for the organization as a whole [51]. Occasionally, engagement at work may even be inseparable from high performance and innovation [48], [52]. Psychological well-being can motivate employees to work effectively and seek creative ways to improve their work and organizational effectiveness [20].

Several mechanisms cause happiness to influence employees' creative performance positively. First, happy individuals view failure more as a short-term setback triggered by situational circumstances than individual-based ones. Therefore, happy employees have more confidence to advance creative ideas and to face all the challenges, difficulties, and opportunities that are part of the creative process [5]. As Rego et al. [5] observe, creativity in the workplace requires supportive forces within the organization, which encourage employees to carry on in the face of challenges vital to creativity. It also requires to confront the status quo and a readiness to try despite potential failures. Individuals with a high level of well-being seem to cope with challenges more effectively. By being determined to persevere and searching for alternative ways to accomplish their goals when old methods are unsuccessful, optimistic employees tend to take risks when attempting to reach goals. Most intrinsically motivated people look for creative ways to channel their positive drive [53]. Research findings have shown that psychological well-being is positively related to creativity, even when controlling for positive mood states and cheerful affective disposition [54], [55], [56].

Hypothesis 4: Psychological well-being is positively related to creativity.

2.4. Psychological Contract breach and Creativity

An employee is likely to display creative behavior when intrinsically motivated. Accordingly, one of the prominent theories explaining the occurrence of creative behavior in organizations is the cognitive evaluation theory of intrinsic motivation [3]. This theory argues that competence and self-determination are innate to all people. Such factors either influence perceived self-determination via their "controlling" aspect or influence perceived competence via their "informational" part. The controlling element reduces employees' self-determination by compelling them to believe or think in specific approaches. A psychological

contract breach, for example, might signal to employees that they are not competent or cannot be trusted to handle tasks autonomously, thereby reducing intrinsic motivation [57].

The feeling of violation engendered by a psychological contract breach affects employees' perception of the job and impacts their level of effort [58]. According to the social exchange theory, the individual and workplace share obligations toward each other. When employees feel that their organization does not fulfill the obligations of a psychological contract, they will react with anger and frustration. This affects their contributions. Thus, employees may engage in downward adjustments in discretionary actions such as creativity, effort, and motivation [59], [23], [60]. On the other hand, fulfillment of psychological contract indirectly increases employee creativity through knowledge sharing [61], [62].

Hypothesis 5: Psychological contract breach is negatively related to creativity.

2.5. Transactional and Relational Obligations

From the exchange-based mechanism view, employees' relationship with the organization and its supervisors involves the exchange of mutual obligations related to creativity [22]. The literature differentiates between two types of psychological contracts: a transactional contract and a relational contract. In a transactional contract, an organization promises to provide monetary rewards for work provided by employees. Such a contract represents a short-term economic agreement between the two parties. On the other hand, a relational contract stresses long-term agreement between two parties. Furthermore, it emphasizes a socio-emotive interaction between the organization and its employees, emphasizing two-way trust and loyalty [63], [64]. The present paper proposes that when an organization and its employees believe they are honor-bound to fulfill various relational obligations, they will be more motivated to contribute at higher creativity levels [65].

Through a relational contract, employees will have a solid attachment to their organization due to socialization, mentoring, job security, personal support, and potential promotion. These employees have a continuing relationship with the workplace, which is the essence of relational contracts [66]. This obligation suggests that employees fully adopt the organization's values and connect their identities with the organization. As a result, they demonstrate higher levels of creativity [22]. Individuals who perceive their relationship with an employer as based on short-term economic exchange (e.g., transactional obligations) are less likely to form long-term relationships with and loyalty toward the employer [66], [67]. They may perceive their relationship with the organization in transactional terms because they believe such a relationship should exist between them and the employer [67]. For employees under transactional

obligations, the organization is simply a place where they do their work in return for income. Such employees do not invest in the formal requirements of their job. They also have low attachment to their employer, which enables them to leave the organization quickly. Such employees have very little interest in developing creative ideas on behalf of the organization, which leads us to our final hypothesis [66].

Hypothesis 6: Perceived relational obligations have a positive association with creativity, while perceived transactional obligations have a negative relationship with creativity.

3. Research Design

3.1. Subjects and Procedure

Convenience samples collected the data. Two surveys were conducted in this study. Both were administrated to Israeli teachers at all school levels (elementary, middle, and high schools) in North Israel. Formal permission to perform the two studies was acquired from the Israeli Ministry of Education. The questionnaires relied on scales from the existing literature, which were translated to Hebrew from English using standard translation/back-translation.

In the first survey, data were collected from nine schools. Questionnaires on creativity were circulated to teachers who agreed to participate in the study. The first study collected 191 completed and usable questionnaires with a response rate of 62%. The principals of the nine schools also filled out a questionnaire on creativity. Questionnaires were matched to the relevant schools using the ID number provided by the teachers.

80.3% of the participants were females, and 82% were married. The mean age was 42.7 years old, and the mean tenure of teachers in the school and occupation were 10.06 years and 15.6 years, respectively. In addition, 57.4% of the respondents were undergraduates, and 41.6% had a master's degree or higher. The mean tenure of the principals of the nine schools was 12.44 years.

The second survey was conducted a year later. Data were collected from ten schools. The procedure for the second survey was similar to that of the first. However, the surveys were administered only to teachers. As in the first study, no compensation was provided to the teachers. One hundred forty-six usable questionnaires were collected (a response rate of 56%). Of the respondents, 84.1% were women, and 78.1% were married. The mean age was 43.3. The mean tenure in the school was 10.09, and in the occupation, 16.6 years. Of the participants, 48.3% were undergraduates, and 51.7% had a master's degree or higher.

3.2. Scales

Creativity was measured by the scale advanced by Zhou

and George [7], which includes 13 items. We applied the scales offered by Robinson, Kraatz, and Rousseau [64] for measuring the four perceived obligations. Each scale was divided into relational and transactional obligations: three items under employer transactional obligations, four items under employer relational obligations, five items under employee transactional obligations, and three items under employee relational obligations.

Organizational justice was measured using the 20 items scale of Niehoff and Moorman's [35]. Five items measured distributive justice, six measured formal procedures, and nine measured interactional justice. Because of the high correlation between formal procedures and interactional justice, the two scales were combined into one scale of procedural justice.

Robinson and Morrison [68] applied five-item scale to measure psychological contract breach. Mayfield and Mayfield [69] measured organizational culture for creativity. Finally, employee well-being was measured by the six-item scale by Warr [70].

3.2.1. Control Variables

Two of the three control variables included in the study were dichotomous (gender and marital status). The third one, tenure in school, was measured as a ratio variable. The scale for the attitudinal items had seven options ranging from 1 (strongly disagree) to 7 (strongly agree), except for items on the employee well-being scale.

3.3. Data Analysis

Confirmatory factor analysis (CFA) was performed on this study's scales to establish their discriminant validity, following the procedure advanced by Brooke, Russell, and Price [71]. Further, we also checked for the Heterotrait-Monotrait (HTMT) ratio criterion to establish discriminant validity [72]. The research hypotheses were analyzed using hierarchical linear modeling (HLM) [73]. This is because of the nature of the samples, which included teachers from nine schools in the first survey and teachers from 10 schools in the second. The advantage of HLM is that it allows for controlling variance among different schools [73].

4. Results

Confirmatory factor analysis results for the scales used in this study are presented in Table 1 (for the first survey) and Table 2 (for the second survey). The findings show a better fit of the four-factor model for perceived obligation than for the alternative one-factor model; a better fit of the two-factor model of organizational justice over the one-factor model. The results in Tables 1 and 2 also show the superiority of a two-factor model of the mediators over a one-factor model and a nine-factor model of all independent variables (excluding the demographic

variables) over a one-factor solution. Thus, the CFA findings support the discriminant validity of the research variables.

In addition to CFA, this study also performed HTMT.

Discriminant validity problems are present when HTMT values are high [72], [73]. In this study, HTMT ratios for all pairs were lower than 0.85 in both samples, thus satisfying the HTMT criterion for discriminant validity.

Table 1. CFA for research constructs – Survey 1

Model	N	df	χ^2	χ^2/df	GFI	CFI	NFI	NNFI	MC	RMSEA
Psychological contracts										
One-factor solution	174	54	417.14***	7.72	0.67	0.63	0.61	0.55	0.35	0.19
Four-factor solution		48	95.78***	2.00	0.91	0.95	0.90	0.93	0.87	0.07
Organizational justice										
One-factor solution	191	9	105.51***	11.28	0.84	0.90	0.89	0.83	0.78	0.23
Two-factor solution		8	15.89*	1.99	0.97	0.99	0.98	0.98	0.98	0.07
Mediators										
One-factor solution	188	27	411.02***	15.22	0.62	0.70	0.69	0.60	0.36	0.27
Three-factor solution		24	63.02***	2.63	0.92	0.97	0.95	0.95	0.90	0.09
All independent variables										
One-factor solution	173	324	1976.1***	6.10	0.46	0.51	0.47	0.47	0.01	0.17
Nine-factor solution		288	525.86***	1.83	0.81	0.92	0.91	0.91	0.50	0.07

Note. N = 185.

* = $P \leq .05$; ** = $P \leq .01$; *** = $P \leq .001$

Table 2. CFA for research constructs – Survey 2

Model	N	df	χ^2	χ^2/df	GFI	CFI	NFI	NNFI	MC	RMSEA
Perceived obligations										
One-factor solution	139	54	321.86***	5.96	0.70	0.60	0.57	0.52	0.38	0.19
Four-factor solution		48	95.80***	1.99	0.89	0.93	0.87	0.90	0.84	0.08
Organizational justice										
One-factor solution	145	9	54.69***	6.07	0.88	0.92	0.90	0.86	0.85	0.18
Two-factor solution		8	20.52**	2.57	0.95	0.97	0.96	0.95	0.95	0.10
Mediators										
One-factor solution	145	27	314.45***	11.65	0.62	0.66	0.64	0.55	0.37	0.27
Three-factor solution		24	44.32**	1.85	0.93	0.97	0.95	0.96	0.93	0.07
All independent variables										
One-factor solution	137	324	1371.1***	4.23	0.50	0.54	0.48	0.50	0.02	0.15
Nine-factor solution		288	450.18***	1.56	0.81	0.93	0.83	0.91	0.55	0.06

Note. N = 141.

* = $P \leq .05$; ** = $P \leq .01$; *** = $P \leq .001$

What Drives Creativity in the Workplace?
Exchange and Contextual Variables in Their Relationship to Supervisor and Self-Report Creativity

Table 3. Descriptive statistics, reliabilities (in parentheses), and inter-correlations among Survey 1 variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Gender****	0.20	0.40														
2. Marital status****	0.82	0.39	-.07													
3. Tenure in school	10.06	8.80	-.08	-.02												
4. Distributive justice	4.64	1.27	.02	.11	-.07	.84										
5. Procedural justice	4.95	1.24	.05	.08	-.15*	.53***	.96									
6. Organizational climate for creativity	5.14	1.02	-.04	.09	-.10	.63***	.63***	.83								
7. Psychological contract breach	2.54	1.34	-.04	-.00	.27***	-.59***	-.56***	-.67***	.90							
8. Employee well-being	4.86	0.94	-.01	-.04	.04	.47***	.46***	.56***	-.56***	.89						
9. Employer transactional obligations	3.50	1.63	-.02	.03	.05	.31***	.26***	.10	-.13	.25**	.82					
10. Employer relational obligations	4.85	1.62	.00	.10	.07	.36***	.41***	.22***	-.29***	.32***	.67***	.85				
11. Employee transactional obligations	4.41	1.67	.04	-.05	-.14	.09	.10	.04	-.09	.03	.33***	.29***	.82			
12. Employee relational obligations	5.30	1.42	-.13	.04	-.08	.16*	.12	.13	-.13	.10	.29***	.30***	.49***	.74		
13. Creativity: supervisor's report	5.42	1.45	.07	-.04	-.11	.26***	.32**	.41***	-.47***	.41***	.07	.19**	.14*	.12	.98	
14. Creativity: self-report	5.62	0.82	.16*	-.17*	-.04	.35***	.52***	.36***	-.36***	.42***	.16*	.22**	.13	.26**	.39**	.92

Note. N = 185.

* = $P \leq .05$; ** = $P \leq .01$; *** = $P \leq .001$

****Gender: 1 = female, 0 = male; Marital status: 0 = married, 1 = not married.

Table 4. Descriptive statistics, reliabilities (in parentheses), and inter-correlations among Survey 2 variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender****	0.16	0.30													
2. Marital status****	0.78	0.42	-.09												
3. Tenure in school	10.09	8.03	-.09	-.09											
4. Distributive justice	4.57	1.23	.07	-.07	-.09	.79									
5. Procedural justice	5.42	1.06	.09	.07	-.05	.44***	.94								
6. Organizational climate for creativity	5.53	0.92	-.04	.09	-.07	.52***	.67***	.82							
7. Psychological contract breach	2.27	1.08	-.07	-.09	.23**	-.36***	-.59	-.59***	.86						
8. Employee well-being	4.94	0.82	.10	-.07	-.05	.35***	.63***	.50***	-.47	.88					
9. Employer transactional obligations	3.61	1.55	.15	.04	-.06	.35***	.34***	.31***	-.32***	.29***	.79				
10. Employer relational obligations	5.00	1.41	.04	.08	-.14	.36***	.51***	.41***	-.38***	.42***	.62***	.80			
11. Employee transactional obligations	4.72	1.43	-.03	.02	-.11	-.01	.07	-.01	-.11	.08	.31***	.44***	.74		
12. Employee relational obligations	5.61	1.21	-.20***	.01	-.01	.07	.05	.14	-.03	.06	.29***	.36***	.49***	.73	
13. Creativity: self-report	5.57	0.87	.05	.06	.07	.26***	.39***	.39***	-.34***	.48***	.20***	.26***	.12	.21*	.94

Note. N = 141.

* = $P \leq .05$; ** = $P \leq .01$; *** = $P \leq .001$

****Gender: 0 = male, 1 = female; Marital status: 0 = married, 1 = not married.

Tables 3 and 4 show the intercorrelations and the basic statistics for the research variables in the two samples. The findings showed acceptable reliability for the scales of both samples. Furthermore, none of the intercorrelations exceeded .70. In short, the results in Tables 3 and 4 demonstrate the divergent validity of the research variables.

The results of the HLM analysis are presented in Table 5. Hypothesis 1 postulated a positive relationship between distributive justice and creativity. However, this hypothesis was rejected after no significant associations were found between the two variables in either survey. Hypothesis 2 expected a positive relationship between procedural justice to creativity. The data in Survey 1 strongly supported this (see Table 5), which showed that procedural justice was strongly and positively associated with self-reported and principal-reported creativity. However, no significant relationship was found between the two variables in Survey 2.

Hypothesis 3 posited a positive relationship between organizational climate for innovation and creativity. The data did not support this. Hypothesis 4, however—which expected a positive relationship between employees' well-being and creativity—was strongly backed by the data. A positive and significant relationship between the two was found for self-reported and principal-reported creativity in Survey 1 and Survey 2 (see Table 5).

Hypothesis 5 expected an adverse relationship between psychological contract breach and creativity. The hypothesis was rejected based on the data. Hypothesis 6 stated that perceived obligations for relational contracts (between employer and employee) would positively relate to creativity. In contrast, perceived obligations for transactional contracts (between employer and employee) would be negatively associated with creativity. The results supported this hypothesis for only one of the four obligation variables. Employee relational obligations were related to self-reported creativity in Studies 1 and 2 but not to principal-reported creativity in Survey 1.

5. Discussion

5.1. Theoretical Implications

Recently, creativity has received increased attention in both research and practice. This behavior is believed to

play a central role in the success of public and business organizations [74]. Moreover, political and economic necessities have led to various creativity initiatives in schools and teaching [75], [76]. Because of the importance of creativity to organizations, further studies should analyze the factors that contribute to it. The present study increases our knowledge and understanding of this critical phenomenon. An essential contribution of this study is by examining different possible explanations for creativity and assessing their relative importance in better understanding it. In the era of globalization and worldwide economic competition, creativity can sometimes determine the failure or success of organizations and educational organizations.

Table 6 presents a summary of the research results. The findings of this study provide essential contributions and suggestions for future research. First, they provide solid evidence that a positive mood in the workplace is strongly associated with creativity. This firm, positive, and consistent relationship between employee well-being and creativity in both studies, apparent in both self-reporting and supervisor reporting, confirms this positive mood effect. The findings show that a positive mood facilitates creativity in the following ways: it improves the cognition and attention of individuals, assists cognitive processing, broadens people's repertoire of cognition and attention, and encourages the generation of novel ideas, flexible thinking, and problem-solving [51], [80].

Additionally, a positive mood might signal to employees that their workplace is safe and that they can safely take risks to carry out tasks [80]. However, there is a need for more research to understand better the role of well-being in increasing creativity. For example, there is a need for research on the conditions under which different kinds of effects may be related to various aspects of the creative process and other dimensions of creativity [81].

The positive effect of procedural justice on self-reported and principal-reported creativity in Survey 1 and the positive effect of employees' self-reported relational obligations in Surveys 1 and 2 are consistent with Kim, Kim, and Yun [82]. Perceptions of fairness give employees more confidence to develop and present creative ideas [83]. Our findings also support Kim and Park's [84] contention that their obligations to the employer will increase if they feel that their expectations have been met. Increased perceptions of obligations to the employer will have a positive effect on creativity [85].

Table 5. HLM analyses (estimates) of demographic variables, exchange, and justice variables on teachers' creativity in Survey 1 (self-report and supervisor's report creativity) and Survey 2 (self-report creativity)

Dependent variables Independent variables	Survey 1		Survey 2
	Principal's report creativity	Self-report report creativity	Self-report creativity
N	178	178	132
Intercept	2.48	2.58**	2.39*
1. Gender*	-0.01	0.05	0.12
2. Marital status*	0.05	0.00	-0.18
3. Tenure in school	0.01	0.00	0.02
4. Distributive justice	-0.18	0.01	0.08
5. Procedural justice	0.31*	0.34***	0.09
6. Organizational climate for creativity	0.11	-0.09	0.07
7. Psychological contract breach	-0.10	0.02	-0.15
8. Employee well-being	0.28*	0.22**	0.34**
9. Employer transactional obligations	-0.09	-0.02	-0.00
10. Employer relational obligations.	0.01	-0.03	-0.06
11. Employee transactional obligations	0.06	-0.00	0.01
12. Employee relational obligations	0.06	0.13**	0.15*
Random Variance of School			
-2loglikelihood	600.77	407.91	310.91

Note. N = 185 for Survey 1 and 141 for Survey 2

* = $P \leq .05$; ** = $P \leq .01$; *** = $P \leq .001$

*Gender: 0 = male, 1 = female; Marital status: 0 = married, 1 = not married.

Table 6. Summary of research findings and implications

Independent variables	Relationship with creativity	Implications for creativity
Demographics 1. Gender 2. Marital status 3. Tenure is school	No significant relationships between the two samples	Demographic variables do not affect teachers' creativity.
Organizational justice 1. Distributive justice 2. Procedural justice	Only procedural justice was positively related to principal and self-report creativity in sample 1.	Compensations have no bearing on teachers' creativity. However, developing fair procedures in school and positive interactions with the principal can increase creativity.
Organizational climate for creativity	An organizational climate that supports creativity was not related to teachers' creativity in both samples	Establishing a supportive climate in the school is not an effective tool for increasing teachers' creative behavior
Psychological contract breach	No significant relationship in both samples	Teachers do not expect or develop any psychological contracts in school that will increase their creativity.
Teachers' well-being	Both samples have positive and strong relationships between teachers' well-being and creativity, including the principal report in sample 1.	Positive moods, emotions, and satisfaction are crucial to increasing teachers' creative behavior. Happy teachers are creative teachers.
Employee and employer relational and transactional obligations	Only employee relational obligations were positively related to self-report creativity in the two samples.	Teachers' positive and long-term bonds with their schools positively affect their creativity

Furthermore, justice and long-term relational obligations are essential factors that can increase creativity. Their existence provides employees with a safe work environment to initiate tasks other than those in their job description, among them creative and out-of-the-box tasks [82], [86]. Finally, despite the absence of a significant relationship between organizational culture and creativity, exploring the organizational culture in this setting is still recommended, perhaps using different conceptualizations for organizational culture.

The study also provides some essential methodological contributions. First, the data in Survey 1 showed no substantial differences between the findings when creativity was measured by self-reporting or principal reporting. It can be concluded that self-reported creativity has a similar explanatory power as supervisor-reported creativity. One possible explanation for this is that employees and supervisors report positive work outcomes similarly. There is a need for more research using different sources for measuring creativity to validate the above conclusion. Regardless, future research on creativity could rely on self-reported and/or supervisor-reported creativity. It is also noteworthy that the findings in Survey 1 and Survey 2 were quite similar, with no remarkable differences between the significant correlates of the two studies. This provides support to the temporal validity of the findings of this study.

This study has important practical implications. First, building and keeping employees' positive moods in the workplace should be an important goal for employers who want higher levels of creativity from their employees [51]. As suggested by Amabile and Mueller [56], organizations should focus more on the team members' feelings and the team's interaction to facilitate well-being and creativity. Another implication is that management should be sensitive to employees' perceptions of fairness. Managers would also provide their employees with opportunities to interact with other employees. Second, managers should provide opportunities for their employees to interact with other employees across all levels and departments. This will increase the generation of new and innovative [31]. Third, as suggested by Amabile [47], organizations should demonstrate a strong emphasis and support toward creativity. This should be communicated and spread across all levels of the organization. Finally, the findings suggest that employers should provide employees with a supportive, safe work environment that encourages creativity [87], [88]. Following this study, several recommendations for future studies arise. First, there is a need for more integrative models that will consider personal and situational factors as possible determinants of creativity [88].

While the demographic variables examined here did not show a significant relationship with creativity, another avenue might be to use instead of demographic variables individual psychological variables. For example, the Big Five can be one direction for inclusion in future integrative

models [89]. Yao and Li [90] found that openness to experience, conscientiousness, agreeableness, and extraversion were related to different stages of creativity. Another, a bit more provocative direction, can be to explore whether there is a link between dark personalities and creative behavior [91]. A positive association between narcissism and creativity was also found by Martinsen et al. [92]. Perhaps something in dark personalities can stimulate specific dimensions of creativity. Also, there is a need for more studies that will measure creativity using different sources, for example, self-report versus supervisor report [26], [88].

Several limitations of this study should be mentioned. First, using a survey also has the potential of common method errors. Second, the study was performed in a specific cultural setting and occupation. Therefore, the findings should be generalized with caution. However, it should be noted that examining two samples using the same design and collecting data on the dependent variable (creativity) from two sources (sample 1) undermines these limitations. In sum, the results of this study should encourage further assessments of integrative models to understand creativity better. More integrative studies like this one can enhance our understanding of the ways to increase creativity.

REFERENCES

- [1] Müceldili, B., Tatar, B., Erdil, O, "Can Curious Employees be More Agile? The Role of Cognitive Style and Creative Process Engagement in Agility Performance. *Global Business and Organizational Excellence*," vol. 39, no. 6, 39–52, 2020. <https://doi.org/10.1002/joe.22056>
- [2] Sullivan, D. M., & Ford, C. M, "The Alignment of Measures and Constructs in Organizational Research: The Case of Testing Measurement Models of Creativity," *Journal of Business and Psychology*, vol. 25, no. 3, pp. 505-521, 2010. DOI: 10.1007/s10869-009-9147-8
- [3] Amabile, T, "Creativity and Innovation in Organizations," Harvard Business School Case, Perseus Publishing, Cambridge, MA. 1996.
- [4] Plucker, J. A., Beghetto, R. A., Dow, G. T, "Why Isn't Creativity More Important to Educational Psychologists? Potentials, Pitfalls, and Future Directions in Creativity Research," *Educational psychologist*, vol. 39, no. 2, pp. 83-96, 2004. DOI: 10.1207/s15326985ep3902_1
- [5] Rego, A., Machado, F., Leal, S., Cunha, M. P. E, "Are Hopeful Employees More Creative? An Empirical Study," *Creativity Research Journal*, vol. 21, no. 2-3, 223-231, 2009. DOI: 10.1080/10400410902858733
- [6] Santosa, T. E. C., Suharnomo., Yuniawan, A, "An Examination of the Antecedents and Consequences of Employee Creativity in Indonesian Radio Industry," *The Journal of Behavioral Science*, vol. 17, no. 1, pp. 1–15, 2022. <https://so06.tci-thaijo.org/index.php/IJBS/article/view/254129>

- [7] Zhou, J., George, J. M., "When Job Dissatisfaction Leads to Creativity: Encouraging the Expression of Voice," *Academy of Management Journal*, vol. 44, no. 4, pp. 682-696, 2001. <https://doi.org/10.5465/3069410>
- [8] Apak, J., Taat, M. S., Suki, N. M., "Measuring Teacher Creativity-Nurturing Behavior and Readiness for 21st Century Classroom Management," *International Journal of Information and Communication Technology Education*, vol. 7, no. 3, pp. 52-67, 2021 <https://doi.org/10.4018/IJICT.E.20210701.oa4>
- [9] Kasirer, A., Shnitzer-Meirovich, S., "The Perception of Creativity and Creative Abilities Among General Education and Special Education Teachers," *Thinking Skills and Creativity*, vol. 40, 2021. <https://doi.org/10.1016/j.tsc.2021.100820>
- [10] Ma, Y., "The Effect of Teachers' Self-Efficacy and Creativity on English as a Foreign Language Learners' Academic Achievement," *Frontiers in Psychology*, vol. 13, 2022. 1640. [10.3389/fpsyg.2022.872147](https://doi.org/10.3389/fpsyg.2022.872147)
- [11] Kettler, T., Lamb, K. N., Willerson, A., Mullet, D. R., "Teachers' Perceptions of Creativity in the Classroom," *Creativity Research Journal*, vol. 30, no. 2, pp. 164-171, 2018. <https://doi.org/10.1080/10400419.2018.1446503>
- [12] Tamsah, H., Ilyas, J. B., Yusriadi, Y., "Create Teaching Creativity Through Training Management, Effectiveness Training, and Teacher Quality in the Covid-19 Pandemic," *Journal of Ethnic and Cultural Studies*, vol. 8, no. 4, pp. 18-35, 2021. <https://doi.org/10.29333/ejecs/800>
- [13] Mejia, C., D'Ippolito, B., Kajikawa, Y., "Major and Recent Trends in Creativity Research: An Overview of the Field with the Aid of Computational Methods," *Creativity and Innovation Management*, vol. 30, no. 3, 475-497, 2021. <https://doi-org.ezproxy.haifa.ac.il/10.1111/caim.12453>
- [14] Anderson, N., Potočnik, K., Zhou, J., "Innovation and Creativity in Organizations: A State-of-the-Science Review, Prospective Commentary, and Guiding Framework," *Journal of management*, vol. 40, no. 5, pp. 1297-1333, 2014. <https://doi.org/10.1177/0149206314527128>
- [15] Ward, T.B., & Kennedy, E.S., "Creativity Research: More Studies, Greater Sophistication and the Importance of "Big" Questions," *The Journal of Creative Behavior*, vol. 51, no. 4, pp. 285-288, 2017. <https://doi.org/10.1002/jocb.192>
- [16] Amabile, T. M., Barsade, S. G., Mueller, J. S., Staw, B. M., "Affect and Creativity at Work," *Administrative science quarterly*, vol. 50, no. 3, 367-403, 2005. <https://doi.org/10.2189/asqu.2005.50.3.367>
- [17] George, J. M., Zhou, J., "Understanding When Bad Moods Foster Creativity and Good Ones Don't: The Role of Context and Clarity of Feelings," *Journal of applied psychology*, vol. 87, no. 4, pp. 687-697, 2002. DOI: [10.1037/0021-9010.87.4.687](https://doi.org/10.1037/0021-9010.87.4.687)
- [18] George, J. M., Zhou, J., "Dual Tuning in a Supportive Context: Joint Contributions of Positive Mood, Negative Mood, and Supervisory Behaviors to Employee Creativity," *Academy of Management Journal*, vol. 50, no. 3, pp. 605-622, 2007. DOI: [10.5465/AMJ.2007.25525934](https://doi.org/10.5465/AMJ.2007.25525934)
- [19] Van Dyne, L., Jehn, K. A., Cummings, A., "Differential Effects of Strain on Two Forms of Work Performance: Individual Employee Sales and Creativity," *Journal of Organizational Behavior*, vol. 23, no. 1, pp. 57-74, 2022. <https://doi.org/10.1002/job.127>
- [20] Abbas, M. W., Rafi, N., bin Dost, M. K., Ali, M., "Role of Organizational Justice in Facilitating LMX and its Impact on Psychological Well-Being and Creativity of Employees," *Multicultural education*, vol. 7, no. 8, pp. 144-155. 2015. <https://doi.org/10.5281/zenodo.5172973>
- [21] Clegg, C., Unsworth, K., Epitropaki, O., Parker, G., "Implicating Trust in the Innovation Process," *Journal of Occupational and Organizational Psychology*, vol. 75, no. 4, pp. 409-422, 2002. <https://doi.org/10.1348/096317902321119574>
- [22] Cai, W., Lin-Schilstra, L., Yang, C., Fan, X., "Does Participation Generate Creativity? A Dual-Mechanism of Creative Self-Efficacy and Supervisor-Subordinate Guanxi," *European Journal of Work and Organizational Psychology*, vol. 30, no. 4, pp. 541-554, 2021. <https://doi.org/10.1080/1359432X.2020.1864329>
- [23] Ng, T. W., Feldman, D. C., Lam, S. S., "Psychological Contract Breaches, Organizational Commitment, and Innovation-Related Behaviors: A Latent Growth Modeling Approach," *Journal of Applied Psychology*, vol. 95, no. 4, pp. 744-751. 2010. DOI: [10.1037/a0018804](https://doi.org/10.1037/a0018804)
- [24] Khazanchi, S., Masterson, S. S., "Who and What is Fair Matters: A Multi - Foci Social Exchange Model of Creativity," *Journal of Organizational Behavior*, vol. 32, no. 1, pp. 86-106, 2011. DOI: [10.1002/job.682](https://doi.org/10.1002/job.682)
- [25] Mahmood, M., Uddin, M. A. Fan, L., "The Influence of Transformational Leadership on Employees' Creative Process Engagement: A Multi-Level Analysis," *Management Decision*, vol. 57, no. 3, pp. 741-764, 2019. <https://doi.org/10.1108/MD-07-2017-0707>
- [26] Joo, B. K., McLean, G. N., Yang, B., "Creativity and Human Resource Development: An Integrative Literature Review and a Conceptual Framework for Future Research," *Human Resource Development Review*, vol. 12, no. 4, pp. 390-421, 2013. <https://doi.org/10.1177/1534484313481462>
- [27] Woodman, R.W., Sawyer, J.E., Griffin, R.W., "Toward a Theory of Organizational Creativity," *Academy of Management Review*, vol. 18, no. 2, pp. 293-321, 1993. <https://www.jstor.org/stable/258761>
- [28] Tromp, C., Sternberg, R. J., "Dynamic Creativity: A Person \times Task \times Situation Interaction Framework," *Journal of Creative Behavior*, Advance online publication, 2022. <https://doi.org/10.1002/jocb.551>
- [29] Moorman, R. H., "Relationship Between Organizational Justice and Organizational Citizenship Behaviors: Do Fairness Perceptions Influence Employee Citizenship?," *Journal of Applied Psychology*, vol. 76, pp. 845-855, 1991. [http://dx.doi.org/10.1037/0021-9010.76.6.845](https://doi.org/10.1037/0021-9010.76.6.845)
- [30] Clark, K., James, K., "Justice and Positive and Negative Creativity," *Creativity Research Journal*, vol. 12, no. 4, pp. 311-320, 1999. DOI: [10.1207/s15326934crj1204_9](https://doi.org/10.1207/s15326934crj1204_9)
- [31] Kurniawan, D. T., Ulfah, I. H., "The Role of Organizational

- Justice in Innovative Work Behavior of Female Employees in Government Institution," In Proceedings of the BISTIC (Business Innovation Sustainability and International Conference), Atlantis Press, 2021, November, pp. 9-18.
- [32] Lind, E. A., "Fairness Heuristic Theory: Justice Judgments as Pivotal Cognitions in Organizational Relations," In *Advances in Organizational Justice*, ed. J. Greenberg, R. Cropanzano, Stanford, CA, Stanford University Press, 2021, pp. 56-88.
- [33] Weiss, H. M., Suckow, K., Cropanzano, R., "Effects of Justice Conditions on Discrete Emotions," *Journal of Applied Psychology*, vol. 84, pp. 786-794, 1999. <http://dx.doi.org/10.1037/0021-9010.84.5.786>
- [34] Hannam, K., Narayan, A., "Intrinsic Motivation, Organizational Justice, and Creativity," *Creativity Research Journal*, vol. 27, No. 2, pp. 214-224, 2015. DOI: 10.1080/10400419.2015.1030307
- [35] Niehoff, P. B., & Moorman, H. R., "Justice as a Mediator of the Relationship Between Methods of Monitoring and Organizational Citizenship Behavior," *Academy of Management Journal*, vol. 36, pp. 527-556, 1993. <https://doi.org/10.5465/256591>
- [36] Ang, S., Van Dyne, L., Begley, T. M., "The Employment Relationships of Foreign Workers versus Local Employees: A Field Study of Organizational Justice, Job Satisfaction, Performance, and OCB," *Journal of Organizational Behavior*, vol. 24, pp. 561-583, 2003. <https://doi.org/10.1002/job.202>
- [37] Restubog, S. L. D., Bordia, P., & Tang, R. L., "Effects of Psychological Contract Breach on Performance of IT employees: The Mediating Role of Affective Commitment," *Journal of Occupational and Organizational Psychology*, vol. 79, no. 2, pp. 299-306, 2006. <https://doi-org.ezproxy.haifa.ac.il/10.1348/096317905X53183>
- [38] Simmons, A. L., "The Influence of Openness to Experience and Organizational Justice on Creativity," *Creativity Research Journal*, vol. 23, no. 1, pp. 9-23, 2011. DOI: 10.1080/10400419.2011.545707
- [39] Akram, Z., Ahmad, S., Akram, U., Asghar, M., Jiang, T., "Is Abusive Supervision Always Harmful Toward Creativity? Managing Workplace Stressors by Promoting Distributive and Procedural Justice," *International Journal of Conflict Management*, vol. 33, no 3, pp. 385-407, 2022. <https://doi.org/10.1108/IJCM-03-2021-0036>
- [40] Rosen, C. C., Chang, C. H., Johnson, R. E., Levy, P. E., "Perceptions of the Organizational Context and Psychological Contract Breach: Assessing Competing Perspectives," *Organizational Behavior and Human Decision Processes*, vol. 108, pp. 202-217, 2009. <https://doi.org/10.1016/j.obhdp.2008.07.003>
- [41] Colquitt, J. A., "On the Dimensionality of Organizational Justice: A Construct Validation of a Measure," *Journal of Applied Psychology*, vol. 86, pp. 386-400, 2002. <http://dx.doi.org/10.1037/0021-9010.86.3.386>
- [42] Blader, S. L., Tyler, T. R., "How can Theories of Organizational Justice Explain the Effects of Fairness?," In J. Greenberg J. A. Colquitt (Eds.), *Handbook of Organizational Justice*, Mahwah, NJ, Lawrence Erlbaum. pp. 329-354, 2005.
- [43] Amabile T. M., Grysiewicz N. D., "The Creative Environment Scales: Assessing the Work Environment for Creativity," *Creativity Research Journal*, vol. 2, 231-253, 1989. <https://doi.org/10.1080/10400418909534321>
- [44] Hon, A. H., Leung, A. S., "Employee Creativity and Motivation in the Chinese Context: The Moderating Role of Organizational Culture," *Cornell Hospitality Quarterly*, vol. 52, no. 2, pp. 125-134, 2011. DOI: 10.1177/1938965511403921
- [45] Ucar, E., "Creative Culture, Risk - Taking, and Corporate Financial Decisions," *European Financial Management*, vol. 25, pp. 684-171, 2019. <https://doi.org/10.1111/eufm.12198>.
- [46] Yeh-Yun Lin, C., Liu, F. C., "A Cross-Level Analysis of Organizational Creativity Climate and Perceived Innovation: The Mediating Effect of Work Motivation," *European Journal of Innovation Management*, vol. 15, no. 1, pp. 55-76, 2012. DOI: 10.1108/14601061211192834
- [47] Amabile, T. M., "Motivating Creativity in Organizations: On Doing What You Love and Loving What You Do," *California Management Review*, vol. 40, no. 1, pp. 39-58, 1997. <https://doi.org/10.2307/41165921>
- [48] Rasulzada, F., Dackert, I., "Organizational Creativity and Innovation in Relation to Psychological Well-Being and Organizational Factors," *Creativity Research Journal*, vol. 21, no. 2-3, pp. 191-198, 2009. DOI: 10.1080/10400410902855283
- [49] Ekval, G., Ryhammar, L., "The Creative Climate: Its Determinants and Effects at a Swedish University," *Creativity Research Journal*, vol. 12, no. 4, pp. 303-310, 1999. DOI: 10.1207/s15326934crj1204_8
- [50] Biggio, G., Cortese, C., "Well-Being in the Workplace Through Interaction Between Individual Characteristics and Organizational Context," *International Journal of Qualitative Studies on Health and Well-Being*, vol. 8, no. 1, 2013. DOI: 10.3402/qhw.v8i0.19823
- [51] Du, J., Ma, E., Cabrera, V., & Jiao, M., "Keep Your Mood Up: A Multilevel Investigation of Hospitality Employees' Positive Affect and Individual Creativity," *Journal of Hospitality and Tourism Management*, vol. 48, pp. 451-459, 2021. <https://doi.org/10.1016/j.jhtm.2021.07.004>
- [52] Huhtala, H., Parzefall, M. R., "A Review of Employee Well - Being and Innovativeness: An Opportunity for a Mutual Benefit," *Creativity and Innovation Management*, vol. 16, no. 3, pp. 299-306, 2007. DOI: 10.1111/j.1467-8691.2007.00442.x
- [53] Rego, A., Sousa, F., Marques, C., Cunha, M. P. E., "Retail Employees' Self-Efficacy and Hope Predicting their Positive Affect and Creativity," *European Journal of Work and Organizational Psychology*, vol. 21, no. 6, pp. 923-945, 2012. DOI: 10.1080/1359432X.2011.610891
- [54] Wright, T. A., Walton, A. P., "Affect, Psychological Well-Being and Creativity: Results of a Field Study," *Journal of Business and Management*, vol. 9, no. 1, pp. 21-32, 2003. <https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=9982570&site=eds-live&scope=site>
- [55] Diržytė, A., Kačerauskas, T., Perminas, A., "Associations Between Happiness, Attitudes Towards Creativity and

- Self-Reported Creativity in Lithuanian Youth Sample," *Thinking Skills and Creativity*, vol. 40, 2021. 100826. <https://doi.org/10.1016/j.tsc.2021.100826>
- [56] Amabile, T.M., Mueller, J.S, "Studying Creativity, Its Processes, and Its Antecedents: An Exploration of the Componential Theory of Creativity," In Zhou, J. and Shalley, C.E., Eds., *Handbook of Organizational Creativity*, Lawrence Erlbaum Associates, New York, 2008, pp. 33-64.
- [57] Srivastava, A., Yun, S, "Psychological Contract Breach and Creativity: Examination of Linkages," *Seoul Journal of Industrial Relations*, vol. 29, pp. 1-23, 2018.
- [58] Cohen, A, "Fairness in the Workplace: A Global Perspective," New York, Palgrave MacMillan, 2015.
- [59] Bal, P. M., Chiaburu, D. S., Diaz, I, "Does Psychological Contract Breach Decrease Proactive Behaviors? The Moderating Effect of Emotion Regulation," *Group & Organization Management*, vol. 36, no. 6, pp. 722-758, 2011. <https://doi.org/10.1177/1059601111423532>
- [60] Niesen, W., Van Hootegem, A., Vander Elst, T., Battistelli, A., De Witte, H, "Job Insecurity and Innovative Work Behavior: A Psychological Contract Perspective," *Psychologica Belgica*, vol. 57. No. 4, pp. 174-189, 2018. DOI: 10.5334/pb.381
- [61] Jiang, B., Kumar, T., Rehman, N., Hameed, R., Kiziloglu, M., Israr, A, "Role of Psychological Contracts in Enhancing Employee Creativity Through Knowledge Sharing: Do Boundary Conditions of Organization's Socialization and Work-Related Curiosity Matter?" *Frontiers in Psychology*, vol. 13, 2022. 834041-834041.
- [62] Phuong, T. H., Takahashi, K, "The Impact of Authentic Leadership on Employee Creativity in Vietnam: A Mediating Effect of Psychological Contract and Moderating Effects of Subcultures," *Asia Pacific Business Review*, vol. 27, no. 1, pp. 77-100, 2021. DOI: 10.1080/13602381.2021.1847467
- [63] Bhatnagar, J, "Mediator Analysis in the Management of Innovation in Indian Knowledge Workers: The Role of Perceived Supervisor Support, Psychological Contract, Reward and Recognition and Turnover Intention," *The International Journal of Human Resource Management*, vol. 25, no. 10, pp. 1395-1416, 2014. DOI: 10.1080/09585192.2013.870312
- [64] Robinson, S. L., Kraatz, M. S., Rousseau, D. M, "Changing Obligations and the Psychological Contract: A Longitudinal Study," *Academy of Management Journal*, vol. 37, no. 1, pp. 137-152. 1994. <https://doi.org/10.5465/256773>
- [65] Cohen, A., Eyal, O, "The Role of Organizational Justice and Exchange Variables in Determining Organizational Citizenship Behavior Among Arab Teachers in Israel," *Psychological Studies*, vol. 60, no. 1, pp. 56-69, 2015. DOI <https://doi.org/10.1007/s12646-014-0286-2>
- [66] Cohen, A, "Values and Psychological Contracts in their Relationship to Commitment in the Workplace: An Empirical Examination Among Bank Employees in Israel," *Career Development International*, vol. 16, no. 7, pp. 646-667, 2011. <https://doi.org/10.1108/13620431111187272>
- [67] Cohen, A, "The Relationship Between Individual Values and Psychological Contracts," *Journal of Managerial Psychology*, vol. 27, no. 3, pp. 283-301, 2012. <https://doi.org/10.1108/02683941211205826>
- [68] Robinson, S. L., & Morrison, E. W, "The Development of Psychological Contract Breach and Violation: A Longitudinal Study," *Journal of Organizational Behavior*, vol. 21, pp. 525-546, 2000. <https://www.jstor.org/stable/3100447>
- [69] Mayfield, M., Mayfield, J, "Developing a Scale to Measure the Creative Environment Perceptions: A Questionnaire for Investigating Garden Variety Creativity," *Creativity Research Journal*, vol. 22, no. 2, pp. 162-169, 2010. DOI: 10.1080/10400419.2010.481511
- [70] Warr, P, "The Measurement of Well - Being and Other Aspects of Mental Health," *Journal of occupational Psychology*, vol. 63, no. 3, pp. 193-210, 1990. <https://doi.org/10.1111/j.2044-8325.1990.tb00521.x>
- [71] Brooke, P. P., Russell, D. W., Price, J. L, "Discriminant Validation of Measures of Job Satisfaction, Job Involvement and Organizational Commitment," *Journal of Applied Psychology*, vol. 73, pp. 139-145, 1988. <http://dx.doi.org/10.1037/0021-9010.73.2.139>
- [72] Henseler, J., Ringle, C. M., Sarstedt, M, "A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling," *Journal of the Academy of Marketing Science*, vol. 43, no. 1, pp. 115-135, 2015. <https://doi.org/10.1007/s11747-014-0403-8>
- [73] Bryk, A., Raudenbush, S, *Hierarchical Linear Models: Applications and Data Analysis Methods*, Newbury Park, CA, Sage, 1992.
- [74] McLean, L. D, "Organizational Culture's Influence on Creativity and Innovation: A Review of the Literature and Implications for Human Resource Development," *Advances in Developing Human Resources*, vol. 7, no. 2, pp. 226-246, 2005. DOI: 10.1177/1523422305274528
- [75] Burnard, P., White, J, "Creativity and Performativity: Counterpoints in British and Australian Education," *British Educational Research Journal*, vol. 34, no. 5, pp. 667-682, 2008. DOI: 10.1080/01411920802224238
- [76] Anderson, R. C., Boussetot, T., Katz-Buoincontro, J., & Todd, J, "Generating Buoyancy in a Sea of Uncertainty: Teachers Creativity and Well-Being During the COVID-19 Pandemic", *Frontiers in Psychology*, vol. 11, 2021. Article 614774. <https://doi.org/10.3389/fpsyg.2020.614774>
- [77] Liu, W, "Effects of Positive Mood and Job Complexity on Employee Creativity and Performance," *Social Behavior and Personality: an international journal*, vol. 44, no. 5, pp. 865-880, 2016. DOI: <https://doi.org/10.2224/sbp.2016.44.5.865>
- [78] Amabile, T. M., Pratt, M. G, "The Dynamic Componential Model of Creativity and Innovation in Organizations: Making Progress, Making Meaning," *Research in Organizational Behavior*, vol. 36, pp. 157-183, 2016. DOI: 10.1016/j.riob.2016.10.001
- [79] Kim, S. L., Kim, M., Yun, S, "What Do We Need for Creativity? The Interaction of Perfectionism and Overall Justice on Creativity," *Personnel Review*, vol. 46, no. 1, pp.

154-167, 2017. DOI: 10.1108/PR-06-2015-0187

<https://doi.org/10.1108/MRR-03-2020-0164>

- [80] Colquitt, J. A., Scott, B., Judge, T. Shaw, J, "Justice and Personality: Using Integrative Theories to Derive Moderators of Justice Effects," *Organizational Behavior and Human Decision Processes*, vol. 100, no. 1, pp. 110-127, 2006. DOI: 10.1016/j.obhdp.2005.09.001
- [81] Kim, S., & Park, S, "Diversity Management and Fairness in Public Organizations," *Public Organization Review*, vol. 17, pp. 179-193. 2017. <https://doi-org.ezproxy.haifa.ac.il/10.1007/s11115-015-0334-y>
- [82] Harjanti, D, "Exploring the Relationship Between Procedural Justice and Innovative Work Behavior in Hospitality Industry," *Jurnal Manajemen dan Kewirausahaan*, vol. 21, no. 1, pp. 21-31. 2017. DOI: 10.9744/jmk.21.1.21-31
- [83] Alacovska, A, "Informal Creative Labour Practices: A Relational Work Perspective," *Human Relations*, vol. 71, no. 12, pp. 1563-1589, 2018. <https://doi.org/10.1177/0018726718754991>
- [84] Ullah, Y., Ullah, H. Jan, S, "The Mediating Role of Employee Creativity Between Knowledge Sharing and Innovative Performance: Empirical Evidence from Manufacturing Firms in Emerging Markets," *Management Research Review*, vol. 45, no. 1, pp. 86-100, 2022.
- [85] Zhou, J., Wang, X. M., Bavato, D., Tasselli, S., Wu, J, "Understanding the Receiving Side of Creativity: A Multidisciplinary Review and Implications for Management Research," *Journal of Management*, vol. 45, no. 6, pp. 2570-2595, 2019. <https://doi-org.ezproxy.haifa.ac.il/10.1177/0149206319827088>
- [86] Zare, M., Flinchbaugh, C, "Voice, Creativity, and Big Five Personality Traits: A Meta-Analysis," *Human Performance*, vol. 32, no. 1, pp. 30-51, 2019. <https://doi.org/10.1080/08959285.2018.1550782>
- [87] Yao, X., Li, R, "Big Five Personality Traits as Predictors of Employee Creativity in Probation and Formal Employment Periods," *Personality and Individual Differences*, 2020. <https://doi-org.ezproxy.haifa.ac.il/10.1016/j.paid.2020.109914>
- [88] Lebuda, I., Figura, B., Karwowski, M, "Creativity and the Dark Triad: A Meta-Analysis," *Journal of Research in Personality*, vol. 92, 104088, 2021 <https://doi.org/10.1016/j.jrp.2021.104088>
- [89] Martinsen, Ø. L., Arnulf, J. K., Furnham, A., Lang-Ree, O. C, "Narcissism and Creativity," *Personality and Individual Differences*, vol. 142, pp. 166-171, 2019. <https://doi.org/10.1016/j.paid.2018.09.032>