Tempering Employee Uncertainty: A Multilevel Analysis Examining Determinants of Job Insecurity Attitudes Among University Staff

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Job insecurity is a crucial employee attitude to study, especially in challenging economic times. The current study uses a multilevel modeling approach to evaluate the predictors of job insecurity, both at the employee-level ($N_{employees}$=1144) and organizational division-level ($N_{divisions}$=25) among university staff and faculty at a university in the southern United States. The results indicate that employee-level justice perceptions, constraints, and pay and communication satisfaction influence job insecurity as well as division-level perceived supervisor support. Overall, this study helps identify mechanisms that are largely in the organization's control which could lessen feelings of job insecurity among its employees.

Keywords: job insecurity, multilevel modeling, justice perceptions, employee satisfaction

INTRODUCTION

Many universities in the United States are feeling the effects of widespread state budget cuts and an ongoing conversation suggesting major changes to federally insured student loans (College Board, 2017; Mitchell, Leachman, Masterson, & Waxman, 2018; Scott-Clayton, 2018). These changes to higher education institutions are leading many university employees to worry about the status of their jobs (Cooper, 2010; Saad, 2011). Not surprisingly, the American Psychological Association ranks job insecurity as one of the most prominent stressors employees report at work (American Psychological Association Workplace Survey, 2012). Feeling uncertain about a job can lead to some destructive consequences for not only the employee but the organization itself. For the employee, job insecurity can lead to stress-related health issues like hypertension (Burgard, Brand, & House, 2009), fear, and burnout (Petitta & Jiang, 2019). Also, perceptions of job insecurity can prompt undesirable and costly behaviors, such as poorer performance (Chirumbolo & Areni, 2010), greater absenteeism (Staufenbiel & König, 2010), and increased counterproductive work bheaviors (Ma, Liu, Lassleben, & Ma, 2019). In fact, when top-performers have feelings of job insecurity at their current employer, they are more likely to quit, because they likely have more opportunities elsewhere (Shoss, Brummel, Probst, & Jiang, 2019)

While past researchers have identified the consequences of job insecurity (e.g., Greenhalgh & Rosenblatt, 1984; Silla, De Cuyper, Gracia, Peiró, & De Witte, 2009), there are crucial gaps in the literature for understanding antecedents of job insecurity. While most of the past researchers have only

looked at individual-level predictors (e.g., attitudes), there are constructs at the division- and organizational-level (e.g., organizational support) which may also affect job insecurity.

De Witte (2005) posits there are two major components of job insecurity: unpredictability and uncontrollability. Because these dimensions of job insecurity are often formed by one's environment, perceiving job insecurity could drastically change across work divisions, teams, or even organizations themselves, making it pivotal to investigate higher-level constructs as potential antecedents of job insecurity.

The present study aims to look at the predictors of job insecurity from a multilevel analysis, including division-level constructs. Furthermore, this study contributes to the literature by examining a specific form of perceived organizational support (POS; Eisenberger, Huntington, Hutchison, & Sowa, 1986), known as perceived division support (PDS). By identifying antecedents both from the individual- and organizational-level, managers will be better able to understand what areas to focus on in order to alleviate employee job insecurity, even in times of potential uncertainty.

THEORY AND HYPOTHESES

Employee-Level Predictors of Job Insecurity

The theoretical basis for why job insecurity exists in the first place is psychological contract theory (Rousseau, 1989). The theory posits that every employee starts off at a company with an implicit, and sometimes, though rarely, explicit psychological contract with the employer. For example, an employee may have expectations that the organization will provide certain benefits and salary throughout their employment, while maintaining a safe and supportive workplace environment. However, when the employer fails to live up to facets of the contract, employees perceive a "contract breach" (Suazo & Stone-Romero, 2011), which may prompt an employee to feel negative attitudes and counter with adverse actions.

Maintaining a position at the given company is one of the most important promises in any psychological contract. Perceiving job insecurity can alert an employee to a potential contract breach, and employees will consequently experience elevated feelings of stress and strain. When employees perceive a contract breach by the organization, they are less likely to reciprocate in the forms of productivity and positive attitudes (Coyle-Shapiro & Conway, 2005).

Organizational Justice

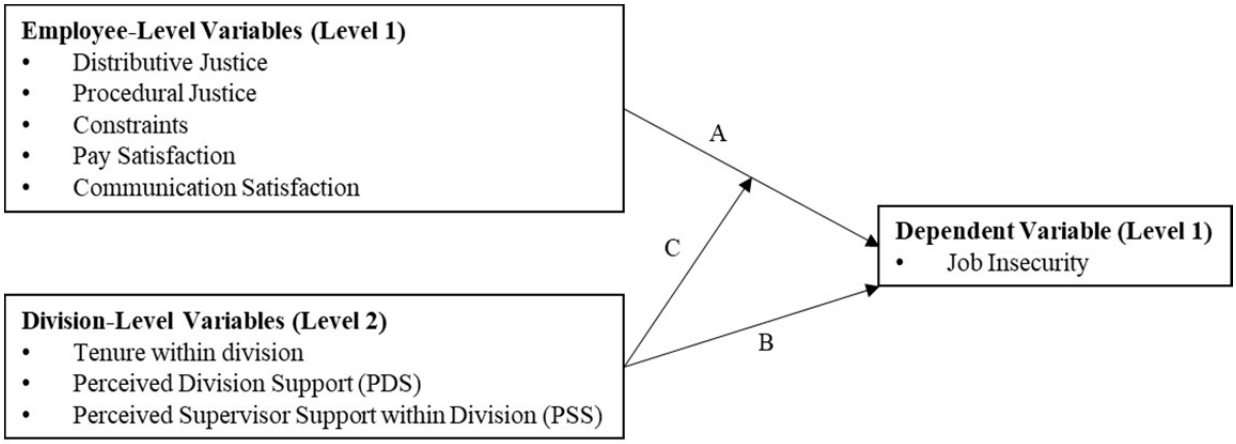
Justice theories states that when job resources (e.g., pay, attention) are perceived to be distributed equally, employees react favorably (Moorman, 1991). This is indicative of social exchange theory, based upon the norm of reciprocity (Cropanzano, & Mitchell, 2005; Gouldner, 1960). When an organization provides fair procedures, communication, or treatment, employees are likely to "give back" in the form of higher productivity or lower levels of theft and turnover (Masterson, Lewis, Goldman, & Taylor, 2000).

Justice theory refers to three types of justice (Colquitt, 2001). Distributive justice is the fairness of decision outcomes (e.g., raises). Procedural justice describes the fairness of organizational policies and procedures used in decision outcomes. Lastly, interactional justice refers to the perceived fairness of interpersonal treatment in the workplace. The present study investigates distributive and procedural justice as predictors of job insecurity, which has been considered in the literature (Clay-Warner, Reynolds, & Roman, 2005).

Past researchers have found that justice perceptions are negatively related to job insecurity because employees who believe their organizational policies and distribution of resources are equitable also sense the organization as having more control and predictability (Walther, Rhodes, Presson, & Penney, 2013). Therefore, we propose:

Hypotheses 1a & 1b: *(a) Distributive and (b) procedural justice will be negatively related to job insecurity (See Figure 1).*

FIGURE 1
HIERARCHICAL LINEAR MODEL PREDICTING JOB INSECURITY WITH EMPLOYEE-LEVEL AND DIVISION-LEVEL PREDICTORS



Constraints

Employees often endure several constraints on the job (e.g., inadequate supplies, organizational politics) that prevent them from performing at an optimal level. Past research has found that constraints can trigger negative reactions, such as employee theft, as a way to reciprocate negative treatment from the organization (Spector et al., 2006).

Stress and strain theory (Lazarus & Folkman, 1984) states that constraints, when appraised as stressors, can trigger mental or physical strain. Organizations promise to provide an environment without performance hindrances, so constraints are naturally breaches of this contract. Employees may wonder, "If the organization is allowing so many obstacles for me to perform, they must not care about me and see me as easily expendable." Thus, we propose:

Hypothesis 2: *Constraints will be positively related to job insecurity.*

Satisfaction

Poor pay and communication satisfaction have also been shown to be predictors of negative workplace outcomes such as turnover and absenteeism (Weiner, 1980). Pay satisfaction is the extent to which an employee is satisfied with his or her pay while communication satisfaction is satisfaction with communications at work (Day, 2011).

When employees are dissatisfied with pay and the communication they receive from managers and upper management, this increases unpredictability, a facet of job insecurity (De Witte, 2005). Furthermore, as Rousseau (1989) explains through psychological contract theory, when pay and communication are sufficient, the organization maintains its psychological contract with the employee. However, when employees are dissatisfied with pay and communication, employees could be alerted to a possible contract breach, increasing perceptions of job insecurity. Therefore, we hypothesize:

Hypotheses 3a & 3b: *(a) Pay and (b) Communication satisfaction will be negatively related to job insecurity.*

Division-Level Predictors

While past literature has focused on the employee-level when studying job insecurity, division-level properties could also affect job insecurity. For example, average division tenure is positively related to job insecurity because the more established and tenured the employees of a division are, the less likely these employees will be laid off (Cheng & Chan, 2008). Furthermore, a division with short-tenured

employees is frequently one of the first to cut when the company has to carry out mass layoffs. Hence, we hypothesize:

Hypothesis 4: *Division-level tenure will be negatively related to job insecurity.*

Perceived Supervisor Support (PSS)

Perceived supervisor support, or PSS, is the extent to which an employee feels valued and supported by his or her supervisor. Social support theory (Cohen & Wills, 1985) states humans gain resources such as satisfaction and emotional support from maintaining positive, healthy social relationships, such as the fundamental relationship an employee preserves with his or her supervisor. Specifically, past research has found that support from the supervisor decreases feelings of job insecurity (Schreuers, van Ammerik, Gunter, & Germeys, 2012). Employees who perceive greater social support from supervisors deduce that their organization appreciates their job status and well-being. Previous studies have linked specific supervisor behaviors to lower job insecurity (Wang, Le Blanc, Demerouti, Lu, & Jiang, 2019). Thus, we hypothesize:

Hypothesis 5: *Division-level supervisor support will be negatively related to job insecurity.*

Perceived Division Support

Perceived organizational support refers to the extent to which an "organization values [employees'] contributions and cares about their well-being" (Eisenberger et al., 1986, p. 501) and is substantiated by organizational support theory. Both organizational support and psychological contract theories operate under the same sociological principles of reciprocity (Aselage & Eisenberger, 2003). When employees have feelings of being valued and cared for by their employer, the employer is holding up the tenets of their contract. Consequently, employees reciprocate in the form of higher productivity (Eisenberger & Stinglhamber, 2011) and citizenship behaviors (Moorman, Blakely, & Niehoff, 1998; Peelle, 2007). Moreover, past studies have found a negative relationship between POS with job insecurity (Blackmore & Kuntz, 2011). Attempting to duplicate these findings using the form of support, PDS (support at the division-level), we propose:

Hypothesis 6**:** *PDS will be negatively related to job insecurity.*

Finally, PDS should predict the relationship between many individual level predictors and job insecurity, as a form of a buffer. For example, in divisions with higher overall support, employees should experience a lesser increase in job insecurity even when justice perceptions and satisfaction are low and constraints are high. Thus, we propose:

Hypothesis 7a-7e: *PDS will predict the relationship between (a) distributive justice (b) procedural justice (c) constraints (d) pay satisfaction and (e) communication satisfaction with job insecurity (See Figure 1).*

METHOD

Participants and Procedure

Staff from a southern university were recruited through e-mail to participate in an online survey. Due to survey incompletion, 331 individuals were dropped, resulting in a final sample of 1144. The participant pool was diverse and a good representation of the university's overall staff demographics (63% women, *M* age=42, 40% supervisors, 60% non-supervisory employees; 47% Caucasian, 18% African-American, 17% Hispanic). Average tenure was 8.7 years. Finally, the employees indicated their division to build the multilevel structure for our analyses (e.g., Plant Operations, $N_{divisions}$=25).

Measures

Job Insecurity

We used Schweiger and DeNisi's (1991) 12-item "Uncertainty about the Future scale" (α=.92) to assess job insecurity. Participants rated items from 1 (n*ot at all uncertain*) to 5 (*extremely uncertain*). A sample item included "Whether you will be laid off."

Organizational Justice

We used Moorman, Blakely, and Niejoff's (1998) justice scale to measure distributive and procedural justice (6-items and α = .96 each). Distributive justice was rated from 1 (*very unfairly*) to 5 (*very fairly*), while procedural justice was rated from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items included whether the participant was fairly rewarded "for the amount of work [he/she] put forth" (distributive justice) and whether employee decisions were "applied with consistency to the parties affected" (procedural justice).

Perceived Division Support (PDS)

We used a modified version of Eisenberger et al.'s (1986) 8-item POS scale (α=.95) to assess PDS. The term 'organization' was replaced with 'division' which modifies the scale to measure 'perceived division support.' Participants rated items from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item included "My division really cares about my well-being." To convert the score into division-level data, we used the aggregation method and averaged the scores for each division. The aggregation method was repeated for all other division-level constructs.

Perceived Supervisor Support (PSS)

We used a modified version of Eisenberger et al.'s (1986) 8-item POS scale (α=.94) to assess PSS. The term 'organization' was replaced with 'supervisor.' The scale ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). A sample item included "My supervisor really cares about my well-being."

Tenure.

Participants answered the question, "How many years have you worked for [the organization]?"

Constraints

We used Spector and Jex's (1988) 11-item Organizational Constraint scale (α=.91) to assess employees' job constraints. The participants answered: "how often do you find it difficult or impossible to do your job because of the following:" Participants rated items from 1 (*<1 times a month or never*) to 5 (*every day*). A sample item included "interruptions by others."

Pay and Communication Satisfaction

We used Spector's (1985) job satisfaction survey (pay α=.79; communication α=.76; 4 items each) to assess pay and communication satisfaction. Participants rated items from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include "I feel I am being paid a fair amount for the work I do." (pay) and "I often feel that I do not know what is going on with [the organization]" (communication).

RESULTS

Descriptive statistics, such as means, standard deviations, intercorrelations, and scale reliabilities, are presented in Table 1. The scale reliabilities are all greater than .76, indicating sufficient scale reliability.

TABLE 1
DESCRIPTIVE STATISTICS AND CORRELATIONS OF STUDY VARIABLES

Employee-Level	*M*	*SD*	1	2	3	4	5	6
1. Job Insecurity	2.55	1.01	-0.92					
2. Distributive Justice	2.98	1.17	-.54**	-0.96				
3. Procedural Justice	3.16	1.03	-.53**	. 68**	-0.96			
4. Constraint	2.02	0.9	.53**	-.51**	-.56**	-0.91		
5. Pay Satisfaction	2.4	0.93	-.45**	.69**	.47**	-.35**	-0.79	
6. Communication Satisfaction	3.18	0.88	-.49**	. 48**	.56**	-.49**	.40**	-0.76
Division-Level								
1. Tenure	8.83	1.84						
2. Perceived Division Support	3.28	0.37	-0.2	-0.95				
3. Perceived Supervisor Support	3.59	0.3	-0.17	86***	-0.94			

Note. †$p<.10$, *$p<.05$, **$p<.01$, ***$p<.001$.

We used hierarchical linear modeling to statistically analyze a workplace setting in which employees were nested within divisions, using HLM, version 7 (Raudenbush & Bryk, 2002). We proceeded in five phases: (1) empty (or null) model, (2) means-as-outcome model, (3) ANCOVA model, (4) random-coefficient model, and (5) intercepts-and-slopes-as-outcome model. All HLM results are summarized in Table 2.

First, we ran the empty model. The ICC (intraclass correlation coefficient) was .08, indicating there is 8% of variance explained at the division-level. Due to the nature of this dataset and employing a conservative approach, we concluded that multilevel analysis was warranted for the next steps of analyses.

Next, we ran the means-as-outcomes model. We entered division-level predictors with job insecurity as the outcome variable. Because these variables are all continuous, level-2 variables, we grand-mean centered the variables before including them in the equation. The results indicated division supervisor support was a significant, negative predictor of job insecurity (b = -.70, $p < .05$). However, no support was found for average tenure (b = -.01, $p > .05$) or division support (b = -.13, $p > .05$) as predictors of job insecurity. Thus, Hypothesis 5 was supported but not Hypothesis 4 or 6. The variance explained by division-level predictors was 78.5%.

In the next step, we ran the analysis of covariance, or ANCOVA model, which included employee-level predictors with job insecurity as the outcome variable. Because these variables are all continuous and at the individual-level, we group-mean centered the variables prior to analysis. The errors were fixed in the ANCOVA model, meaning they were not allowed to vary. The results indicated support for Hypotheses 1a and 1b, 2, and 3a and 3b. Specifically, distributive justice (b = -.17, $p < .001$), procedural justice (b = -.11, $p < .01$), pay satisfaction (b = -.13, $p < .001$), and communication satisfaction (b = -.16, $p < .001$) were all significantly, negatively related to job insecurity while constraints (b = .30, $p < .001$)

was a positive predictor of job insecurity. The employee-level variables explained 42.3% of the variance of job insecurity.

Next, we ran the random-coefficient model by including employee-level predictors with job insecurity as the outcome variable. The errors were allowed to vary in this model to allow us to examine the random effects and whether the relationships among the employee-level predictors and job insecurity varied across divisions. These predictors were group-mean centered. Hypotheses 1a and 1b, 2, and 3a and 3b were all supported again in this model. However, the results indicated that the relationship among employee-level predictors and job insecurity did not vary across groups. Because these relationships do not vary across groups, we fixed the error in the next model, meaning we could not test Hypothesis 7a-7e, that PDS predicts the relationship between employee-level variables and job insecurity.

Finally, we ran the intercepts-and-slopes-as-outcomes model with all predictors (both employee-level and division-level) in the model with job insecurity as the dependent variable. The results indicated the same direction and significance for the effects found in the previous models.

TABLE 2
HIERARCHICAL LIEAR MODELING RESULTS

Independent Variables	Model 1: Empty Model		Model 2: Means-as-Outcomes		Model 3: ANCOVA		Model 4: Random-Coefficient		Model 5: Intercepts-and-Slopes	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Intercept (β_{0j})	2.50***	-0.07	2.51***	-0.04	2.49***	-0.06	2.49***	-0.06	2.50***	-0.04
PDS (γ_{01})			-0.13	-0.18					-0.15	-0.16
PSS (γ_{02})			-.70*	-0.25					-.69*	-0.23
Tenure (γ_{03})			-0.01	-0.03					-0.01	-0.03
Dist. Justice (β_{1j})					-.17***	-0.03	-.17***	-0.03	-.17***	-0.03
Proc. Justice (β_{2j})					-.11**	-0.03	-.11**	-0.03	-.11**	-0.03
Constraint (β_{3j})					.30***	-0.05	.31***	-0.05	.30***	-0.05
Pay Satisfaction (β_{4j})					-.13**	-0.03	-.12**	-0.03	-.13**	-0.03
Comm. Satisfaction (β_{5j})					-.16***	-0.03	-.15***	-0.03	-.16***	-0.03
Random component: Employee-level Var (r_{ij}) = α^2	0.9		0.9		0.53		0.52		0.53	
Division-level Var (u_{0j}) = τ_{00}	0.07		0.02		0.08		0.09		0.02	

Chi-square table:

	SD	Variance	*df*	x^2
Model 1:	0.27	0.07	24	87.17***
Model 2:	0.13	0.02	21	30.70†
Model 3:	0.29	0.09	23	149.10***
Model 4:	0.29	0.08	23	149.22***
Model 5:	0.16	0.02	21	53.01***

Note. †p<.10, *p<.05, **p<.01, ***p<.001. Coefficients are unstandardized.

DISCUSSION

As the results of this study suggests, it is important to not only look at employee-level predictors of job insecurity but also division-level supervisor support. By integrating many diverse theories such as psychological contract theory, social exchange theory, strain and stressor theories, organizational support theory, and social support theory, we were able to demonstrate the substantial relationships among variables and job insecurity which were not fully explored in past research, especially in a multilevel context.

Overall, the results indicate that justice perceptions and pay and communication satisfaction are negatively related to job insecurity, meaning employees who perceive their job resources as distributed equitably and are satisfied with their salaries and communication efforts at work are less likely to report that they believe their job is in jeopardy (i.e., lower job insecurity). Job constraints, however, are positively related to job insecurity. At the division-level of analysis, we found support that average supervisor support was a significant, negative predictor of job insecurity. Thus, social support from supervisors within the division allows employees to not only feel more supportive at work but also can reduce negative employee attitudes such as job insecurity. Unfortunately, however, both PDS and tenure were insignificant predictors of job insecurity when aggregated at the divisional level. Also, we could not test PDS as a predictor of the relationship between employee-level predictors and job insecurity because the random-coefficient model indicated the slopes did not vary across divisions.

Limitations, Implications, and Directions for Future Research

Our study contributed to the literature by extending research on justice perceptions, perceived division support, and job insecurity. This was the first study, to our knowledge, to integrate these variables into a cohesive model that explains employee outcomes at both the individual- and division-level

Additionally, our research is beneficial to organizations and managers. These findings can help organizations better understand how fairness of rewards and procedures, job constraints, and pay and communication satisfaction may influence employee perceptions of the organization and feelings of job insecurity. Because job insecurity can have detrimental effects on performance and health, understanding the predictors, such as division-level supervisor support, can enable organizations to alleviate any unnecessary feelings of job insecurity among its employees and thwart its negative consequences.

As is the nature of all studies, our study contained some limitations. First, the correlation between perceived division support and perceived supervisor support was .86, indicating that multicollinearity could be an issue. Furthermore, the survey was entirely self-report. The participants may have felt a sense of obligation to answer in a way to make themselves look socially acceptable rather than in a truthful manner. Some researchers claim self-report measures can inflate the relationship among the variables. However, the monomethod bias myth has largely been overstated by many (Spector, 2006). This study could benefit, nonetheless, from a follow-up study to replicate its findings with the perspective of a more diverse sample of employees including upper managers and middle-line supervisors.

In the future, it would be interesting to look at the relationship of these variables with staff and faculty members not included together. While the percentage of faculty members was probably low given the nature of data collection, it is important to note that like many universities, the university from which the data was collected has a tenure-system set in place for many faculty members. The job insecurity of faculty members, then, could be different from a regular hourly staff member and could thus affect the results of the study. A follow-up study could look at the varying relationships among the constructs in both populations.

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