

PERCEIVED RISK AND ORGANIZATIONAL COMMITMENT: THE MODERATING ROLE OF ORGANIZATIONAL TRUST

XIAO-PING LIU
Sun Yat-sen University
ZHONG-MING WANG
Zhejiang University

Perceived risk in employment and organizational trust were integrated into the development of organizational commitment, based on key factors in the social exchange process. The results show that perceived risk in employment correlated negatively with organizational trust and organizational commitment, and that organizational trust correlated positively with organizational commitment. Moreover, organizational trust acted as a partial mediator between perceived risk in employment and organizational commitment.

Keywords: perceived risk in employment, organizational trust, organizational commitment, affective commitment, continuance commitment, normative commitment.

Organizational commitment refers to the employee's positive attitude towards, and psychological attachment to, the organization (Mowday, Steers, & Porter, 1979). The formation of organizational commitment implies the forging of a fixed, psychological bond between an employee and the organization.

When an employee-organization relationship is established, the employee trades his or her labor for the organization's wage payment, and his or her organizational commitment for the organization's care and support. In turn, the organization expands and develops through the employee's hard work. This

Xiao-ping Liu, Sun Yat-sen Business School, Sun Yat-sen University; Zhong-ming Wang, School of Management, Zhejiang University.

This research was supported by National Natural Science Foundation of China (NSFC, 70871123, 7123201).

Correspondence concerning this article should be addressed to: Xiao-ping Liu, Sun Yat-sen Business School, Sun Yat-sen University, No. 135 Xin Gang West Road, Guangzhou 510275, People's Republic of China. Email: liuxp@mail.sysu.edu.cn

employee-organization interdependence signals the formation of a social exchange relationship (Rhoades & Eisenberger, 2002).

Researchers have described organizational commitment as being based on two types of social exchange relationships: economic and affective. An organizational commitment based on an economic exchange relationship is, in essence, a mechanism to avoid risk, because the employee prefers a stable exchange relationship to a temporary one, primarily to reduce uncertainties. *Continuance commitment* develops based on economic exchange relationships. Organizational commitment can also be established based on a noneconomic exchange relationship, because the affective bond between the employee and the organization gradually grows into long-term successful exchanges. *Affective* and *normative* commitments are formed based on noneconomic exchange relationships (Hornung & Glaser, 2010). Economists focus their attention on the risks of economic exchange relationships, whereas psychologists direct their attention to the trust and commitment involved in noneconomic exchange relationships. However, over the years, more researchers have integrated their investigations into the two relationship types.

Organizational commitment has been studied in the framework of an employee-organization social exchange relationship. In several studies researchers have incorporated social exchange factors into their models, for example, the role of reciprocation in the formation of a psychological contract and its effects on the employee's organizational commitment (Dabos & Rousseau, 2004); the effects of the respective degrees of responsibility of the employee and the organization, and also their balance, on the employee's organizational commitment (Shore & Barksdale, 1998); the effects of organizational support and justice on organizational commitment (Eisenberger, Huntington, Hutchison, & Sowa, 1986); and the mediating role of organizational trust in relation to the employee's perceived organizational support and his or her organizational commitment (Chen, Aryee, & Lee, 2005). However, no study has been conducted in which the key variables in the social exchange process, that is, perceived risk in employment and organizational trust, were examined simultaneously in relation to organizational commitment.

Therefore, we have synthesized the findings in past research in economics and psychology to establish a model of how organizational commitment is formed based on the social exchange process. More specifically, we integrated the two key factors in this process, that is, perceived risk in employment and organizational trust, into a model to examine the formation and development of organizational commitment.

Research Hypotheses

Social exchange relationships involve uncertainties and risks, regardless of their nature and effects (Molm, Takahashi, & Peterson, 2000). According to Slovic's viewpoint, *risk perception* refers to *the decision maker's assessment of the risks involved in a specific situation, including the individual's understanding of the risk situation, the possibility of controlling risks, and the individual's confidence in his or her assessments* (Slovic, 1987). Therefore, risk perception is the starting point of social exchanges.

In this study, *perceived risk in employment* is defined as *an employee's perception of various risks facing his or her career development as well as physical and mental health in the organization*. Specifically, the employee assesses the uncertainties of the rewards and disadvantages of staying in the organization, and if the rewards exceed the disadvantages, the employee accepts the exchange relationship.

A direct examination of the relationship between perceived risk and organizational commitment has been conducted in only a limited number of studies. However, a few researchers have attempted to explain this relationship indirectly. For example, Molm et al. (2000) found that the employees' perception of risks of rewards affected their behavioral and affective commitment. In another study conducted with employees at a nuclear power plant, Kivimäki, Kalimo, and Salminen (1995) examined the relationships between their perceived risk, organizational commitment, and satisfaction. They found that employees' perceived risks related to the plant significantly affected their organizational commitment. Therefore, we proposed the following hypothesis:

Hypothesis 1: Employee perceived risk in employment will negatively correlate with affective, continuance, and normative commitment.

Trust can be defined as *an individual's belief in cooperative partners after a rational analysis and acceptance of certain risks* (Das & Teng, 2004). Numerous theories on trust are based on the social exchange theory, suggesting that trust forms through repeated exchange of interests between two entities, or through the interaction of people's values, attitudes, and emotions (Jones & George, 1998).

In this study, *organizational trust* is defined as *an employee's belief that the organization will act as he or she has anticipated*. Organizational trust signifies the employees' faith in the organization's sincerity, goodwill, and credibility, as well as their belief that the leaders of the organization are reliable and honest in their exchanges (Robinson, 1996).

Organizational trust and organizational commitment are closely related concepts. In numerous studies researchers have reported that organizational trust and organizational commitment are positively correlated, and that organizational trust is a major predictive variable of organizational commitment (Aryee,

Budhwar, & Chen, 2002; Liou, 1995). Organizational trust has also been identified as one of the key antecedents of organizational commitment, and a high level of organizational trust has been found to result in a correspondingly high level of organizational commitment (Song, Kim, & Kolb, 2009). These findings provide a foundation for integrating organizational trust into the formation of organizational commitment. Accordingly, the following hypothesis was proposed:

Hypothesis 2: Employee organizational trust will positively correlate with affective, continuance, and normative commitment.

It is suggested in social exchange theory that people do not generally expect other parties to be trustworthy when no monitoring body supervises behavior and when little knowledge of potential trading partners is available (Holmes & Rempel, 1989). Under these conditions, rational people engage in exchanges of minimal frequency and value, which increase with the development of understanding and trust (Sheppard & Sherman, 1998). In this study, we discussed the relationships between perceived risk in employment, organizational trust, and organizational commitment on the basis of relevant theories.

Firstly, perceived risk affects trust because trust becomes necessary only in risky situations. In numerous studies, researchers have suggested that trust refers to the individual's positive expectations of others' motives in risky situations, and that different types of risks result in different trust-forming mechanisms (Das & Teng, 2004).

Secondly, from the perspective of a trust decision, risk is the core of trust development because people undergo a series of risks to establish trust (Holmes & Rempel, 1989). Results in extensive research on risk and trust have highlighted the fact that choosing to trust implies taking a risk, that is, a perceived risk that directly and indirectly affects decision making (Cook et al., 2005). In addition, in literature on the relationships between risk perception, trust, and commitment in individual-individual and organization-organization cooperation, researchers have demonstrated that trust tends to act as a mediator between perceived risk and commitment or cooperation (Das & Teng, 1998; Molm et al., 2000). Accordingly, we proposed the following hypotheses:

Hypothesis 3a: Employee perceived risk in employment will negatively correlate with employee organizational trust.

Hypothesis 3b: Employee organizational trust will act as a mediator between employee perceived risk in employment and affective, continuance, and normative commitment.

General Method

In Study 1, the lack of an existing suitable scale for perceived risk in employment led to the conducting of in-depth interviews to collect and

summarize the possible risks that emerge when employees establish and maintain an exchange relationship with their organization. We compiled a scale based on the interview results to measure perceived risk in employment and conducted two pilot studies to test the reliability and validity of the scale.

In Study 2, we conducted a survey of 958 employees working in five large hospitals in Southern China. We used structural equation modeling (SEM) to explore the relationships between perceived risk in employment, organizational trust, and organizational commitment.

Study 1

Procedure

We conducted in-depth interviews based on the literature review with 48 Master of Business Administration (MBA) students. Each interviewee identified the types of risks he or she considered when establishing or maintaining a relationship with an organization. The interviewees enumerated their answers, which were then encoded into computers. The interview analysis proceeded as follows:

Professors and doctoral candidates majoring in management were divided into two groups of three members each. Each group discussed the interview results using qualitative material analysis (Post & Andrews, 1982) and categorized the types of, and reasons for, perceived risk that employees consider when establishing and maintaining a relationship with their respective organizations. During the discussion, at least two people had to name the same perceived risk to classify any specific response as either a perception of a valid type of, or reason for a, risk.

When all relevant material had been gathered from the discussion, the risks that employees could face in the employee-organization relationship were listed, as well as typical descriptions of each risk type.

The discussion results of the two groups were then compared, and a preliminary questionnaire was created with 10 major risks listed by both groups selected as assessment items.

Reliability and Validity Test

We conducted two pilot surveys to test the reliability and validity of the scale for perceived risk in employment. For the first survey, of the 120 questionnaires that were distributed among three MBA classes, 99 valid questionnaires (82.5%) were returned.

Exploratory factor analysis (EFA) determined that the 10 assessment items could be divided into two factors, but as two items weighed similarly on both factors these were discarded. The remaining eight items explained 62.57%

of the total variance and were equally divided between two factors of career development-related risks and physical and mental health-related risks. Career development-related risks included a lack of development opportunities within the organization and the possibility of dismissal, and physical and mental health-related risks included damage to physical and mental health and damaging emotional influence by other people. The relationship between the two factors was 0.50 ($p < .01$), and the internal consistency coefficient of the scale was .83.

For the second pilot survey, of the 300 questionnaires that were distributed among 10 companies, 245 valid questionnaires (81.7%) were returned. Confirmatory factor analysis (CFA) determined that $\chi^2 (19) = 39.74$; and root mean square error of approximation (RMSEA), goodness of fit index (GFI), normed fit index (NFI), and comparative fit index (CFI) were as follows: RMSEA = .067, GFI = .96, NFI = .97, and CFI = .98, indicating an acceptable fit. The relationship between the two factors was 0.65 ($p < .01$) and the internal consistency coefficient of the scale was .85.

Table 1. *Results of Exploratory Factor Analysis*

Items	Factor 1	Factor 2
Rare opportunity for career development	.13	.80
Complicates employee's relationships with others in the organization	.42	.66
Endangers employee's job or even causes individual to be dismissed	-.04	.66
Employee's work does not gain recognition from his/her leaders	.38	.68
Hurts employee's physical and psychological health	.78	.29
Employee's emotions and moods are seriously affected	.69	.33
Employee is depressed by failure to fulfill the organization's requirements	.83	.21
Employee finds it is impossible to achieve work-life balance	.83	-.10

Table 2. *Results of Confirmatory Factor Analysis*

Items	Factor 1	Factor 2
Rare opportunity for career development	.45	
Complicates employee's relationships with others in the organization	.65	
Endangers employee's job or even causes individual to be dismissed	.72	
Employee's work does not gain recognition from his/her leaders	.70	
Hurts employee's physical and psychological health		.70
Employee's emotions and moods are seriously affected		.74
Employee is depressed by failure to fulfill the organization's requirements		.76
Employee finds it impossible to achieve work-life balance		.69

Study 2

Sample

Participants were employees at five hospitals in Southern China. To encourage

truthful responses, we sent each employee a questionnaire form with an envelope. Respondents filled out the form and placed it in the envelope, which was sealed and then placed in mailboxes that the researcher had set up in advance. It was also explained on the questionnaire form that the survey results were to be used to analyze the general situation and that no specific personal information would be disclosed.

We distributed 1,250 questionnaire forms and 1,012 (80.96%) were returned, of which 958 (94.66%) were valid. Among the valid forms, questionnaires from married respondents accounted for 70%, and those from female respondents accounted for 72.2%.

The ages of the respondents ranged from 21 years to over 50 years. Those in the age bracket of 21 to 30 years accounted for 41.6%; those aged between 31 and 40 years made up 37.9%; there were 16.1% in the age bracket of 41 to 50 years; and people over 50 years comprised 4.4% of the sample. The percentages of respondents in terms of educational background were: highest educational qualification of junior school and below (0.4%); high school or secondary school (11.9%); junior college (30%); bachelor's degree (37.8%); and master's degree or higher qualification (19.9%). The respondents were divided into length of employment at the hospital: those with tenure of less than two years (20.1%), from three to five years (16%), from six to 10 years (24.4%), and more than 10 years (39.5%).

Measures

As the organizational trust scale and organizational commitment scale were developed in the Western cultural context, revised versions were made by several scholars with a doctorate in management. Several items were deleted and some were revised to help our Chinese respondents understand the questions. A 7-point Likert scale was used for the entire questionnaire. In the scale for perceived risk in employment, 1 = *extremely low possibility of risk* and 7 = *extremely high possibility of risk*. In other scales, 1 = *strongly disagree* and 7 = *strongly agree*.

Perceived risk in employment. As already described, this scale was developed by the authors from the interviews conducted for Study 1. The scale for perceived risk in employment contained eight items. The internal consistency coefficient of the scale was .85. The relationship between the two dimensions was highly correlated ($\gamma = 0.64, p < .01$), and thus the two dimensions were aggregated into a single score.

Organizational trust. To measure organizational trust we used the scale used by Robinson (1996). This scale has seven items, and the internal consistency coefficient of the scale was .76.

Organizational commitment. The three dimensions of organizational commitment were measured based on the positively scored items of the

questionnaire developed by Mowday et al. (1979), and also the continuance and normative commitment scales developed by Meyer and Allen (1991). Liu (2005) verified that these scales demonstrate a high degree of reliability and validity in the Chinese context. In total, there were 12 items in the organizational commitment section of our questionnaire, with four items in each of the three dimensions. The internal consistency coefficients of the affective commitment scale, continuance commitment scale, and normative commitment scale were .95, .83, and .87, respectively.

Common Method Variance and Collinearity Test

In the questionnaire we used a self-report inventory for all variables provided by each of the respondents, although reverse description was provided on some items and different instructions were used for different scales as precautionary measures to avoid common method variance. Common method variance analysis and a collinearity test were conducted.

Harman's single-factor test determined that the first factor explained 31.18% of the total variance, not accounting for the majority. The collinearity analysis demonstrated that the variance inflation factors of the variables were less than two. Therefore, no significant collinearity or common method variance was found to exist among all variables (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

The validity of the scales was more rigorously tested by conducting a second-order CFA of all the study variables. In Model 1, all variables were confirmed to be composed of one higher factor. In Model 2, organizational trust, organizational commitment, and perceived risk in employment were confirmed to be composed of three higher factors. In Model 3, perceived risk in employment, organizational trust, affective commitment, continuance commitment, and normative commitment were confirmed to be composed of five higher factors. The results indicated that Model 3 had the best fit among the three models.

Table 3. *Results of Second-Order Confirmatory Factor Analysis*

Model	χ^2	<i>df</i>	RMSEA	GFI	NFI	CFI
1	2948.93	65	.24	.64	.74	.75
2	1388.58	62	.15	.83	.88	.88
3	223.93	55	.06	.96	.98	.99

Results

Table 4 shows the descriptions and correlations of the analyzed variables.

Table 4. Means, Standard Deviations, and Correlation Coefficients of the Variables

Variables	<i>M</i>	<i>SD</i>	1	2	3	4
Perceived risk	3.36	1.22				
Organizational trust	4.39	1.13	-.44**			
Affective commitment	4.34	1.70	-.38**	.59**		
Continuance commitment	4.06	1.47	-.01	.16**	.41**	
Normative commitment	3.94	1.56	-.28**	.47**	.66**	.44**

Note. * $p < .05$, ** $p < .01$, $N = 958$.

The results indicated that perceived risk in employment was correlated negatively with organizational trust, affective commitment, and normative commitment and that organizational trust was correlated positively with affective, continuance, and normative commitment. Therefore, H1, H2, and H3a were supported.

The mediating role of organizational trust in the relationship between risk perception in employment and organizational commitment was examined using SEM. For the partial mediation model, $\chi^2 (df = 52) = 129.29$, RMSEA = .039, GFI = .98, NFI = .99, and CFI = .99. For the complete mediation model, $\chi^2 (df = 54) = 145.17$, RMSEA = .042, GFI = .98, NFI = .99, and CFI = .99. $\chi^2 (\Delta df = 2) = 15.88$, $p < .01$. Thus, the partial mediation model was found to be a better fit.

The results of the partial mediation model indicated that perceived risk in employment negatively influenced organizational trust ($\gamma_{11} = -0.53$, $p < .01$), affective commitment ($\gamma_{21} = -0.15$, $p < .01$), and normative commitment ($\gamma_{41} = -0.09$, $p < .05$). Organizational trust positively influenced affective commitment ($\beta_{21} = 0.58$, $p < .01$), continuance commitment ($\beta_{31} = 0.21$, $p < .01$), and normative commitment ($\beta_{41} = 0.50$, $p < .01$). Therefore, H3b was partially supported.

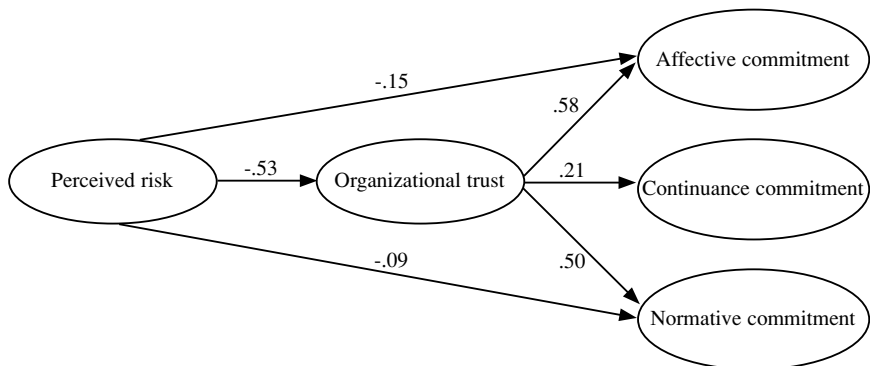


Figure 1. Partial mediation model.

Discussion

The results showed that perceived risk in employment had a significant negative correlation with organizational trust, and with both affective and normative commitment, but not with continuance commitment; that organizational trust had a significant positive correlation with affective, continuance, and normative commitment; and that organizational trust acted as a partial mediator between perceived risk in employment and affective and normative commitment.

The lack of a significant correlation between perceived risk in employment and continuance commitment as shown in the results may have been influenced by the structure of the continuance commitment scale. Researchers have shown that the continuance commitment scale of Meyer and Allen (1991) can be divided into two dimensions: lack of job opportunities and losses caused by quitting. In many cases, the correlations found between lack of job opportunities and other variables and between losses caused by quitting and other variables have been in opposing directions. When continuance commitment is treated as a variable, its correlation with other variables has been found not to be significant (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). More specific results may be achieved if continuance commitment is segmented into two dimensions in future studies.

From a theoretical perspective, in this study we improved the possibility of constructing a common mechanism of organizational commitment development by starting from the most fundamental characteristics, all of which are formed in social exchange.

In practice, our findings are also a useful guide for managers. If organizations set out to sustain a positive, long-term relationship with their employees, the managers need to earn employees' trust. In an increasingly competitive society, organizations encounter numerous risks and uncertainties. Employees' trust in their organization will assist in sustaining organizational development. Our findings showing the correlation between organizational trust and perceived risk in employment indicated that organizations should focus on and control employees' work-related risk to create an effective working atmosphere and maintain a trust relationship with their employees.

There are several limitations in this study. The five organizations from which we drew our sample were large-scale hospitals, which can, therefore, represent the medical industry. However, further studies are needed to ascertain whether or not our results also apply to other industries. The cross-sectional design is also a limitation. The data on all variables were collected simultaneously, but the items related to risk perception, organizational trust, and organizational commitment were formed and developed during a gradual process. Therefore, a time-lag effect is probable. Accordingly, testing the correlations among the variables with

a longitudinal design is necessary in future studies. Finally, the common method variance of the data confers certain limitations. The data on the independent, mediator, and dependent variables were obtained from the same source. Although the analysis indicated that there was no significant common method variance, in future studies researchers could collect data through various channels.

References

- Aryee, S., Budhwar, P. S., & Chen, Z. X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: Test of a social exchange model. *Journal of Organizational Behavior, 23*, 267-285. <http://doi.org/c4m6kp>
- Chen, Z. X., Aryee, S., & Lee, C. (2005). Test of a mediation model of perceived organizational support. *Journal of Vocational Behavior, 66*, 457-470. <http://doi.org/bjf3wv>
- Cook, K. S., Yamagishi, T., Cheshire, C., Cooper, R., Matsuda, M., & Mashima, R. (2005). Trust building via risk taking: A cross-societal experiment. *Social Psychology Quarterly, 68*, 121-142. <http://doi.org/cmzkc2>
- Dabos, G. E., & Rousseau, D. M. (2004). Mutuality and reciprocity in the psychological contracts of employees and employers. *Journal of Applied Psychology, 89*, 52-72. <http://doi.org/b53ftb>
- Das, T. K., & Teng, B.-S. (1998). Between trust and control: Developing confidence in partner cooperation in alliances. *Academy of Management Review, 23*, 491-512. <http://doi.org/bjk7pv>
- Das, T. K., & Teng, B.-S. (2004). The risk-based view of trust: A conceptual framework. *Journal of Business and Psychology, 19*, 85-116. <http://doi.org/fd2pnv>
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*, 500-507. <http://doi.org/bmzkg6>
- Holmes, J. G., & Rempel, J. K. (1989). Trust in close relationships. In C. Hendrick (Ed.), *Close relationships: Review of personality and social psychology* (Vol. 10, pp. 187-220). Thousand Oaks, CA: Sage.
- Hornung, S., & Glaser, J. (2010). Employee responses to relational fulfillment and work-life benefits: A social exchange study in the German public administration. *International Journal of Manpower, 31*, 73-92. <http://doi.org/dh98sd>
- Jones, G. R., & George, J. M. (1998). The experience and evolution of trust: Implications for cooperation and teamwork. *Academy of Management Review, 23*, 531-546. <http://doi.org/fpg8nn>
- Kivimäki, M., Kalimo, R., & Salminen, S. (1995). Perceived nuclear risk, organizational commitment, and appraisals of management: A study of nuclear power plant personnel. *Risk Analysis: An International Journal, 15*, 391-396. <http://doi.org/bs4b6f>
- Liou, K. T. (1995). Understanding employee commitment in the public organization: A study of the juvenile detention center. *International Journal of Public Administration, 18*, 1269-1295. <http://doi.org/dr6mp4>
- Liu, X. P. (2005). Testing the comprehensive developmental model of organizational commitment [In Chinese]. *Science Research Management, 26*, 87-93.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1*, 61-89. <http://doi.org/bxtznf>
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnysky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*, 20-52. <http://doi.org/djh2bm>
- Molm, L. D., Takahashi, N., & Peterson, G. (2000). Risk and trust in social exchange: An experimental test of a classical proposition. *American Journal of Sociology, 105*, 1396-1427. <http://doi.org/bx4m7q>

- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14*, 224-247. <http://doi.org/b26bsn>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*, 879-903. <http://doi.org/czw>
- Post, J. E., & Andrews, P. N. (1982). Case research in corporation and society studies. In L. Preston (Ed.), *Research in corporate social performance and policy* (Vol. 4, pp. 1-33). Greenwich, CT: JAI.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology, 87*, 698-714. <http://doi.org/cdh8c7>
- Robinson, S. L. (1996). Trust and breach of the psychological contract. *Administrative Science Quarterly, 41*, 574-599. <http://doi.org/bkncfh>
- Sheppard, B. H., & Sherman, D. M. (1998). The grammars of trust: A model and general implications. *Academy of Management Review, 23*, 422-437. <http://doi.org/bphs5t>
- Shore, L. M., & Barksdale, K. (1998). Examining degree of balance and level of obligation in the employment relationship: A social exchange approach. *Journal of Organizational Behavior, 19*, 731-744. <http://doi.org/fb4mr8>
- Slovic, P. (1987). Perception of risk. *Science, 236*, 280-285. <http://doi.org/ddjdjh>
- Song, J. H., Kim, H. M., & Kolb, J. A. (2009). The effect of learning organization culture on the relationship between interpersonal trust and organizational commitment. *Human Resource Development Quarterly, 20*, 147-167. <http://doi.org/czp7fq>