Employee voice implications for innovation in a deliberative environment context of Indian organizations

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Abstract

Purpose – Extant literature shows that employee voice has ambiguous effects on organizational outcome. Especially because employee voice challenges the status quo, it can attract retaliation and lead to silencing of the employee. Thus, rather than producing change, employee voice can lead to increase in workplace tensions. On the other hand, employee voice also has positive consequences such as building a partnership-based culture between supervisors and employees. The purpose of this article is to reconcile these contradictory findings by reinforcing voice as having a deliberative dimension which fosters a harmonious dialogue around workplace issues.

Design/methodology/approach – We surveyed 628 managers working in organizations across different industrial relations contexts in India. Managers working in different sectors were chosen so that we could examine the consequences of employee voice across contexts with differing trade union strengths. We adopted a Structural Equation Modeling (SEM) approach to test the effect of employee voice on environment for innovation.

Findings – We find that trust in senior management and relationship between employees and their supervising managers mediate the relationship between employee voice and environment for innovation. The findings in the article do reconcile an important dilemma about employee voice. Earlier studies have argued that employee voice is a mechanism for engaging with the dissatisfaction that employees may have in their workplaces. Our study indicates that when deliberative elements are incorporated into employee voice it is no longer merely a means for addressing dissatisfaction but constructively contributes to positive organizational outcomes such as environment for innovation.

Research limitations/implications – The effects of employee voice on environment for innovation can be understood more clearly by adopting a longitudinal research design. The findings of this article are limited by the cross-sectional frame of research design adopted. The scale that is developed for employee voice needs more validation in other international contexts.

Practical implications – This study provides a framework through which employee voice can be shifted from adversarial frames of reference to harmonious and partnership-based forms of engagement. This also has the potential to transform the role of trade unions inside organizations and build a more collaborative edifice between multiple stakeholders. Another implication is that when voice is seen in a deliberative fashion it can lead to improved environment for innovation.

Originality/value – The purpose of this study is to contribute to reconceptualization of employee voice by contending that deliberative issues are an important part of transforming the status quo. Consequently, the patterns of deliberation structure constructive partnerships between different organizational stakeholders who may be perceived as having hostile relationships with each other. This study reconciles previous findings which suggested that employee voice can have negative consequences such as retaliation by suggesting that positive consequences of employee voice are contingent on its deliberative component.

Keywords Innovation, Trade unions, Quantitative, Employee voice, Deliberative environment, Relationship with supervisor

Paper type Research paper

Introduction

The influence of employee voice on organizational processes in finding solutions to work-related problems has been an important concern (Janssen *et al.*, 1998). Voice is defined as "the provision of information from a source to a target in the hope that the target will take action for a collective" (Detert *et al.*, 2013, p. 626). Because employee voice is of many types such as prosocial, grievance filing, whistleblowing, informal complaints and participation in constructive suggestions (Detert and Trevino, 2010), we follow Klaas *et al.* (2012, p. 314) in adopting an integrative approach to employee voice so as to "facilitate the productive use of workplace voice". It is interesting to note that important advances in social theories such as deliberative democracy, which deal with issues of voice at a broader social level (Habermas, 1989) have largely been neglected in human resource management research.

Deliberative democracy implies that "actors should settle their differences through deliberation, and they should refrain from using non-persuasive methods" (Fung, 2005, pp. 398–399). Studying employee voice from a deliberative democratic perspective can help in reconciling findings, which suggest adverse consequences for employees engaging in voice behaviours such as erosion of psychological safety (Detert and Burris, 2007; Van Dyne and LePine, 1998).

Employee voice involves challenging the status quo with a view to improve organizational processes (Chan, 2014; Detert and Burris, 2007; Van Dyne and Le Pine, 1998) and foster greater innovation (Morrison and Milliken, 2000). Employees are averse to expressing voice in the context of personal and behavioural controls imposed on them (Chan, 2014). Employee voice can have both negative and (Detert *et al.*, 2013) positive consequences for organizations (Morrison and Milliken, 2000). Recently, Detert *et al.* (2013) posited that employee voice has negative consequences when the recipient of voice is relatively powerless in the organization, whereas it has positive consequences if the recipient is a powerful agent in the organization (Detert *et al.*, 2013). However, such a finding, normalizing power differences, is contradictory with other findings, which suggest that power distance has a negative impact on employee voice (Chan, 2014).

Innovation is defined as the development and implementation of new ideas (Carmeli and Spreitzer, 2009) and is linked to employee voice. There are three main difficulties in understanding the linkage between voice and innovation. First, the personality trait of being innovatively predisposed is considered necessary for innovation (Janssen *et al.*, 1998). Second, although innovation is related to employee satisfaction (Janseen *et al.*, 1998), employee voice has been argued to be related to employee dissatisfaction (Detert *et al.*, 2013). Third, because employee voice is seen as a consequence of supervisory support (Detert and Burris, 2007), employees' contribution to innovation may be constrained (Morris *et al.*, 1993).

In order to overcome these difficulties, we integrate deliberative democracy and employee voice perspectives, which has two advantages. First, deliberative democracy focuses on transparency and accountability (Healy, 2011, p. 295), which are necessary for strengthening the relationship between voice and environment for innovation. Second, deliberative democracyperspectives can be helpful in reconciling tensions between collective and individual forms of employee voice and the role of trade unions (Barnes *et al.*, 2008).

The key contribution of this study is twofold. First, we explore the research question of how organizational constraints on voice can be overcome for channelizing voice as an input for a more conductive environment for innovation. Second, we also make a methodological contribution by developing new scales for measuring employee voice and environment for innovation.

We empirically test our proposed framework using structural equation modelling (SEM) technique using data collected from 628 employees from five sectors of Indian industry namely telecommunication, information technology, manufacturing, pharmaceuticals and banking. These sectors were chosen because they represent a mix of knowledge economy and

traditional businesses offering a range of contexts in the form of unionised and non-unionised workplaces.

Theory and conceptual framework

Deliberative democracy

With its focus on transparency and accountability, deliberative democracy has the potential to overcome personality-centred conceptualisations of employee voice and innovation. In the context of trade union decline, employee voice can be seen as an alternative form of participation (Holland *et al.*, 2012). In such contexts, when personality becomes the primary driver of organizational change (Chan, 2014), employees may experience a higher amount of insecurity. Such insecurities can be overcome by adopting the principles of deliberative democracy based on practical compromise (Habermas, 2001) which are compatible with a neo-pluralist industrial relations conceptualisation of employee voice.

Employee voice has organizational implications beyond engagement with negative experiences (Hirschman, 1970). Employee voice premised on the principle of transparency can lead to product innovation and continuous process improvement (Bernstein, 2012). In this context, it is important to note that deliberative democracy involves the willingness to acknowledge the concerns of others and engage in a process of sincere deliberation (Tarnopolsky, 2007). These processes help in discussion and sharing of new ideas more freely, thus facilitating innovation (Nonaka, 1994). Deliberative democracy expands the possibility of discussion among multiple stakeholders (Habermas, 2001). Therefore, a greater degree of trust and partnership can develop between multiple stakeholders and aid the processes of voice (Upchurch *et al.*, 2006). These processes of voice can enhance the quality of administrative and governing processes, thereby leading to a greater degree of satisfaction among multiple stakeholders.

Hypothesis development

Employee voice and environment for innovation. An informal bottom-up approach may be necessary for employees to contribute to innovation through their voice behaviours (Teglborg-Lefevre, 2010). Employee voice is an important mechanism for mobilizing the knowledge and creativity of employees for innovation (Lee *et al.*, 2010). Deliberative democracy literature also suggests that voice mechanisms can lead to participation of people in deliberative spaces leading to efficient policymaking and enhanced well-being (Barnes, 2008). Furthermore, employee voice facilitates a culture of informal negotiations within the organization (Holland *et al.*, 2012) and contributes to an organizational ethos of creative inputs and discussions which facilitates a positive environment for innovation.

Furthermore, it is interesting to note that human capital by itself has been shown to have a negative effect on innovation (Subramaniam and Youndt, 2005); it is only the interaction of human capital with social capital that leads to innovative outcomes (Hargadon and Sutton, 1997). Although it can be argued that voice which enhances social capital can moderate the relationship between human capital and innovation, from a standpoint of deliberative democracy theory, we contend that deliberative environments are strong repositories of tacit knowledge (Habermas, 1989). Especially because human capital has a negligible impact on incremental innovation (Subramaniam and Youndt, 2005), we believe that rather than a moderating impact, employee voice which draws upon deliberative orientations can have a direct positive impact on an environment for innovation.

H1. Employee voice has a positive impact on environment for innovation.

Employee voice and relationship with supervisory manager. Employee voice leads to greater autonomy and harmonious relationships between supervisors and employees (Cox *et al.*,

2006). From a deliberative democracy perspective, autonomy and experimentation are important aspects of voice (Festenstein, 2004). The primary requirement for fostering experimental attitudes in the workplace is the existence of extensive voice mechanisms. Through these mechanisms, employees may obtain an opportunity to voice their ideas and suggestions and outline the constraints under which they are functioning. On the other hand, the absence of voice mechanisms could lead to an escalation of conflicts. However, when managers acknowledge employee voice, their relationship with employees is strengthened (Cox *et al.*, 2006), leading to better cooperation among them.

> *H2.* Employee voice has a positive impact on the relationship between employees and their supervising managers.

Employee voice and trust in senior management. Because employee voice engenders trust of employees in senior management (Holland *et al.*, 2012), it can facilitate better discussions with employees on a range of issues. Employee involvement entails institutionalisation of voice mechanisms whereby the distrust and suspicion between management and employees can be reduced (Farndale *et al.*, 2011). Voice mechanisms provide employees with opportunities to share their opinions leading to greater trust and harmonious relations between employees and senior management (Boxall and Purcell, 2011). Deliberative democracy theorists propose that a breakdown in trust leads to a closure of communication channels and workable agreements (Dryzek, 2013). On the other hand, management trustworthiness and fairness enhance the confidence of employees and enable them to contribute to innovation.

> *H3.* Employee voice has a positive impact on employees' trust in senior management in an organization.

The mediating effect of relationship with supervising manager and trust in senior management on environment for innovation. Internalization of values and commitment towards innovation is increased because of strong relationships between employees and their supervising managers (Neves and Caetano, 2009). The prevalence of cooperation and consensus between employees and their supervising managers facilitates development of organizational processes and capabilities required for innovation (Teague and Roche, 2012). Along with strong relationships between employees and supervising managers, trust in senior management is also necessary for building a positive environment for innovation (Anderson *et al.*, 2014). Trust in senior management provides employees with the confidence to engage in innovative behaviours (Farndale *et al.*, 2011).

Trust, effective relationships between subjects and innovation are also central to the conceptualization of deliberative democracy, as the degree of tolerance towards diverse opinions is associated with the legitimacy of institutions (Habermas, 1985). An institution's legitimacy is associated with its commitment to innovation, openness, tolerance, diversity and dissent (Habermas, 1985). Managerial accountability for the well-being of employees can facilitate an environment for innovation to a great extent. Senior management can demonstrate its commitment to employees' well-being by empowering, defusing group thinking and preventing polarization of values, all of which are key elements of deliberative democracy practice (Karpowitz *et al.*, 2009).

Trust in senior management is likely to mediate the relationship between voice and environment for innovation as trust signifies the credibility and legitimacy of senior executives in making important organizational decisions (Albrecht and Travaglione, 2003). Similarly relationship with supervisor is an important element of tangible experience in the workplace as it helps in improving positive experiences and attenuating negative experience (Zhang *et al.*, 2008). Thus, it is likely that relationship with supervisor will mediate the effect of

employee voice on environment for innovation as it helps in reducing stressors and brings out the best from employees.

H4a. Employee relationships with supervising managers positively mediate the relationship between employee voice and environment for innovation.

H4b. Employee trust in senior management positively mediates the relationship between employee voice and environment for innovation.

Figure 1 integrates these hypotheses in a conceptual framework.

In the above model, we are thus positing a general framework indicating that employee relationships with supervising managers and employee trust in senior management positively mediate the relationship between employee voice and environment for innovation. The consequences of employee voice need to be managed in order to keep voice functional and within the deliberative realm (Farndale *et al.*, 2011). The functionality of voice is contingent upon trust in senior management and relationship with supervising managers. In the absence of these factors, voice may take more hostile turns and produce potentially negative outcomes (Detert and Trevino, 2010). Thus, by overcoming some of the negative expressions of voice, relationship with supervising manager and trust in senior management play a crucial role in mediating the positive effect of employee voice on environment for innovation

Method

Sample and data collection
The study population comprised private and public firms in five sectors of Indian industry including the following: (1) telecommunication; (2) information technology; (3) manufacturing; (4) pharmaceuticals and (5) banking. We chose these sectors because they represent different industrial relations contexts in terms of the relative strength of trade unions. We used Prowess Release 3.1 database from the Centre for Monitoring Indian Economy (CMIE) to identify the firms of the five-targeted sectors. In addition, we also collected data from some unlisted private firms. Collecting data from unlisted firms was helpful in accounting for industrial relations frameworks which rely more on informal relationships between management and trade unions rather than formal systems of engagement.

Data collection strategy
We developed the survey and collected the data for this study in the following three stages: (1) qualitative field interviews; (2) pretest and (3) survey administration.
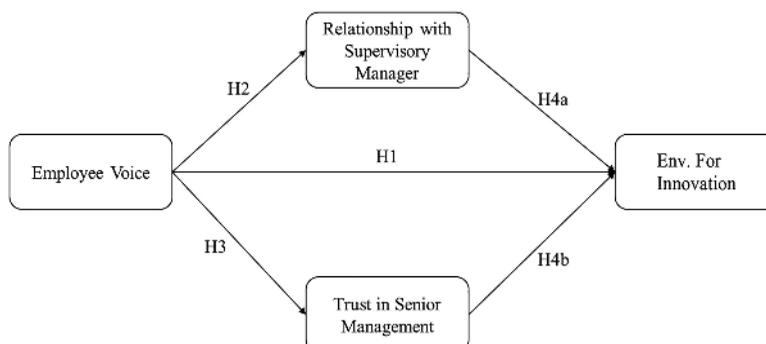
Figure 1.
Conceptual framework

We conducted 10 explorative interviews with four academics and six HR managers conversant with the field to clarify the content and structure of the study framework. Each interview lasted between 60 and 90 min. The details of the interviews are given in Table I. Next, we contacted 16 HR managers for the pretest of the survey out of which 10 agreed to participate. After completing the pretest, we conducted interviews with them. Based on their feedback, we finalized the format of the survey. Finally, we collected data from June 2013 to November 2013 by posting questionnaires to employees in organizations. The survey was also translated into Hindi because many employees were not familiar with English. Although these employees were working in managerial positions, they were working in medium scale

Narratives	Issues	Pointers for developing items
"Many times as a manager I face difficulties with young and brash MBAs who are appointed as my supervising managers. They don't have patience to listen to voices of employees. But they don't realize that they can get nothing done without our cooperation. Whenever I have faced difficulties with these supervising managers, I have walked up to them and told them – will you behave in this fashion with your father or some other elder in the family? This has made them more amenable to listen to voices of workers" HR manager in a pharmaceutical company	The need for employee consultation as an important form of voice	The need to listen to voices of employees with care
"The number of accidents had suddenly increased during the past two months. Workers were afraid to enter the factory. Then we suggested some changes such as re-designing some of the equipment to our senior managers. We had suggested simple changes. But the management accepted these changes and the number of incidents reduced sharply" HR manager in a manufacturing company	Deliberative environment for innovation as being conducive for positive changes	The need to facilitate suggestions for incremental innovation
"We told our senior managers that the number of rejections were increasing because our targets for shop-floor workers had increased. Earlier, greater amount of time was available for rest. Now the shop-floor workers did not even have time to eat lunch. They were forced to eat lunch on the shop-floor itself while doing work. There is no lunch break now. With this kind of a situation, errors are bound to increase. Workers need rest. Otherwise they will be stressed" HR manager in a manufacturing company	Opportunity for deliberation as an indicator for organizational capacity to discuss negative consequences of policies	An open culture of critique leading to greater voice

Table I.
Findings of qualitative interviews

organizations and were many times less comfortable in answering questions in English. Therefore, in order to ensure that they fully understood the questions, the questionnaire was translated into Hindi.

We released a total of 2,986 surveys to employees in 362 firms (telecommunication – 57; information technology – 83; manufacturing – 52; pharmaceuticals – 122 and banking – 48). Finally, we received 713 responses from 169 firms, out of which 628 surveys were usable, reflecting a response rate of 21.03 percent. Table II presents the sample characteristics.

Measures
We used multi-item scales for dependent and explanatory variables, with each item measured using a seven-point Likert type scale, with a score of 1 indicating very "strongly disagree", and a score of 7 indicating "very strongly agree". We followed DeVellis (2003) to generate the initial items for those study constructs for which reliable measures were not available. Where adequate measures were available, we adapted them from prior studies. We divided 628 usable cases into the following two parts: (1) one for assessing dimensionality, reliability and validity of the measures and (2) the other for testing the hypothesized model.

We generated the initial pool of items by paying close attention to the deliberative democracy literature and issues that were important within that literature. We then translated these issues into concerns that were relevant to organizational processes of voice and innovation. We generated at least thirty items each for each of the sub-dimensions of voice and innovation. We then established the face validity of these items by showing them to five HR managers and five academics. We eliminated those items about which enough consensus did not exist. We also rephrased some of the items based on the suggestions of our experts before collecting data to validate the measures.

Respondent and firm characteristics	(%)
Number of firms	
Telecommunication	16.4
Information technology	28.3
Manufacturing	21.7
Pharmaceutical	19.1
Banking	14.5
Gender of respondents	
Males	62.4
Females	37.6
Experience of the respondents (in yrs)	
≤ 1	3.2
>1 and ≤ 5	32.6
>5 and ≤ 10	22.7
>10 and ≤ 15	14.4
>15	27.1
Age of the respondents (in yrs)	
≤ 25	5.5
>25 and ≤ 30	10.3
>30 and ≤ 35	14.4
>35 and ≤ 40	21.9
>40 and ≤ 45	13.2
>45 and ≤ 50	12.9
>50 and ≤ 55	11.2
>55	10.6
Note: $N = 628$	

Table II.
Sample characteristics

Dependent variable. Generally, researchers prefer to measure innovation in terms of new product development (Damanpour, 1991). However, because we were interested in the social processes which foster innovations, we developed a multidimensional scale for innovation from a deliberative democracy perspective. We, therefore, conceptualized *environment for innovation* as a two-dimensional second-order construct, with the underlying dimensions as follows: (1) *deliberative environment for innovation* (Richey, 2012); and (2) *agent security for innovation* (Teorell, 1999). A deliberative environment for innovation is defined as the organizational process which enables organizational actors to contribute to innovation by amending their actions and beliefs on the basis of emerging evidence (Richey, 2012). Agent security for innovation is defined as providing security to organizational subjects offering innovative ideas by creating a culture of respect for rational arguments and space for dissent within the organization (Teorell, 1999). Following these arguments, we constructed a four-item scale for deliberative environment for innovation and another four-item scale for agent security for innovation. The scale for deliberative environment for innovation focussed on measuring the openness of management in welcoming suggestions of employees, and the ability of managers to overcome their initial preferences while reacting to employees' suggestions. The scale for agent security for innovation focussed on measuring the autonomy and freedom provided to employees to come up with new ideas.

Explanatory variables. From a deliberative democracy perspective, we conceptualized *employee voice* as a reflective–reflective type three-dimensional second-order construct, with the underlying dimensions as follows: (1) *employee consultation in the context of change* (Farndale *et al.*, 2011); (2) *opportunity for deliberation* (Karpowitz *et al.*, 2009) and (3) *dialogical orientation* (Healy, 2011). Based on the work of Farndale *et al.* (2011), we adapted a three-item scale for *employee consultation in the context of change*. Employee consultation in the context of change is defined as "employee's ability to influence the outcome of organizational decisions by having the opportunity to advance their ideas and have them considered" (Farndale *et al.*, 2011, p. 114). Following Karpowitz *et al.* (2009, p. 582), we define *opportunity for deliberation* as facilitating organizational processes, which provide employees with "an opportunity to develop their own unique perspectives and arguments, which might otherwise be overlooked or ignored". We constructed a four-item scale for opportunity for deliberation, which focussed on measuring information sharing with employees and managerial practices which respect employees' rights to form their own independent opinions and communicate them to management. Following Healy (2011, (p. 303), we define *dialogical orientation* as the willingness of management to accept employees as dialogue partners and "a commitment to openness" in putting "initial prejudgments and prejudices at risk". We constructed a four-item scale for dialogical orientation which focussed on measuring management's willingness to engage in open negotiations with employees and make practical compromises to arrive at pragmatic solutions. We constructed a multidimensional measure of employee voice as it provided two advantages. First, because voice is meaningless in the absence of allowing subjects to voice disagreements (Healy, 2011), dialogical orientation and opportunity for deliberation are crucial for building effective employee voice mechanisms. Second, because subjects must have the capacity to move away from taken-for-granted positions to unfamiliar positions of negotiation (Healy, 2011; Taylor, 1994), it is necessary to incorporate dialogical and deliberative issues while measuring employee voice.

Drawing from the prior works of Farndale *et al.* (2011), Cook and Wall (1980) and Unden (1996), we adapted a three-item scale for *relationship with supervisory manager*. Based on the prior works of Farndale *et al.* (2011) and Cook and Wall (1980), we adapted a three-item scale for *trust in senior management*.

Control variables. We used three variables, namely, *existence of trade unions in an employee's organization*, *membership of employees in trade unions* and the *ownership of the organization: public sector or private sector*, to control for the possible confounding effects. We

used existence of trade unions and union membership as control variables because earlier studies have reported that union membership has a negative impact on employee voice and trust (Holland *et al.*, 2012). We included the nature of ownership of the organization as a control variable as earlier studies have reported that employees in public sector organizations enjoy less satisfactory relationship with their supervisors than employees in private sector organizations (Brunetto *et al.*, 2010). Table III presents the details of scale items used in this study.

Analysis and results

Data purification

We adopted Hair *et al.*'s (2012) univariate approach to detect outliers. Results showed that no significant outliers existed. Little's (1988) missing completely at random (MCAR) test showed that data was found to be missing completely at random. We excluded questionnaires with more than 10 per cent missing values, and imputed the remaining missing values using maximum likelihood (ML) estimation (Hair *et al.*, 2012). Following the approach of Armstrong and Overton (1977), we examined the non-response bias by using three weeks period as a dividing point between early informants and late informants because we sent the reminder e-mails to non-informants three weeks after the initial e-mails. The results of *t*-test showed no significant differences in the means of all items between the two groups ($p > 0.05$). We also assessed the data to examine linearity, multivariate normality, heteroscedasticity and multicollinearity, to ascertain the extent to which the data followed multivariate regression analysis assumptions. The data did not show any significant deviations from these assumptions.

Common method bias

As we had collected all the measurement items through the same survey instrument, there is also the potential for common method bias (CMB) (Podsakoff *et al.*, 2003). We conducted two tests for examining the CMB. First, the results of the unrotated factor solution for the Harman one factor test (Podsakoff *et al.*, 2003) showed that the extracted factor explained only 31.87 per cent (<50 per cent) of the variance. Because no single dominant factor emerged, we assumed that CMB did not affect the significance of the relationships. Second, we conducted the common latent factor method (Podsakoff *et al.*, 2003). The square of the unstandardized regression coefficients from the common factor is approximately 1.96 per cent, which is the common shared variance, suggesting that there was no problem of CMB.

Scale validity and reliability

We conceptualized all the first-order constructs as reflective measurement models. Because there were total 25 items, we randomly drew 200 cases (1:8) for exploratory factor analysis (EFA) (Hair *et al.*, 2012). The results of the EFA confirmed the unidimensionality. Next, we examined the internal consistency by calculating the Cronbach's alpha. Table II shows that Cronbach's alpha of each construct is greater than the threshold value of 0.7 (all are ≥0.72) (Nunnally, 1978).

Measurement model

Convergent validity. The results of the confirmatory factor analysis (CFA) using the remaining 428 cases show that the fit indices for each measurement model of the first-order constructs are within the acceptable limits and the factor loadings of the items were above the threshold limit of 0.4 (all were ≥0.52) (Table II) (DeVellis, 2003). The composite reliability and average variance extracted (AVE) of all the first-order constructs were above the threshold levels of 0.60 and 0.5 (Fornell and Larcker, 1981), thus supporting the convergent validity of the first-order scales.

		Mean	SD	Factor loading	α	CR	AVE
	Employee voice (2nd order reflective-reflective construct)				0.88	0.91	0.71
	Employee consultation in the context of change My supervisor				0.84	0.89	0.59
1a	. . . takes suggestions of employees into consideration while implementing changes	3.94	1.54	0.86***			
1b	. . . takes the views of employees seriously while drafting a change proposal	4.66	1.57	0.92***			
1c	. . . meets employees individually to discuss proposed changes	4.61	1.63	0.91***			
	Opportunity for deliberation In my organization, management				0.72	0.81	0.52
2a	. . . promptly shares information sought by employees	4.61	1.88	0.72			
2b	. . . provides employees with an opportunity to be heard when they oppose decisions taken by the management	4.52	1.86	0.52			
2c	. . . punishes employees who express their disagreement with existing organizational practices[a]	4.42	1.74	0.79			
2d	. . . encourages employees to discuss organizational challenges among themselves	4.87	1.55	0.81			
	Dialogical orientation In my organization, management is willing to				0.86	0.92	0.75
3a	. . . learn from its mistakes and find ways of improving organizational processes in discussion with employees	4.15	1.84	0.84***			
3b	. . . listen to constructive criticism made by employees to improve organizational processes	3.80	1.71	0.88***			
3c	. . . make practical compromises on issues raised by employees	4.09	1.88	0.86***			
3d	. . . make reasonable concessions if employees cooperate in achieving organizational goals	4.17	1.80	0.87***			
	Relationship with supervising manager				0.89	0.93	0.81
4a	I get support from my supervisor when I have a problem at work	4.69	1.74	0.89***			
4b	I feel confident that my supervisor will always try to treat me fairly	4.86	1.78	0.91***			
4c	My supervisor gives me feedback on how well I am performing in my work	5.22	1.61	0.89***			
	Trust in senior management Our senior management				0.75	0.77	0.53
5a	. . . is sincere in its attempts to take account of the employees' point of view	4.27	1.41	0.80***			
5b	. . . can be trusted to make sensible decisions for this organization's future	4.25	1.48	0.63***			
5c	. . . can be trusted to provide a good career path to employees	3.81	1.31	0.75***			
	Innovation (2nd order reflective–reflective construct)				0.91	0.92	0.73
	Deliberative environment for innovation In my organization				0.82	0.83	0.64

Table III.
Psychometric properties of the measurement scales

		Mean	SD	Factor loading	α	CR	AVE
6a	. . . managers are open to receiving new information from employees who provide evidence contrary to existing beliefs	4.85	1.60	0.82***			
6b	. . . managers rationally evaluate the suggestions of employees rather than emotionally reacting to them	4.32	1.64	0.93***			
6c	. . . managers are able to overcome their initial likes and dislikes while processing suggestions made by employees	4.45	1.46	0.89***			
6d	. . . managers are not defensive in rejecting negative evidence from employees about existing organizational processes	3.92	1.53	0.83***			
	Agent security for innovation				0.89	0.91	0.65
	In my organization						
7a	. . . employees with new ideas are valued	4.51	1.86	0.83***			
7b	. . . employees with new ideas feel frustrated[a]	4.42	1.90	0.76***			
7c	. . . employees with new ideas feel powerless[a]	4.51	1.78	0.75***			
7d	. . . employees with new ideas get a lot of support from colleagues	4.43	1.82	0.84***			

Notes: $N = 628$
***Significant at 0.001 (two-tailed); SD–Standard deviation
[a]Negatively worded item

Table III.

Discriminant validity. Table IV presents the square roots of the AVE for each construct along the diagonal, and the correlation coefficients among all theoretically-related constructs in the off-diagonal elements and shows that the relevant diagonal element is greater than each of the off-diagonal elements. Also, AVE > average and maximum for each construct. These tests provide evidence of discriminant validity of the constructs (Fornell and Larcker, 1981).

In addition to the statistical tests which show the distinction between the constructs of employee voice and environment for innovation, there are two theoretical reasons for substantiating the difference between these two constructs. First, according to Habermas (2001), voice mechanisms in a socio-organizational space depend on the practice of translation which involves the discussion of technical themes as they are translated into the language of every day practice. According to Habermas (1996), environment for innovation in socio-organizational spaces reflects the ability of systems to integrate diverse points of view to evolve and develop into newer processes and templates. Thus, although both environment for innovation and employee voice draw from common deliberative templates, the distinction between them is that voice draws upon templates of translation, whereas innovation draws upon the conceptualization of integration. Although employee voice translates everyday practical concerns of employees into broader organizational issues and the need for systemic improvement and innovation, environment for innovation reflects the ability of managerial systems to synthesize and integrate diverse opinions of employees.

Validity of second-order constructs
The factor loadings of the first-order latent constructs on the second-order construct was greater than 0.4 (Table III). We also assessed the convergent and discriminant validity of these second-order constructs. Table III shows that the CR and AVE of each second-order construct were above 0.6 and 0.5 respectively. Thus, there was evidence of convergent and discriminant validity of the second-order constructs.

Sr. No	Variable	Mean	SD	AVE	MSV	ASV	1	2	3	4	5	6	7	8	9	10
1	Employee consultation in the context of change	4.33	1.22	0.59	0.45	0.18	0.77									
2	Opportunity for deliberation	4.62	1.27	0.52	0.44	0.18	0.62	0.72								
3	Dialogical orientation	4.04	1.56	0.75	0.44	0.17	0.67	0.66	0.87							
4	Relationship with supervising manager	4.93	1.54	0.81	0.26	0.11	0.51	0.48	0.47	0.90						
5	Trust in senior management	4.73	1.03	0.53	0.35	0.17	0.59	0.57	0.53	0.38	0.73					
6	Deliberative environment for innovation	4.42	1.36	0.64	0.31	0.10	0.30	0.29	0.27	0.28	0.49	0.80				
7	Agent security for innovation	4.38	1.35	0.75	0.31	0.09	0.25	0.28	0.28	0.25	0.46	0.56	0.87			
8	Trade union presence	0.61	0.17				0.09	0.07	0.08	0.07	0.01	0.05	0.06			
9	Trade union membership	0.57	0.18				0.12	0.11	0.10	0.08	0.05	0.07	0.05	0.86		
10	Public/private sector	0.53	0.23				0.06	0.04	0.06	0.03	0.02	0.03	0.02	0.90	0.77	

Note: $N = 628$

Structural model
We chose SEM approach as we were able to assess the measurement model and the structural model simultaneously (Bollen, 1989). We used AMOS 18 software to test the conceptual model. Our analysis showed that our conceptual model fits the data satisfactorily (χ^2/df = 1.27; GFI = 0.94, NFI = 0.92, CFI = 0.99, TLI = 0.99, RMSEA = 0.04, and SRMR = 0.03) (Hair *et al.*, 2012). These fit measures exhibit a high level of overall model fit (Hair *et al.*, 2012).

Hypotheses testing
The positive and significant path coefficient between employee voice and environment for innovation (β = 0.21, p < 0.05) provides support for hypothesis 1.

The positive and significant path coefficient between employee voice and relationship with supervisory manager (β = 0.57, p < 0.01) provide support for hypothesis 2.

The positive and significant path coefficient between employee voice and trust in senior management (β = 0.76, p < 0.01) provide support for hypothesis 3.

To test hypotheses 4a and 4b, we applied the approach of Baron and Kenny (1986) to test for mediation. The direct path from relationship with supervisory manager to environment for innovation was positive and significant (β = 0.24; p < 0.05) as was the direct path from trust in senior management to environment for innovation (β = 0.51; p < 0.01). In addition, the indirect effect of employee voice on environment for innovation via relationship with supervisory manager and trust in senior management is significant (indirect effect via relationship with supervisory manager = 0.12, p < 0.05; indirect effect via trust in senior management = 0.37, p < 0.01). The tests of Sobel (1982) confirmed the partial mediating role of both effects (relationship with supervisory manager: z = 2.61, p < 0.01 and trust in senior management: z = 2.82, p < 0.01). Thus, the results of these tests support hypotheses 4a and 4b. Figure 2 presents the results of the hypotheses testing.

With respect to control variables, we found that union membership has a weak but positive impact on employee voice (β = 0.07, t = 1.74, p < 0.1), whereas employees working in the public sector did not report any significant difference in the nature of their relationships with supervisors compared to their private sector counterparts. The analysis reveals that existence of trade unions in an employee's organization (β = 0.04, t = 1.36, p > 0.1), membership of employees in trade unions (β = 0.06, t = 1.49, p > 0.1) and nature of ownership of the organization (β = 0.02, t = 0.98, p > 0.1) have an insignificant effect on environment for innovation.

Finally, to determine the impact of each explanatory variable on the dependent variable environment for innovation, we computed the effect size f^2 using the formula: $f^2 = (R^2_{included} - R^2_{excluded})/(1 - R^2_{included})$ (Cohen, 1988). We used the f^2 values of 0.02, 0.15 and 0.35, respectively, as guidelines for small, medium and large effect sizes of the explanatory variables (Cohen, 1988). Table V summarizes the respective effect sizes of various constructs at the structural level.

Discussion
Our study seeks to explore several important issues in the employee voice literature. Instead of relying on personality- based explanations of innovation (Janssen *et al.*, 1998), we conceptualized environment for innovation in terms of the deliberative environment required for innovation and security required by employees to contribute to innovation. Thus, departing from the previous studies, which posit that only those employees contribute to innovation, who exhibit psychological preferences for developmental opportunities, vitality and learning at work (Carmeli and Spreitzer, 2009), we provide an alternative explanation to
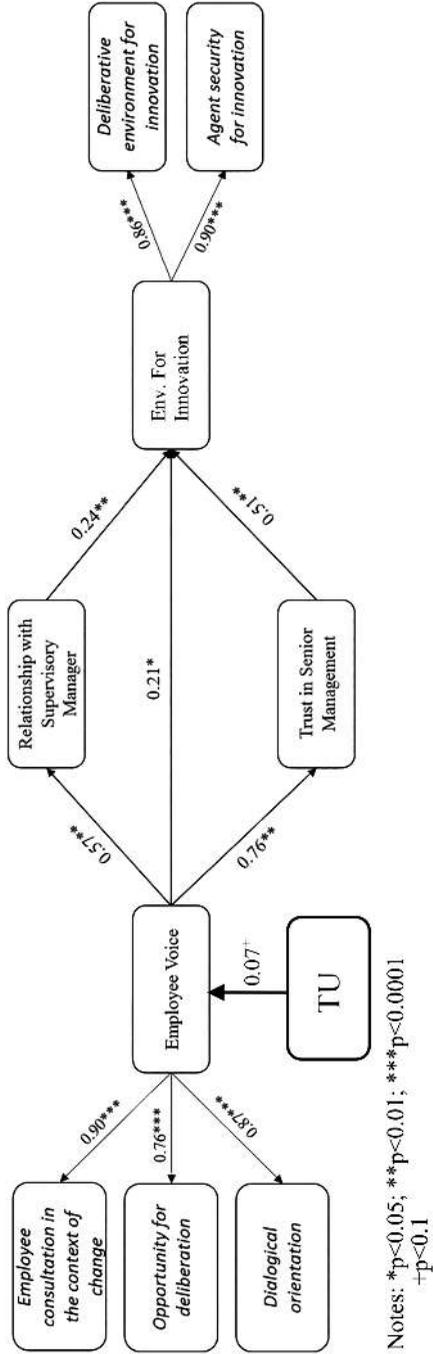
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Figure 2.
Result of model
estimation

the relationship between employees and their ability to participate in an environment for innovation.

Our study uses an expanded idea of voice from a deliberative perspective providing greater salience to views which may have been marginalized under traditional voice mechanisms. Extant theory on employee voice has relied on social exchange perspectives to suggest that the presence of voice can lead to more effective relationships with supervisors (Farndale *et al.*, 2011). However we extend this understanding by providing evidence that when voice is considered from a deliberative perspective the positive outcome of environment for innovation is channelized through better relationships with supervisors and trust in senior management. Although the restriction on employee voice has earlier been found to be based on personal and behavioural controls (Chan, 2014), we find that employee voice is productive largely in the presence of a deliberative environment. Thus behavioural controls may become salient only in the absence of a deliberative environment and are largely likely to be attenuated when deliberative processes channelize voice for positive outcomes. With respect to behavioural controls, it has been argued that managerial openness and leadership have a positive impact on employee voice (Detert and Burris, 2007).

In this context, our results show that trust in senior management has a greater impact on environment for innovation compared to relationship with supervisory managers (Table V). Although a sense of psychological safety provided by supervisory managers is important (Brunetto *et al.*, 2010; Detert and Trevino, 2010), trust in senior management may play a more vital role in rendering security to agents contributing to innovation. Thus, voice embedded in deliberative democracy frameworks may be more dependent on institutional climates of rational dialogue within organizations rather than on pockets of solace provided by reasonable supervisors.

Theoretical and methodological contributions
We offer a theoretical perspective whereby employee voice and innovation are not necessarily contingent on personality considerations and can be driven by organizational processes immersed in deliberative elements. We also contribute to industrial relations theory by arguing that by incorporating a deliberative component it is possible to overcome the negative effects of employee voice. By integrating deliberative democracy perspectives into employee voice, we argue that the spirit of confrontation is defused and replaced by a spirit of dialogical pragmatism on issues pertaining to employee voice and environment for innovation, thus establishing the foundations of a neo-pluralist industrial relations framework founded on deliberative democracy, where interacting stakeholders engage each other to achieve organizational goals through an innovation orientation.

By developing new scales for employee voice and environment for innovation, we are able to assess their relationship with other variables such as trust in senior management and relationship with supervising managers more effectively. In contrast to earlier theory where relationship with supervising manager was itself posited as an important outcome of voice along with other individual level outcomes such as satisfaction (Farndale *et al.*, 2011; Holland *et al.*, 2012), we contend that the variables of relationship with supervising manager and trust in senior management can channelize the impact of voice for the organizational outcome of an

Variable	R^2	f^2	Effect size	
Innovation	0.65			**Table V.**
Employee voice		0.16	Medium effect	Effect size of the latent
Relationship with supervising manager		0.37	Large effect	variables on the
Trust in senior management		0.46	Large effect	dependent variable innovation

environment for innovation. Thus, we provide evidence that individual characteristics such as managerial openness or leadership need not be the arbiters of employee voice in organizational context. Instead, the deliberative environment of employee voice can strengthen relationship with supervisors and increase trust in management. Our conceptualization of employee voice is helpful in releasing it from the contingencies of personality characteristics of managers (Detert and Burris, 2007).

Managerial contributions

By using the new scales of employee voice and environment for innovation, managers can evaluate the extent to which employee voice mechanisms incorporate deliberative elements, and thereby expand employee voice mechanisms appropriately to facilitate greater innovation. Because trust in senior management is important for creating a conducive environment for innovation, the channels of communication between senior management and employees need to be expanded with senior management being open, transparent and inclusive in their dialogue with employees. Rather than focusing on personality traits, which are difficult to amend or engineer, managers should focus on building more effective relationships between employees and their supervisors, thus crafting a positive organizational condition for employee-driven innovation.

Limitations and directions for future research. This study has certain limitations, which offer a number of promising avenues for future research. First, although we argue that we have moved beyond personality-centered conceptualizations of employee voice and innovation, we have not tested the effects of personality on employee voice and environment for innovation. In future studies, it may be useful to include psychological explanations, such as personality as an additional variable predicting voice and innovation, to assess whether personality can significantly and substantially predict innovation beyond social and relational explanations of innovation. Second, the evidence for theory, i.e. the impact of deliberative elements of employee voice on environment for innovation over a period of time, would become stronger with collection of longitudinal data. Another advantage of collecting longitudinal data is that we can collect data for explanatory variables and outcome variables in different instances of time. This can help in overcoming the inflation of variance which is likely to have occurred on account of collecting data for all the variables through a single instrument. We acknowledge this limitation in our study and believe that successive waves of data collection will be useful in understanding the impact of voice on innovation. Third, although we integrate deliberative democracy with employee voice and environment for innovation, we have not integrated deliberative democracy with a general theory of economic and industrial democracy and employee well-being. Fourth, another important area of enquiry can be the tensions between deliberative democracy and participatory democracy, as voice is often seen as a form of participation within organizations. Finally, it is necessary to validate our scales for employee voice and environment for innovation in other international and industrial relations contexts.

References

Albrecht, S. and Travaglione, A. (2003), "Trust in public-sector senior management", *International Journal of Human Resource Management*, Vol. 14 No. 1, pp. 76-92.

Anderson, N., Potocnik, K. and Zhou, J. (2014), "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.

Armstrong, J. and Overton, T. (1977), "Estimating nonresponse bias in mail surveys", *Journal of Marketing Research*, Vol. 14 No. 3, pp. 396-402.

Barnes, M. (2008), "Passionate participation: emotional experiences and expressions in deliberative forums", *Critical Social Policy*, Vol. 28 No. 4, pp. 461-481.

Baron, R.M. and Kenny, D.A. (1986), "The moderator–mediator variable distinction in social psychological research", *Journal of Personality and Social Psychology*, Vol. 51 No. 6, pp. 1173-1182.

Bernstein, E.S. (2012), "The transparency paradox: a role for privacy in organizational learning and operational control", *Administrative Science Quarterly*, Vol. 57 No. 2, pp. 181-216.

Bollen, K.A. (1989), "A new incremental fit index for general structural equation models", *Sociological Methods & Research*, Vol. 17 No. 3, pp. 303-316.

Boxall, P. and Purcell, J. (2011), *Strategy and Human Resource Management*, Palgrave Macmillan, Basingstoke.

Brunetto, Y., Farr-Wharton, R. and Shacklock, K. (2010), "The impact of supervisor-subordinate relationships on morale: implications for public and private sector nurses' commitment", *Human Resource Management Journal*, Vol. 20 No. 2, pp. 206-225.

Carmeli, A. and Spreitzer, G.M. (2009), "Trust, connectivity and thriving: implications for innovative behaviors at work", *Journal of Creative Behavior*, Vol. 43 No. 3, pp. 169-191.

Chan, S.C.H. (2014), "Paternalistic leadership and employee voice: does information sharing matter?", *Human Relations*, Vol. 67 No. 6, pp. 667-693.

Cohen, J. (1988), *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed., Lawrence Erlbaum, Hillsale.

Cook, J. and Wall, T. (1980), "New work attitude measures of trust, organizational commitment and personal need non-fulfilment", *Journal of Occupational Psychology*, Vol. 53 No. 1, pp. 39-52.

Cox, A., Zagelmeyer, S. and Marchington, M. (2006), "Embedding employee involvement and participation at work", *Human Resource Management Journal*, Vol. 16 No. 3, pp. 250-267.

Damanpour, F. (1991), "Organizational innovation: a meta-analysis of effects of determinants and moderators", *Academy of Management Journal*, Vol. 34 No. 3, pp. 555-590.

Detert, J.R. and Burris, E.R. (2007), "Leadership behaviour and employee voice: is the door really open?", *Academy of Management Journal*, Vol. 50 No. 4, pp. 869-884.

Detert, J.R. and Trevino, L.K. (2010), "Speaking up to higher-ups: how supervisors and skip-level leaders influence employee voice", *Organization Science*, Vol. 21 No. 1, pp. 249-270.

Detert, J.R., Burris, E.R., Harrison, D.A. and Martin, S.R. (2013), "Voice flows to and around leaders: understanding when units are helped or hurt by employee voice", *Administrative Science Quarterly*, Vol. 58 No. 4, pp. 624-668.

DeVellis, R.F. (2003), *Scale Development: Theory and Applications*, Sage Publications, New Delhi.

Dryzek, J.S. (2013), "The deliberative democrat's idea of justice", *European Journal of Political Theory*, Vol. 12 No. 4, pp. 329-346.

Farndale, E., Van Ruiten, J., Kelliher, C. and Hope-Hailey, V. (2011), "The influence of perceived employee voice on organizational commitment: an exchange perspective", *Human Resource Management*, Vol. 50 No. 1, pp. 113-129.

Festenstein, M. (2004), "Deliberative democracy and two models of pragmatism", *European Journal of Social Theory*, Vol. 7 No. 3, pp. 291-306.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.

Fung, A. (2005), "Deliberation before the revolution: toward an ethics of deliberative democracy in an unjust world", *Political Theory*, Vol. 33 No. 2, pp. 397-419.

Habermas, J. (1985), "Civil disobedience: litmus test for democratic constitutional state", *Berkeley Journal of Sociology*, Vol. 30, pp. 95-116.

Habermas, J. (1989), *The Structural Transformation of the Public Sphere*, MIT Press, MA.

Habermas, J. (1996), *Between Facts and Norms*, Trans. W. Rehg, Polity, Cambridge.

Habermas, J. (2001), *On the Pragmatics of Social Interaction: Preliminary Studies in the Theory of Communicative Action*, Massachusetts Institute of Technology, Massachusetts.

Hair, J.F., Sarstedt, M., Ringle, C.M. and Mena, J.A. (2012), "An assessment of the use of partial least squares structural equation modelling in marketing research", *Journal of the Academy of Marketing Science*, Vol. 40 No. 3, pp. 414-433.

Hargadon, A. and Sutton, R. I. (1997), "Technology brokering and innovation in a product development firm", *Adminstrative Science Quarterly*, Vol. 42 No. 4, pp. 716-749.

Healy, P. (2011), "Rethinking deliberative democracy: from deliberative discourse to transformative dialogue", *Philosophy and Social Criticism*, Vol. 37 No. 3, pp. 295-311.

Hirschman, A. (1970), *Exit, Voice, Loyalty: Response to Decline in Firms, Organizations and States*, Harvard University Press, MA.

Holland, P., Cooper, B.K., Pyman, A. and Teicher, J. (2012), "Trust in management: the role of employee voice arrangements and perceived managerial opposition to unions", *Human Resource Management Journal*, Vol. 22 No. 4, pp. 377-391.

Janssen, O., de Vries, T. and Cozijnsen, A.J. (1998), "Voicing by adapting and innovating employees: an empirical study on how personality and environment interact to affect voice behaviour", *Human Relations*, Vol. 51 No. 7, pp. 945-967.

Karpowitz, C.F., Raphael, C. and Hammond IV, A.S. (2009), "Deliberative democracy and inequality: two cheers for enclave deliberation among the disempowered", *Politics and Society*, Vol. 37 No. 4, pp. 576-615.

Klaas, B.S., Olson-Buchanan, J.B. and Ward, A.-K. (2012), "The determinants of alternative forms of workplace voice: an integrative perspective", *Journal of Management*, Vol. 38 No. 1, pp. 314-345.

Lee, S., Park, G., Yoon, B. and Park, J. (2010), "Open innovation in SMEs – an intermediated network model", *Research Policy*, Vol. 39 No. 2, pp. 290-300.

Little, R.J.A. (1988), "A test of missing completely at random for multivariate data with missing values", *Journal of American Statistical Association*, Vol. 83 No. 404, pp. 1198-1202.

Morris, M.H., Avila, R.A. and Allen, J. (1993), "Individualism and the modern corporation: implications for innovation and entrepreneurship", *Journal of Management*, Vol. 19 No. 3, pp. 595-612.

Morrison, E.W. and Milliken, F.I. (2000), "Organizational silence: a barrier to change and development in a pluralistic world", *Academy of Management Review*, Vol. 25 No. 4, pp. 705-725.

Neves, P. and Caetano, A. (2009), "Commitment to change: contributions to trust in the supervisor and work outcomes", *Group and Organization Management*, Vol. 34 No. 6, pp. 623-644.

Nonaka, I. (1994), "A dynamic theory of organisational knowledge creation", *Organization Science*, Vol. 5 No. 1, pp. 14-37.

Nunnally, J.C. (1978), *Psychometric Theory*, McGraw-Hill, New York.

Podsakoff, P.M., MacKenzie, S.B., Lee, J. and Podsakoff, N.P. (2003), "Common method variance in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.

Richey, M. (2012), "Motivated reasoning in political information processing: the death knell of deliberative democrat?", *Philosophy of the Social Sciences*, Vol. 42 No. 4, pp. 511-542.

Sobel, M.E. (1982), "Asymptotic intervals for indirect effects in structural equations models", *Sociological Methodology*, Vol. 13, pp. 290-312.

Subramaniam, M. and Youndt, M.A. (2005), "The influence of intellectual capital on the types of innovative capabilities", *Academy of Management Journal*, Vol. 48 No. 3, pp. 450-463.

Tarnopolsky, C. (2007), "Platonic reflections on the aesthetic dimensions of deliberative democracy", *Political Theory*, Vol. 35 No. 3, pp. 288-312.

Taylor, C. (1994), "The politics of recognition", in Gutman, A. (Ed), *Multiculturalism: Examining the 'Politics of Recognition'*, Princeton University Press, Princeton, NJ, pp. 25-73.

Teague, P. and Roche, W.K. (2012), "Line managers and the management of workplace conflict: evidence from Ireland", *Human Resource Management Journal*, Vol. 22 No. 3, pp. 235-251.

Teglborg-Lefevre, A.-C. (2010), "Modes of approach to employee driven innovation in France: an empirical study", *Transfer: European Review of Labour and Research*, Vol. 16 No. 2, pp. 211-226.

Teorell, J. (1999), "A deliberative defence of intra-party democracy", *Party Politics*, Vol. 5 No. 3, pp. 363-382.

Unden, A.L. (1996), "Social support at work and its relationship to absenteeism", *Work and Stress*, Vol. 10 No. 1, pp. 46-61.

Upchurch, M., Richardson, M., Tailby, S., Danford, A. and Stewart, P. (2006), "Employee representation and partnership in the non-union sector: a paradox of intention?", *Human Resource Management Journal*, Vol. 16 No. 4, pp. 393-410.

Van Dyne, L. and Le Pine, J.A. (1998), "Helping and voice extra-role behaviour: evidence of construct and predictive validity", *Academy of Management Journal*, Vol. 41 No. 1, pp. 108-119.

Zhang, A.Y., Tsui, A.S., Song, L.J., Li, C. and Jia, L. (2008), "How do I trust thee? The employee-organization relationship, supervisory support, and middle manager trust in the organization", *Human Resource Management*, Vol. 47 No. 1, pp. 111-132.

Further reading

Rawls, J. (1973), *A Theory of Justice*, Oxford University Press, Oxford.

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