






Unwanted Recommendation

The Dark Side of Recommendations for Performance Rating Distribution on Employees' Emotions, Attitudes, and Behaviors

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Abstract: In performance appraisal processes, corporations face the problem that the subjective ratings of employee performance tend to be largely biased toward being too favorable and too homogeneous. Drawing on prospect theory, we conceptualize below-average employee ratings as perceived losses and suggest that the proportion of such ratings increases under a recommended rating distribution because of a higher rating dispersion. The perceived losses may decrease employees' organizational commitment, job satisfaction, and cooperation while increasing their turnover intentions. Using a large-scale, dual-source proprietary panel dataset from the German Federal Employment Agency, we show that a recommended distribution rating system is negatively related to organizational commitment, while job satisfaction, turnover intentions, and cooperation are unaffected when considering the whole sample. Post-hoc analyses reveal that the adverse effects appear in employees without managerial responsibility, while employees with managerial responsibility remain unaffected by the recommended distribution rating system.

Keywords: affective commitment, panel data, performance appraisal, prospect theory, recommended distribution

Unerwünschte Empfehlungen. Die Schattenseite von Empfehlungen für die Leistungsbewertung, die sich auf die Emotionen, Einstellung und das Verhalten der Mitarbeiter auswirken

Zusammenfassung: Im Rahmen von Leistungsbeurteilungsprozessen stehen Unternehmen vor dem Problem, dass subjektive Bewertungen der Mitarbeiterleistung tendenziell zu positiv und zu homogen ausfallen. In Anlehnung an die Prospect Theory konzeptualisieren wir im Gegenzug unterdurchschnittliche Mitarbeiterbewertungen als einen wahrgenommenen Verlust und gehen davon aus, dass der Anteil unterdurchschnittlicher Bewertungen bei einer empfohlenen Bewertungsverteilung aufgrund einer höheren Bewertungsstreuung zunimmt. Die wahrgenommenen Verluste können dabei das organisatorische Commitment, die Arbeitszufriedenheit und die Hilfsbereitschaft der Mitarbeiter_innen vermindern und die Fluktuationsabsichten der Mitarbeiter_innen erhöhen. Unter Verwendung eines groß angelegten, proprietären Dual-Source-Panel-Datensatzes der Bundesagentur für Arbeit zeigen unsere Analysen, dass ein empfohlenes Verteilungs-Ratingsystem negativ mit dem organisatorischen Commitment zusammenhängt, während Arbeitszufriedenheit, Fluktuationsabsichten und Hilfsbereitschaft bei Betrachtung der gesamten Stichprobe unbeeinflusst bleiben. Post-hoc-Analysen ergaben, dass die negativen Effekte bei Mitarbeiter_innen ohne Führungsverantwortung auftreten und deren organisationales Commitment und Helferverhalten beeinträchtigen, während Mitarbeiter_innen mit Führungsverantwortung nicht betroffen sind.

Schlüsselwörter: affektives Commitment, Paneldaten, Leistungsbeurteilung, Prospect Theory empfohlene Verteilung

Although frequently used, performance appraisal systems with predefined rating distributions are underresearched (Moon et al., 2016). This is even truer for the recommended distribution rating systems (RDRSs). While forced distribution rating systems with an obligation to achieve the predefined distribution are mainly used in the Anglo-American context, a weaker variety – performance appraisal systems with recommended rating distributions – is predominant in other Western countries such as Germany and the UK (Berger et al., 2011; Bevan, 2014). The debate about the desirability of such rating systems is

ongoing. Research examining the effects of a rating system with a predefined rating distribution on employees has focused mainly on team and organizational performance effects using simulations and lab experiments (Berger et al., 2013; Scullen et al., 2005). This study contributes to more empirical evidence from the field and introduces a new theoretical perspective to assess how RDRSs affect employees, particularly their job-related emotions, attitudes, and behaviors.

The ratings supervisors assign to employees tend to be too favorable and too close together. These effects are

known as leniency bias and centrality bias, respectively (Prendergast, 1999). By fostering a dispersion of ratings and tying incentives to the performance ratings, an RDRS increases rating accuracy and enhances employee motivation. In this study, we draw on prospect theory (Kahneman & Tversky, 1979) to suggest that, despite its positive aim, an RDRS may negatively affect employees' psychological and behavioral outcomes. We build on the idea that performance ratings create perceived, subjective gains and losses among employees. Previous research has demonstrated that a positive (negative) performance appraisal experience positively (negatively) influences employees' perception of organizational justice, which, in turn, influences organizational performance measures (Brown, 2010). Next to justice-related influences, also social comparisons influence the subjective perception of performance appraisal systems (Klein, 1997). Thus, psychological interdependencies are decisive for the positive or negative effect of RDRS. Losses are likely to be felt by those rated as below-average performers. As the proportion of those rated below average increases under an RDRS, because of the higher rating dispersion, and, as prospect theory suggests, perceived losses loom larger than perceived gains (Kahneman & Tversky, 1979). We reason that an overall adverse effect emerges of an RDRS compared to a free performance rating system. We suggest that this materializes in detrimental effects on important employee outcomes. To obtain holistic insights into an RDRS's psychological effects, we focus on three complementary employee outcomes: job satisfaction, organizational commitment, and turnover intentions. Furthermore, we include cooperation in our analyses, which is particularly relevant to RDRSs, as pay disparities are particularly significant in positive team processes like cooperation (Shaw et al., 2002).

We employ a unique proprietary panel dataset of a representative sample of German firms to test our theories. The Linked Personnel Panel (LPP) of the German Federal Employment Agency (Broszeit et al., 2016; Broszeit & Wolter, 2015; Mackeben et al., 2018) allows us to match information about human resource practices provided by corporate representatives with employee survey data, resulting in a total of 10,651 employee-year-observations, thereby ruling out common method bias, a typical limitation in survey-based research in the human resources field (Bou-Llusar et al., 2016). Individual-level fixed effects regressions show that employees affected by an RDRS exhibit significantly lower organizational commitment. However, we do not find significant effects on their job satisfaction, turnover intentions, or cooperation. Posthoc analyses reveal that the adverse effects of an RDRS occur exclusively on the level of employees without managerial responsibility. These report significantly less

organizational commitment and less cooperation on the job. In contrast, employees with managerial responsibility are generally unaffected by an RDRS.

Our study contributes to the discourse about performance appraisal in at least three ways. First, we enlarge the scholarly conversation on performance rating systems by drawing attention to RDRSs. Applying prospect theory to corporate performance evaluations, we argue that rating dispersions stemming from RDRSs have an overall adverse net effect on employees' psychological and behavioral outcomes. Second, we identify organizational commitment and cooperation as the key drivers in the effects of an RDRS, which manifest themselves especially in employees without managerial responsibility. Third, our study features a state-of-the-art dual-source research design applied to a large-scale, unique, and proprietary data set. To the best of our knowledge, this study is among the first to research performance appraisal systems with a prescribed distribution in a field setting and thus complements existing research, which almost exclusively stems from laboratory experiments and simulation studies (Berger et al., 2013; Giumetti et al., 2015; Scullen et al., 2005). Thus, this study serves as a blueprint for future studies on performance appraisal systems.

Theoretical Background and Hypotheses

Recommended and Forced Distribution Rating Systems

Subjective performance evaluation is widely used to assess and manage employees' performance (Murphy et al., 2018), and a multitude of appraisal systems have emerged over time. Relative performance appraisal systems have gained particular popularity, among them the *forced distribution rating systems* (Lee & Keil, 2018), which are used by about 30 % of the Fortune 500 companies (Buckingham, 2013; Ovide & Feintzeig, 2013). These systems prescribe how many employees must receive a certain rating, generally on a 3- or 5-point scale. With the distribution often following a bell curve, only a few employees (e.g., 10 %) can be rated as top performers, a certain percentage (e.g., also 10 %) must be rated as poor performers, with the majority (e.g., 80 %) being rated as average performers (Moon et al., 2016). Consequences of these enforced ratings can be momentous: Top performers receive large amounts of additional rewards, while poor performers may be laid off to improve the baseline potential of the workforce (Scullen et al., 2005).

While forced distribution rating systems have received much attention from researchers (Berger et al., 2013; Schleicher et al., 2009; Scullen et al., 2005), *recommended distribution rating systems* (RDRSs) are equally common worldwide and are even more common than forced distribution rating systems in European countries like Germany and the UK (Berger et al., 2011; Bevan, 2014; Kwak & Choi, 2015). Instead of forcing supervisors to stick to a prescribed rating distribution, RDRSs include only a recommendation to achieve the distribution. Supervisors thus have a certain degree of freedom when rating their employees but typically have to justify deviations from the recommended distribution to their supervisor. Our premise is that RDRSs represent a weaker form of forced distribution rating systems: While supervisors are not forced to assign differentiated ratings under an RDRS, they still show strong tendencies to obey authorities and please those positioned at a higher hierarchical level (Karakostas & Zizzo, 2016; Robin et al., 2014). We thus expect RDRSs to have similar, albeit weaker, effects than the forced distribution rating systems.

Prospect Theory in the Context of Performance Evaluation

Because the overall usefulness of RDRSs is still an open question, we suggest prospect theory as a theoretical lens to examine their effects on employees' psychological and behavioral outcomes. Prospect theory is based on the observation that the expected utility theory, which views humans as rational decision-makers, often fails to predict actual human behavior (Kahneman & Tversky, 1979). To account for this bounded rationality, Kahneman and Tversky proposed that framing is a boundary condition to how people perceive and evaluate situations. Such framing shapes a neutral reference point to which individuals refer when determining the subjective value an outcome has for them. When people evaluate outcomes such as performance, research shows they use social comparisons rather than absolute standards as a frame of reference (Klein, 1997). In other words, individuals appraise their outcomes by comparing themselves to others.

One of the main insights of prospect theory is that humans are loss-averse, whereby losses loom larger than gains of the same magnitude (Kahneman & Tversky, 1979). This imbalance between gains and losses results in an asymmetrical curve of the subjective value that people ascribe to an outcome, a curve that is steeper on the side of the losses than on the side of the gains, as depicted against the objective value of the outcome. When applied to the context of performance appraisal, gains and losses can come about in two ways: First, gains or losses can be

experienced in terms of money and real or potential rewards. Second, gains and losses can also stem from nonmonetary, psychologically-oriented goods (Paddock et al., 2015) such as reputation or self-confidence. In our context, we suggest that gains and losses are experienced in performance evaluations, as ratings influence, among other things, reputation, career opportunities, and compensation. Hence, ratings are direct sources of gains and losses. By comparing their own performance rating with others from their reference group, individuals estimate the subjective value of the performance rating.

Psychological and Behavioral Outcomes of an RDRS

This study synthesizes prior literature and derives channels through which an RDRS may manifest its effects, each of which is related to employees' job-related emotions, attitudes, and behaviors. To investigate the psychological and behavioral consequences of an RDRS, we identified four constructs we think an RDRS influences: employees' affective commitment, turnover intentions, job satisfaction, and cooperation. The first three are well-established constructs in HR literature and have been found to critically influence organizational success, e.g., through enhancing employee and firm performance (Edmans, 2012; Nuhn et al., 2019; Petty et al., 1984; Riketta, 2002). We combine the rather short-term-oriented, emotion-focused construct of job satisfaction with the long-term-oriented, attitudinal construct of organizational commitment. Further, we complement the constructs with employees' turnover intentions, located somewhere between employees' attitudes and actual behavior (Ajzen, 1991). Lastly, as a fourth construct in our set of dependent variables, we refer to employees' cooperation, because employees' willingness to cooperate and collaborate is becoming increasingly important for firm success as more and more tasks are performed by teams (San Martín-Rodríguez et al., 2005). Organizations are, therefore, increasingly assigning tasks to work teams rather than individual workers (Kozlowski & Bell, 2013). Synergies between employees of a firm can be achieved only if employees actually collaborate with each other. Therefore, we chose to investigate cooperation among employees.

Beyond the value-creation potential that affective commitment, turnover intentions, job satisfaction, and cooperation may generate, they are ethically relevant, given their direct link to employees' well-being and health (Dávila & Finkelstein, 2013; Faragher et al., 2005; Meyer et al., 2002). Below, we hypothesize about the impact of

RDRSs on each of the four constructs relating to employees' job-related psychological and behavioral outcomes.

Hypotheses

Affective Commitment

The construct of affective commitment describes "employees' emotional attachment to, identification with, and involvement in the organization" (Allen & Meyer, 1990, p. 1). There is extensive evidence on its relationship with employee performance (Jaramillo et al., 2005; Riketta, 2002, 2008), and other performance dimensions (Meyer et al., 2002; Xerri & Brunetto, 2013). We argue that an RDRS negatively affects the affective commitment of a firm's employees. An RDRS results in dispersed performance ratings with a prescribed percentage of employees rated as poor performers. Under an RDRS, the proportion of employees rated below average tends to be higher than under a free rating system, as the centrality bias is intentionally counteracted. We suggest that those employees rated below average perceive their rating as a loss, as they may not only experience a cut in bonus payments, but may also experience diminished reputation, self-esteem and self-efficacy, and career opportunities. Drawing on the asymmetrical subjective value function portrayed by prospect theory (Kahneman & Tversky, 1979), we presume the negative feelings of those rated below average may outweigh the positive feelings experienced by those rated as top performers. We thus expect an overall negative effect of an RDRS. We propose that the perceived losses may disassociate employees from the organization and reduce their organizational commitment (Meyer et al., 2002). Because of overconfidence, which particularly affects low performers (Feld et al., 2017), employees rated below average may have expected a better evaluation and may interpret a lack of appropriate rewards as an organization's act of letting them down and treating them unfairly. They could thus reciprocate by showing lower organizational commitment (Rhoades et al., 2001). The same may be true for employees who perform adequately compared to an objective or absolute performance indicator but nevertheless receive a bad rating because they are being compared to even more successful colleagues. Our reasoning is supported by the study by Brown et al. (2010), who found that dissatisfaction with the performance appraisal experience relates to lower levels of commitment. Pearce and Porter (1986) show that employees rated as *satisfactory* in a formal performance appraisal show reduced commitment. Furthermore, if there is a mismatch between the effort the employees perceive themselves to be exerting and the rewards granted in return, they may lose motivation and

engagement in the organization (van Eerde & Thierry, 1996). The negative emotions of those rated as below-average performers may even spread among the whole team by emotional contagion (Totterdell et al., 1998). Considering all this, we suggest that:

H1: An RDRS decreases affective organizational commitment.

Turnover Intentions

The need to hold onto qualified and acculturated employees is a challenge organizations dedicate much attention to (Allen et al., 2010). Today's shortage of qualified workers and the high impact of employees' unique knowledge on organizational outcomes renders employee retention even more crucial, especially if the employees have invested in specific organizational knowledge and skills (Lee & Maurer, 1997). Practices that foster the retention of employees can help companies save substantial amounts of money (Mathis & Jackson, 2008, p. 84) as such practices save the costs of recruiting and onboarding new employees as well as guaranteeing continuity in knowledge (Tyman et al., 2011). We argue that an RDRS results in more employees perceiving their ratings as losses compared to a rating system without a recommended distribution, as ratings are more dispersed under an RDRS. As explained previously, we expect an overall negative effect, which we attribute to the asymmetric value function proposed by prospect theory (Kahneman & Tversky, 1979), resulting in employees rated as below-average losing rewards, reputation, and career opportunities. These employees may believe that they will have more opportunities for achievement and development and will find more appreciation for their work in another organization, which finally results in their decision to cut their perceived losses by leaving the company. This reasoning is backed by studies that find that performance appraisal satisfaction is negatively related to turnover intentions (Brown et al., 2010; Jawahar, 2006). Additionally, turnover intentions can spread among colleagues by contagion, as shown by Felps et al. (2009). Therefore, we hypothesize that:

H2: An RDRS increases employees' turnover intentions.

Job Satisfaction

Employee job satisfaction, typically defined as an individual's positive emotional reaction to their job (Oshagbemi, 1999), is a key construct among HR scholars. Job satisfaction is directly related to the employee's health and well-being (Faragher et al., 2005) rendering it "a legitimate goal in itself" (Smith et al., 1969, p. 3). Moreover, positive relationships with job performance (Judge et al., 2001) and organizational citizenship behaviors (Fassina et al., 2008) have also been established, further justifying its important role.

On average, an RDRS increases the number of below-average ratings and thereby the perceived losses. Employees tend to be overconfident in their performance (Feld et al., 2017), which may increase perceived injustice. Employees rated below average may thus perceive a missing link between their effort, performance, and the rewards they receive. Job satisfaction, however, arises from feelings of control (Spector, 1986) and of self-efficacy (Caprara et al., 2006), which is enhanced by enactive mastery experiences, i.e., challenging tasks that are successfully solved (Bandura, 1982). An unfavorable performance rating challenges the sense that one is in control and successful, and employees may consequently experience negative affectivity rather than job satisfaction. If employees feel that their effort does not match the rewards they receive, their beliefs about their efficacy may change, allowing symptoms of *learned helplessness* to emerge. Blau's (1999) findings complement our claims by showing that satisfaction with the performance appraisal is related to job satisfaction. Likewise, distributive justice, i.e., the perceived fairness of the allocation of goods such as rewards, has been shown to negatively relate to job dissatisfaction (McFarlin & Sweeney, 1992), further supporting our reasoning. In sum, we hypothesize that:

H3: An RDRS decreases employees' job satisfaction.

Cooperation

In the modern work environment that largely consists of teams (Kozlowski & Bell, 2013), cooperation and collaboration are essential to organizational success. Cooperation can be defined as extrarole behavior (Bedwell et al., 2012). Similarly, organizational citizenship behavior relates to enhanced workgroup performance (Podsakoff et al., 1997; Raver et al., 2012). Empirical evidence suggests that one can enhance cooperation among employees through a system that rewards all team members equally instead of focusing on a few individuals' contributions (Bamberger & Levi, 2009). An RDRS, however, impairs the equal distribution of rewards. Even more critically, an RDRS incentivizes individuals to gain advantages by not investing their time and energy in helping others but rather focusing on their own performance. As noted above, employees rated as poor performers may perceive their ratings as losses, which can trigger behavior to minimize further losses (Dóci & Hofmans, 2015), such as choosing actions maximizing their individual reward instead of the team's output. They may become resigned and completely abandon extrarole behaviors that benefit the organization – or even engage in sabotage (Berger et al., 2013). As the proportion of employees rated below average is larger under an RDRS than under a free rating system, we argue that the proportion of employees perceiving losses and thus refraining from helping others

rises. In this regard, Raver et al. (2012) found that helping norms in a team do not evolve if even one single group member shows low concern for the others and believes there is little reason to help the others. In this way, those rated below average may threaten the cooperation of the whole team. We therefore propose:

H4: An RDRS decreases employees' cooperation.

Method

Data

Our analyses are based on a unique panel dataset containing three waves of data from the years 2012–2013, 2014–2015, and 2016–2017. While executing the survey in each of these waves, we ensured that participants took part in all three waves to have longitudinal comparisons. The Linked Personnel Panel (LPP) of the German Federal Employment Agency (Broszeit et al., 2016; Broszeit & Wolter, 2015; Mackeben et al., 2018) makes it possible to merge data on human resource management practices collected in interviews with executive managers or personnel representatives with data from employee surveys in the firms. In total, our double-source dataset contains 10,651 employee-year observations in an average of 484 firms over the three waves. The average age is 46 years, and 27% were women. RDRS as our independent variable is drawn from the supervisor/organizational representative, and the dependent variables are taken from the employees, all of which are displayed below.

Variables

RDRS

We measured the presence of an RDRS using a dummy variable indicating whether the employee was rated under an RDRS or not (1/0), whereby the variable takes the value of 0, if the organization does not use an RDRS or the respective employee is not affected, i.e., not rated under the RDRS; and the value of 1, if the organization uses an RDRS and the respective employee belongs to the group of employees rated according to the RDRS. To measure RDRS, we asked: “Do you have recommendations regarding the distribution of performance appraisal?” We also filtered the data to include only data in which an RDRS is not only present by the RDRS but was also used to rate the employees. Further, we included a short definition of RDRS to ensure that the organization's representative was able to accurately evaluate the presence of an RDRS: “Recommendations regarding performance appraisal in-

Table 1. Descriptive statistics: Means, standard deviations, and correlations

Variable	Mean (SD)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) RDRS	.11 (.31)								
(2) Commitment	3.74 (.88)	.03***							
(3) Turnover intentions	1.56 (.90)	-.05***	-.50***						
(4) Job satisfaction	7.58 (1.67)	.02*	.50***	-.52***					
(5) Cooperation	4.29 (.70)	.01	.18***	-.15***	.25***				
(6) Age	46.47 (10.38)	-.01	.20***	-.23***	.04***	-.07***			
(7) Part-time work	.12 (.33)	-.02*	-.04***	-.01	-.01	-.03**	.04***		
(8) Managerial responsibility	.30 (.46)	-.04***	.16***	-.03***	.08***	.04***	.08***	-.16***	
(9) Firm size	2.95 (1.05)	.19***	.06***	-.10***	.05***	.03**	-.04***	-.01	-.02†

Note. Total $N = 10,651$. RDRS (recommended distribution rating system) has a value of 1 if the employee was affected by an RDRS and a value of 0 otherwise. Part-time work and managerial responsibility are likewise dummy-coded. Firm size is coded in five categories with 0 representing 0–49 employees, 1 50–99 employees, 2 100–249 employees, 3 250–499 employees, and 4 500 and more employees. This can only be seen as a proxy for a continuous measure of firm size. † $p < .10$, two-tailed test, * $p < .05$, two-tailed test, ** $p < .01$, two-tailed test, *** $p < .001$, two-tailed test.

clude information on what percentage of employees should, for instance, receive the best performance appraisal, the second best performance appraisal, etc.”

Job Satisfaction

We retrieved job satisfaction assessments and dependent variables from the LPP’s employee survey. The questionnaire contained a single-item measurement of job satisfaction on a 10-point Likert scale using the question, “How satisfied are you today with your job?”

Affective Commitment

The LPP incorporates the Scale of Affective Commitment developed by Allen and Meyer (1990). Employees expressed their agreement with the statements on a 5-point Likert scale. A (reverse-coded) example item is “I do not feel a strong sense of ‘belonging’ to my organization.” Cronbach’s alpha for this scale was $\alpha = .83$.

Turnover Intentions

The intention to leave the organization was measured with the item “How many times in the past 12 months have you thought about changing your job?” Employees indicated the frequency of turnover thoughts on a 5-point Likert scale.

Cooperation

Two items asked employees about their cooperative behavior: “How often do you receive help and support from colleagues if required?” and “How often do you offer to help your colleagues?” Again, employees indicated the frequency on a 5-point Likert scale. Cronbach’s alpha was $\alpha = .68$, which is acceptable, given the low number of items.

All variables are depicted in detail in the Appendix.

Results

Descriptive Statistics

On average, some 13% of the companies in our sample (about 65 in absolute terms) use an RDRS. The use of an RDRS strongly depends on firm size, though. Only 9% of organizations with 0 to 250 employees employ an RDRS, whereas 22% of companies with more than 250 employees do. In firms with more than 500 employees, 31% use an RDRS. On the firm level, we can observe a change in the performance appraisal system between two measurements in 15% of all cases, i.e., where an organization either introduced or eliminated an RDRS. Means, standard deviations, and correlations among our variables are displayed in Table 1.

Regression Analyses

To control for time-constant individual unobserved heterogeneity – and because the Hausman specification test (Hausman, 1978) is highly significant ($p < .00$) – we estimated individual-level fixed effects regressions. We additionally controlled for firm size and included industry and region fixed effects, as these firm-level variables are likely to significantly influence employees’ emotions, attitudes, and behavior, such as through differences in pay level, the social character of the job, and cultural particularities. At the individual level, we included age, part-time work, managerial responsibility, and employees’ professional position as control variables influencing psychologically relevant dimensions through enhancing feelings like autonomy and social embeddedness. To control for time effects like economic downturns, we added year dummies as controls. Our sample

Table 2. Results of individual-level fixed effects regressions

Dependent variable	(1) Affective commitment	(2) Turnover intentions	(3) Job satisfaction	(4) Cooperation
RDRS	-.08* (.03)	.05 (.04)	.07 (.08)	-.03 (.03)
Age	-.03*** (.01)	-.06 (.01)	-.06*** (.01)	-.02*** (.01)
Part-time work	.01 (.06)	.05 (.09)	-.35† (.19)	.02 (.08)
Firm size	-.01 (.05)	-.06 (.05)	.08 (.12)	.09* (.04)
Managerial responsibility	.04 (.04)	-.01 (.04)	-.12 (.09)	.00 (.04)
Professional position	Yes	Yes	Yes	Yes
Region dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Constant	5.08*** (.29)	1.77*** (.32)	9.90*** (.68)	4.78*** (.32)
Observations	10651	10651	10651	10651
Subjects	7970	7970	7970	7970
Within R ²	.02	.01	.02	.01

Note. Total $N = 10,651$. RDRS (recommended distribution rating system) has a value of 1 if the employee was affected by an RDRS and a value of 0 otherwise. Part-time work and managerial responsibility are likewise dummy coded. Unstandardized regression coefficients in bold are reported with robust standard errors in parentheses. We included age, part-time work, professional position, firm size, and managerial responsibility as control variables and additionally added region, industry, and year-level dummies. † $p < .10$, two-tailed test, * $p < .05$, two-tailed test, ** $p < .01$, two-tailed test, *** $p < .001$, two-tailed test.

contains only employees who have remained within the same organization, so that the effects of a change of performance appraisal system cannot be attributed to employees entering a new organization.

The regression results reported in Table 2 support Hypothesis 1, as they show a significantly negative effect of RDRS on affective commitment ($p < .03$), indicating that employees rated under an RDRS show significantly lower levels of emotional attachment to their organization. However, we found no significant effect of an RDRS on employees' job satisfaction ($p < .39$), turnover intentions ($p < .27$), or cooperation ($p < .46$). The results would be virtually the same if we included firm dummies.

Posthoc Analyses

Often, managers are not only rated under an RDRS themselves, but also have to rate their employees based on an RDRS. Hence, we conducted a subgroup analysis of our baseline sample, as employees with and without managerial responsibility may significantly differ in their psychological and behavioral outcomes under an RDRS. As their own experiences with, and understanding of,

procedures or tasks – such as giving feedback based on an RDRS – may enhance perspective-taking and empathy (Parker & Axtell, 2001), managers might react differently to an RDRS because they attribute the ratings they receive differently. Being aware of the challenges of assigning adequate and fair ratings based on a predefined distribution, they may not take their ratings personally but rather view them as an inherent part of a system that is too rigid to portray a realistic picture.

From a methodological perspective, we divided the baseline sample into two subsamples and re-ran the regressions separately for employees with and without managerial responsibility. The results are shown on Table 3. They indicate that employees with managerial responsibility are unaffected by an RDRS: We found no significant effect of an RDRS in any of the regressions. Employees without managerial responsibility, however, experience significantly lower organizational commitment ($p < .05$) and less cooperation under an RDRS ($p < .07$). Interestingly, the effect of an RDRS on cooperation – although nonsignificant – has a positive sign in the manager subsample, so that the effects of both subsamples may counterbalance each other, resulting in a near-null effect when considering the whole baseline sample.

Table 3. Results of individual-level fixed effects regressions for the two subsamples

Subsample	Employees <i>with</i> managerial responsibility				Employees <i>without</i> managerial responsibility			
	(5) Affective commitment	(6) Turnover intentions	(7) Job satisfaction	(8) Cooperation	(9) Affective commitment	(10) Turnover intentions	(11) Job satisfaction	(12) Cooperation
RDRS	-.04 (.08)	.05 (.08)	.10 (.17)	.08 (.08)	-.09* (.04)	.03 (.05)	.10 (.11)	-.09† (.05)
Age	-.03* (.01)	.01 (.01)	-.06* (.02)	-.01 (.01)	-.03*** (.01)	.00 (.01)	-.06*** (.02)	-.02** (.01)
Part-time work	-.07 (.19)	.25 (.21)	-.65 (.44)	.29 (.20)	.06 (.08)	-.02 (.09)	-.29 (.19)	.03 (.08)
Firm size	-.02 (.08)	-.10 (.09)	.03 (.19)	.08 (.09)	-.01 (.06)	-.05 (.06)	.08 (.13)	.13* (.06)
Professional position	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	5.34*** (.58)	.98 (.63)	10.61*** (1.33)	4.64*** (.62)	4.92*** (.36)	2.08*** (.40)	9.78*** (.85)	4.75*** (.38)
Observations	3170	3170	3170	3170	7481	7481	7481	7481
Subjects	2481	2481	2481	2481	5748	5748	5748	5748
Within R ²	.02	.01	.03	.02	.02	.01	.01	.02

Note. RDRS (recommended distribution rating system) has a value of 1 if the employee was affected by an RDRS and a value of 0 otherwise. Part-time work is likewise dummy coded. Unstandardized regression coefficients in bold are reported with standard errors in parentheses. We included age, part-time work, professional position, and firm size as control variables and additionally added region, industry, and year-level dummies. The results would be virtually the same if we included firm dummies. † $p < .10$, two-tailed test, * $p < .05$, two-tailed test, ** $p < .01$, two-tailed test, *** $p < .001$, two-tailed test.

Discussion

Interpretation and Implications

Our results show that an RDRS weakly and negatively affects employees' organizational commitment. A decrease in organizational commitment can be detrimental, particularly when employees' turnover behavior does not change and they remain within the company while identifying themselves less with it. Their negative attitudes may even spill over to other employees. Further fine-grained analyses show that the detrimental effects of an RDRS occur only for employees without managerial responsibility: An RDRS not only reduces their organizational commitment, it also impairs their cooperation. This finding aligns with previous research, which shows that pay disparities undermine collaboration and increase competition among employees (Shaw et al., 2002). An RDRS thus mainly impairs employees' positive attitudes and behaviors that are generally not part of the formal job description and thus may easily be overlooked. Yet they affect the overall performance of the organization. The

negative impact of an RDRS may thus be subtle directly after its introduction and unfold gradually over time.

As noted above, employees with managerial responsibility do not experience adverse effects when rated under an RDRS, perhaps because their own experience as a rater has shaped their interpretation of the ratings received. Furthermore, individuals who bear managerial responsibility may have gotten there because of their extraordinary commitment to and engagement in the organization, which a performance rating may not easily destroy. And finally, they might feel more committed because of having subordinates for whom they bear responsibility, so the performance ratings are less likely to influence their commitment.

In sum, an RDRS has several detrimental effects, although not all are statistically significant. There are several possible explanations for why RDRSs are not more detrimental than they are, but we believe that the most plausible one is that supervisors bypass the system and thereby impair its effectiveness. Even Jack Welch, a great proponent of forced distribution rating systems, noted that supervisors often try hard to circumvent such rating

systems. For example, they may assign a low rating to someone who plans to retire by the end of the year, instead of to someone else who deserves the low rating (Welch & Byrne, 2003). If they can manipulate a forced distribution rating system, they can certainly manipulate an RDRS. For instance, they can persuade their supervisors to allow deviations from the distribution. This, of course, leads us to question of the usefulness of implementing an RDRS, as (1) supervisors tend to manipulate the system so that it cannot unfold its intended effects, and (2) if supervisors do not manipulate the system, the consequences may even be worse because the detrimental effects of RDRS might even be stronger.

This study contributes to research on performance appraisal systems, particularly the discourse surrounding the desirability of performance rating systems with predefined distributions, by providing evidence on their differential and adverse effects. By linking prospect theory to the context of performance appraisal, we provide a theoretical lens to better understand how and why this type of performance appraisal system influences employees' emotions, attitudes, and behavior. We identify affective organizational commitment and cooperation as the key channels of effects of an RDRS among employees without managerial responsibility. An RDRS decreases positive attitudes toward the organization and impairs selfless actions that support its performance. Hence, it is important to be aware of these two dimensions, which are only indirectly observable but of critical relevance to organizational success (Chun et al., 2013; Gong et al., 2009; Riketta, 2002).

Furthermore, we enhance the scholarly discussion on the effects of performance appraisal systems with a predefined distribution by studying the effects of an RDRS in a field setting. In doing so, we provide important evidence of the external validity of our findings and extend previous findings from lab experiments and simulation studies (Berger et al., 2013; Scullen et al., 2005). Interestingly, correlations between an RDRS and the dependent variables run in the opposite directions compared to our fixed effects regressions: For example, an RDRS correlates positively with employees' commitment. This highlights the suitability of our methodological approach, as it controls for unobserved time-constant confounders of an individual, e.g., certain personality traits.

Limitations

The limitations of our study provide fruitful grounds for future research. Because we found rather small effect sizes and partly nonsignificant effects of an RDRS, we encourage future research to further disentangle the

mechanisms of an RDRS, particularly in another field setting like our study. In a controlled laboratory environment, individuals may not dare or be able to circumvent the rating system. However, it would be of great interest to investigate whether an RDRS is actually able to reach its aim to reward the best-performing and punish the worst-performing employees in practice. Furthermore, it would be interesting to test the assumption that those rated below average are in fact the ones negatively affected by an RDRS in the first place, and that they may subsequently infect their peers with negative attitudes, creating more adverse effects over time.

Accordingly, we also plead for other field studies like ours to tackle the study's underlying issue of the low correlations between RDRS and the relevant behavioral outcome variables (i.e., commitment, turnover intentions, job satisfaction, cooperation). Research by Humphrey et al. (2007) shows high correlations between job characteristics and job satisfaction/organizational commitment, and other research streams prove respective correlations between leadership traits and job satisfaction (e.g., Braun et al. 2013). To incorporate these findings and simultaneously present further evidence for the fundamental relevance of understanding the effects of an RDRS on employee behavior would require additional research.

Additional limitations refer to the dataset. Our data test whether an RDRS is present or not. Yet, we cannot account for the amount and kind of incentives tied to the ratings, nor do we have information on the extent to which supervisors are expected to stick to the stipulated rating distribution. These are interesting contingencies that may influence an RDRS's effects, and they warrant further analysis. Furthermore, we had to rely on the variables and items available in the LPP, which mainly consisted of scales with only one or two items, potentially threatening the reliability and validity of the measures. However, job satisfaction has been shown to be adequately measurable with single-item scales (Wanous et al., 1997). Finally, our posthoc analysis revealed that an RDRS has different effects for employees with and without managerial responsibility. Although there are plausible arguments why this might be the case, the causes and consequences of these differences are still to be explored, as they bear important practical implications.

Conclusion

Rating systems with a predefined rating distribution are supposed to counteract rater biases in subjective performance evaluations. The resulting rating dispersion might lead to more accurate ratings. In this study, however, we

find that such rating systems can adversely affect psychological and behavioral outcomes, particularly for employees without managerial responsibility. These adverse effects manifest themselves in a decrease in positive attitudes and behaviors that may not be directly visible but that constitute a competitive advantage for an organization. Our study contributes to the scholarly debate about predefined rating distributions by raising awareness of their potential detrimental effects.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-t](https://doi.org/10.1016/0749-5978(91)90020-t)
- Allen, D. G., Bryant, P. C., & Vardaman, J. M. (2010). Retaining talent: Replacing misconceptions with evidence-based strategies. *Academy of Management Perspectives*, 24(2), 48–64. <https://doi.org/10.5465/amp.24.2.48>
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1–18. <https://doi.org/10.1111/j.2044-8325.1990.tb00506.x>
- Bamberger, P. A., & Levi, R. (2009). Team-based reward allocation structures and the helping behaviors of outcome-interdependent team members. *Journal of Managerial Psychology*, 24(4), 300–327. <https://doi.org/10.1108/02683940910952705>
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122–147. <https://doi.org/10.1037/0003-066x.37.2.122>
- Bedwell, W. L., Wildman, J. L., DiazGranados, D., Salazar, M., Kramer, W. S., & Salas, E. (2012). Collaboration at work: An integrative multilevel conceptualization. *Human Resource Management Review*, 22(2), 128–145. <https://doi.org/10.1016/j.hrmr.2011.11.007>
- Berger, J., Harbring, C., & Sliwka, D. (2013). Performance appraisals and the impact of forced distribution: An experimental investigation. *Management Science*, 59(1), 54–68. <https://doi.org/10.1287/mnsc.1120.1624>
- Berger, J., Jonkisz, E., Laske, K., & Sliwka, D. (2011). Überraschend flächendeckend [Surprisingly widespread]. *Personalmagazin*, 7, 26–28.
- Bevan, S. (2014). *Performance improvement plans and the culture of fear*. Retrieved from <http://www.hrmmagazine.co.uk/article-details/performance-improvement-plans-and-the-culture-of-fear>
- Blau, G. (1999). Testing the longitudinal impact of work variables and performance appraisal satisfaction on subsequent overall job satisfaction. *Human Relations*, 52(8), 1099–1113. <https://doi.org/10.1023/A:1016987725663>
- Bou-Llusar, J. C., Beltrán-Martín, I., Roca-Puig, V., & Escrig-Tena, A. B. (2016). Single- and multiple-informant research designs to examine the human resource management–performance relationship. *British Journal of Management*, 27(3), 646–668. <https://doi.org/10.1111/1467-8551.12177>
- Braun, S., Peus, C., Weisweiler, S., & Frey, D. (2013). Transformational leadership, job satisfaction, and team performance: A multilevel mediation model of trust. *The Leadership Quarterly*, 24(1), 270–283. <https://doi.org/10.1016/j.leaqua.2012.11.006>
- Broszeit, S., Grunau, P., & Wolter, S. (2016). *LPP – Linked Personnel Panel 1415 – Quality of work and economic success: Longitudinal study in German establishments* (data documentation on the second wave). Retrieved from [https://ideas.repec.org/p/iab/iabfda/201606\(en\).html](https://ideas.repec.org/p/iab/iabfda/201606(en).html)
- Broszeit, S., & Wolter, S. (2015). *Linked personnel panel – Quality of work and economic success: Longitudinal study in German establishments* (data documentation on the first wave). Retrieved from [https://ideas.repec.org/p/iab/iabfda/201501\(en\).html](https://ideas.repec.org/p/iab/iabfda/201501(en).html)
- Brown, M., Hyatt, D., & Benson, J. (2010). Consequences of the performance appraisal experience. *Personnel Review*, 39(3), 375–396. <https://doi.org/10.1108/00483481011030557>
- Buckingham, M. (2013). *Trouble with the curve? Why Microsoft is ditching stack rankings*. Retrieved from <https://hbr.org/2013/11/dont-rate-your-employees-on-a-curve>
- Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, 44(6), 473–490. <https://doi.org/10.1016/j.jsp.2006.09.001>
- Chun, J. S., Shin, Y., Choi, J. N., & Kim, M. S. (2013). How does corporate ethics contribute to firm financial performance? *Journal of Management*, 39(4), 853–877. <https://doi.org/10.1177/0149206311419662>
- Dávila, M. C., & Finkelstein, M. (2013). Organizational citizenship behavior and well-being: Preliminary results. *International Journal of Applied Psychology*, 3, 45–51. <https://doi.org/10.5923/j.ijap.20130303.03>. Retrieved from https://www.researchgate.net/profile/maria-leon-11/publication/268380667_organizational_citizenship_behavior_and_well-being_preliminary_results
- Dóci, E., & Hofmans, J. (2015). Task complexity and transformational leadership: The mediating role of leaders' state core self-evaluations. *The Leadership Quarterly*, 26(3), 436–447. <https://doi.org/10.1016/j.leaqua.2015.02.008>
- Edmans, A. (2012). The link between job satisfaction and firm value, with implications for corporate social responsibility. *Academy of Management Perspectives*, 26(4), 1–19. <https://doi.org/10.5465/amp.2012.0046>
- Faragher, E. B., Cass, M., & Cooper, C. L. (2005). The relationship between job satisfaction and health: A meta-analysis. *Occupational and Environmental Medicine*, 62(2), 105–112. <https://doi.org/10.1136/oem.2002.006734>
- Fassina, N. E., Jones, D. A., & Uggerslev, K. L. (2008). Relationship clean-up time: Using meta-analysis and path analysis to clarify relationships among job satisfaction, perceived fairness, and citizenship behaviors. *Journal of Management*, 34(2), 161–188. <https://doi.org/10.1177/0149206307309260>
- Feld, J., Sauermann, J., & Grip, A. de (2017). Estimating the relationship between skill and overconfidence. *Journal of Behavioral and Experimental Economics*, 68, 18–24. <https://doi.org/10.1016/j.socec.2017.03.002>
- Felps, W., Mitchell, T. R., Hekman, D. R., Lee, T. W., Holtom, B. C., & Harman, W. S. (2009). Turnover contagion: How coworkers' job embeddedness and job search behaviors influence quitting. *Academy of Management Journal*, 52(3), 545–561. <https://doi.org/10.5465/amj.2009.41331075>
- Giumetti, G. W., Schroeder, A. N., & Switzer, F. S. (2015). Forced distribution rating systems: When does “rank and yank” lead to adverse impact? *Journal of Applied Psychology*, 100(1), 180–193. <https://doi.org/10.1037/a0037191>
- Gong, Y., Law, K. S., Chang, S., & Xin, K. R. (2009). Human resources management and firm performance: The differential role of managerial affective and continuance commitment. *The*

- Journal of Applied Psychology*, 94(1), 263–275. <https://doi.org/10.1037/a0013116>
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica*, 46(6), 1251–1271. <https://doi.org/10.2307/1913827>
- Humphrey, S.E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92(5), 1332. [10.1037/0021-9010.92.5.1332](https://doi.org/10.1037/0021-9010.92.5.1332)
- Jaramillo, F., Mulki, J. P., & Marshall, G. W. (2005). A meta-analysis of the relationship between organizational commitment and salesperson job performance: 25 years of research. *Journal of Business Research*, 58(6), 705–714. <https://doi.org/10.1016/j.jbusres.2003.10.004>
- Jawahar, I. M. (2006). Correlates of satisfaction with performance appraisal feedback. *Journal of Labor Research*, 27(2), 213–236. <https://doi.org/10.1007/s12122-006-1004-1>
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127(3), 376–407. <https://doi.org/10.1037/0033-2909.127.3.376>
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–292.
- Karakostas, A., & Zizzo, D. J. (2016). Compliance and the power of authority. *Journal of Economic Behavior & Organization*, 124, 67–80. <https://doi.org/10.1016/j.jebo.2015.09.016>
- Klein, W. M. (1997). Objective standards are not enough: Affective, self-evaluative, and behavioral responses to social comparison information. *Journal of Personality and Social Psychology*, 72(4), 763–774. <https://doi.org/10.1037/0022-3514.72.4.763>
- Kozlowski, S. W. J., & Bell, B. S. (2013). Work groups and teams in organizations: Review update. In N. Schmitt (Ed.), *Handbook of psychology. Industrial and organizational psychology* (Vol. 12, 2nd ed., pp. 412–469). Wiley.
- Kwak, W. J., & Choi, S. B. (2015). Effect of rating discrepancy on turnover intention and leader–member exchange. *Asia Pacific Journal of Management*, 32(3), 801–824. <https://doi.org/10.1007/s10490-015-9414-3>
- Lee, J. S., & Keil, M. (2018). The effects of relative and criticism-based performance appraisals on task-level escalation in an IT project: A laboratory experiment. *European Journal of Information Systems*, 27(5), 551–569. <https://doi.org/10.1080/0960085X.2017.1408752>
- Lee, T. W., & Maurer, S. D. (1997). The retention of knowledge workers with the unfolding model of voluntary turnover. *Human Resource Management Review*, 7(3), 247–275. [https://doi.org/10.1016/s1053-4822\(97\)90008-5](https://doi.org/10.1016/s1053-4822(97)90008-5)
- Mackeben, J., Ruf, K., Grunau, P., & Wolter, S. (2018). *LPP – Linked Personnel Panel 1617 – Quality of work and economic success: Longitudinal study in German establishments (data documentation on the second wave)*. Retrieved from [https://ideas.repec.org/p/iab/iabfda/201804\(en\).html](https://ideas.repec.org/p/iab/iabfda/201804(en).html)
- Mathis, R. L., & Jackson, J. H. (2008). *Human resource management* (12th ed.). Thomson South-Western.
- McFarlin, D. B., & Sweeney, P. D. (1992). Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. *Academy of Management Journal*, 35(3), 626–637. <https://doi.org/10.5465/256489>
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61(1), 20–52. <https://doi.org/10.1006/jvbe.2001.1842>
- Moon, S. H., Scullen, S. E., & Latham, G. P. (2016). Precarious curve ahead: The effects of forced distribution rating systems on job performance. *Human Resource Management Review*, 26(2), 166–179. <https://doi.org/10.1016/j.hrmr.2015.12.002>
- Murphy, K. R., Cleveland, J. N., & Hanscom, M. E. (2018). *Performance appraisal and management*. Sage. Retrieved from <https://sk.sagepub.com/books/performance-appraisal-and-management>
- Nuhn, H. F.R., Heidenreich, S., & Wald, A. (2019). Performance outcomes of turnover intentions in temporary organizations: A dyadic study on the effects at the individual, team, and organizational level. *European Management Review*, 16(2), 255–271. <https://doi.org/10.1111/emre.12142>
- Oshagbemi, T. (1999). Overall job satisfaction: How good are single versus multiple-item measures? *Journal of Managerial Psychology*, 14(5), 388–403. <https://doi.org/10.1108/02683949910277148>
- Ovide, S., & Feintzeig, R. (2013). Microsoft abandons “stack ranking” of employees: Software giant will end controversial practice of forcing managers to designate stars. Retrieved from <https://www.wsj.com/articles/microsoft-abandons-8216stack-ranking8217-of-employees-1384279446>
- Paddock, E. L., Ko, J., Cropanzano, R., Bagger, J., El Akremi, A., Camerman, J., Greguras, G. J., Mladinic, A., Moliner, C., Nam, K., Törnblom, K., & van den Bos, K. (2015). Voice and culture: A prospect theory approach. *Journal of Behavioral Decision Making*, 28(2), 167–175. <https://doi.org/10.1002/bdm.1834>
- Parker, S. K., & Axtell, C. M. (2001). Seeing another viewpoint: Antecedents and outcomes of employee perspective taking. *Academy of Management Journal*, 44(6), 1085–1100. <https://doi.org/10.5465/3069390>
- Pearce, J. L., & Porter, L. W. (1986). Employee responses to formal performance appraisal feedback. *The Journal of Applied Psychology*, 71(2), 211–218. <https://doi.org/10.1037/0021-9010.71.2.211>
- Petty, M. M., McGee, G. W., & Cavender, J. W. (1984). A meta-analysis of the relationships between individual job satisfaction and individual performance. *Academy of Management Review*, 9(4), 712–721. <https://doi.org/10.5465/amr.1984.4277608>
- Podsakoff, P. M., Ahearne, M., & MacKenzie, S. B. (1997). Organizational citizenship behavior and the quantity and quality of work group performance. *The Journal of Applied Psychology*, 82(2), 262–270. <https://doi.org/10.1037/0021-9010.82.2.262>
- Prendergast, C. (1999). The provision of incentives in firms. *Journal of Economic Literature*, 37(1), 7–63. <https://doi.org/10.1257/jel.37.1.7>
- Raver, J. L., Ehrhart, M. G., & Chadwick, I. C. (2012). The emergence of team helping norms: Foundations within members’ attributes and behavior. *Journal of Organizational Behavior*, 33(5), 616–637. <https://doi.org/10.1002/job.772>
- Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *The Journal of Applied Psychology*, 86(5), 825–836. <https://doi.org/10.1037/0021-9010.86.5.825>
- Ricketta, M. (2002). Attitudinal organizational commitment and job performance: A meta-analysis. *Journal of Organizational Behavior*, 23(3), 257–266. <https://doi.org/10.1002/job.141>
- Ricketta, M. (2008). The causal relation between job attitudes and performance: A meta-analysis of panel studies. *The Journal of Applied Psychology*, 93(2), 472–481. <https://doi.org/10.1037/0021-9010.93.2.472>
- Robin, S., Rusinowska, A., & Villeval, M. C. (2014). Ingratiation: Experimental evidence. *European Economic Review*, 66, 16–38. <https://doi.org/10.1016/j.euroecorev.2013.11.005>
- San Martín-Rodríguez, L., Beaulieu, M.-D., D’Amour, D., & Ferrada-Videla, M. (2005). The determinants of successful collaboration: A review of theoretical and empirical studies. *Journal of Inter-*

- professional Care*, 19, 132–147. <https://doi.org/10.1080/13561820500082677>
- Schleicher, D. J., Bull, R. A., & Green, S. G. (2009). Rater reactions to forced distribution rating systems. *Journal of Management*, 35(4), 899–927. <https://doi.org/10.1177/0149206307312514>
- Scullen, S. E., BERGEY, P. K., & AIMAN-SMITH, L. (2005). Forced distribution rating systems and the improvement of workforce potential: A baseline simulation. *Personnel Psychology*, 58(1), 1–32. <https://doi.org/10.1111/j.1744-6570.2005.00361.x>
- Shaw, J. D., Gupta, N., & Delery, J. E. (2002). Pay dispersion and workforce performance: Moderating effects of incentives and interdependence. *Strategic Management Journal*, 23(6), 491–512. <https://doi.org/10.1002/smj.235>
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). *The measurement of satisfaction in work and retirement: A strategy for the study of attitudes*. Rand McNally.
- Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations*, 39(11), 1005–1016. <https://doi.org/10.1177/001872678603901104>
- Totterdell, P., Kellett, S., Teuchmann, K., & Briner, R. B. (1998). Evidence of mood linkage in work groups. *Journal of Personality and Social Psychology*, 74(6), 1504–1515. <https://doi.org/10.1037/0022-3514.74.6.1504>
- Tymon, W. G., Stumpf, S. A., & Smith, R. R. (2011). Manager support predicts turnover of professionals in India. *Career Development International*, 16(3), 293–312. <https://doi.org/10.1108/13620431111140174>
- van Eerde, W., & Thierry, H. (1996). Vroom's expectancy models and work-related criteria: A meta-analysis. *The Journal of Applied Psychology*, 81(5), 575–586. <https://doi.org/10.1037/0021-9010.81.5.575>
- Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: How good are single-item measures? *The Journal of Applied Psychology*, 82(2), 247–252. <https://doi.org/10.1037/0021-9010.82.2.247>
- Welch, J., & Byrne, J. A. (2003). *Jack: Straight from the gut*. Warner Books.
- Xerri, M. J., & Brunetto, Y. (2013). Fostering innovative behavior: The importance of employee commitment and organisational citizenship behavior. *The International Journal of Human Resource Management*, 24(16), 3163–3177. <https://doi.org/10.1080/09585192.2013.775033>

History

Received May 23, 2022

Revision received March 24, 2023

Published online July 20, 2023

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Funding

Open access publication enabled by the University of Münster.

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Appendix

Table A1.

Variable	Items
Affective commitment	I would like to work for this organization for the rest of my life. This organization is of high personal value for me. I consider the problems of the organization as my own. I do not feel a strong sense of belonging to my organization. I do not feel any emotional attachment to my organization. I do not feel like being “part of the family” in the business.
Turnover intention	How many times in the past 12 months have you thought about changing your job?
Cooperation	How often do you receive help and support from colleagues if required? How often do you offer to help your colleagues?
Job satisfaction	How satisfied are you today with your job?
Age	Open field
Part-time work	Yes/no
Managerial responsibility	Yes/no
Firm size	0: 0–49 employees 1: 50–99 employees 2: 100–249 employees 3: 250–499 employees 4: 500 and more employees
Professional position	Unskilled Skilled worker

Table A1. (Continued)

Variable	Items
	Foreman
Region dummies	North East South West
Industry dummies	Manufacturing Metal, electrical, automotive Trade, transport, news Business-related service, finance-related service Information/communication, other service
Year dummies	2012/13 2014/2015 2016/2017