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The influence of fairness on employee work engagement

by

Robbert Thomas Werker
3521591

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Supervisors

dr. J.F. Ybema
prof. dr. K. van den Bos

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ABSTRACT

In this study the effect of fairness on work engagement is tested, and the influence of uncertainty, job demands and resources on this relationship is examined. 201 participants completed a questionnaire containing an experimental condition (making salient a critical fair or unfair incident). Although significantly influencing a series of other variables, the manipulation does not affect work engagement directly. However, some additional mediating and moderating relationships are found. The manipulation failing to induce an effect on work engagement suggests that this concept does not differ much over time and situations. This supports the trait approach to work engagement. The flexibility of elements of the JD-R model has augmented the present research by allowing different concepts to be used as predictors. However it has also complicated the generalization of findings. More in-depth research is needed to clarify the relations between the variables at hand.

SAMENVATTING

Dit onderzoek bestudeert de effecten van rechtvaardigheid op werkbevoegenheid, en de invloed van onzekerheid, werkeisen en energiebronnen hierop. 201 participanten vulden een vragenlijst in met een experimenteel onderdeel (manipulatie) waarin een kritiek incident van (on)rechtvaardigheid op werd geroepen. De manipulatie beïnvloedde bevoegenheid niet direct, maar wel een reeks andere variabelen. Daarnaast werden enkele interactie- en mediatie-effecten gevonden. Het feit dat de manipulatie geen effect bewerkstelligt op werkbevoegenheid lijkt te wijzen op stabiliteit van dit concept over tijd en situatie, welke de benadering van stabiliteit van bevoegenheid ondersteunt. De flexibiliteit van elementen van het JD-R model is van toegevoegde waarde geweest voor het onderzoek doordat een brede variëteit aan voorspellers gebruikt kon worden. Echter, deze flexibiliteit heeft ook de generaliseerbaarheid van de bevindingen bemoeilijkt. Meer onderzoek is nodig om de relaties tussen de huidige variabelen te verhelderen.

INTRODUCTION

Traditionally, organizational psychology has focused on the adverse effects of certain organizational situations, for example on employee health, motivation, and satisfaction. The driving force for this subfield of psychology was to recognize the events in order to prevent these effects. Keeping employees healthy, motivated, and satisfied is important for organizations because of the negative effect on organizational results in the absence of these employee states. As a result of this, a plethora of indicators for measuring employee wellbeing has been proposed in organizational psychology throughout the years (Ganster & Rosen, 2013).

As of recent, a shift towards the more positive aspects of organizational psychology, namely “positive organizational behaviour” (Bakker & Demerouti, 2008), or simply “positive psychology” (Seligman & Csikszentmihalyi, 2014) has been visible. In line with this, in organizational psychology, work engagement has become an influential concept for measuring employee overall wellbeing in recent decades (Bakker & Demerouti, 2008). The concept of work engagement originates from the line of research of burnout, the concept to which it was introduced as an antipode (Leiter & Maslach, 2003). Schaufeli, Bakker, and Salanova (2006) defined work engagement as “a positive work-related state of fulfilment that is characterized by *vigour* (high energy level, persistence, and willingness to invest in the job), *dedication* (enthusiasm, inspiration, and significance), and *absorption* (being happy, concentrated and captivated by one’s work)”. Over the years, discussion has been observed whether work engagement should be considered a stable “trait” or a more variable “state”, with distinct lines of research arising from this (see Sonnentag, Dormann, & Demerouti, 2010). Regardless of the conceptual underpinnings, in the years since the introduction of the concept, scholars have reached consensus on the value of work engagement: engaged employees have proven to be more productive, creative and “willing to go the extra mile” (Bakker & Demerouti, 2008). Naturally, scholars have been investigating what job aspects influence work engagement.

A considerable part of the engagement research has taken place within the framework of the Job Demands-Resources (JD-R) model. This model indicates that job demands and resources function as predictors of burnout and engagement (Schaufeli & Bakker, 2004). Job demands are defined as elements of a job that require physical or psychological effort, which can attenuate work engagement. According to

Bakker and Demerouti (2008) job resources are the main predictors of engagement. They define resources as elements of a job that a) reduce the physical and psychological effects of job demands, b) help the employee achieve work goals, and c) spark personal growth, development and learning.

Another element that has been found to contribute to an employee's wellbeing, and on which this study focuses, is (perceived) fairness¹ (Schmitt & Dörfell, 1999). Most of the academic work on fairness is based upon the premises of equity theory. This theory assumes that in social relationships an allocation of rewards, resources, and punishments takes place relative to a person's input or contribution (Levanthal, 1980). When an employee feels his input is justly rewarded in an organization, the employee feels treated fairly. However, when the employee feels the allocation received does not correspond with the contribution made, the employee might perceive unfairness.

Being treated fairly matters greatly to employees. Academic literature indicates that perceived unfairness at work has adverse effects on employee wellbeing (Elovainio, et al., 2005) and employee performance (Ambrose, Seabright, & Schminke, 2002). Similarly, (procedural) unfairness has been found to correlate negatively with job satisfaction and psychosomatic wellbeing (Schmitt & Dörfell, 1999). In consonance with the positive psychology trend, an increased focus can be observed on the positive effects of perceived fairness, in the academic literature. According to Simons and Roberson (2003), fairness positively impacts commitment to the organization, while negatively affecting turnover intention. In line with this, procedural fairness has been found to lead to greater performance and commitment (van den Bos, 2005), and to increased wellbeing and employee functioning (Ybema & van den Bos, 2010). Similarly, fairness has been assumed to motivate work engagement (Tyler & Blader, 2003; Maslach et al., 2001) possibly by triggering the urge to "give back" to the organization after being treated fairly (Saks, 2006). More recently, Strom, Sears, and Kelly (2014) confirmed the positive relationship between fairness (both procedural and distributive) and work engagement.

Despite the growing body of literature much is still unknown about fairness processes. While many studies have dealt with the general effects of perceived

¹ Although sometimes conceptualized as distinguishable concepts, "fairness" and "justice" in this study are used interchangeably.

fairness, less attention has been devoted to effects of a fair/unfair situation by itself. For example, how long do consequences of a(n) (un)fair situation remain active? Put differently, it is largely unknown what the exact effects of an episode of (un)fairness are for employee engagement. Rather than focusing on the effect of general perceived fairness over an extended period of time on work engagement, this study investigates the effects of a (short-lived) episode of (un)fairness, using the critical incident method (Flanagan, 1954). In this method, participants are asked to recall a situation of the past. This way it is possible to establish the immediate effects of one critical incident on work engagement. In addition, the choice for the critical incident method is assumed to shed light on the state-trait discussion, elaborated above. As such, in line with Ybema and van den Bos (2010), it is expected that:

Hypothesis 1: *Making salient a fair work situation leads to higher employee engagement*

It is hypothesized that when employees feel treated fairly they experience more engagement with their work than when they feel unfairly treated. Therefore, when a person thinks back to an episode of fairness² he is expected to experience more work engagement.

A variety of concepts are thought to influence the effect of fairness (e.g. on work engagement), of which one has been termed the “uncertainty hypothesis”. Interestingly, van den Bos (2001) found that the effect of unfairness was stronger when participants’ uncertainty had been made salient. In line with this, Strom, Sears, and Kelly (2014) found that uncertainty about the social self (triggered by low transactional leadership style) leads the employee to look for more fairness-related information. In the present study, uncertainty is hypothesized to interact with the effect of fairness on engagement:

Hypothesis 2: *The effect of fairness on engagement is moderated by uncertainty.*

² Although Greenberg and Colquitt (2005) provide a useful taxonomy of organizational justice, this study will not distinguish between different conceptions of fairness. Since a direct effect of fairness on engagement is not yet taken for granted, this research does not focus on different forms, but on fairness more broadly.

In line with the uncertainty hypothesis (van den Bos, 2001), it is expected that the effect of fairness on work engagement is stronger in the case of high uncertainty. Since there are numerous paths to uncertainty for an employee, several aspects of uncertainty will be assessed in this study.

In the highly dynamic work environment of today, short-term contracts are the norm rather than the exception. Moreover, in the advent of the global economic crisis, many organizations are restructuring, often bringing about lay-offs. As a result of this, employees fear unemployment, which is a cause of stress (Coetzee & Villiers, 2010, p. 29). This type of uncertainty has been termed “future uncertainty”, and has implications for employee wellbeing. For example, Bosman, Rothmann, and Buitendach (2005) found an effect of future uncertainty on work engagement. Similarly, van den Berg, Manias, and Burger (2008) report the negative effects of future uncertainty on two elements of engagement: vigour and dedication.

Another type of uncertainty concerns employee stress over vagueness regarding duties, expectations, and responsibility, or prevalent changes in these aspects: role ambiguity (Coetzee & Villiers, 2010). The effect of role ambiguity on employee wellbeing and performance has been studied extensively. As Bedeian and Armenakis (1981) report, role ambiguity can be linked to decreased organizational commitment, job satisfaction, and to increased desire to leave the organization. In line with this, Prieto, Soria, Martínez, and Schaufeli (2008) found that role ambiguity predicted lower dedication.

Finally, since supervisors often are in charge of allocating rewards, resources, and punishments to subordinates, employee-supervisor relationship is expected to be important for employee uncertainty. The Leader-Member Exchange theory (Gerstner & Day, 1997) posits that supervisors form different types of relations with subordinates. It was found that more exchanges between subordinate and supervisor (high LMX) than the minimum³ (low LMX) was associated positive outcomes (Liden, Sparrowe, & Wayne, 1997). Arguably, less exchange with a supervisor than colleagues (low LMX) results in more employee uncertainty. Therefore, it is expected that relationship with supervisor (as source of uncertainty) influences the effect of fairness on work engagement, and will be included in this study.

³ Contains interactions that were expressed in employee’s contract only

Since the concept of work engagement originates from the JD-R research, job demands and resources are essential to engagement processes. In this study, demands and resources are thought to exert influence on the relationship between fairness and engagement. In this sense, fairness could be seen as a job resource, while unfairness could be seen as a job demand. The influence of demands and resources as moderators has been investigated by Schaufeli and Taris (2013), who cite various studies. For example, Bakker, Hakanen, Demerouti & Xanthopoulou (2007) found that job resources spurred work engagement more when job demands (e.g. stressful interactions) were present. In addition, when employees are experiencing stress (e.g. as a result of high job demands) they turn to the organization's staff for fairness (Leiter & Maslach, 2003). This increased emphasis on fairness is hypothesized to strengthen the effect of fairness on engagement:

Hypothesis 3a: *Job demands moderate the effect of fairness on engagement*

High job demands lead to stress, which means that in times of high demands, the effect of fairness on engagement is stronger. The job demands that are included in this study were found to negatively influence work engagement (Prieto et al., 2008): workload, mental demands, and emotional demands. Similarly, the moderating effect of resources was established in a study by Hu, Schaufeli, and Taris (2011), who found that resources moderated the effect of job demands on burnout. In line with this finding, it is hypothesized that:

Hypothesis 3b: *Job resources moderate the effect of fairness on engagement*

Job resources reduce the effect of stressors, which means that in times of high resources, the effect of fairness on engagement is weaker. The job resources that are included in this study were identified by Schaufeli and Bakker (2004) to predict engagement: social support (of peers and of supervisors), and support embedded in the organization (organizational support).

Finally, emotional wellbeing is thought to mediate the relation between fairness and engagement. As Sparr and Sonnentag (2008) found, fairness was positively related to emotional employee wellbeing. It follows naturally from this that people with higher wellbeing also are more engaged.

Hypothesis 4: *The effect of fairness on engagement is mediated by wellbeing.*

The primary objective of this study was to contribute to the work engagement literature by assessing the effect of fairness. At the same time it was designed to broaden the knowledge of the underlying engagement processes, as it incorporated the uncertainty hypothesis, as well as constructs such as job demands and resources. Finally, this was all done making use of the critical incident method (Flanagan, 1954), a method that had not been deployed to this end previously.

METHOD

Participants and procedure

The majority of participants was employed by the University Medical Center Groningen. Employees received an email in which they were asked to participate in research on employment conditions. This email contained a link to the survey, which upon opening assigned them randomly to one of two conditions (fair or unfair critical incident). Additional participants were recruited around a conference centre in Utrecht. Upon agreement, these participants were handed one of two versions of a printed questionnaire, which were similar except for the experimental condition (the critical incident). The printed version also contained an URL to the digital version, allowing participants to complete the questionnaire online if preferred.

A total of 199 persons participated in the study (75 male, 124 female), with a mean age of 43.9 years old ($SD = 12.39$, range = 45). Around 80% of the participants had a permanent contract, and 20% was on a temporary contract. Average length of employment was 12.4 years ($SD = 10.3$). 79.9% of the participants had a university (of applied science) degree, and 15.6% a high school/MBO degree.

Measurement instruments

The questionnaire was in Dutch. After an introduction, the first series of questions dealt with personal details, job details, and work experience. The first element of the questionnaire then dealt with questions about job demands and statements about the resources employee experienced. Job demands in this study consisted of *workload* (4 items, $\alpha = 0.88$, range = 3.5) *emotional demands* (3 items, α

= 0.79, range = 3.67), and *mental demands* (3 items, $\alpha = 0.73$, range = 3.00), which were measured using items of van Veldhoven's (1997) Labour Perception and Assessment (VBBA), all with a 1-5 scale, with (1) never, and (5) always. Example items were (respectively): "Do you work under time pressure?", "Do you feel your job is emotionally demanding?", and "Do you have to be very concentrated to do your work?".

Job resources were measured through peer support, supervisor support, and organizational support. *Peer support* and *supervisor support* were both measured using 4 items originating from Peeters, Buunk, and Schaufeli (1995), on a 1-5 scale, with (1) never, and (5) always. An example of an item of the peers support scale ($\alpha = 0.78$, range = 3.50) was: "If needed, my colleagues help me with a particular task". An example item for the supervisor support scale ($\alpha = 0.85$, range = 4) was: "If needed, my supervisor helps me with a certain task". *Organizational support* ($\alpha = 0.94$, range = 4) was measured using Rhoades and Eisenberger's (2001) three items, on a 1-5 scale ((1) never, (5) always) with items such as: "This organization is involved with the wellbeing of its employees".

In the next part of the questionnaire, uncertainty was assessed through future uncertainty, role ambiguity, and supervisor relationship. *Future uncertainty* (4 items, with $\alpha = 0.81$, range = 4) and *role ambiguity* (5 items, with $\alpha = 0.81$, range = 3.67) were measured using items of van Veldhoven's VBBA (1997 & 2000), on a 1-5 scale, ranging from (1) never, to (5) always. Example items were (respectively): "Do you worry whether you will be employed in a year's time?", and "Do you know what others expect of you in your job?". *Supervisor relationship* was measured using Scandura's (1994) Leader-Member Exchange (LMX) scale ($\alpha = 0.86$, range = 4), consisting of three items, such as: "Do you feel your supervisor recognizes your full potential?". Supervisor relationship was measured on a 1-5 scale, either (1) rarely, to (5) very often, or (1) not at all, to (5) very good.

After the uncertainty items the experimental condition was introduced. A feeling of fairness/unfairness was made salient by asking the participants to think back to either a moment in their current employment in which they felt treated fairly, or unfairly (dependent on condition). After recollecting this event for one minute, the participants were exposed to three questions. These three assignments were formulated in identical fashion, and were an adaptation of justice research by van den Bos (2001), designed to sustain and/or strengthen the (positive or negative) affect that

the participants felt as a result of recalling the situation. The assignments dealt with describing a) the incident, b) the emotional consequences, and c) the physical consequences associated with the incident. After these three assignments, the PANAS scale (Watson, Clark, & Tellegen, 1988) was introduced with the question: “When you think back to the situation you just described, to what extent do you feel...”, followed by the 20 emotional affective states, 10 positive and 10 negative. The PANAS was answered on a 1-5 scale, ranging from (1) very slightly/not at all, to (5) extremely. The PANAS scale, measuring positive affect ($M = 2.78$, $SD = .88$, $\alpha = .90$) and negative affect ($M = 1.84$, $SD = .79$, $\alpha = .82$), was simultaneously used as a filler task between the critical incident and the measurement of engagement, and to gauge emotional wellbeing as a result of the manipulation.

In the next part of the questionnaire, *work engagement* was assessed using an adaptation of the 9-item version of the Utrecht Work Engagement Scale (UBES) (Schaufeli & Bakker, 2003). The adaptation was made in order to make sure a “state” of work engagement was measured rather than the “trait”, which the UBES originally intends on. Work engagement was assessed on a 7-point scale ranging from (1) completely false, to (7) completely true. This scale (range = 6) dealt with three elements of work engagement: vigour ($\alpha = .91$), absorption ($\alpha = .85$), and dedication ($\alpha = .89$). An example of an item was: “When I think of my job, I feel energized”.

As the final part of the questionnaire, the participants were asked three questions assessing whether they generally felt treated fairly in their jobs. The perceived fairness ($\alpha = .93$) was assessed on a 1-5 scale, ranging from (1) never, to (5) always. An example item was: “Does your superordinate treat you with respect?”. These three questions were meant to serve as a manipulation check, and to gauge perceived organizational fairness as a trait.

Statistical analysis

Data was gathered using Qualtrics, and IBM SPSS Statistics 23 for Mac was used to generate descriptive statistics, and to execute correlational and regression analyses. The main hypothesis was tested using an independent t-test. The other hypotheses were tested using hierarchical linear regression. A dummy variable was created for the manipulation (0 = fair, 1 = unfair). Mediation analyses were conducted using Preacher & Hayes’ INDIRECT mediation method (2008). The 95% confidence

interval of the indirect effects was obtained using 5000 samples. The effect size (Cohen's d) = .04 for the study⁴, which resulted in power of .07.

To analyse the reported consequences of the critical incident, two observers independently scored the participants' answers on 7 variables (see table 8). Observations were compared using weighted Kappa (Cohen, 1968), a measure for calculating inter-rater reliability where distance between two observations matters for the overall score (see appendix 1 for additional information). The weighted Kappa for emotional invasiveness indicated "moderate agreement" between the observers, while the other Kappas indicated "substantial" and "almost perfect" agreement, which provided evidence of reliability.

RESULTS

Table 1 reports the means, standard deviations, and correlations of the variables of the study. As can be seen, the three elements of work engagement were significantly related to each other. Work engagement correlated significantly with the uncertainty scales (except for role ambiguity), and the job resources scales. Interestingly, none of the job demands scales correlated significantly with work engagement. Furthermore, the elements of job demands, as well as the element of job resources correlated significantly with themselves ($p < .01$). With regard to uncertainty, future uncertainty correlated negatively with supervisor relationship, however it did not correlate with role ambiguity ($p = 0.80$). Surprisingly, supervisor relationship, peer support and supervisor support correlated positively with role ambiguity ($p < .01$), which runs counter to expectations. It could be that people who are uncertain about their role seek out a better relationship with their colleagues and supervisor, hoping to reduce ambiguity. To avoid multicollinearity, all variables (except for work engagement) were centred for subsequent analyses, and combinations of independent variables that correlated highly, were avoided in the regression analyses.

⁴ $d = (\mu_1 - \mu_2) / \sigma = ((5.07 - 5.02) / 1.10) = .04$

Table 1

Means, standard deviations, and correlations between variables used.

Variables	M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Work engagement	5.05 (1.10)	1.00													
2. Vigour	5.08 (1.16)	.92**	1.00												
3. Dedication	5.47 (1.14)	.94**	.82**	1.00											
4. Absorption	4.60 (1.23)	.93**	.76**	.81**	1.00										
5. Workload	3.19 (.80)	.03	-.01	.07	.03	1.00									
6. Mental demands	3.86 (.68)	.13	.05	.22**	.11	.42**	1.00								
7. Emotional demands	2.20 (.70)	-.03	-.14*	.05	.02	.35**	.30**	1.00							
8. Support peers	3.20 (.74)	.20**	.20**	.16*	.21**	.05	.06	-.05	1.00						
9. Support supervisors	2.94 (.88)	.30**	.31**	.24**	.29**	.11	.18*	-.09	.56**	1.00					
10. Organizational support	2.90 (.88)	.33**	.32**	.26**	.35**	-.12	-.01	-.23**	.40**	.44**	1.00				
11. Future uncertainty	1.67 (.81)	-.22**	-.23**	-.18*	-.19**	.05	-.06	.17*	.11	-.11	-.21**	1.00			
12. Role ambiguity	3.65 (.78)	.06	.07	.04	.06	.07	.06	.01	.27**	.19**	.14*	-.02	1.00		
13. Supervisor relationship	3.51 (.89)	.46**	.48**	.40**	.41**	-.02	.08	-.16*	.34**	.71**	.41**	-.27**	.23**	1.00	
14. Perceived fairness	4.28 (.83)	.31**	.31**	.31**	.24**	-.01	.04	-.27**	.28**	.46**	.28**	-.11	.12	.54**	1.00

** . p < .01, * . p < .05 (two-sided)

It was hypothesized (H1) that fairness influences engagement. An independent samples t-test was conducted to compare work engagement in the fair and unfair condition. No significant difference was found between the fair (M = 5.02, SD = 1.16) and unfair condition (M = 5.07, SD = 1.05) on the engagement scores, $t(197) = -.30$, $p = .77$. Additionally, vigour, dedication, and absorption were tested and found to be non-significant ($p > .05$). It appears that it does not matter for work engagement whether people are thinking back to an episode of fairness or an episode of unfairness.

Critical incident

After the reliability procedure (see method section, and appendix 1) the situational items were analysed, starting with the mean scores of the items in the two conditions. Comprehensibility did not significantly differ between the two conditions ($p = .78$). As expected, the critical incidents in the fair condition were rated significantly fairer than in the unfair condition. Also, critical incidents were significantly more invasive for the unfair condition (although non-significant for physical invasiveness). In line with this, these unfair situations were rated significantly more negatively than their fair counterparts.

Table 2

Mean and standard deviation of situational items

	Fair		Unfair		
	M	SD	M	SD	
Comprehensibility	3.92	.99	3.65	1.11	(1 = incomprehensible, 5 = comprehensible)
Fairness*	4.36	1.37	3.43	1.25	(1 = unfair, 5 = fair)
Emotional invasiveness*	2.69	.85	2.95	.88	(1 = not invasive, 5 = invasive)
Emotional valence*	2.70	1.07	3.57	.98	(1 = positive, 5 = negative)
Physical invasiveness	2.68	1.05	2.73	1.01	(1 = not invasive, 5 = invasive)
Physical valence*	2.78	1.12	3.49	.94	(1 = positive, 5 = negative)

*. Between group difference of $p < .001$

To assess whether the situational items were predictors of work engagement, a hierarchical regression analysis was conducted. The manipulation was entered in step 1, and the situational items in step 2. Table 9 (in appendix) presents the betas and standard errors of the variables in the regression. As can be seen in the table, none of

the situational items was significant in predicting work engagement.

Moderation

The first moderation hypothesis (H2) held that the effect of fairness on work engagement was moderated by uncertainty. Hierarchical multiple regression was conducted with the main effects in step one, and the interaction terms added in the second. The two models this created were both significant (see table 3), although the addition of the interaction terms did not significantly improve the model (Fchange = 2.065, $p = .11$, $r^2 = .02$).

Table 3

Hierarchical regression of work engagement on manipulation, uncertainty, and their interaction terms with manipulation as predictors of work engagement (unstandardized regression coefficients)

	Model 1	Std. error	Model 2	Std. error
Constant	4.99	.10	5.00	.10
Manipulation (0 = fair, 1 = unfair)	.10	.14	.10	.14
1. Future uncertainty	-.14	.09	-.41*	.15
2. Role ambiguity	-.07	.09	-.01	.14
3. Supervisor relationship	.55***	.08	.48***	.13
Manipulation * 1			.44*	.18
Manipulation * 2			-.13	.19
Manipulation * 3			.11	.17
r^2	.23		.25	
F	14.144***		9.100***	

*. $p < .05$, **. $p < .01$, ***. $p < .001$

In the first model, the main effect of relationship with supervisor was found to contribute significantly to work engagement ($p < .001$). In the second model, the effect of supervisor relationship in the fair condition was significant again ($p < .001$). This indicates the better the relation with the supervisor, the more engaged the participant was. Furthermore, future uncertainty can be said to significantly contribute to work engagement in the fair condition ($p < .05$). This indicates that in the fair condition, the less uncertain the participants were about the future the more engaged they felt. Finally, the difference between the fair and unfair condition (interaction

term) for future uncertainty was also significant ($p < .05$), visually displayed in figure 1.

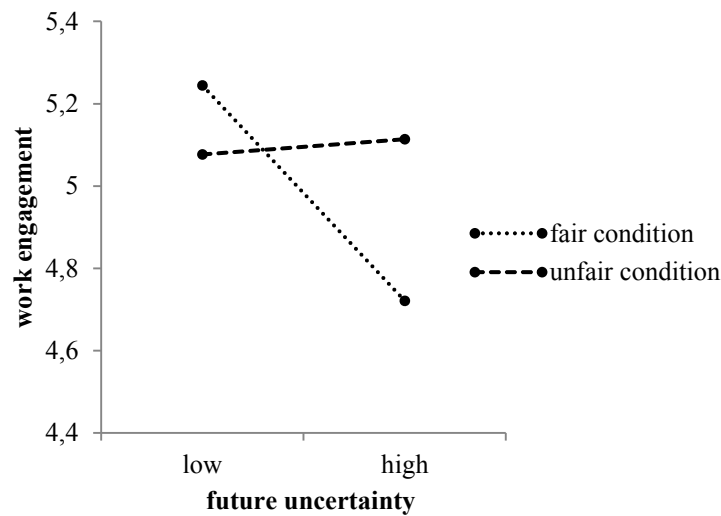


Figure 1. Effect of future uncertainty on work engagement, by fairness condition.

As can be seen in the figure, the effect of future uncertainty on work engagement in the fair condition was significant. Participants in the fair condition scored higher on engagement when they experienced low future uncertainty than those in the unfair condition. However, in case of high future uncertainty, participants in the fair condition scored lower on engagement than those in the unfair condition. This finding contradicts hypothesis 2, which predicted high future uncertainty would have a stronger negative effect on people in the unfair condition. The finding could indicate a problem with the relationship between engagement and unfair condition. Theoretical implications of this finding are elaborated in the discussion.

The next moderation hypothesis (H3a) was the moderating role of job demands on the effect of fairness on work engagement. A hierarchical multiple regression was conducted (table 4) to predict work engagement with fairness and the possible moderating effect of job demands. In step 1 the main effects of fairness and the three identified job demands were added, in step two the product terms of these variables were added. Both the first model ($p = 0.32$) and the second ($p = 0.16$) were found to be non-significant. Similarly, the second model did not contribute significantly to the first model ($F_{change} = 2$, $p = .12$, with r^2 change = .03).

Table 4

Hierarchical regression of work engagement on manipulation, the job demands, and their interaction terms with manipulation as predictors of work engagement (unstandardized regression coefficients)

	Model 1	Std. error	Model 2	Std. error
Constant	5.01	.12	4.99	.12
Manipulation (0 = fair, 1 = unfair)	.07	.16	.08	.16
1. Workload	-.02	.11	-.17	.17
2. Emotional demands	-.11	.12	-.29	.21
3. Mental demands	.26*	.13	.61**	.21
Manipulation * 1			.28	.23
Manipulation * 2			.28	.26
Manipulation * 3			-.58*	.26
r ²	.02		.05	
F	1.17		1.54	

*. $p < .05$, **. $p < .01$, ***. $p < .001$

The main effect of mental demands was significant ($p < 0.05$), as well as the effect of mental demands in the fair condition in the second model ($p < 0.01$). These findings indicate that when people experience more mental demands, they are more engaged. This finding contradicts expectations, and could indicate a third variable is at play here. Furthermore, the difference between the conditions (interaction term) for mental demands was significant ($p < .05$). To interpret this result, the interaction effect was visualized in figure 2.

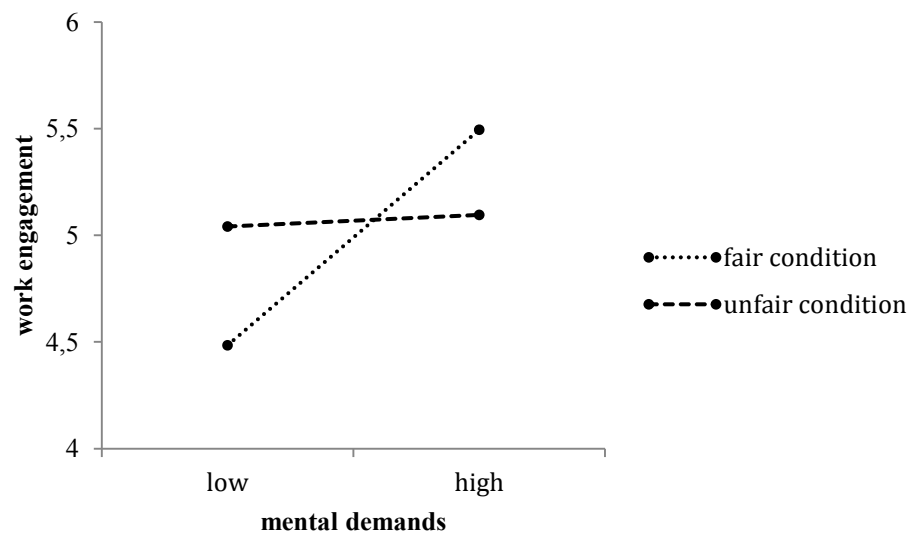


Figure 2. Effect of mental demands on work engagement by fairness condition

In the fair condition, people with low mental demands scored lower on engagement than in the unfair condition. However, in case of high mental demands, people in the fair condition scored higher on engagement than those in the unfair condition. In this case, the fair treatment could possibly serve as a justification for the high demands. Moreover, whereas the effect of mental demands on work engagement was significant in the fair condition, in the unfair condition this effect is absent. This is similar to the finding with future uncertainty and is elaborated on in the discussion.

It was hypothesized (H3b) that job resources moderated the effect of fairness on engagement. Two hierarchical multiple regressions were conducted⁵ (table 5, 6). The first regression entered the main effects of peer support, and organizational support in step 1, and the product terms in step two. Both steps were found to be significant (see table 5). However, the F of the second model did not significantly differ from the first (Fchange = 1.97 p = .14, with r² change = .02).

Table 5

Hierarchical regression of work engagement on job resources, with manipulation, peer support, organizational support and their interaction terms with manipulation as predictors of work engagement (unstandardized regression coefficients)

	Model 1	Std. error	Model 2	Std. error
Constant	5.02	.11	5.03	.11
Manipulation (0 = fair, 1 = unfair)	.07	.15	.06	.15
1. Peer support	.12	.11	.32	.18
2. Organizational support	.38***	.09	.42***	.14
Manipulation * 1			-.35	.23
Manipulation * 2			-.09	.19
r ²	.12		.13	
F	8.59***		5.99***	

*. p < .05, **. p < .01, ***. p < .001

Organizational support contributed significantly in the first (p < .001) model. Participants who experienced more organizational support had higher work engagement, which supports hypothesis 3b. In the second model it was found that

⁵ peer support and supervisor support were tested in different models because of the high correlation (see table 1).

organizational support significantly predicted engagement in the fair condition ($p < .001$). The interaction terms were not significant in these models.

In the next regression, supervisor support was entered in the first step of the second job resources regression, while the product term was added in step two. Both the first and the second models were significant, however the second model did not significantly contribute to the first ($F_{change} = .21, p = .65$).

Table 6

Hierarchical regression of work engagement on job resources, with manipulation, supervisor support, and the interaction term with manipulation as predictors of work engagement (unstandardized regression coefficients)

	Model 1	Std. error	Model 2	Std. error
Constant	5.03	.11	5.03	.11
Manipulation	.02	.15	.02	.15
1. Supervisor support	.30***	.07	.27**	.10
Manipulation * 1			.07	.14
r^2	.08		.09	
F	9.02***		6.06***	

*, $p < .05$, **, $p < .01$, ***, $p < .001$

As can be seen in table 6, a main effect of supervisor support was found ($p < .001$). Also, in the fair condition the effect of supervisor support was significant ($p < .01$). This finding indicates that the more supervisor support the participants experience, the more engaged they were, which is in line with hypothesis 3b. The interaction term was not significant.

Wellbeing

Hypothesis 4 held that wellbeing mediates the relation between fairness and engagement. As expected, participants in the fair condition ($M = 3.32, SD = .71$) did score significantly higher on the PANAS scale for positive affect than did the participants in the unfair condition ($M = 2.35, SD = .76$), $t(180) = 8.83, p < .001$. Also, the participants in the unfair condition ($M = 2.25, SD = .71$) scored significantly higher on the PANAS scale measuring negative affect than those in the fair condition ($M = 1.33, SD = .56$), $t(180) = -9.53, p < .001$. Subsequently, the PANAS scale for positive effect was a significant predictor of work engagement ($b = .21, p < .05$),

while the scale for negative affect was not ($p = .53$). As shown above, there was no significant correlation between the manipulation and the dependent variable; therefore no mediation analysis was conducted. However, these findings do indicate that the manipulation exerted some kind of effect on work engagement through wellbeing.

Although interesting, these findings have to be seen in the light of the internal analysis they are a part of. The PANAS scale is typically used as a filler task, not as a dependent variable. However, it does indicate that the manipulation triggered an effect of some kind.

Fairness scale

Results hinted at mediation roles of supervisor relationship and organizational support. To further investigate the relationship of these two concepts, and possible mediation, additional analyses were conducted using the fairness scale⁶.

First of all, a simple linear regression of the perceived fairness scale predicting work engagement was significant ($b = .40$, $p < .001$, $r^2 = .09$), indicating that general perceived fairness does matter for work engagement. Then, a regression was conducted with perceived fairness and the manipulation in step 1, and the other variables step-wise in step 2. This created three significant models (table 7). The first model was comprised of perceived fairness as a significant predictor of engagement, and the manipulation. In the second supervisor relationship was added as significant predictor ($b = .52$, $p < .001$), and in the third organizational support was added ($b = .21$, $p < .05$), while supervisor relationship remained significant ($b = .44$, $p < .001$).

The model hinted at supervisor relationship as predictive of work engagement. However, since perceived fairness and supervisor relationship variables correlated strongly ($> .50$), there is a possibility of supervisor relationship being a mediator between fairness and engagement, which was investigated.

⁶ The perceived organizational fairness scale measured perceived organizational fairness independently of the manipulation.

Table 7

Stepwise regression of work engagement on perceived fairness, manipulation, uncertainty, job demands & job resources (unstandardized regression coefficients)

	Model 1	Std. error	Model 2	Std. error	Model 3	Std. error
Constant	5.03	.11	5.01	.10	5.00	.10
Perceived fairness	.40***	.09	.10	.10	.09	.10
Manipulation	.04	.15	.08	.14	.10	.14
Supervisor relationship			.52***	.09	.44***	.10
Organizational support					.21*	.09
r ²	.09		.22		.24	
F	10.1***		18.14***		15.45***	

*. $p < .05$, **. $p < .01$, ***. $p < .001$

First, the relationship between perceived fairness and work engagement was established (c-path) ($b = .40$, $t(197) = 4.5$, $p < .001$). Then, it was found that perceived fairness and supervisor support were positively associated (a-path) ($b = .58$, $t(197) = 8.97$, $p < .001$). Lastly, it was found that supervisor support and work engagement were positively related (b-path) ($b = .52$, $t(197) = 5.56$, $p < .001$). Results of the bootstrapping offered support for the idea of a mediating role of supervisor relationship on the relation of perceived fairness on work engagement ($b = .30$, $CI = .18$ to $.43$). Furthermore, the direct effect of perceived fairness on work engagement became non-significant ($b = .11$, $t(197) = 1.07$, $p = .28$) when controlling for supervisor relationship, suggesting full mediation (figure 3).

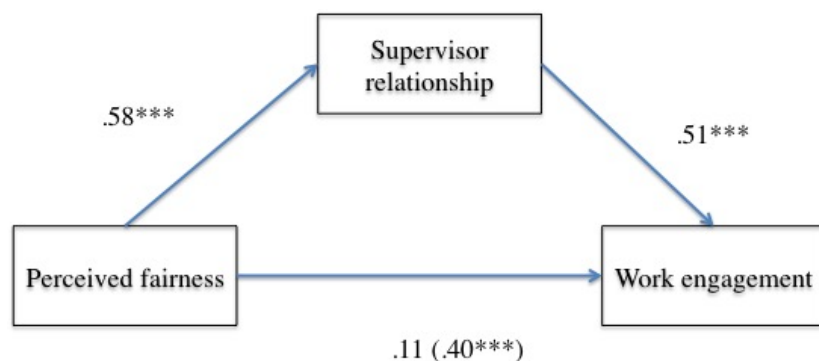


Figure 3. Indirect effect of perceived fairness on work engagement through supervisor relationship

Then, organizational support was tested for a moderating role. Perceived fairness was positively associated with organizational support (a-path) ($b = .29$, $t(197) = 4.02$, $p < .001$), and organizational support was positively associated with work

engagement (b-path) ($b = .34$, $t(197) = 3.94$, $p < .001$). Using bootstrapping, the c^2 -path did not become non-significant ($b = .31$, $t(197) = 3.4$, $p < .001$) as a result of adding organizational support as a mediator, which indicated partial mediation (Baron & Kenny, 1986).

DISCUSSION

The main hypothesis of this study, that making salient a fair situation leads to higher work engagement, was not supported by findings. However, making salient either a fair or unfair situation significantly influenced responses on the situational items (e.g. invasiveness, valence, etc.) and on positive and negative affect (PANAS). A possible explanation for this finding is that the manipulation was not strong enough for the effect to last until the engagement scale. However, the suggestion that the manipulation had no effect at all is unlikely since effects were found on other variables. To test whether fairness could be associated with engagement at all, internal analyses with a fairness scale were conducted. The results indicated that perceived fairness and work engagement are indeed related, such that people are more likely to be more engaged when they experience fairness, which is in line with what Ybema and van den Bos (2010) found. Interestingly, problems arose with the unfair condition in relation to engagement, which hints at unfairness having a different effect than fairness on work engagement. More research is needed to test this assumption.

Work engagement was not influenced by a critical incident in this study. In addition to the manipulation lacking strength, this could also imply that work engagement should not be seen as a state, but rather as a stable aspect of a person in a certain job, which does not vary (greatly) over time. This is in contrast to Sonnentag, Dormann, and Demerouti (2010, p. 26), who argue that the state approach is the more useful conceptually than the trait approach. However, Schaufeli and Bakker (2010) accept that both conceptualizations are useful when suggesting that the difference between them should be investigated in more detail. The findings of the present study could serve to answer the question posed by these authors (p. 36) whether predictors and outcomes of state and trait work engagement are identical: possibly not. Degree of fairness could be an element of one's job used for overall assessment of trait work engagement. To distinguish between the two different approaches to work engagement in relation to critical incidents, more research is needed. It would for

example be interesting to see whether critical incidents matter more for state engagement when a person has only just started the job, resembling a “critical period” in which trait work engagement has not been established yet. Additionally, making salient the most invasive situation with regard to (un)fairness could produce stronger results. Perhaps the “critical incident” made salient in the present study was not *critical* enough.

Uncertainty

It was hypothesized that in case of high uncertainty the effect of fairness on engagement was stronger. This was partially supported by findings of this study, albeit more complex than hypothesized. Also, this finding does not confirm the uncertainty hypothesis (van den Bos, 2001). In the fair situation, if someone is highly uncertain about the future, engagement is greatly affected compared to low uncertainty. Interestingly, in the unfair condition no large difference can be observed between low and high levels of future uncertainty. It is possible that a critical unfair situation has a detrimental effect on engagement by itself. It could be possible that the combination of high future uncertainty with a fair situation, lead to additional confusion for the employee, lowering engagement. This finding is in line with Bosman et al. (2005), and Diekmann, Sondak, and Barsness (2007), who found a moderating effect of uncertainty on the relationship between fairness and job satisfaction (which can be argued to be kin to engagement). However, the direction of this effect could be open for debate.

It was found that the relation of perceived fairness and work engagement works through supervisor relationship: perceived fairness leads to a better relationship with supervisor, which in turn leads to more work engagement. This finding is in line with the LMX theory (Scandura, 1994), which posits that a good employee-supervisor relationship leads to more job satisfaction.

The finding that only one of three identified *uncertainties* proves adequate in moderating work engagement confirms the statement in the introduction that uncertainty is a too broad concept to encompass one scale. Additionally, there are many more types of uncertainty, which could also play a role in the relationship between fairness and work engagement.

Demands

According to the job demands-resources model, high job demands were expected to lead to stress, which means that in times of high demands, the effect of fairness on engagement is stronger. Evidence was found for this hypothesis, albeit in the opposite direction than expected (contradicting Prieto et al., (2008). For mental demands, in the fair condition, the work engagement increased greatly if the demands were high compared to low mental demands. It could be possible that high demands in combination with a fair situation lead to more motivation of the employee, which in turn results in more work engagement. This is in line with Strom, Sears, and Kelly's (2014) line of reasoning which posed that in adverse work situations employees look for more confirmation. The fair situation could serve as this confirmation. Possibly, a third variable is at play here, for example level of education. Higher educated employees tend to have more demanding jobs, which might also be more rewarding. Subsequent research manipulating mental demands could provide an answer to this presumption.

Resources

The results of this study indicate that job resources do not moderate the effect of fairness on work engagement. However, a partial mediation of organizational support was found for the relationship between perceived fairness and work engagement. In contrast to expectations, it appears that resources do not reduce the effect of unfairness on engagement.

Wellbeing

Additionally, wellbeing was expected to directly mediate the relationship between fairness and work engagement, however only indirect evidence was found for this hypothesis.

Limitations

As discussed above, the present study was limited by focusing specifically on state engagement. This led to selection bias of predictors and method, possibly contributing to ambiguous results. For example, the UBES scale was altered to measure the "state" instead of the "trait", which is not the original goal of the scale. Interestingly, as discussed above, the manipulation influenced a sequence of other elements of the study, but it did not influence work engagement directly. It could be

possible that the critical incident method, which inherently focuses on the dependent variable as a state, is less suitable for assessing trait work engagement with the UBES scale.

Also, the present study could have been affected by the situation in which the experiment was conducted. One aspect of this was the fact that the questionnaires were distributed both in printed version, and online. The online version demanded an answer to all of the questions, whereas the printed one (obviously) did not. This led to selective attrition, especially at the manipulation element. In addition, it could not be controlled whether the participants completed the questionnaire by themselves in silence, or whether they were influenced by the presence of others. If colleagues were close, it could be the participants felt uneasy to write down personal information, especially in the manipulation aspect of the questionnaire.

Conclusion

Work engagement continues to be one of the most important concepts of present day organizational psychology. The present study has contributed to knowledge of predictors of work engagement by investigating its relation with fairness. Fairness seems to be related to work engagement, but not so much as influencing it on the short-term (the “state”). Possibly it plays a role more in one’s general assessment of work, which leads to work engagement (a stable trait). The experience of work engagement itself seems to be a robust given, which does not fluctuate greatly over time, and/or is not responsive to making salient a one critical incident. This general finding contradicts Strom, Sears and Kelly’s (2014) positive relationship between fairness and engagement. Although not confirming the assumption that fairness influences work engagement, the present study does point in that direction. More research is needed to shed light on this relationship. It seems that one unfair incident does not have great consequences for an employee’s engagement but it is very possible that general fairness does matter for one’s engagement.

The findings of this study could be good news in the sense that one critical (negative) incident has limited long-term consequences for employee engagement. Perhaps one incident is counter-weighted by other experiences with fairness, and/or many more aspects of the job determine engagement. However, to be absolutely sure, it’s best to make sure employees feel treated fairly.

BIBLIOGRAPHY

Ambrose, M. L., Seabright, M. A., & Schminke, M. (2002). Sabotage in the workplace: The role of organizational injustice. *Organizational Behavior and Human Decision Processes*, 89(1), 947-965.

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career development international*, 13(3), 209-223.

- Bakker, A.B., Hakanen, J.J., Demerouti, E. & Xanthopoulou, D. (2007). Job resources boost work engagement particularly when job demands are high. *Journal of Educational Psychology*, 99, 274-284
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173.
- Bedeian, A. G., & Armenakis, A. A. (1981). A path-analytic study of the consequences of role conflict and ambiguity. *Academy of management journal*, 24(2), 417-424.
- Bosman, J., Rothmann, S., & Buitendach, J. H. (2005). Job insecurity, burnout and work engagement: The impact of positive and negative affectivity. *SA Journal of Industrial Psychology*, 31(4).
- Cohen, J. (1968). Weighted kappa: Nominal scale agreement provision for scaled disagreement or partial credit. *Psychological bulletin*, 70(4), 213.
- Coetzee, M., & De Villiers, M. (2010). Sources of job stress, work engagement and career orientations of employees in a South African financial institution. *Southern African Business Review*, 14(1).
- Colquitt, J. A., Greenberg, J., & Zapata-Phelan, C. P. (2005). What is organizational justice? A historical overview. *Handbook of organizational justice*, 1, 3-58.
- Diekmann, K. A., Sondak, H., & Barsness, Z. I. (2007). Does fairness matter more to some than to others? The moderating role of workplace status on the relationship between procedural fairness perceptions and job satisfaction. *Social Justice Research*, 20(2), 161-180.
- Elovainio, M., van den Bos, K., Linna, A., Kivimäki, M., Ala-Mursula, L., Pentti, J., & Vahtera, J. (2005). Combined effects of uncertainty and organizational justice on employee health: testing the uncertainty management model of

- fairness judgments among Finnish public sector employees. *Social science & medicine*, 61(12), 2501-2512.
- Flanagan, J. C. (1954). The critical incident technique. *Psychological bulletin*, 51(4), 327.
- Ganster, D. C., & Rosen, C. C. (2013). Work stress and employee health: A multidisciplinary review. *Journal of Management*, 39(5), 1085-1122.
- Gerstner, C. R., & Day, D. V. (1997). Meta-Analytic review of leader–member exchange theory: Correlates and construct issues. *Journal of applied psychology*, 82(6), 827.
- Hu, Q., Schaufeli, W.B. & Taris, T.W. (2011). The Job Demands-Resources Model: An analysis of additive and joint effects of demands and resources. *Journal of Vocational Behavior*, 79, 181-190.
- Leiter, M. P., & Maslach, C. (2003). Areas of worklife: A structured approach to organizational predictors of job burnout, in P. L. Perrewe, D. C. Ganster (ed.) *Emotional and Physiological Processes and Positive Intervention*. Emerald Group Publishing Limited, 3, 91 – 134.
- Liden, R. C., Sparrowe, R. T., & Wayne, S. J. (1997). Leader-member exchange theory: The past and potential for the future. *Research in personnel and human resources management*, 15, 47-120.
- Peeters, M. C. W., Buunk, B. P., & Schaufeli, W. B. (1995). Social interactions, stressful events and negative affect at work: A micro-analytic approach. *European Journal of Social Psychology*, 12(4), 391-401.
- Prieto, L. L., Soria, M. S., Martínez, I. M., & Schaufeli, W. (2008). Extension of the Job Demands-Resources model in the prediction of burnout and engagement among teachers over time. *Psicothema*, 20(3), 354-360.

- Rhoades L, & Eisenberger R. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology*, 86, 825-836.
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of managerial psychology*, 21(7), 600-619.
- Seligman, M. E., & Csikszentmihalyi, M. (2014). *Positive psychology: An introduction* (pp. 279-298). Springer Netherlands.
- Schaufeli, W. B., & Bakker, A. B. (2003). UBES: Utrechtse Bevlogenheidschaal [UBES: Utrecht Work Engagement Scale]. *Utrecht University*.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of organizational Behavior*, 25(3), 293-315.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire a cross-national study. *Educational and psychological Measurement*, 66(4), 701-716.
- Schaufeli, W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept. *Work engagement: A handbook of essential theory and research*, 10-24.
- Schaufeli, W.B., & Taris, T.W. (2013). Het Job Demands-Resources Model: overzicht en kritische beschouwing. *Gedrag & Organisatie*, 26, 182-204.
- Schmitt, M., & Dörfel, M. (1999). Procedural injustice at work, justice sensitivity, job satisfaction and psychosomatic well-being. *European Journal of Social Psychology*, 29(4), 443-453.

- Simons, T., & Roberson, Q. (2003). Why managers should care about fairness: the effects of aggregate justice perceptions on organizational outcomes. *Journal of Applied Psychology, 88*(3), 432.
- Sonnentag, S., Dormann, C., & Demerouti, E. (2010). Not all days are created equal: The concept of state work engagement. *Work engagement: A handbook of essential theory and research, 25-38*.
- Sparr, J. L., & Sonnentag, S. (2008). Fairness perceptions of supervisor feedback, LMX, and employee well-being at work. *European journal of work and organizational psychology, 17*(2), 198-225.
- Strom, D. L., Sears, K. L., & Kelly, K. M. (2014). Work engagement the roles of organizational justice and leadership style in predicting engagement among employees. *Journal of Leadership & Organizational Studies, 21*(1), 71-82.
- Tyler, T. R., & Blader, S. L. (2003). The group engagement model: Procedural justice, social identity, and cooperative behavior. *Personality and social psychology review, 7*(4), 349-361.
- Van den Berg, H., Manias, D. & Burger, S. (2008). The influence of job-related factors on work engagement of staff at the University of the Free State, *Acta Academica, 40*(3): 85–114.
- Van den Bos, K. (2001). Uncertainty management: the influence of uncertainty salience on reactions to perceived procedural fairness. *Journal of personality and social psychology, 80*(6), 931.
- Van den Bos, K. (2005). What is responsible for the fair process effect? In J. Greenberg & J. A. Colquitt (Eds.), *Handbook of organizational justice: Fundamental questions about fairness in the workplace* (pp. 273-300). Mahwah, NJ: Erlbaum.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of*

personality and social psychology, 54(6), 1063.

Ybema, J. F., & Van den Bos, K. (2010). Effects of organizational justice on depressive symptoms and sickness absence: a longitudinal perspective. *Social science & medicine*, 70(10), 1609-1617.

APPENDIX

Appendix 1. Weighted Kappa calculations.

Combinations of scores on items were weighted. Weights increased as the difference between the scores grew. For example, if observer scored the item with a 2, and observer 2 with a three, the weight that was allocated was 1. For items that were scored on 5-point scale:

		Observer 2				
		1	2	3	4	5
Observer 1	1	0	1	2	3	4
	2	1	0	1	2	3
	3	2	1	0	1	2
	4	3	2	1	0	1
	5	4	3	2	1	0

And on a 7-point scale:

		Observer 2						
		1	2	3	4	5	6	7
Observer 1	1	0	1	2	3	4	5	6
	2	1	0	1	2	3	4	5
	3	2	1	0	1	2	3	4
	4	3	2	1	0	1	2	3
	5	4	3	2	1	0	1	2
	6	5	4	3	2	1	0	1
	7	6	5	4	3	2	1	0

p_{ij} = observed probabilities,

$e_{ij} = p_i q_j$ are the expected probabilities

w_{ij} are the weights (with $w_{ji} = w_{ij}$), then

$$\kappa_w = 1 - \frac{\sum_{i,j} w_{ij} p_{ij}}{\sum_{i,j} w_{ij} e_{ij}}$$

Table 8

Weighted Kappa (Kw) for inter-rater reliability of items of described situation (situational items)

Situational item	Kw
a. Comprehensibility	0.62
b. Fairness	0.63
c. Emotional invasiveness	0.54
d. Valence (emotional)	0.75
e. Physical invasiveness	0.72
f. Valence (physical)	0.88
g. Type of fairness	0.62

Interpretation

According to Cohen, a weighted Kappa of < 0 means “less than chance agreement”,

$0.01 - 0.20 =$ “slight agreement”, $0.21 - 0.40 =$ “fair agreement”, $0.41 - 0.6 =$

“moderate agreement”, 0.61 – 0.80 = “substantial agreement”, and 0.81 – 0.99 = “almost perfect agreement”.

Table 9

Hierarchical regression of work engagement for the manipulation and the situational items (unstandardized regression coefficients)

	Model 1	Std. error	Model 2	Std. error
Constant	5.02	.12	5.03	.13
Manipulation	.05	.16	.05	.18
Comprehensibility			-.00	.08
Fairness			-.10	.10
Emotional invasiveness			-.18	.12
Emotional valence			.13	.18
Physical invasiveness			.13	.10
Physical valence			-.22	.17
r ²	.00		.01	
F	.05		.39	

*. p < .05, **. p < .01, ***. p < .001

Appendix 2. The questionnaire (fair condition)

Onderzoek

Digitaal invullen kan ook:
www.tinyurl.com/werkomstandigheden

U staat op het punt om mee te doen aan een onderzoek van de Universiteit Utrecht over werkomstandigheden. We willen u vragen het onderzoek zelfstandig en eerlijk in te vullen. Wanneer u meerdere banen heeft, houd dan de baan waar u het meeste uren werkt in gedachten.

Belangrijk om te weten is dat met alle resultaten **anoniem** wordt omgegaan. Denk niet al te lang na over uw antwoord en schrijf op wat u als eerste te binnenschiet. Er zijn geen goede of foute antwoorden. Hartelijk dank voor uw deelname!
 Hierna begint het onderzoek.

Persoons- en baaninformatie

Geslacht:	M / V				
Geboortejaar:					
Hoogst afgeronde opleiding:	Lagere school	MAVO LBO, VMBO	HAVO/ MBO	VWO	HBO/ universiteit

Functie/beroep:		
Geeft u leiding aan mensen? Zo ja, aan hoeveel?		
Heeft u een vast contract?	ja	nee
Aantal jaren in dienst:		

De volgende vragen gaan over uw werkomstandigheden. Omcirkel bij iedere vraag steeds het antwoord dat op uw situatie van toepassing is.

1 nooit	2 soms	3 regelmatig	4 vaak	5 altijd
Moet u heel snel werken?				1 2 3 4 5
Moet u erg veel werk doen?				1 2 3 4 5
Werkt u extra hard om dingen af te krijgen?				1 2 3 4 5
Moet u onder hoge tijdsdruk werken?				1 2 3 4 5
Moet u erg geconcentreerd werken?				1 2 3 4 5
Moet u erg zorgvuldig werken?				1 2 3 4 5
Moet u veel informatie verwerken?				1 2 3 4 5
Vindt u uw werk emotioneel zwaar?				1 2 3 4 5
Heeft u in uw werk te maken met zaken die u persoonlijk raken?				1 2 3 4 5
Komt u in uw werk in emotioneel beladen situaties terecht?				1 2 3 4 5

De volgende vragen gaan over steun die u krijgt van collega's, leidinggevend en de organisatie. Omcirkel bij iedere vraag steeds het antwoord dat op uw situatie van toepassing is.

1 nooit	2 soms	3 regelmatig	4 vaak	5 altijd
Mijn collega's hebben aandacht voor mijn gevoelens en problemen.				1 2 3 4 5
Mijn collega's laten merken waardering te hebben voor de manier waarop ik mijn werk doe.				1 2 3 4 5
Als het nodig is helpen mijn collega's me met een bepaalde taak				1 2 3 4 5
Als het nodig is geven mijn collega's me advies over hoe ik iets moet aanpakken.				1 2 3 4 5
Mijn leidinggevende heeft aandacht voor mijn gevoelens en problemen				1 2 3 4 5
Mijn leidinggevende laat merken waardering te hebben voor de manier waarop ik mijn werk doe.				1 2 3 4 5
Als het nodig is helpt mijn leidinggevende me met een bepaalde taak				1 2 3 4 5
Als het nodig is geeft mijn leidinggevende me advies over hoe ik iets moet aanpakken				1 2 3 4 5
Deze organisatie is echt betrokken bij het welzijn van haar medewerkers.				1 2 3 4 5
Deze organisatie zorgt voor hulp en ondersteuning als medewerkers dat nodig hebben.				1 2 3 4 5
Deze organisatie is bereid om zich in te zetten voor haar medewerkers.				1 2 3 4 5
Biedt uw werk rechtstreeks informatie over hoe goed u uw werk doet?				1 2 3 4 5
Geven uw collega's u informatie over hoe goed u uw werk doet?				1 2 3 4 5

Vinden er functioneringsgesprekken met u plaats?	1	2	3	4	5
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De volgende vragen gaan over kenmerken van uw baan. Omcirkel bij iedere vraag steeds het antwoord dat op uw situatie van toepassing is.

1	2	3	4	5				
nooit	soms	regelmatig	vaak	altijd				
Wilt u meer zekerheid of u volgend jaar nog werk heeft?				1	2	3	4	5
Maakt u zich zorgen of u volgend jaar uw huidige baan nog heeft?				1	2	3	4	5
Wilt u meer zekerheid of uw huidige afdeling over een jaar nog bestaat?				1	2	3	4	5
Wilt u meer zekerheid of uw huidige bedrijf over een jaar nog bestaat?				1	2	3	4	5
Weet u precies wat anderen op uw werk van u verwachten?				1	2	3	4	5
Weet u precies waarvoor u wel, en waarvoor u niet verantwoordelijk bent?				1	2	3	4	5
Ligt duidelijk voor u vast, wat precies uw taak is?				1	2	3	4	5

1	2	3	4	5				
vrijwel nooit	af en toe	soms	vrij vaak	erg vaak				
Hoe vaak weet u hoe tevreden uw leidinggevende is met wat u doet?				1	2	3	4	5

1	2	3	4	5				
helemaal niet	een beetje	matig	redelijk goed	heel goed				
Hoe goed begrijpt uw leidinggevende uw problemen en behoeften?				1	2	3	4	5
Hoe goed herkent uw leidinggevende uw potentie?				1	2	3	4	5

Recent onderzoek lijkt aan te geven dat gevoelens en gedachten veel kunnen zeggen over iemand. We willen u vragen om terug te denken aan een moment op wanneer u door uw collega's of leidinggevende(n) in uw ogen **rechtvaardig** behandeld bent. Probeer u alstublieft gedurende een minuut in te leven in die situatie.

Beschrijf in het vak hieronder kort de situatie waarin u zich rechtvaardig behandeld voelde.

Wilt u, zo kort mogelijk, hieronder de emoties opschrijven die bij u opkomen wanneer u denkt aan toen u zich rechtvaardig behandeld voelde.

Wilt u, zo specifiek mogelijk, opschrijven wat u denkt dat er fysiek met u gebeurde toen u rechtvaardig behandeld werd.

Omcirkel nu het getal dat het beste bij uw gevoel past.
Wanneer u terugdenkt aan de situatie waarin u rechtvaardig behandeld werd, in hoeverre voelt u zich dan...

	in het				
	geheel niet	een beetje	enigszins	aardig wat	zeer erg
...belangstellend	1	2	3	4	5
...verontrust	1	2	3	4	5
...opgewonden	1	2	3	4	5
...in de war	1	2	3	4	5
...sterk	1	2	3	4	5
...schuldig	1	2	3	4	5
...paniekerig	1	2	3	4	5
...vijandig	1	2	3	4	5
...enthousiast	1	2	3	4	5
...trots	1	2	3	4	5
...prikkelbaar	1	2	3	4	5
...alert	1	2	3	4	5
...beschaamd	1	2	3	4	5
...geïnspireerd	1	2	3	4	5
...nervus	1	2	3	4	5
...vastbesloten	1	2	3	4	5
...oplettend	1	2	3	4	5
...zenuwachtig	1	2	3	4	5
...actief	1	2	3	4	5
...bang	1	2	3	4	5

De volgende uitspraken hebben betrekking op hoe u uw werk beleeft, en hoe u zich daarbij voelt. Wilt u aangeven in hoeverre iedere uitspraak op u van toepassing is door steeds het best passende cijfer in te vullen?

1	2	3	4	5	6	7
helemaal onwaar	onwaar	een beetje onwaar	neutraal	een beetje waar	waar	helemaal waar
Als ik denk aan mijn werk bruis ik van energie.				1	2	3 4 5 6 7
Als ik denk aan mijn werk voel ik me fit en sterk				1	2	3 4 5 6 7
Als ik denk aan mijn baan, raak ik enthousiast				1	2	3 4 5 6 7

Als ik denk aan mijn werk, raak ik geïnspireerd	1	2	3	4	5	6	7
Als ik aan mijn werk denk, heb ik zin om te gaan werken	1	2	3	4	5	6	7
Wanneer ik denk aan mijn werk, voel ik mij gelukkig	1	2	3	4	5	6	7
Ik ben trots op het werk dat ik doe	1	2	3	4	5	6	7
Als ik aan mijn werk denk, dan ga ik daar helemaal in op	1	2	3	4	5	6	7
Het denken aan mijn werk brengt mij in vervoering	1	2	3	4	5	6	7

<i>Kies telkens de optie die het best bij uw situatie past.</i>							
1	2	3	4	5			
nooit	soms	regelmatig	vaak	altijd			
Behandelt uw leidinggevende u op een beleefde manier?			1	2	3	4	5
Behandelt uw leidinggevende u op een waardige manier?			1	2	3	4	5
Behandelt uw leidinggevende u met respect?			1	2	3	4	5

DIT IS HET EINDE VAN HET ONDERZOEK

Hartelijk dank voor het meewerken aan dit onderzoek. Wanneer u meer wil weten over het onderwerp en de uitkomsten van het onderzoek kunt u uw emailadres in het vak hieronder invullen

Heeft u vragen? De onderzoeker is te bereiken op:
06-52711516, en
r.t.werker@students.uu.nl