

Gender differences in organizational justice predicting the key employee outcomes of organizational commitment, job satisfaction and turnover intention

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ABSTRACT

All four types of organizational justice – distributive, procedural, interpersonal and informational – were included in this study of gender differences. Both male and female respondents perceived the distributive-procedural justice and interpersonal-informational justice pairings similarly and weakly. Females consistently discriminated more clearly across the pairings, however. The effect of the four justices was also found to be gender-dependent. Males' perception of distributive justice directly predicted their turnover intentions and commitment to the organization, while females' perception of distributive justice predicted only job satisfaction. Males' perceptions of procedural and information justice both predicted job satisfaction. Females' informational justice perceptions predicted job satisfaction and commitment to the organization. The paper contributes to the literature by presenting results from all four justice types and the simultaneous use of the three outcomes of job satisfaction, organizational commitment and intention to quit. Overall, the males had a diffuse set of relationships between the justice types and the outcomes, whereas the relationships between the justice types and the outcomes for females tended more to follow a limited number of pathways. The study was validated with data collected on two separate occasions.

Keywords: attitudes, job & work design

Organizational justice is pervasive in organizational life and consequently has attracted a great deal of research attention. Employees' perceptions of organizational justice impacts on perceptions of job satisfaction, organizational commitment (e.g., Aryee et al., 2002), performance appraisals (Kanfer et al., 1987), satisfaction with pay scales (Folger and Konovsky, 1989) and with grievance systems (Fryxell and Gordon, 1989), speed of performance (Weaver and Conlon, 2003), perceived organizational support (Moorman et al., 1998), organizational citizenship behavior (Farh et al., 1990, Konovsky and Organ, 1996, Moorman and Niehoff, 1993), supervisor organizational citizenship behavior (Tepper and Taylor, 2003), organizational retaliatory behaviors (Skarlicki and Folger, 1997) and the psychological contract (Kickul et al., 2002, Flood et al., 2001). Justice has been studied in contexts of organizational selection, compensation and training (for reviews, see Cropanzano and Greenberg, 1997, Colquitt et al., 2001).

Most of the early research on organizational justice focused on the two factor justice model. The first factor identified and studied is distributive justice (Adams, 1965, Deutsch, 1975). Distributive justice is associated with an individual's belief of the justice, fairness or appropriateness of an outcome of an allocation decision. The second factor included in most organizational justice research is procedural justice. Procedural justice is an individual's belief in the justice, fairness or appropriateness of the procedures used to allocate the outcome (Leventhal, 1980). The distinction between distributive and

procedural justice has been repeatedly demonstrated (Folger and Konovsky, 1989, Alexander and Ruderman, 1987). Despite the distinction between the two justices, many studies have demonstrated high correlations between procedural and distributive justice, for example .72 in federal employees (Sweeney and McFarlin, 1993) and .72 in both a consumer products and a high-technology firm (Welbourne et al., 1995).

More recent research has identified further distinctions on our understanding of organizational justice. The third justice factor, interactional justice (Bies and Moag, 1986) has since been demonstrated (Colquitt, 2001) to have the two components of interpersonal justice and informational justice. Informational justice refers to the employees' perception of the adequacy of the information about the procedures that is provided to employees, while interpersonal justice refers to the employees' perception of the fairness of their treatment (Colquitt, 2001). Despite the call for separated measures of organizational justice only a few studies have included all four organizational justice measures (such as Colquitt, 2001, Judge and Colquitt, 2004, Roch and Shanock, 2006).

Justice and Gender

The perception of the fairness of pay is strongly related to satisfaction with pay (Berkowitz et al., 1987) and the pay equity-satisfaction relationship is moderated by gender differences (Greenberg and McCarty, 1990). The impact of these gender differences includes, for example, the tendency for women to be less dissatisfied with inequitable pay than men are dissatisfied with inequitable pay (Brockner and Adsit, 1986). That is, men and women may see justice differently, have different responses to perceptions of injustice, or both see justice differently and have different responses to their perceptions of injustice. There is evidence women selectively compare themselves with others, choosing a woman who is also underpaid as a referent (Major and Forcey, 1985).

Women have been found to evaluate their organizational experience more through a procedural justice filter than men, while men's perceptions of the fairness of outcomes are more closely tied to their perceptions of distributive justice. Males and females differently enact the equity justice rule with women tending to maintain group welfare over males' concern for protecting their own interests (Leventhal and Lane, 1970). Examination of the gender effects on organizational justice has revealed women's tendency to pay themselves less than men pay themselves (Major and Adams, 1983, Sweeney and McFarlin, 1997). Women have a greater tendency than men to rely on formal bidding processes in obtaining promotions (Cannings and Montmarquette, 1991), suggesting procedural justice elements would be more important to women than to men. This proposition was examined in a study of federal government employees (Sweeney and McFarlin, 1997). Further, males' reaction to inequitable outcomes is often stronger than females' reactions, reflecting the saliency of distributive justice for men (Brockner and Adsit, 1986, Sweeney and McFarlin, 1997).

In contrast to the above direction of the gender difference findings, some studies have found females to emphasize outcomes more than males (Kulik et al., 1996). Alternatively, gender differences have been found to be unrelated to perceived justice in a meta-analysis of 190 studies examining the three justice (distributive, procedural and interactive) factors (Cohen-Charash and Spector, 2001). Indeed, the gender differences across justice may be “more complex than any one theoretical perspective could explain” (Cohen-Charash and Spector, 2001) and they recommend that future research investigate the effects of gender and justice with other variables, rather than simply the main effect of gender.

Further, much of the justice by gender research has been in the laboratory (e.g., Major, 1987, Kahn and Gaeddert, 1985) and the results found in laboratory studies have not always been the same as those found in field studies (e.g., Brockner and Adsit, 1986). This study will subsequently investigate the nature of the relationships between the four contemporary types of justice (Colquitt, 2001) and the important employee outcomes of job satisfaction, affective commitment and turnover intentions (Sweeney and McFarlin, 1997). Testing this proposition requires testing of two elements, first that both genders see justice in the same way and second, to investigate the differences between justice and the outcomes of interest for the two genders respectively (see Figure 1). The resulting hypotheses are:

Hypothesis 1a: That the factor structure of justice across the four types will be similar for females and males respectively, and

Hypothesis 1b: that the extant types of justice will have different relationships with the outcome variables of job satisfaction, affective organizational commitment and intent to quit.

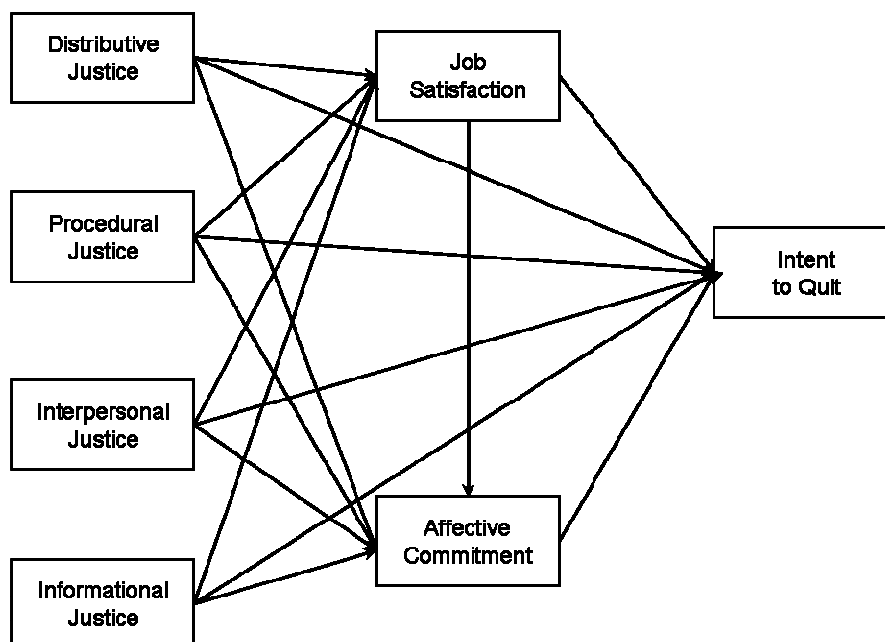


Figure 1. The Justice to Outcomes Model Tested for Hypothesis 1b.

Note: The intercorrelations between the justice scales and the outcomes' error terms have been removed for clarity.

METHOD

Sample and data collection: As part of a wider study on workplace relationships, a survey was distributed to employees in a moderate-large local government council on two occasions, six months apart. Employees worked in a diverse range of occupations, from finance, to lifeguards, water supply, waste, and childcare.

At Time 1, a total of 496 surveys out of 560 distributed were returned, representing an 88% response rate. The responses comprised 341 male (68.2%), 134 female (26.8%) and 21 undeclared (4.2%) responses with an average age of 42 years and average tenure of 8 years. There were 67 responses removed for missing demographic information or data and outliers, reducing the sample for this study to 313 (73%) males and 116 (26%) females.

A total of 539 surveys were distributed and collected at Time 2. There were 347 (63.6%) male and 173 (31.3%) female and 19 (3.5%) undeclared responses with an average age of 44 years and again average tenure of 8 years. After removing responses for missing demographic information, data and outliers, the sample for the validation study was reduced to 303 (66%) male and 151 (33%) female responses.

Measures

Organizational justice: Twenty items (Colquitt, 2001) were used to assess employee's perceptions of the multiple justice factors, at both Time 1 and Time 2. The procedural and distributive justice scales referred to the "fairness of the procedures used for your pay and procedures" and the interpersonal and informational justice scales stems referred to "your business unit manager". An example of a procedural justice item is "Have those procedures [used for your pay and promotions] been applied consistently?" while a distributive justice example is "Do those benefits reflect the effort you have put into your work?" An interpersonal justice example is "Have they treated you with dignity" and an example informational justice item is "Have they communicated details in a timely manner?" A five point Likert scale from 1 = *Not at all* to 5 = *To a great extent* was used.

Job satisfaction: Five items from the Job Diagnostics Survey (JDS, Hackman and Oldham, 1975) were used to assess general job satisfaction at both Time 1 and Time 2. An example from this scale is "Generally speaking, I am very satisfied with this job". A seven point Likert response scale from 1 = *Disagree strongly* to 7 = *Agree strongly* was used.

Organizational commitment: Eight items were used to assess affective organizational commitment (Allen and Meyer, 1990) at Time 1 and Time 2. An example item is "I would be very happy to spend

the rest of my career with this organization”. A seven point Likert response scale from 1 = *Disagree strongly* to 7 = *Agree strongly* was used.

Intention to Quit: Three items measured respondents’ intentions to quit or leave the organization at both Time 1 and Time 2. Items one (“I am seriously thinking about quitting my job”) and two (“I am actively looking for a job outside [organization name]”) are older items (Landau and Hammer, 1986). Item three (“I think I will be working at [organization name] two years from now”, reverse scored, was adapted from the original five year time frame (Wayne et al., 1997) to reflect more appropriately the average age and retirement considerations of the workforce.

RESULTS

The item descriptives – means, standard deviations, alphas and intercorrelations for the scales at both Time 1 and Time 2 respectively are presented in Table 1. All measures demonstrate acceptable internal reliabilities. All of the further analyses were conducted using AMOS 5.0 (Arbuckle, 1994-2003). The Time 2 data was used for validation of the Time data.

Hypothesis 1a was tested by conducting an invariance analysis of the factor structure of the justice items for each of the genders separately and then as a multi-group analysis for both Time 1 and Time 2. The stricter form of invariance analysis first entails determining the best stable structures for each of the genders respectively. For both genders at Time 1 the best structure entailed the deletion of the same two items. The analyses of this 18-item structure obtained a $\chi^2(df)$ of 215.148(129) for females and $\chi^2(df)$ of 314.482(129) for males. The multi-group model with the factor weightings constrained to be equal across the two groups had a $\chi^2(df)$ of 544.849(272). The difference (544.849-(215.148+314.482)) between the sums of the respective gender models and the multi-group model was $\chi^2(df) = 15.219(14)$, which was not significant ($p = .18$). The invariance analyses were repeated keeping all 20 items in and the results were $\chi^2(df)$ of 347.1(164) for females and $\chi^2(df)$ of 454.2(164) for males. The multi-group model with factor weightings constrained to be equal across the two groups had a $\chi^2(df)$ of 816.3(344). The difference between the models was $\chi^2(df) = 15(16)$, which was not significant.

At Time 2, the invariance analysis also found that for both genders the best structure entailed the deletion of the same two items (only one item of which was in common with the Time 1 removed items; see appendix A for details). The analyses of this 18-item structure obtained a $\chi^2(df)$ of 238.7(129) for females and $\chi^2(df)$ of 345.7(129) for males. The multi-group model with the factor weightings constrained to be equal across the two groups had a $\chi^2(df)$ of 602.5(272). The difference

between the sums of the respective gender models and the multi-group model was $\chi^2(df) = 18.1(14)$, which was not significant.

The results of the predictive path analyses for each gender at each point in time are presented below. Note that the numbers just above the top right hand corner of each of the outcome variables indicates the amount of variance explained of that variable by the model.

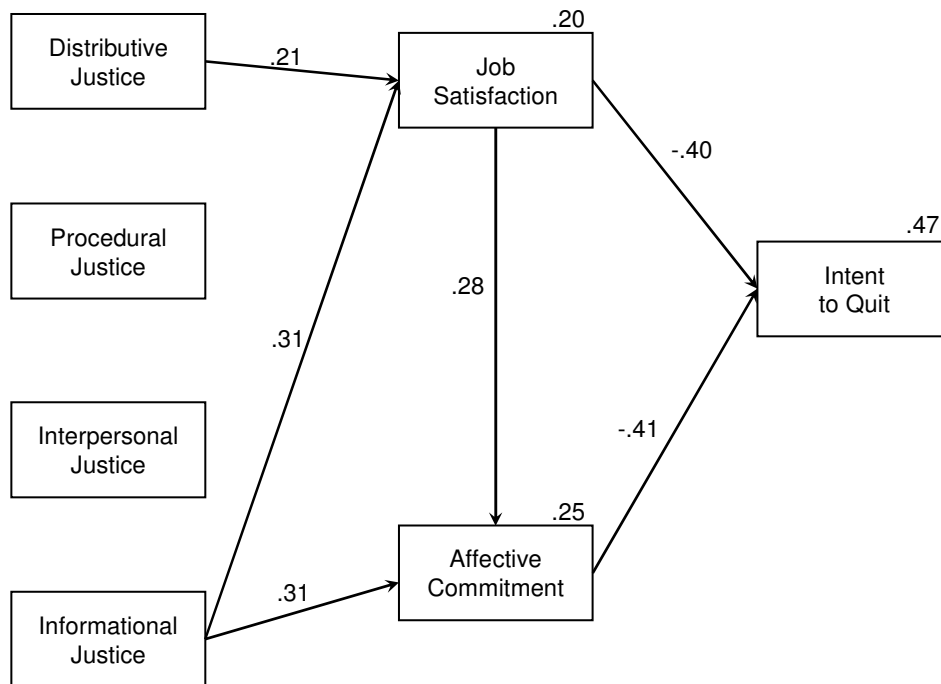


Figure 2. The resulting predictive model for females at Time 1.

The model in Figure 2 has a $\chi^2(df)$ of 7.167(8), $p=.519$ and is based on a sample of 116. The goodness of fit statistics for the model include: Goodness of fit index (GFI) = .982, adjusted goodness of fit index (AGFI) = .939 and root mean square error of approximation (RMSEA) = .000.

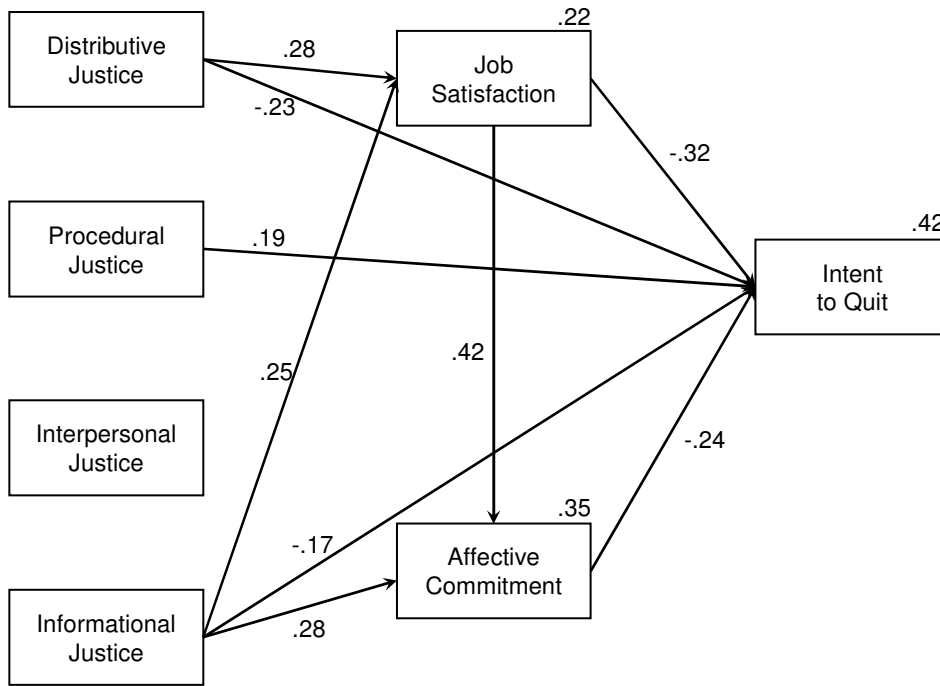


Figure 3. The resulting predictive model for females at Time 2.

The model in Figure 3 has a $\chi^2(df)$ of 7.217(6), $p = .301$, based on a sample of 151. The goodness of fit statistics for the model include: GFI = .987, AGFI = .937, CFI = .997, and RMSEA = .037.

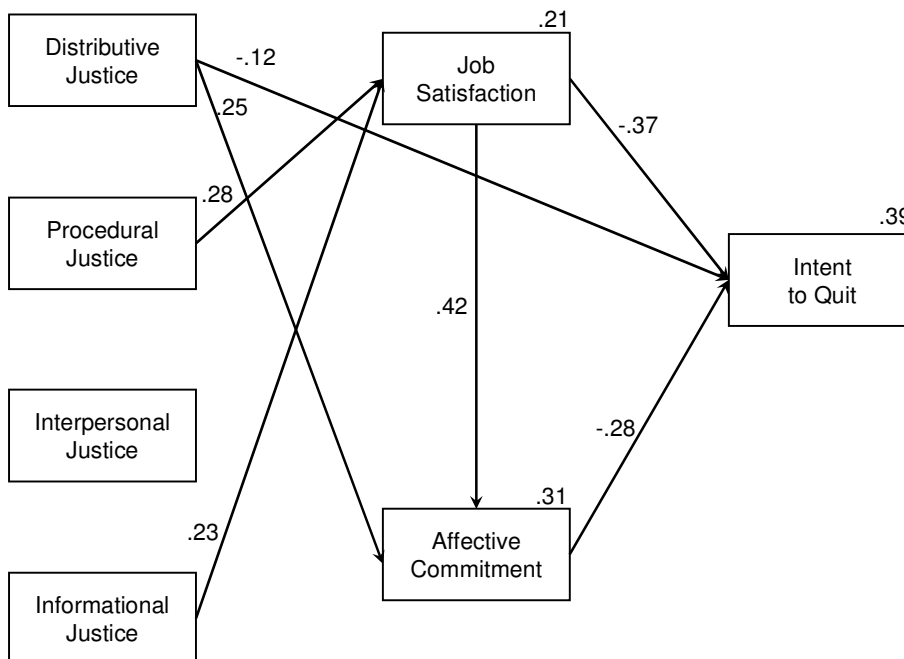


Figure 4. The resulting predictive model for males at Time 1.

The model in Figure 4 has a $\chi^2(df)$ of 7.417(8), $p = .492$, based on a sample of 313. The goodness of fit statistics for the model include: GFI = .993, AGFI = .976 and RMSEA = .000.

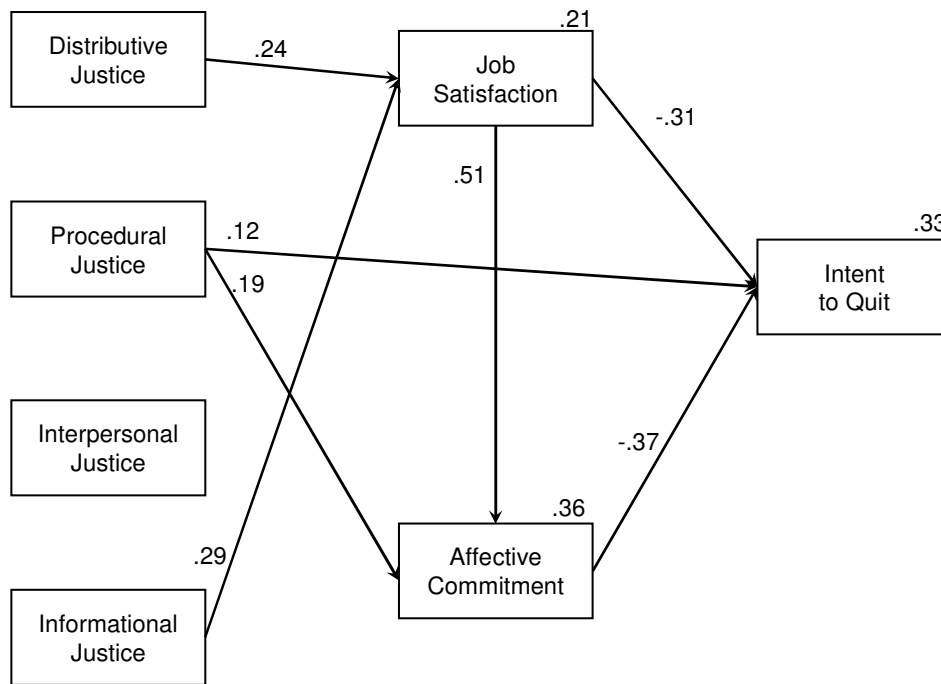


Figure 5. The resulting predictive model for males at Time 2.

The model in Figure 5 has a $\chi^2(df)$ of 10.527(8), $p = .230$, based on a sample of 303. The goodness of fit statistics for the model include: GFI = .990, AGFI = .966, CFI = .997, and RMSEA = .032. A summary of the statistics from each model is presented in Table 1.

Table 1: Model fit statistics

Model	<i>n</i>	χ^2	DF	P	GFI	AGFI	RMSEA
Females Time 1	116	7.167	8	.519	.982	.939	.000
Females Time 2	151	7.217	6	.301	.987	.937	.037
Males Time 1	313	7.417	8	.492	.993	.976	.000
Males Time 2	303	10.527	8	.230	.990	.966	.032

DISCUSSION

Much of the previous literature on the differences between how men and women perceive justice has been based on the two factor model of justice. Those studies examine the gender differences in the perceptions of distributive and procedural justice only. The current study has, for the first time, examined the gender differences using the fuller model of all four types of organizational justice and unlike many laboratory studies, this study surveyed actual employees from a range of occupations. The results of this study suggest that consistent with prior research (Sweeney and McFarlin, 1993), procedural and distributive justice are closely related to each other. The discrimination between distributive and procedural justice is relatively weak for both males (.73 at Time 1, .71 at Time 2) and females (.76 at Time 1, .72 at Time 2).

However, hypothesis 1a was that the factor structure of justice across the four types will be similar for females and males respectively and it was the behaviour of the four justice factors that was of particular interest. The two interactional justice types appear to be closely related to each other. Discrimination between interpersonal and informational justice are again relatively weak between both males (.75 at both Time 1 and Time 2) and females (.78 at both Time 1 and Time 2). Beyond the distributive-procedural and interpersonal-informational pairings, however, differences in how men and women discriminate the justice types are evident. Men perceive procedural justice from interpersonal justice (.57 at Time 1 and .55 at Time 2) and from informational justice (.61 at Time 1 and .58 at Time 2) to a lesser extent than women perceive procedural justice from interpersonal justice (.39 at Time 1 and .40 at Time 2) and informational justice (.46 at Time 1 and .53 at Time 2). Similarly, men distinguish distributive justice from interpersonal justice (.49 at Time 1 and .42 at Time 2) and informational justice (.57 at Time 1 and .49 at Time 2) to a lesser extent than women distinguish distributive justice from interpersonal justice (.39 at Time 1 and .40 at Time 2) and informational justice (.47 at Time 1 and .55 at Time 2). Overall, when all four justice types are included in the analysis, women make stronger distinctions beyond the distributive-procedural and interpersonal-informational pairings than do men.

The results of this study also provide evidence that men and women not only see justice in the workplace similarly, but have different ways of responding to those perceptions of justice. This was hypothesis 1b, that the extant types of justice will have different relationships with the outcome variables of job satisfaction, affective organizational commitment and intent to quit. The male pattern of response is quite different to the female pattern of response as most clearly shown by the Time 1 models. Where the male response to distributive injustice is to predict turnover intention and is the only justice type to contribute towards the male employees' level of commitment, for women the only significant predicted outcome of perceived distributed justice is a decrease in job satisfaction. For males, both procedural and informational justice types predict job satisfaction.

The models changed from Time 1 to Time 2 for both men and women. The male model for Time 2 reflected almost the opposite result for distributive and procedural justice to the Time 1 model. Where at Time 1 distributive justice predicted both commitment and turnover intentions and procedural justice predicted job satisfaction, the opposite was true for Time 2. At Time 2, distributive justice predicted job satisfaction and procedural justice predicted both turnover intentions and commitment. The inter-changing nature of distributive and procedural justice in terms of their predicting job satisfaction explains the afore-mentioned close inter-correlation between the distributive and procedural justices.

Differences between the female model at Time 1 and Time 2 are not quite as straightforward. All of the significant relationships in the Time 1 female model were repeated in the Time 2 female model, and three new additional significant relationships were evident in the Time 2 model. In addition and unusually, all three of those new significant relationships predicted the one outcome. At Time 2 the three justice types of distributive, procedural and informational justice additionally predicted turnover intentions.

The study found no significant effect for either males or females from interpersonal justice at either Time 1 or Time 2. Informational justice, on the other hand, significantly predicted job satisfaction for both males and females at Time 1 and Time 2 and significantly predicted commitment at Time 1 and commitment and turnover intentions at Time 2 for females only. That is, informational, rather than interpersonal justice is influential in changing the attitudes of respondents.

Limitations. The validation study was conducted at the same location as the initial study, which may limit the generalizability of the results – although in both surveys a wide range of occupations from the host organization responded. Similarly, this threat to generalizability is somewhat weakened due to the use of two surveys at different time periods. A further limitation is that the data in this study was all self-report and may consequently suffer from common method variance. Future research may wish to link data from a variety of sources (e.g. supervisor).

The previous literature has focused on the gender differences effect of perceptions of justice being able to predict organizational commitment and job satisfaction or both. The current study has extended previous research by incorporating all four contemporary types of justice, the important element of turnover intention and tested the models in an organization and across a variety of occupations. The current study builds on previous research in the areas of gender differences, discriminating the different types of organizational justice (Colquitt, 2001) and the employee outcomes. By combining these three domains of interest this study has provided an updated more detailed examination of how employees perceive and respond to their workplace environment.

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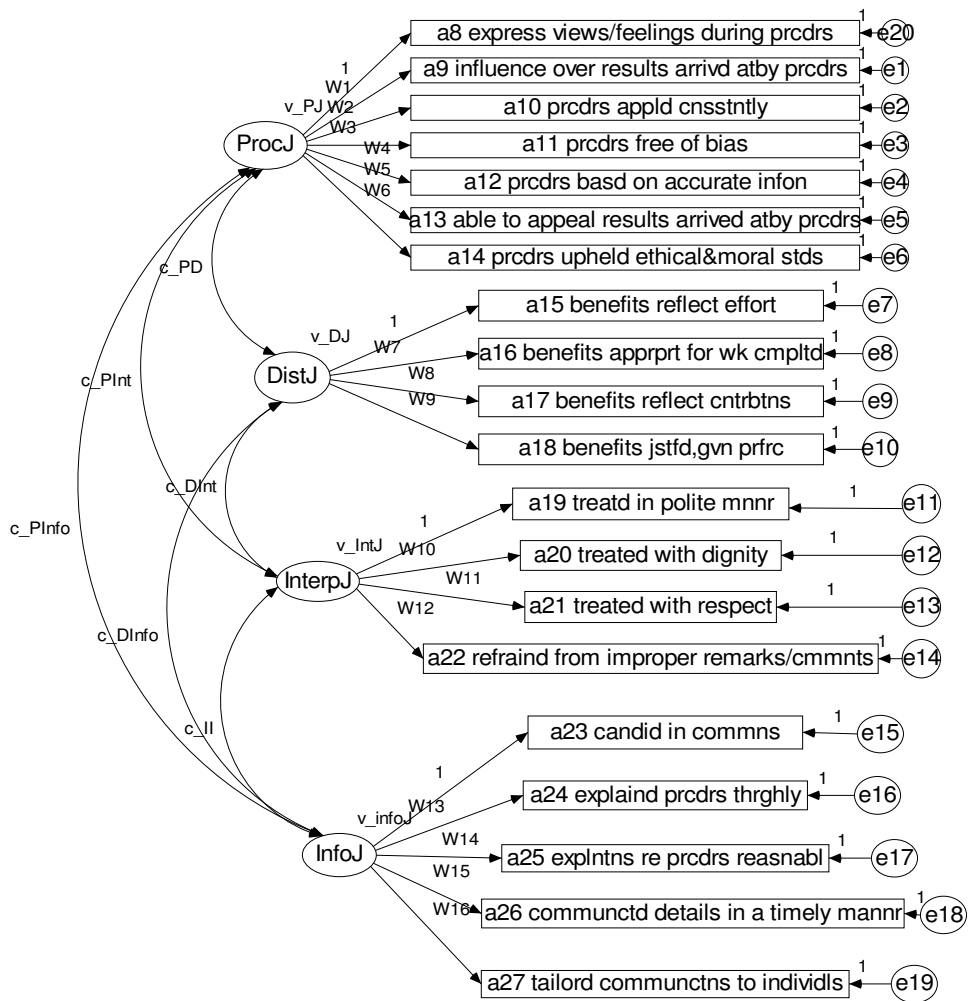
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Table 1 Means, standard deviations, alphas and intercorrelations at Time 1 and Time 2 by gender

	Females	M	SD	1	2	3	4	5	6	7
Time 1										
1	Procedural justice	22.15	7.19	(.93)						
2	Distributive justice	11.50	4.88	0.76	(.94)					
3	Interpersonal justice	16.71	4.31	0.39	0.39	(.94)				
4	Informational justice	17.57	5.71	0.46	0.47	0.78	(.94)			
5	Job satisfaction	23.34	5.73	0.37	0.44	0.38	0.42	(.77)		
6	Organizational commitment	32.43	8.21	0.31	0.36	0.38	0.43	0.50	(.80)	
7	Intention to quit	8.12	5.28	-0.28	-0.38	-0.27	-0.27	-0.67	-0.57	(.811)
Time 2										
1	Procedural justice	23.97	7.65	(.94)						
2	Distributive justice	12.81	4.97	0.72	(.93)					
3	Interpersonal justice	16.26	4.49	0.37	0.40	(.95)				
4	Informational justice	17.36	5.98	0.53	0.55	0.78	(.95)			
5	Job satisfaction	20.09	5.93	0.40	0.48	0.43	0.50			
6	Organizational commitment	32.60	7.99	0.33	0.43	0.36	0.45	0.59		
7	Intention to quit	6.15	4.63	-0.25	-0.42	-0.30	-0.43	-0.67	-0.52	
Males										
Time 1										
1	Procedural justice	21.67	7.25	(.91)						
2	Distributive justice	11.71	4.83	0.73	(.92)					
3	Interpersonal justice	15.72	4.29	0.57	0.49	(.94)				
4	Informational justice	17.30	5.34	0.61	0.57	0.75	(.93)			
5	Job satisfaction	24.14	5.76	0.47	0.44	0.36	0.44	(.78)		
6	Organizational commitment	32.66	8.23	0.37	0.41	0.27	0.34	0.55	(.77)	
7	Intention to quit	8.00	4.63	-0.37	-0.38	-0.31	-0.31	-0.67	-0.52	(.83)
Time 2										
1	Procedural justice	23.00	6.02	(.90)						
2	Distributive justice	12.54	4.04	0.71	(.90)					
3	Interpersonal justice	15.80	4.00	0.55	0.42	(.95)				
4	Informational justice	17.59	4.80	0.58	0.49	0.75	(.93)			
5	Job satisfaction	20.40	5.23	0.28	0.36	0.30	0.38			
6	Organizational commitment	32.49	7.67	0.36	0.37	0.32	0.31	0.59		
7	Intention to quit	5.80	4.18	-0.12	-0.14	-0.20	-0.24	-0.62	-0.51	

Appendix A



At time 1, a27 from Informational Justice and a18 from Distributive Justice were removed from the more purist analyses. At time 2, a27 from Informational Justice and a13 from Procedural Justice were removed from the more detailed invariance analyses. For both times the invariance analyses were repeated with all 20 items (and with the common 19 items across times) and the overall message (that the factor structure was invariant across gender) remained the same.