

Performance benefits of reward choice: a procedural justice perspective

By: [Arran Caza](#), Matthew W. McCarter, and Gregory B. Northcraft

This is the peer reviewed version of the following article:

Caza, A., McCarter, M. W., & Northcraft, G. B. (2015). Performance benefits of reward choice: a procedural justice perspective. *Human Resource Management Journal*, 25, 184–199.

<https://doi.org/10.1111/1748-8583.12073>

which has been published in final form at <https://doi.org/10.1111/1748-8583.12073>. This article may be used for non-commercial purposes in accordance with [Wiley Terms and Conditions for Use of Self-Archived Versions](#).

***© 2015 John Wiley & Sons Ltd. Reprinted with permission. No further reproduction is authorized without written permission from Wiley. This version of the document is not the version of record. ***

Abstract:

Reward choice – employees' ability to exercise control over the formal rewards they receive from work – is an important part of many HRM strategies. Reward choice is expected to increase employee performance, but conflicting findings highlight the need to better understand how and when it will do so. Based on fairness heuristic theory, we predicted that procedural justice mediates reward choice's influence on performance, and that choice attractiveness moderates that influence. A field study and an experiment both had similar results, supporting our predictions. Reward choice can increase performance by as much as 40 per cent, but only when the available choices are attractive to employees.

Keywords: choice | organisational justice | employee performance | rewards

Article:

Introduction

An increasingly popular HRM strategy is giving employees reward choice, which provides employees with the ability to choose the level or type of rewards they receive from work (Miceli and Heneman, 2000; White, 2009; IOMA, 2011). In the US, for example, fewer than 20 major employers allowed workers any control over how they were rewarded in 1980 (Hewitt Associates, 1993), but almost all major employers were offering some reward choice by 2007 (Employee Benefits, 2007). The use of reward choice in other countries shows the same increasing trend (Rao, 2008; Koo, 2011). Allowing employees to exercise some control over the nature of their rewards has become an important part of many organisations' HRM strategy.

Organisations appear to have embraced reward choice for two reasons: to control costs by only providing those rewards that employees actually value, and to benefit from improvements in

workers' attitudes and behaviour (Kelliher and Anderson, 2008; Lovewell, 2010). The use of choice reflects the fact that the traditional approach of offering standardised rewards has not succeeded in controlling costs or enhancing performance; such generic reward plans have tended to produce poor results (Beer and Cannon, 2004; Chiang and Birtch, 2006). Reward choice allows organisations to provide rewards that are customised to the individual, and is believed to help when competing to recruit and retain the best employees, as well as contributing to their subsequent performance (Fay and Thompson, 2001; Koo, 2011; Nazir *et al.*, 2012). Consistent with the belief that reward choice benefits the worker and the organisation, scholarship has linked reward choice with both increased task performance and performance-related attitudes, such as organisational commitment (Lawler and Hackman, 1969; Cooper *et al.*, 1992; Cole and Flint, 2004).

However, despite the widespread use of reward choice and research evidence of its effect on performance, two important gaps remain in the literature. The first gap concerns the mechanism linking reward choice to performance, which has remained unknown. The second gap concerns anecdotal and empirical evidence suggesting that employers do not always get a positive response from introducing reward choice (Sullivan, 2009; IOMA, 2011; Shreeram, 2012). While some studies have found a positive relationship between reward choice and performance (Lawler and Hackman, 1969; Cooper *et al.*, 1992), at least one study (Morgeson *et al.*, 2001) found that reward choice was not beneficial. It seems that reward choice can improve employee performance, but does not always do so. As such, the crucial next step for theory and practice lies in understanding how reward choice affects performance, including the mediating mechanism and boundary conditions.

In service of this goal, we report two studies that answer the two research questions: What is the mediator of the relationship between reward choice and work performance? and What are the boundary conditions of this relationship? Study 1 used a field survey to extend previous research by showing that reward choice influences performance-related attitudes through the mediating mechanism of procedural justice. Study 2 used an experimental design to replicate the Study 1 findings and to examine boundary conditions for reward choice. Study 2 found that reward attractiveness is an important moderator of the effect of reward choice (*i.e.* reward choice only increases justice and performance if the available choices are attractive).

Theoretical Background and Hypotheses

To study the relationship between reward choice and performance, we used the total rewards perspective (Nazir *et al.*, 2012; Lin *et al.*, 2014). This perspective defines rewards to include all of the valued outcomes that employees derive from their work, including base pay, incentives, non-salary benefits and perquisites (Fay and Thompson, 2001; Gross and Friedman, 2004; Chiang and Birtch, 2006). Focusing on an employee's total rewards is consistent with larger trends in the study of HRM, which are recognising the need to move towards more holistic views (Boxall, 2013). The total rewards perspective is based on the fact that different employees value different types of rewards (Kinnie *et al.*, 2005; Krausert, 2014), but their response to having their desires satisfied will be similar. For example, imagine one worker who desires more pay, and another who is most concerned with flexible work arrangements. Giving both workers the same reward (*e.g.* more pay) would provoke differing responses, but if each worker is given what s/he

desires, s/he should have similarly positive responses (Cable and Edwards, 2004). The total rewards perspective focuses on compensation practices in general, so as to accommodate such diversity in the workforce.

Reward choice and performance

Organisations are increasingly offering customised total rewards by allowing workers to control some aspects of the level or type of rewards they receive. The specifics of the reward choice vary from simple forms such as choosing among different package options to situations where an employee's entire reward package is idiosyncratic (*e.g.* Anand *et al.*, 2010). Providing employees with reward choice is expected to reduce organisational costs, increase worker satisfaction and improve worker performance (Kelliher and Anderson, 2008; Lovewell, 2010). The first two effects of reward choice – reduced cost and increased reward satisfaction – are straightforward. It has been documented that introducing reward choice decreases the cost of reward provision while simultaneously increasing workers' satisfaction (Károly and Panis, 2004; Dencker *et al.*, 2007).

Beyond these two effects, however, there is some evidence that reward choice can also improve performance. For example, one study found that workers who designed their own reward system performed better than workers who had an identical reward system imposed on them (Cooper *et al.*, 1992). Cooper *et al.* (1992) speculated that reward choice will increase performance when rewards are perceived as fair, and that having workers involved in designing the reward system leads to perceptions of fairness.

Other findings also fit with the hypothesis that reward choice promotes perceptions of fairness. One study showed that workers perceived a reward system as less fair, less responsive, less motivating and less satisfying when that system was created exclusively by management, rather than through a joint management–union effort (Schwarz, 1989). Similarly, another study found that allowing workers to design their own reward system made workers more trusting of management (Jenkins and Lawler, 1981).

In contrast, however, one study failed to find any benefit from designing a new reward system (Morgeson *et al.*, 2001): workers were extensively involved in providing information about reward preferences to management, but showed no positive response to the new rewards. Although Morgeson *et al.* (2001) admitted surprise at this outcome, we submit that it reflects the difference between choice and participation (Leana *et al.*, 1990). In most studies of reward choice, the comparison is between one group of workers who designed their own reward system and another group of workers who had a system imposed on them. As such, these studies confounded participation (*i.e.* having voice or giving input about preferred options) with choice (*i.e.* making the actual reward selection). The studies that found positive responses compared 'participation + choice' to 'no-participation + no-choice'. In contrast, Morgeson *et al.* (2001) compared 'participation + no-choice' to 'no-participation + no-choice': some workers in their study gave input, but the final system was chosen by management. That Morgeson *et al.* (2001) found no positive outcomes suggests that workers respond to *choosing* their rewards, rather than to *participating* in a process where someone else ultimately chooses. Choice is the key factor.

Additional evidence for the importance of choice was provided by a field experiment where some autonomous work groups were able to design their own reward plan, while control groups had an identical plan imposed on them by management (Lawler and Hackman, 1969). The initial results of Lawler and Hackman's (1969) field experiment were consistent with other work in this domain, showing that workers in the reward choice condition significantly increased their performance-related behaviours while those in the control (no choice) condition did not. While this design initially was like others in confounding participation and choice, a longitudinal component of the study indirectly separated the two elements.

Follow-up data collected by Schefflen *et al.* (1971) a year after the reward redesign revealed two important findings. The first finding was that the behavioural change lasted for a year; it was not a short-term result. The second finding was that losing the chosen reward system reversed the benefits associated with it. After the first year, management at the organisation discontinued the worker-designed reward plan. However, the removal of the plan did not reduce workers' rewards; in fact, management raised overall compensation levels, so that workers were making *more* than they were under the employee-designed plan (Schefflen *et al.*, 1971). Nonetheless, when the reward system changed, performance behaviours reverted to pre-experiment levels. The study did not measure the mechanism involved, but when considered with the results of Morgeson *et al.* (2001) it seems likely that losing the feeling of choice was crucial. The change was not caused by the level of reward, since the workers' rewards actually increased when their plan was removed. The element that changed was that the workers no longer had a reward plan they had chosen for themselves.

In summary, it is clear that allowing workers to design their own reward system can improve performance. Furthermore, the evidence suggests that the choice exercised in system design is the key to increasing worker performance (Fang and Gerhart, 2012). Changes in the level of rewards do not account for observed performance gains, nor is it sufficient to participate in the design if someone else chooses what rewards are received.

An important limitation of previous studies is that they examined choice in the context of employees designing their own reward system. Obviously, such complete system design involves a sweeping change, and of necessity cannot occur often. Nonetheless, the underlying mechanism of positive responses to choice suggests that performance should be improved even if reward choice is less sweeping than designing the entire system. We, therefore, propose the constructive replication hypothesis that reward choice will increase performance, regardless of the scope of change.

Hypothesis 1: Reward choice increases worker performance.

Reward choice, procedural justice and performance

Stating the hypothesis that reward choice will increase performance begs the question of why. Drawing on fairness heuristic theory (Lind, 2001; Lind *et al.*, 2001), we posit that procedural justice is the mediating mechanism linking reward choice to worker performance. We begin by defining procedural justice, and then use fairness heuristic theory to explain why reward choice will increase procedural justice and why procedural justice will increase performance.

Organisational justice is defined as an individual's perception of fairness in an organisation (Lind and Tyler, 1988), and while multiple types of justice have been found (Colquitt *et al.*, 2012) the most relevant to reward choice are distributive justice and procedural justice. Distributive justice refers to workers' evaluation of whether the results of a decision are fair (Konovsky, 2000). For example, workers may judge whether the organisation is contributing an appropriate amount towards their retirement savings. In contrast, procedural justice concerns workers' evaluation of the process used to reach an outcome, distinct from the outcome itself (Thibaut and Walker, 1975). In the retirement contribution example, procedural justice would involve workers' views about the fairness of how contribution amounts were calculated (*e.g.* more for employees with greater seniority, maximum amount limits).

Procedural justice is usually more important than distributive justice (Colquitt, 2001). That is, workers will often accept a relatively poor outcome if they believe it was produced by a fair process (Van den Bos *et al.*, 2001). Moreover, one of the key contributors to perceptions of fair process is the power to choose (Lind *et al.*, 1990; Korsgaard and Roberson, 1995). As a result, procedural justice should be the most important issue in the context of reward choice. Indeed, prior study has shown that reward choice contributes to perceptions of justice in the reward system (Cole and Flint, 2004). In other words, if employees can choose their rewards, they will perceive those rewards as more procedurally just.

Furthermore, fairness heuristic theory suggests that workers' perceptions of the reward system's fairness will generalise to their perception of the organisation as a whole (Lind, 2001; Lind *et al.*, 2001; Mignonac and Richebe, 2013). Fairness heuristic theory explains that particular occasions of fair treatment lead individuals to assume that those occasions reflect the overall level of fairness in the organisation. If the organisation acts justly in important and salient situations, then the individual will tend to assume that the organisation is fair in general. Because of how important rewards are to workers, judgements about the fairness of the reward system should be particularly influential in shaping overall perceptions of the organisation. As such, reward choice should contribute to generalised perceptions of procedural justice among workers: having reward choice will lead to perceptions of justice in the reward system, and evaluations of the reward system will be generalised to the organisation as a whole (Thibaut and Walker, 1975; Tyler, 1987).

Workers who believe their organisation is procedurally just subsequently believe that there is greater interpersonal trust between themselves and the organisation, and that trust motivates them to behave in a cooperative and supportive fashion (Lynch *et al.*, 1999; Cropanzano *et al.*, 2001). Individuals who feel fairly treated take more action to support the common good (Tyler and Blader, 2003). When workers believe their organisation is just, they are more willing to contribute (Grover and Crooker, 1995; Lind, 2001) and their contributions improve performance (Konovsky, 2000; Colquitt *et al.*, 2012). As such, procedural justice should be the mechanism by which reward choice increases performance.

Hypothesis 2: Procedural justice mediates the effect of reward choice on worker performance, such that reward choice increases procedural justice and procedural justice increases worker performance.

Choice attractiveness: a boundary condition

Given the evidence that having choice increases perceptions of justice (Lind *et al.*, 1990; Korsgaard and Roberson, 1995), one might assume that any reward choice would increase justice and subsequent performance. However, research in psychology shows that offering choice does not always produce positive responses (Chua and Iyengar, 2006). For example, Botti and Iyengar (2004) found that if individuals could only choose among meal options that they found unappealing, the freedom to choose actually reduced their satisfaction with the meal. Extending these results to the domain of work rewards suggests that not any choice will do; the available options must be attractive to workers.

For example, imagine an organisation that offers only unsatisfactory reward choices to employees. While the workers will be able to exercise reward choice, there is no reason to think that doing so will improve their perception of the reward system in this hypothetical organisation. Being compelled to choose among a series of unattractive options will not contribute to perceptions of procedural justice, and is more likely to focus employee attention on the poor level of their benefits (Colquitt, 2001). Since perceptions of an organisation's overall justice depend on perceptions in specific circumstances, the organisation that only offers choice among unattractive options will not be perceived as more procedurally just in general. Since the performance gains associated with reward choice derive from generalised perceptions of procedural justice, offering reward choice among unattractive options will therefore fail to improve performance. Consistent with this prediction, media reports have noted some overtly negative responses to reward choice (Shreeram, 2012). Offering reward choice does not guarantee positive results; it is necessary to offer attractive choices.

Hypothesis 3: Choice among unattractive rewards does not increase procedural justice.

Hypothesis 4: Choice among unattractive rewards does not increase work performance.

Study 1

Method

Sample and procedure

One hundred full-time workers were randomly selected from the alumni database of a large Midwestern American university master's programme and invited to complete an online survey. Forty-six workers provided usable responses, representing a range of industries and job functions. The respondents were primarily young professionals (mean age = 30.47 years, SD 6.02). All had graduate-level education, and most had recently been promoted (mean job tenure = 2.30 years, SD 1.63; mean organisational tenure = 4.11 years, SD 3.79); 57 per cent of the participants were male. More than half (54 per cent) had supervisory duties (mean number of subordinates = 6.47, SD 17.07).

Variables

To measure reward choice, respondents were asked to describe the two most important rewards they received from their employer. For each of those rewards, they reported the extent of their reward choice in terms of degree of choice, satisfaction with degree of choice and quality of available choices on five-point scales. We combined these six items (three items \times two rewards) into a reward choice measure that had good internal consistency ($\alpha = 0.80$, 95 per cent CI [0.59, 1.00]).

Because objective performance measures would not be comparable across our sample, we used affective organisational commitment (Meyer *et al.*, 1993) as a proxy measure for performance (six items, *e.g.* “I really feel as if this organisation's problems are my own”). Affective organisational commitment refers to a psychological state of positive attitudes towards continuing one's relationship with an organisation; workers are affectively committed to an organisation to the extent that they identify themselves with that organisation and feel an emotional attachment to their membership (Meyer and Allen, 1991). Affective organisational commitment is not a measure of performance, but it is the type of commitment most strongly associated with performance (Meyer *et al.*, 2002), and meta-analysis has revealed a consistent positive relationship between affective commitment and performance (Riketta, 2002). In particular, when individuals are relatively new to their job – as was the sample used here – the meta-analytic correlation between affective commitment and performance is 0.44 (Wright and Bonett, 2002). Moreover, organisational commitment has been shown to mediate the relationship between rewards and performance (Park and Kruse, 2014).

Participants also completed Colquitt's (2001) scale measuring procedural justice (seven items, *e.g.* “To what extent are the procedures use in the organisation free of bias?”), as well as items about their demographic characteristics. In addition, to control for different levels of rewards among participants, we had them report their overall satisfaction with the perceived value of the rewards provided by their employer (benefit level, four items, *e.g.* “How satisfied are you with the value of your benefits?”; Williams *et al.*, 2008).

Results and discussion

Based on responses to demographic questions, respondents did not appear to differ from non-respondents. Demographic characteristics largely proved to be non-significant control variables, and even when they were significant their inclusion did not change any of the substantive conclusions. As such, demographic variables were excluded for clarity and parsimony (Aguinis and Vandenberg, 2014). Descriptive statistics are provided in Table 1.

Table 1. Descriptive statistics and pairwise correlations for Study 1a

Variable	Mean	SD	α	1	2	3	4	5	6	7	8	9
1 Reward choice	3.88	0.92	0.80									
2 Affective organisational commitment	3.20	0.93	0.81	0.33								
3 Procedural justice	3.43	0.95	0.85	0.40	0.58							
4 Reward-level satisfaction	3.72	0.91	0.95	0.69	0.16	0.34						
5 Organisational size (thousands of employees)	24.40	53.78		0.11	0.22	0.19	0.23					
6 Number of hierarchical levels from respondent to the top of the organisation	4.61	2.29		0.14	-0.17	-0.14	0.08	0.34				
7 Gender (1 = male; 0 = female)	0.59	0.50		-0.26	-0.26	-0.32	-0.26	0.19	0.32			
8 Age (years)	30.48	6.08		0.18	0.09	0.17	0.21	0.02	-0.10	0.13		
9 Organisational tenure (years)	4.15	3.82		0.19	0.37	0.36	0.17	0.54	-0.03	0.17	0.40	
10 Tenure in current position (years)	2.31	1.64		0.02	0.01	0.00	0.12	-0.08	-0.35	0.19	0.22	0.32

^a $n = 46$. Correlations with an absolute value greater than 0.30 were significant ($p < 0.05$).

Table 2. Regression models for Study 1b

Independent variables	Model 1	Model 2	Model 3	Model 4
	Affective organisational commitment	Procedural justice	Affective organisational commitment	Affective organisational commitment
Reward choice	0.33 ^a [0.04, 0.62]	0.41 ^a [0.12, 0.70]	0.11 [-0.16, 0.39]	0.25 [-0.11, 0.60]
Procedural justice			0.53 ^a [0.26, 0.79]	0.54 ^a [0.28, 0.81]
Reward-level satisfaction				-0.20 [-0.55, 0.15]
Constant	1.92 ^a	1.83 ^a	0.96	1.15
R^2	0.11	0.16	0.35	0.37
F	5.28 ^a (df 1, 44)	8.30 ^a (df 1, 44)	11.62 ^a (df 2, 43)	8.28 ^a (df 3, 42)

^a $p < 0.05$.

^b 95% confidence interval in brackets; $n = 46$.

We used ordinary least squares regression for our primary analyses. Consistent with Hypothesis 1, reward choice was related to affective organisational commitment (Model 1 in Table 2). Furthermore, consistent with Hypothesis 2, procedural justice mediated the relationship between reward choice and affective organisational commitment. Reward choice predicted procedural justice (Model 2), and when controlling for the relationship between procedural justice and affective organisational commitment there was no consistent relationship between reward choice and affective commitment (Model 3). To further assess mediation, we conducted two additional tests: a bootstrap estimation (Preacher and Hayes, 2008) revealed a standardised indirect effect of 0.23 (95 per cent CI [0.03, 0.46]), and a Sobel (1982) test found a significant effect ($z = 2.24, p = 0.02, 95 \text{ per cent CI [0.04, 0.40]}$). All of these results are consistent with Hypothesis 2, the prediction that procedural justice mediates the relationship between reward choice and affective organisational commitment.

To provide a conservative test of our predictions, we also conducted several additional analyses. First, we estimated a model that included the control variable for how satisfied individuals were with their level of rewards (Model 4). This analysis revealed that the relationship between procedural justice and performance remained after controlling for the level of rewards. Second, we estimated alternative models using Huber, bi-square and sandwich corrections, which can improve model estimates in the presence of outliers or heteroscedasticity (Huber, 1981). In all cases, the results were substantively unchanged. Moreover, *post hoc* diagnostics revealed that collinearity was not a concern; the largest variance inflation factor was only 2.0 (O'Brien, 2007). Additionally, power analysis revealed an observed statistical power greater than 0.9, which exceeds the traditional 0.8 guideline required for appropriate hypothesis testing (Cohen, 1988). Taken together, all of these results suggest the robustness of the findings.

In sum, using a diverse sample of full-time workers, we found results consistent with prior research: reward choice was associated with higher levels of the performance-related attitude of affective organisational commitment. Also consistent with previous studies (*e.g.* Tremblay *et al.*, 1998), the effect of reward choice was independent of the level of the reward. In addition to replicating previous results, these findings extended previous work in two important ways. First, where previous studies were conducted primarily with first-level workers, the majority of our respondents were managers or supervisors. The results, therefore, suggest that reward choice has similar effects across hierarchical levels. Second, our results showed that the effect of reward choice was mediated by procedural justice. This finding is consistent with the long-standing, but previously untested, prediction that reward choice improves performance by fostering perceptions of fairness.

Nonetheless, Study 1 had three limitations. First, it used affective organisational commitment as a proxy, rather than measuring performance directly. Second, it used cross-sectional data, which prevents us from ruling out alternative explanations (*e.g.* committed employees may be more likely to perceive the organisation as fair). And finally, the data did not allow a test of the moderating effect of choice attractiveness. Moreover, the reward choices that the respondents reported on were primarily non-salary benefits, rather than choice about pay. To address these issues, we conducted a second study in a controlled experimental context.

Study 2

Method

Sample and procedure

Eighty-two undergraduate business majors at a large Midwestern American university participated. Their mean age was 20.5 years (SD 1.61) and 47.5 per cent were male.

After providing consent, participants were told about the task and how they would be rewarded (*i.e.* the experimental manipulation); they then completed the procedural justice measure from Study 1, and finally completed the compound remote associates task (CRA). In the CRA, participants try to find one word that can be combined with each of three different prompt words to create meaningful compound terms. For example, the prompt ‘night/wrist/stop’ is solved by the word ‘watch’, which can combine with each of the three prompts. Participants were presented with 140 sets of prompts (Bowden and Jung-Beeman, 2003) and directed to complete as many as they could. The CRA was originally developed as a measure of creativity (Mednick, 1962), but recent research treats the task as an assessment of problem-solving ability that does not require domain-specific knowledge (Bowden and Jung-Beeman, 2003). As such, the CRA is considered a good measure of abstract knowledge-based work performance (Ackerman and Zalmanov, 2012).

Reward choice was manipulated as a three-level, between-subjects factor (attractive choices, less attractive choices, no choice), derived from a two-phase pretest. In the first phase of pretesting, a sample of 43 participants was shown a list of 14 possible rewards for completing an experiment, and asked to rate each reward's attractiveness. In the second phase of pretesting, a different sample of 31 participants rated the overall attractiveness of the three highest rated rewards from phase 1 (set A) and the three lowest rated rewards from phase 1 (set B). Set A was rated as significantly more attractive than set B, regardless of presentation order [$M = 4.68$ vs. 2.32 on a seven-point scale, paired $t(31) = 8.56$, $p < 0.01$].

The options in the attractive choices condition were the following: (a) two points of extra credit + \$0.10 cash per correct answer; (b) two points of extra credit + \$0.10 per correct answer donated to a charity of their choice; (c) \$0.30 cash per correct answer (no extra credit); or (d) two points of extra credit (the university's standard experimental reward). The options in the less attractive choices condition were the following: (a) \$0.20 cash per correct answer (no extra credit); (b) two points of extra credit + \$0.13 in fast food coupons per correct answer; (c) two points of extra credit + \$0.13 donated to the Humane Society per correct answer; or (d) two points of extra credit + \$0.10 cash per correct answer. The first three of the less attractive options were the set rated least attractive in pretesting (*i.e.* set B); the fourth was the same as the first attractive choices option and was the single option judged most attractive in pretesting. We offered this single, highly attractive option with the three less attractive rewards to control for the effects of reward content, as described below.

After learning about the task, participants in the attractive choices and less attractive choices conditions chose their reward from the appropriate list. All but three of the attractive choices participants chose the same reward, and all of the less attractive choices participants chose that

same reward. Therefore, participants in the no choice condition were told that they would receive that reward: two points of extra credit + \$0.10 cash per correct answer. To prevent any effect from reward content, the three participants who chose a different reward were not included in the data set (final n : attractive = 27, less attractive = 25, no choice = 30). As such, all participants operated under an identical reward structure; the only difference among groups was whether they had it imposed on them or chose it from a list of otherwise attractive or less attractive options.

Results and discussion

As in Study 1, demographic variables were non-significant covariates. The mean CRA performance was 30.8 correct responses (SD 17.88), the mean level of procedural justice was 3.92 on a five-point scale (SD 0.74), and these two variables were significantly correlated ($r = 0.25, p = 0.02$). Consistent with Study 1, reward choice increased performance [$F(2, 79) = 5.22, p < 0.01, \eta^2 = 0.12$] and procedural justice [$F(2, 79) = 4.54, p = 0.01, \eta^2 = 0.10$].

Planned contrasts supported both Hypotheses 3 and 4—Hypotheses 3 and 4 (see Table 3). Participants in the attractive choices condition reported greater procedural justice ($M = 4.26$) than those in the no choice condition ($M = 3.74; t = 2.74, p < 0.01$), and greater procedural justice than those in the less attractive choices condition ($M = 3.77; t = 2.47, p = 0.02$). There was no significant difference in reported procedural justice between the no choice and less attractive choices conditions ($t = 0.15, p = 0.88$). As one would expect, given the mediating role of procedural justice, the results were similar for performance. Participants in the attractive choices condition ($M = 39.26$) performed 39.6 per cent better than participants in the no choice condition ($M = 28.13; t = 2.46, p = 0.02$) and 57.8 per cent better than participants in the less attractive choices condition ($M = 24.88; t = 3.04, p < 0.01$). There was no statistically significant difference in performance between the no choice and less attractive choices conditions ($t = 0.71, p = 0.48$).

Table 3. Group means for Study 2a

	No choice	Less attractive choices	Attractive choices
Performance (correct CRA answers)	28.13	24.88	39.26
Procedural justice	3.74	3.77	4.26

^a No choice $n = 30$, less attractive choices $n = 25$, attractive choices $n = 27$.

CRA, compound remote associates.

In sum, reward choice increased performance and perceptions of procedural justice, but only when the choice was made from attractive options. These results extended our previous study's findings in three important ways. They replicated them in a different context, they generalised them to a different criterion variable, which was an objective measure of task performance, and they provided a clear demonstration of the causal effect of reward choice.

Providing one attractive option in the less attractive choices condition was necessary to control for the effects of reward content, but it may have led participants to perceive this condition as effectively offering no choice, since only one option was attractive. This could explain the comparable results between the less attractive choices and no choice groups. It may be that if the less attractive choices condition had offered *only* unattractive options, performance would have been reduced.

General Discussion

In two studies, we examined the relationship between reward choice and performance. Consistent with predictions, reward choice increased performance through the mediating effect of procedural justice. Workers provided with reward choice perceived their organisation as more fair, and that perception of fairness led to improved performance. Our results showed that the effect of reward choice on performance is independent of the actual level of reward, but does depend on choice attractiveness. Workers offered a choice among unattractive options did not perceive greater procedural justice nor did their performance improve; only those choosing from multiple attractive options had perceptions of greater procedural justice and subsequent performance gains. Our data combined experimental and field observations, showing consistency across diverse contexts, tasks and measures. As a result, our research design provides strong evidence for the causal effect of reward choice. These findings have important theoretical and practical implications.

Theoretical implications

The results make three theoretical contributions. The first is to demonstrate the previously uncertain mediator of the effect of reward choice on performance. HRM suffers from a lack of theoretical explanations for observed results (Monks *et al.*, 2013) and poor evidence of the causal nature of observed associations (Guest, 2011). Our data address both of these issues. Prior to our research, there were no data on the mediated process by which reward choice influences performance. Allowing workers to create their own reward system had been shown to enhance performance (Lawler and Hackman, 1969; Cooper *et al.*, 1992), but the explanation for this result remained unclear. We advanced this work by testing the effects of reward choice in different contexts, with different outcomes and different types of choice, while measuring the mediating mechanism. As a result, we extended and clarified those previous studies, confirming that perceptions of fairness – specifically of procedural justice – are the mechanism by which reward choice improves performance. Moreover, our use of both field and experimental data supports inferences of cause: choice is the causal agent.

The second contribution arises from clearly distinguishing between choice and participation (Barber *et al.*, 1992). Previous studies confounded these two factors, which led to some apparently anomalous findings (Morgeson *et al.*, 2001). Our results appear to resolve the anomaly, creating consensus in the literature. In our studies, workers had choice (*i.e.* they could decide what type or level of reward they received), but they did not participate in creating those choices. We found that choice improved performance, while previous studies found that the combination of choice and participation improved performance (Lawler and Hackman, 1969; Cooper *et al.*, 1992). Combining these results with the observed lack of benefit among employees who had participation without choice (Morgeson *et al.*, 2001) suggests that choice, not participation, is essential. As such, Morgeson *et al.*'s (2001) results are consistent with previous work, so long as one distinguishes between choice and participation. Nonetheless, opportunities remain for further investigation. While choosing among predefined options is sufficient to improve performance, future scholarship can investigate whether the benefits are greater when choice is combined with participation (Deci and Ryan, 2000).

The third contribution of our work is to highlight the complexities of choice, and thereby identify a significant boundary condition to the benefits of reward choice. Research in other contexts has shown that choice is not unequivocally regarded as good (Iyengar *et al.*, 2004), and we likewise found that in the case of work rewards not any choice will do. Reward choice only improved performance when individuals perceived their choice options as attractive ones. As such, the preferences of workers will be an important consideration in future investigations of reward systems and reward choice. All choice options will not have equivalent effects, suggesting an important role for prechoice participation to ensure that choice options are attractive.

Practical implications

Our findings suggest several related considerations for implementation. In discussing these, it should be recalled that others found that the effects of reward choice persisted among employees for more than a year (*e.g.* Schefflen *et al.*, 1971). In the long run, the performance-enhancing consequences of reward choice may be substantial, which makes this issue an important one.

The most salient element of our findings is that choice is sufficient to improve performance. Before our research, one might have inferred from the literature that performance gains required allowing employees to design their own reward system, which would be impractical in many contexts. Our results show that reward design is not necessary. It is enough for management to have workers choose among attractive options. Doing so improved performance in our study by almost 40 per cent, compared with workers who had no choice. However, reward attractiveness is an important contingency; there were no benefits from choice among unattractive options. Organisations must ensure that the rewards offered meet not only their own needs, but also those of the employees. It may be best to have workers participate in identifying reward options to ensure that the results are sufficiently attractive. In addition, whatever system is used, it will be crucial to evaluate it in terms of employee perception and response (Corby *et al.*, 2005).

In addition, organisational assistance may be required for the successful implementation of reward choice. In practice, it will likely not be enough to simply provide choice. For example, many organisations have moved from defined benefit pensions to defined contribution plans, and while this move clearly gives workers more reward choice it may not contribute to their perceptions of organisational justice, particularly since prior work has shown that many individuals make poor choices for their retirement (Benartzi and Thaler, 2007). Workers may require help using their freedom to choose.

Conclusion

It seems obvious that the type of rewards provided would influence employees' attitudes and behaviour. Our findings support this intuition, but further demonstrate that rewards have an effect beyond just their level. We integrated and extended previous studies by showing that being able to choose how one is rewarded has potentially powerful implications for organisational outcomes. Providing workers with choice over their rewards can lead them to feel more fairly treated, and thus to provide better performance. This observation clarifies decades of prior

research and, we hope, provides a foundation and stimulus for future investigation of the interrelations among rewards, choice and worker performance.

Acknowledgements

This research was supported by the Illinois Bureau of Economic and Business Research, the University of Illinois Center for Human Resource Management, and the University of Illinois Campus Research Board. The Centre for Work, Organisation and Wellbeing at Griffith University supported the editing of this article. We benefited from the assistance of David Collings and our anonymous reviewers, as well as Ariel Avgar, Brianna Caza, Robert Duncan, Ashley Israel and Lu Wang who commented on early drafts of this article.

References

- Ackerman, R. and Zalmanov, H. (2012). 'The persistence of the fluency–confidence association in problem solving'. *Psychonomic Bulletin & Review*, **19**: 6, 1187– 1192.
- Aguinis, H. and Vandenberg, R.J. (2014). 'An ounce of prevention is worth a pound of cure: improving research quality before data collection'. *Annual Review of Organizational Psychology and Organizational Behavior*, **1**: 569– 595.
- Anand, S., Vidyarth, P.R., Liden, R.C. and Rousseau, D.M. (2010). 'Good citizens in poor-quality relationships: idiosyncratic deals as substitutes for relationship quality'. *Academy of Management Journal*, **53**: 5, 970– 988.
- Barber, A.E., Dunham, R.B. and Formisano, R.A. (1992). 'The impact of flexible benefits on employee satisfaction: a field study'. *Personnel Psychology*, **45**: 1, 55– 74.
- Beer, M. and Cannon, M.D. (2004). 'Promise and peril in implementing pay-for-performance'. *Human Resource Management*, **43**: 1, 3– 48.
- Benartzi, S. and Thaler, R.H. (2007). 'Heuristics and biases in retirement savings behavior'. *Journal of Economic Perspectives*, **21**: 3, 81– 104.
- Botti, S. and Iyengar, S.S. (2004). 'The psychological pleasure and pain of choosing: when people prefer choosing at the cost of subsequent satisfaction'. *Journal of Personality and Social Psychology*, **87**: 3, 312– 326.
- Bowden, E.M. and Jung-Beeman, M. (2003). 'Normative data for 144 compound remote associate problems'. *Behavior Research Methods, Instruments, and Computers*, **35**: 4, 634– 639.
- Boxall, P. (2013). 'Mutuality in the management of human resources: assessing the quality of alignment in employment relationships'. *Human Resource Management Journal*, **23**: 1, 3– 17.
- Cable, D.M. and Edwards, J.R. (2004). 'Complementary and supplementary fit: a theoretical and empirical integration'. *Journal of Applied Psychology*, **89**: 5, 822– 834.
- Chiang, F.F.T. and Birtch, T.A. (2006). 'An empirical examination of reward preferences within and across national settings'. *Management International Review*, **46**: 5, 573– 596.

- Chua, R.Y. and Iyengar, S.S. (2006). 'Empowerment through choice? A critical analysis of the effects of choice in organizations'. *Research in Organizational Behavior*, **27**: 41– 79.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*, 2nd edn, Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cole, N.D. and Flint, D.H. (2004). 'Perceptions of distributive and procedural justice in employee benefits: flexible versus traditional benefit plans'. *Journal of Managerial Psychology*, **19**: 1, 19– 40.
- Colquitt, J.A. (2001). 'On the dimensionality of organizational justice: a construct validation of a measure'. *Journal of Applied Psychology*, **86**: 3, 386– 400.
- Colquitt, J.A., LePine, J.A., Piccolo, R.F., Zapata, C.P. and Rich, B.L. (2012). 'Explaining the justice–performance relationship: trust as exchange deepener or trust as uncertainty reducer?' *Journal of Applied Psychology*, **97**: 1, 1– 15.
- Cooper, C.L., Dyck, B. and Frohlich, N. (1992). 'Improving the effectiveness of gainsharing: the role of fairness and participation'. *Administrative Science Quarterly*, **37**: 3, 471– 490.
- Corby, S., White, G. and Stanworth, C. (2005). 'No news is good news? Evaluating new pay systems'. *Human Resource Management Journal*, **15**: 1, 4– 24.
- Cropanzano, R., Byrne, Z.S., Bobocel, D.R. and Rupp, D.E. (2001). 'Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice'. *Journal of Vocational Behavior*, **58**: 2, 164– 209.
- Deci, E.L. and Ryan, R.M. (2000). 'The “what” and “why” of goal pursuits: human needs and the self-determination of behavior'. *Psychological Inquiry*, **11**: 4, 227– 268.
- Dencker, J.C., Joshi, A. and Martocchio, J.J. (2007). 'Employee benefits as context for intergenerational conflict'. *Human Resource Management Review*, **17**: 2, 208– 220.
- Employee Benefits (2007). 'Flexible benefits: flexing up'. *Employee Benefits*, S.2.
- Fang, M. and Gerhart, B. (2012). 'Does pay for performance diminish intrinsic interest?' *International Journal of Human Resource Management*, **23**: 6, 1176– 1196.
- Fay, C.H. and Thompson, M.A. (2001). 'Contextual determinants of reward systems' success: an exploratory study'. *Human Resource Management*, **40**: 3, 213– 226.
- Gross, S.E. and Friedman, H.M. (2004). 'Creating an effective total reward strategy: holistic approach better supports business success'. *Benefits Quarterly*, **20**: 3, 7– 12.
- Grover, S.L. and Crooker, K.J. (1995). 'Who appreciates family-responsive human resource policies: the impact of family-friendly policies on the organizational attachment of parents and non-parents'. *Personnel Psychology*, **48**: 2, 271– 288.
- Guest, D.E. (2011). 'Human resource management and performance: still searching for some answers'. *Human Resource Management Journal*, **21**: 1, 3– 13.
- Hewitt Associates (1993). *Flexible Compensation Programs and Practices*, Lincolnshire, IL: Hewitt Associates.

- Huber, P.J. (1981). *Robust Statistics*, San Francisco, CA: John Wiley & Sons.
- IOMA (2011). 'Flexible benefits embraced as morale booster'. *IOMA's Report on Managing Benefits Plans*, **13**: 4– 6.
- Iyengar, S.S., Huberman, G. and Jiang, W. (2004). 'How much choice is too much? Contributions to 401 (k) retirement plans', in O.S. Mitchell and S.P. Utkus (eds), *Pension Design and Structure: New Lessons from Behavioral Finance*, Oxford: Oxford University Press.
- Jenkins, G.D. and Lawler, E.E. (1981). 'Impact of employee participation in pay plan development'. *Organizational Behavior and Human Performance*, **28**: 1, 111– 128.
- Karoly, L.A. and Panis, C.W.A. (2004). *The 21st Century at Work: Forces Shaping the Future Workforce and Workplace in the United States*, Santa Monica, CA: RAND Corporation.
- Kelliher, C. and Anderson, D. (2008). 'For better or for worse? An analysis of how flexible working practices influence employees' perceptions of job quality'. *International Journal of Human Resource Management*, **19**: 3, 419– 431.
- Kinnie, N., Hutchinson, S., Purcell, J., Rayton, B. and Swart, J. (2005). 'Satisfaction with HR practices and commitment to the organisation: why one size does not fit all'. *Human Resource Management Journal*, **15**: 4, 9– 29.
- Konovsky, M.A. (2000). 'Understanding procedural justice and its impact on business organizations'. *Journal of Management*, **26**: 3, 489– 511.
- Koo, R.C. (2011). 'The global added value of flexible benefits'. *Benefits Quarterly*, **27**: 4, 17– 20.
- Korsgaard, M.A. and Roberson, L. (1995). 'Procedural justice in performance evaluation: the role of instrumental and non-instrumental voice in performance appraisal discussions'. *Journal of Management*, **21**: 4, 657– 669.
- Krausert, A. (2014). 'HRM systems for knowledge workers: differences among top managers, middle managers, and professional employees'. *Human Resource Management*, **53**: 1, 67– 87.
- Lawler, E.E. and Hackman, J.R. (1969). 'Impact of employee participation in the development of pay incentive plans: a field experiment'. *Journal of Applied Psychology*, **53**: 6, 467– 471.
- Leana, C.R., Locke, E.A. and Schweiger, D.M. (1990). 'Fact and fiction in analyzing research on participative decision making: a critique of Cotton, Vollrath, Froggatt, Lengnick-Hall, and Jennings'. *Academy of Management Review*, **15**: 1, 137– 146.
- Lin, Z., Yao, X. and Zhao, Z. (2014). 'The direct and indirect impact of employee benefits on firm performance in China'. *Asia Pacific Journal of Human Resources*, **52**, 4, 476– 495.
- Lind, E.A. (2001). 'Fairness heuristic theory: justice judgments as pivotal cognitions in organizational relations', in J. Greenberg and R. Cropanzano (eds), *Advances in Organizational Justice*, Stanford, CA: Stanford University Press.

- Lind, E.A., Kanfer, R. and Earley, P.C. (1990). 'Voice, control, and procedural justice: instrumental and noninstrumental concerns in fairness judgments'. *Journal of Personality and Social Psychology*, **59**: 5, 952– 959.
- Lind, E.A., Kray, L. and Thompson, L. (2001). 'Primacy effects in justice judgments: testing predictions from fairness heuristic theory'. *Organizational Behavior and Human Decision Processes*, **85**: 2, 189– 210.
- Lind, E.A. and Tyler, T.R. (1988). *The Social Psychology of Procedural Justice*, New York: Plenum Press.
- Lovewell, D. (2010). 'Flexible benefits: structure'. *Employee Benefits*, S.10– S.12.
- Lynch, P.D., Eisenberger, R. and Armeli, S. (1999). 'Perceived organizational support: inferior versus superior performance by wary employees'. *Journal of Applied Psychology*, **84**: 4, 467– 483.
- Mednick, S.A. (1962). 'The associative basis of the creative process'. *Psychological Review*, **69**: 3, 220– 232.
- Meyer, J.P. and Allen, N.J. (1991). 'A three-component conceptualization of organizational commitment'. *Human Resource Management Review*, **1**: 1, 61– 89.
- Meyer, J.P., Allen, N.J. and Smith, C.A. (1993). 'Commitment to organizations and occupations: extension and test of a three-component conceptualization'. *Journal of Applied Psychology*, **78**: 4, 538– 551.
- Meyer, J.P., Stanley, D.J., Herscovitch, L. and 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.
- Miceli, M.P. and Heneman, R.L. (2000). 'Contextual determinants of variable pay plan design: a proposed research framework'. *Human Resource Management Review*, **10**: 3, 289– 305.
- Mignonac, K. and Richebe, N. (2013). '“No strings attached?”: how attribution of disinterested support affects employee retention'. *Human Resource Management Journal*, **23**: 1, 72– 90.
- Monks, K., Kelly, G., Conway, E., Flood, P., Truss, K. and Hannon, E. (2013). 'Understanding how HR systems work: the role of HR philosophy and HR processes'. *Human Resource Management Journal*, **23**: 4, 379– 395.
- Morgeson, F.P., Campion, M.A. and Maertz, C.P. (2001). 'Understanding pay satisfaction: the limits of a compensation system implementation'. *Journal of Business and Psychology*, **16**: 1, 133– 149.
- Nazir, T., Shah, S.F.H. and Zaman, K. (2012). 'Literature review on total rewards: an international perspective'. *African Journal of Business Management*, **6**: 8, 3046– 3058.
- O'Brien, R.M. (2007). 'A caution regarding rules of thumb for variance inflation factors'. *Quality & Quantity*, **41**: 5, 673– 690.

- Park, R. and Kruse, D. (2014). 'Group incentives and financial performance: the moderating role of innovation'. *Human Resource Management Journal*, **24**: 1, 77– 94.
- Preacher, K.J. and Hayes, A.F. (2008). 'Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models'. *Behavior Research Methods*, **40**: 3, 879– 891.
- Rao, V.S.R. (2008). 'Tailored employee benefits'. CiteHR, <http://www.citeman.com/3078-tailored-employee-benefits.html> (accessed 27 September 2012).
- Ricketta, M. (2002). 'Attitudinal organizational commitment and job performance: a meta-analysis'. *Journal of Organizational Behavior*, **23**: 3, 257– 266.
- Schefflen, K.C., Lawler, E.E. and Hackman, J.R. (1971). 'Long-term impact of employee participation in the development of pay incentive plans: a field experiment revisited'. *Journal of Applied Psychology*, **55**: 3, 182– 186.
- Schwarz, R.M. (1989). 'Participative decision making: comparing union-management and management-designed incentive pay programs'. *Group & Organization Management*, **14**: 1, 104– 122.
- Shreeram, J. (2012). 'Employee satisfaction: flexible benefits perks fail to woo'. CiteHR, <http://www.citehr.com/84293-employee-satisfaction-flexible-benefits-perks-fail-woo.html> (accessed 28 September 2012).
- Sobel, M.E. (1982). 'Asymptotic confidence intervals for indirect effects in structural equation models'. *Sociological Methodology*, **13**: 290– 312.
- Sullivan, N. (2009). 'Flexible benefits: a fair exchange'. *Employee Benefits*, S.3– S.4.
- Thibaut, J.W. and Walker, L. (1975). *Procedural Justice: A Psychological Analysis*, Hillsdale, NJ: Lawrence Erlbaum Associates.
- Tremblay, M., Sire, B. and Pelchat, A. (1998). 'A study of the determinants and of the impact of flexibility on employee benefit satisfaction'. *Human Relations*, **51**: 5, 667– 688.
- Tyler, T.R. (1987). 'Conditions leading to value-expressive effects in judgments of procedural justice: a test of four models'. *Journal of Personality and Social Psychology*, **52**: 2, 333– 344.
- Tyler, T.R. and Blader, S. (2003). 'The group engagement model: procedural justice, social identity, and cooperative behavior'. *Personality and Social Psychology Review*, **7**: 4, 349– 361.
- Van den Bos, K., Lind, E.A. and Wilke, H.A.M. (2001). 'The psychology of procedural and distributive justice viewed from the perspective of fairness heuristic theory', in R. Cropanzano (ed.), *Justice in the Workplace: From Theory to Practice*, Mahwah, NJ: Lawrence Erlbaum.
- White, G. (2009). 'Diversity in workplace causes rise in unique employee benefits and changes in cafeteria plans'. *Journal of Management & Marketing Research*, **2**: 1– 9.

Williams, M.L., Brower, H.H., Ford, L.R., Williams, L.J. and Carraher, S.M. (2008). ' A comprehensive model and measure of compensation satisfaction'. *Journal of Occupational and Organizational Psychology*, **81**: 4, 639– 668.

Wright, T.A. and Bonett, D.G. (2002). ' The moderating effects of employee tenure on the relation between organizational commitment and job performance: a meta-analysis'. *Journal of Applied Psychology*, **87**: 6, 1183– 1190.