When What You Want is What You Get: Pay Dispersion and Communal Sharing Preference

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The question of whether pay structures should be compressed or dispersed remains unanswered. We argue that pay dispersion can yield uncertainty regarding others’ intentions and behaviors; as a result, individuals take a greater risk trusting their group members as pay spreads widen. Accordingly, we explore the conditions under which individuals are more willing to take this risk by viewing their group members as trustworthy even when pay is dispersed. Specifically, preferences for how relationships and resources should be structured in groups should help to determine when pay dispersion relates to trustworthiness perceptions. We hypothesise that the cross-level interaction between preferences for communal sharing (Level 1)—that is, the extent to which individuals prefer communal, egalitarian structures in their groups—and pay dispersion (Level 2) is associated with trust perceptions. Data drawn from a sample of university professors support our hypothesised cross-level interaction, and show that when pay dispersion is greater, individuals perceive their group members as more trustworthy only when they have weak preferences for communal sharing. Our results signify the importance of individual attributes to understanding pay dispersion’s effects, and show that trust is fostered when preferences and pay conditions are aligned.

INTRODUCTION

The structure of rewards in organisations has attracted a great deal of research attention (e.g. Kepes, Delery, & Gupta, 2009; Messersmith, Guthrie, Ji, & Lee, 2011; Trevor & Wazeter, 2006; Trevor, Reilly, & Gerhart, 2012), and is thought by some to be amongst the most important influences on...
workplace attitudes and behaviors (Pfeffer & Davis-Blake, 1992; Pfeffer & Langton, 1988). In particular, how pay should be dispersed across organizational members is debated (see Gerhart & Rynes, 2003; Trevor et al., 2012). Despite existing academic interest in and the practical relevance of understanding pay dispersion, much remains to be learned about how organizations should ideally structure pay and how these decisions affect employees. In particular, studies have explored behavioral outcomes of pay dispersion, such as turnover and performance (e.g. Bloom, 1999; Messersmith et al., 2011), and in doing so, have argued that pay dispersion influences employees’ preferences, perceptions, and attitudes (e.g. trust, fairness perceptions). From an empirical perspective, however, only a handful of investigations have actually measured these more proximal outcomes of pay dispersion (e.g. Pfeffer & Langton, 1993; Trevor & Wazeter, 2006), despite their potential to enrich our understanding of its effects.

Our research helps to bridge this gap by investigating the relationship between pay dispersion and employees’ perceptions of whether their group members are trustworthy. The relationship between pay dispersion and cooperative processes in groups has been of extensive interest (see Trevor et al., 2012, for a review). We argue that trust and trustworthiness perceptions are thus particularly salient to the study of pay dispersion because they are precursors to cooperation, or stated differently, cooperation in groups is a reflection of the trust felt by members of the group (e.g. Johnson & Lord, 2010). According to tournament theory (Lazear & Rosen, 1981), greater pay dispersion provides the impetus for individual motivation and intragroup competition, both of which are fueled by group members’ desires to achieve more coveted and scarce pay rates and/or their dissatisfaction with the distribution of pay in the group (e.g. Bloom, 1999; Levine, 1991). Accordingly, trusting one’s group members becomes risky if dispersion manifests competitive, self-interested, resentful, or political behaviors (Christie & Barling, 2010; Ensley, Pearson, & Sardeshmukh, 2007; Lazear, 1989; Levine, 1991).

Despite this uncertainty regarding others’ behavior that can emerge in competitive environments, empirical research has not yet studied how pay dispersion influences trustworthiness perceptions in groups. To this end, we ask what makes individuals more or less likely to expect others in their group to be trustworthy as pay becomes more dispersed. In doing so, we recognise that individuals differ in their preferences for how resources should be divided and relationships should be formed in groups (i.e. communal sharing preferences), and thus expect that these differences influence reactions to pay dispersion. Indeed, perhaps the clearest finding from pay dispersion research is that any effects of pay dispersion are complicated. As a result, Trevor and Wazeter (2006) echo others in suggesting that “pay condition interactions may be necessary to an understanding of the complexity of how employees
respond to pay” (p. 1260). Drawing on a person–situation interaction approach (e.g. Chatman, 1989; Mischel, 1968; Schneider, 1987), we contend that the extent to which employees expect trustworthy behaviors from their fellow group members as pay spreads widen is a product of both the pay structure and employees’ preferences for communal (egalitarian) structures in their group (Fiske, 1991, 1992). Specifically, the extent to which individuals’ needs for equality are reflected in the pay structure will affect trust perceptions. While a seemingly simplistic argument, accounting for how individual preferences shape employee reactions to pay has largely escaped the compensation literature and requires research attention (e.g. Begley & Lee, 2005).

By bringing trust concepts and individual preferences into the debate surrounding the efficacy of pay dispersion, we (1) provide empirical evidence of the contingent relationship between pay dispersion and trustworthiness perceptions using direct measurement, (2) provide a deeper understanding of the conditions under which dispersed pay will yield more favorable employee responses, and (3) introduce an avenue for future theory development that recognises how individual attributes shape reactions to pay dispersion. In the following sections, we outline our hypotheses and their tests, and introduce a final contribution of our research: exploratory analyses that can be used to guide future research on reward dispersion more generally.

THEORETICAL DEVELOPMENT

Literature Review: Pay Dispersion and Trustworthiness

Recent years have seen a surge of research interest in the structure of pay in groups and organisations. Pay dispersion, the degree to which a pay structure is characterised by pay differences between employees, has been a predominant focus (Bloom, 2008). We focus on horizontal pay dispersion, which captures pay differences between individuals at the same hierarchical level or with the same job (e.g. Trevor et al., 2012). Pay dispersion has been related to employee attitudes, such as job satisfaction (Frank, 1999; Pfeffer & Langton, 1993) and pay equity perceptions (Trevor & Wazeter, 2006), as well as behaviors such as turnover (e.g. Bloom & Michel, 2002; Pfeffer & Davis-Blake, 1992; Shaw & Gupta, 2007), performance (e.g. Bloom, 1999; Shaw, Gupta, & Delery, 2002), and research cooperation among academics (Pfeffer & Langton, 1993). Of interest in the present research is the relationship between pay dispersion and perceptions of trustworthiness.

Trust requires permitting oneself to be vulnerable to others without fear of deception or exploitation (e.g. Mayer, Davis, & Schoorman, 1995; McAllister, 1995). Trust is a manifestation of one’s perception of others’ trustworthiness. In other words, individuals are more trusting of others when
others demonstrate that they are trustworthy, such as when they behave altruistically, honestly, capably, competently, fairly, and with integrity (e.g. Colquitt & Rodell, 2011; Mayer et al., 1995). For this paper, we focus on individuals’ perceptions of whether their group members are trustworthy (i.e. “trustworthiness perceptions”; Colquitt & Rodell, 2011) specifically to keep our variables of interest commensurate (i.e. group pay dispersion, preferences for communal sharing in the group, and perceived trustworthiness of group members).

In contrast to the “atmosphere of trust” engendered by low pay dispersion, researchers have acknowledged diminished trust as a potential problem associated with greater pay dispersion (Levine, 1991, p. 239). Ensley et al. (2007) identified reduced trust as one explanation of why pay dispersion was negatively related to group cohesion in their study of top management teams, particularly for those in family firms. Tournament theory (Lazear & Rosen, 1981)—the notion that greater pay dispersion motivates individual effort toward achieving more desirable and scarce ranks in a pay structure—explains these effects. As dispersion increases, group members may be motivated to achieve higher pay, not only through their performance, but by sabotaging or undermining the contributions of others (Lazear, 1989). Similarly, envy surrounding pay disparities prompts political or competitive behavior within the group (Ensley et al., 2007). For example, Gino and Pierce (2009) showed experimentally that financial inequities predict dishonesty in dyads, while Duffy, Scott, Shaw, Tepper, and Aquino (2012) related feelings of envy to social undermining. If so, as pay spreads or inequalities widen, individuals should be unsure of their group members’ motives and intentions (i.e. their trustworthiness), and as a result of this uncertainty, trusting others becomes more difficult (Christie & Barling, 2010).

Study Impetus: Embracing a Contingency Perspective

Not all group members should respond equivalently to the distribution of pay in the group, however. We argue that individual preferences for communal sharing can help to further explain this relationship (and reveal when pay dispersion is positively related to trustworthiness perceptions). Our argument is aligned with current recommendations derived from reviews of pay dispersion research. Specifically, due to inconsistencies, conclusions about the relationship between pay dispersion and various organisational outcomes remain premature. In fact, findings of existing empirical studies often appear contradictory (e.g. see Bloom, 2008). For example, Ehrenberg and Bognanno (1990) showed that greater prize spreads in golf tournaments enhanced player performance. By contrast, Bloom’s (1999) study of baseball players associated greater pay dispersion with lower player performance. These bleak effects of pay dispersion have been explained by justice theories. Greater
dispersion may prompt feelings of inequity, distrust, and dissatisfaction, creating a disincentive for cooperative behavior in groups where work is interdependent (such as in baseball teams vs. golf; e.g. Lazear, 1989; Levine, 1991; Pfeffer, 1998), or when pay dispersion is not derived from employee inputs (Trevor et al., 2012).

Thus, critical to resolving these ambiguities is accounting for the complexity of pay dispersion’s effects; most contingencies have been studied at the group (e.g. incentive-based pay system, work interdependence; Shaw et al., 2002) as opposed to the individual level (e.g. pay; Bloom, 1999; Trevor & Wazeter, 2006). However, past research indicates that individuals’ pay relative to others moderates the relationship between pay dispersion and performance (Bloom, 1999), perceptions of pay equity (Trevor & Wazeter, 2006), and turnover (Messersmith et al., 2011; Pfeffer & Davis-Blake, 1992). Thus, while the literature is sparse, exploring individual-level moderators holds promise for understanding the relationship between pay dispersion and individual-level outcomes, such as trustworthiness perceptions. Surprisingly, research has yet to consider whether preferences or attitudes determine individuals’ responses to pay dispersion, regardless of existing evidence that personal attributes shape pay reactions, such as perceptions of pay fairness (e.g. Shaw, Duffy, Jenkins, & Gupta, 1999). Beersma, Hollenbeck, Humphrey, Moon, Conlon, and Ilgen (2003) argue that despite organisations’ efforts to create group-based reward systems that encourage trust, group members’ dispositions and natural proclivities to trust may ultimately counteract or nullify these attempts. Thus, a complete understanding of pay dispersion’s effects begs for a person–situation interaction approach.

Of course, the idea that characteristics of the person and situation interact to influence individual attitudes and behaviors is not new; it is a foundational concept in psychological and organisational research (e.g. Chatman, 1989; Schneider, 1987). Trust perceptions in particular are important to understand from a person–situation interaction perspective because they vary both between and within (i.e. by situation) persons (Fleeson & Leicht, 2006). Accordingly, we propose that the effects of pay dispersion on individuals’ perceptions of their group members’ trustworthiness may be best understood as a product of the pay structure and the individual. Individuals have different preferences for how resources and relationships should be organised, and these preferences should influence their expectations of others (and their trustworthiness perceptions) when pay is dispersed.

Hypothesis Development

Fiske’s (1991, 1992) relational models theory outlines four fundamental models that organise social cognition and interaction (i.e. communal sharing, authority ranking, equality matching, market pricing); indeed, just how
individuals conceive and approach their relationships is a manifestation of these models. Herein, we consider communal sharing preferences, which are closely aligned with tolerances for inequality and thus, are particularly appropriate for studying dispersion. Specifically, individuals preferring a communal sharing relational model would rather characterise their group by commonalities, not differences, between members; they see group members as united and equally deserving of resources. Communal sharing is predicated on equivalence between group members, consensual decision-making, and resource sharing, where “the group pools resources and operates on the principle, What’s mine is yours” (Fiske, Haslam, & Fiske, 1991, p. 657). Thus, when individuals wish to understand their relationships using a communal sharing model, they prefer that distinctions are not made between group members in terms of entitlement to social commodities, decision-making authority, and resource allocations (e.g. Fiske & Haslam, 1997; Fiske et al., 1991).

We suggest that preferences for communal sharing moderate the relationship between pay dispersion and trustworthiness perceptions. To the extent that a group’s pay structure mirrors preferences for group unity, individuals should perceive less uncertainty in the situation and, consequently, have more positive expectations of their group members’ behavior than when the pay structure runs contrary to their preferences. Specifically, individuals who prefer communal sharing should be suited to conditions of lesser pay dispersion which better approximate their view of the group as socially equivalent and entitled to equal resources regardless of differences in contribution or class (e.g. Fiske, 1991, 1992). Conversely, weak preferences for communal sharing suggest that individuals do not favor an even distribution of resources, and conditions of greater pay dispersion should better fulfill their needs and more closely reflect their values.

This argument is consistent with the person–environment fit (P–E fit) literature, which predicts positive individual responses when person and situation factors are congruent (e.g. O’Reilly, Chatman, & Caldwell, 1991). These benefits occur because a match between the person and the organisational environment evokes happiness, contentment, and comfort, along with trust, communication, and attraction between organisational members (Chatman, 1991; Edwards & Cable, 2009). Regarding trust specifically, in their study of fit between employee and organisational values (including values about pay), Edwards and Cable (2009) concluded that trust may best account for the effects of value congruence, despite the numerous rationali-
sations offered in the literature. These authors argue that congruence prompts positive feelings toward others, better communication, feelings of similarity, and less uncertainty, all of which foster employee beliefs that the organisation and its members are trustworthy.

Accordingly, we argue that the effects of pay dispersion on trustworthiness perceptions should be a function of individual communal sharing preferences. When individuals with low communal sharing preferences work in groups with low pay dispersion where distinctions between group members are minimised, negative feelings, dissimilarity, and uncertainty about others’ behavior should be heightened (e.g. Edwards & Cable, 2009). Furthermore, individuals with low communal sharing preferences should be more comfortable in groups that clearly distinguish between members, for example through power distinctions, differential resource allocation, and hierarchical decision-making. Hierarchy provides stability and coordination by guiding expectations, patterns of deference, and behaviors (Magee & Galinsky, 2008). Without this perceived stability, those who prefer hierarchy should be more uncertain about how they and their group members should and will act, negatively influencing their trustworthiness perceptions. By contrast, despite the general uncertainty that surrounds others’ behavior when pay dispersion is greater, those with weaker communal sharing preferences should have stronger perceptions of their peers’ trustworthiness in these conditions; while seemingly counterintuitive that pay dispersion would relate positively to perceptions of trustworthiness, these individuals will be more certain, confident, satisfied, and feel greater similarity with their group members in the hierarchical situations that they prefer and meet their expectations, and as a result, have more confident and positive expectations of the group. The reverse, however, should be true for individuals with stronger preferences for communal sharing who favor equality. Our formal hypothesis is thus: Communal sharing preferences (Level 1) will moderate the relationship between pay dispersion (Level 2) and trustworthiness perceptions (i.e. the perceived trustworthiness of one’s group members; Level 1), such that the relationship will be more positive (negative) when individuals report weaker (stronger) preferences for communal sharing.

PRESENT RESEARCH

Similar to past research, data drawn from an academic sample provided a rich empirical setting to test our hypothesis (e.g. Pfeffer & Langton, 1993). Work in this context has both independent and collaborative components. University professors in the sample were organised in groups (departments) with little crossover, making it a meaningful environment in which to measure trustworthiness perceptions, and allowing for pay dispersion to be measured at the department level. Thus, data were collected through differ-
sent sources: direct survey administration and public databases. In addition, we measured control variables. Specifically, pay based on transparent and objective standards should limit the extent to which political behaviors can successfully sway pay decisions (e.g. Shaw et al., 2002), and may thus be related to trustworthiness perceptions. We controlled for “pay-for-performance” to help alleviate this confound. We also controlled for participants’ perceived status, defined by an individual’s prominence and respect relative to others (e.g. Washington & Zajac, 2005). Status was controlled because higher status members are likely to experience more favorable outcomes in groups (e.g. Driskell & Mullen, 1990) and respond differently to inequality (Christie & Barling, 2010). Finally, to account for the potentially confounding effects of task interdependence, we controlled for it in our analyses. Groups with greater pay dispersion are likely to be less task interdependent because dispersing pay may be ineffective when interdependence is high (Pfeffer & Langton, 1988; Shaw et al., 2002). Likewise, trustworthiness perceptions may be influenced by or be a representation of the extent to which group members are required to work closely.

METHOD

Sample

We surveyed (in English) all 780 professors (226 assistant, 265 associate, 265 full, and 24 undisclosed) within 52 departments from a mid-sized, western Canadian university located in an English-speaking province. The university offers a wide variety of doctoral and professional degrees. The majority of the individuals surveyed held PhD degrees (630 with a PhD degree; 127 without; 23 undisclosed), and their pay varied widely: from $51,954 to $189,577 ($M = $96,273, SD = $24,420). The names of the individuals and departments were identified using the university’s academic calendar; we excluded professors from the university’s professional schools (medical and dentistry) given that members of these schools do not necessarily physically co-locate together. Participants were mailed a personally addressed letter requesting their participation (with a link to the electronic survey), along with a $2 gift certificate to a Canadian coffee shop. To ensure that the number of departments included was large enough to test our cross-level interaction (statistical power in multilevel models is determined more by the size of the Level-2 sample than Level-1 sample; Scherbaum & Ferreter, 2009), two weeks later an email reminder was sent. A total of 335 individuals responded yielding a 43 per cent response rate. However, 11 participants did not identify their department and were excluded from the analyses. The mean age of the participants was 49.38 years ($SD = 9.84$ years), 192 of whom were male.
Measures

*Pay Dispersion.* Each year the provincial government releases the names and salaries of employees at the focal university. Faculty members of the university are unionised. Floors and ceilings exist for the base salaries of professors depending on their rank. Similar to past studies (e.g. Bloom 1999; Shaw et al., 2002; Trevor & Wazeter, 2006), we created a measure of department-level pay dispersion\(^2\) using the coefficient of variation, calculated as the mean pay in the department divided by the standard deviation of pay in the department (see Harrison & Klein, 2007).\(^3\) The coefficient of variation was adjusted for department size because larger departments by nature allow for greater dispersion (see Beckman & Haunschild, 2002).

*Communal Sharing Preferences.* We used four items to measure preferences for communal sharing. Participants were asked on a scale from (1) *none of the time* to (5) *always*, how often they preferred that each statement should ideally be true in their department (see Vodosek, 2009, for data supporting the scale’s validity). An example item is “department members make decisions together by consensus”.

*Trustworthiness Perceptions.* Participants’ perceptions of their department members’ trustworthiness were measured using Parker, Williams, and Turner’s (2006) four-item measure on a scale from (1) *strongly disagree* to (5) *strongly agree*. An example item is “colleagues in my department can be relied on to do as they say they will”.

*Control Variables.* At the department level, we controlled for a department’s mean level of pay and pay-for-performance. The mean of a department’s pay is included in the calculation of the coefficient of variation. Harrison and Klein (2007) suggest that not controlling for the mean levels of pay would make disentangling pay dispersion effects from mean pay effects impossible. We created a proxy variable to capture “pay-for-performance”. To do so, we rank ordered members of the department by salary and the

\(^2\) While individuals may rely on multiple referents (such as employees in other departments or organisations) to determine pay fairness (e.g. Trevor & Wazeter, 2006), we focused on pay dispersion within their departments to be consistent with our relational models perspective (i.e. where communal sharing is conceptualised as preferences for egalitarian relationships in the department) and our dependent variable (i.e. trustworthiness of group members). Accordingly, the referent of our measures is commensurate.

\(^3\) We choose to use the coefficient of variation over the gini coefficient (another common operationalisation of pay dispersion that approximately represents the mean pay differential between all possible pairs of individuals in the population) because of its simple interpretation and very high correlation with the gini coefficient ($r = .96$).
value of research grants held (which are tied to research performance). The correlation between those distributions served as a proxy for the extent to which the pay distribution in the department reflected the performance differences of members. National research grant funding was measured as the amount of funding received from the three major federal granting agencies (the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanities Research Council of Canada) over the previous five years (the grants’ maximum tenures). Most grants issued by these agencies had a success rate of about 30 to 40 per cent. 4

We created a scale to measure our first individual-level control variable. Based on the definition of status provided previously, participants were asked, relative to the others in their department, whether they were “a prominent member of the department”, “a respected member of the department”, and “a high status member of the department” (rated from (1) strongly disagree to (5) strongly agree). Higher status should be associated with higher rank and tenure in the department, eliminating the need for multiple individual-level control variables; to test this, participants were asked to rate from (1) to a small extent to (5) to a large extent the degree to which status in their department was determined by rank \( (M = 3.49, SD = 1.17) \). Our second individual-level control variable is task interdependence; participants were asked to indicate the number of department members with whom they collaborated on research projects.

RESULTS

Confirmatory Factor Analysis

We first tested whether the three scales were distinct using confirmatory factor analysis. We compared the fit of a single-factor model to the proposed three-factor model; the latent variables of the multi-factor model were permitted to correlate. We evaluated a single-factor model to help determine whether our scales were artificially correlated due to common method variance; if so, we would expect a single factor to adequately account for the variance in our observed data (e.g. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The fit of the models was determined using the chi-squared goodness of fit index \( (\chi^2) \), the comparative fit index (CFI), and the root-mean-square

4 For more information about the success rates for grants from these funding agencies, please see the following websites: Canadian Institutes of Health Research (http://www.cihr-irsc.gc.ca/e/43944.html); the Natural Sciences and Engineering Research Council of Canada (http://www.nserc-crsng.gc.ca/doc/FactsFigures-TableauxDetailles2010-2011Tables_e.pdf); the Social Sciences and Humanities Research Council of Canada (http://www.sshrc-crsh.gc.ca/results-resultats/stats-statistiques/index-eng.aspx)
error of approximation (RMSEA). We compared the relative fit of the models using the chi-squared difference test \( \Delta \chi^2 \). The single-factor model did not provide acceptable fit to the data: \( \chi^2 (44, N = 324) = 774.38, p < .01, \) CFI = .58, and RMSEA = .23. The three-factor model provided acceptable absolute fit: \( \chi^2 (41, N = 324) = 125.55 p < .01, \) CFI = .95, and RMSEA = .08, and relatively better fit than the single-factor model \( \Delta \chi^2 = 648.83, p < .01 \). Thus, we treated each of the variables as distinct in our analyses.

**Analytic Strategy**

Descriptive statistics are presented in Table 1. The primary analyses for this study were conducted using random coefficient modeling (RCM) to account for the nested structure of the data; RCM is suited to our data because it partitions variance in the dependent variable into within- (Level 1) and between- (Level 2) group components. We used an interclass correlation (ICC) to determine the proportion of variance in trust occurring within and between departments. The results showed that 20 per cent of the variation in trustworthiness perceptions could be explained by department membership (ICC = .20). Accordingly, we proceeded by testing a cross-level moderation model that accounted for the nested observations of individuals within departments (Klein & Kozlowski, 2000). Our final model, which included pay dispersion (Level 2), communal sharing preferences (Level 1), and their interaction term after accounting for controls, was compared to a null (intercept-only) model with no independent variables and a model including only controls (see Table 2). We evaluated improvements in fit by comparing the change in the \(-2 \) Log Likelihood statistic (LR\( \chi^2 \)) (Singer & Willett, 2003). We grand-mean centered Level-2 independent variables and group-mean
Hypothesis Tests

Our hypothesis states that communal sharing preferences moderate the relationship between pay dispersion and trustworthiness perceptions. Table 2 shows that after accounting for control and focal independent variables, the cross-level interaction was significantly related to reports of group members’ trustworthiness. Supporting our hypothesis, the relationship between pay dispersion and trustworthiness perceptions was more positive when individuals reported weaker preferences for communal sharing. Further probing of the interaction using simple slopes (Figure 1) showed that pay dispersion was positively related to trustworthiness perceptions when communal sharing was centered Level-1 independent variables because doing so is most appropriate for testing cross-level interactions (Enders & Tofighi, 2007), and to avoid multicollinearity (e.g. Ployhart, Weekley, & Baughman, 2006).

### TABLE 2

Estimates for Trustworthiness Perceptions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
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<th>Model 2</th>
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<th>Model 3</th>
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<td>Intercept</td>
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<td>3.52**</td>
<td>.09</td>
<td>3.51**</td>
<td>.09</td>
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<td>.32</td>
<td>−.33</td>
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<tr>
<td>Status</td>
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<td>.29**</td>
<td>.07</td>
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<tr>
<td>Task Interdependence</td>
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<td>.03</td>
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<tr>
<td>Communal Sharing × Pay</td>
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<td>3.59</td>
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**Random components**

| Level-1 residual          | .83**   | .07| .66**   | .07| .59**   | .08|
| Level-2 intercept         | .21**   | .08| .24**   | .07| .24**   | .07|
| Random slope              | .06     | .12|         |  |         |  |
| Covariance (intercept and slope) | .10 | .07 |         |  |         |  |

**LRχ² test**

| 119.25** | 54.47** |

*Note: LRχ² is the change in the −2 Log Likelihood statistic across models. Model 2 was compared to Model 1; Model 3 was compared to Model 2.

*p < .05; **p < .01.
preferences were low ($b = 7.26$, $p < .05$), yet not significantly different from zero when communal sharing preferences were high ($b = -2.64$, $p = .47$).

Exploratory Analyses

Our dataset provided the opportunity to explore the possibility that (1) individuals respond similarly to dispersion in work rewards and resources other than pay, and (2) communal sharing preferences play a significant role in predicting how employees trust their group members when resources are determined on a strictly competitive basis and are more widely dispersed. First, employee working experiences are shaped by rewards and resources in addition to pay (e.g. Pfeffer & Davis-Blake, 1992), and thus, communal sharing preferences may interact with reward dispersion more generally to influence employees’ trustworthiness perceptions. In our sample, a reward salient and meaningful to participants is major research grants, and thus we explored participants’ responses to the distribution of grants in their departments.

Second, the salaries of the participants were driven by more than past performance, including factors such as rank and tenure. Accordingly, while organisations often base pay on rank and tenure, it is uncertain whether our results hold when the sources of pay (and thus, pay dispersion) are different. Because pay distributions should be less truncated when pay is determined strictly by performance, it remains to be seen whether our results would hold in contexts that mimic a tournament model more closely and when pay is derived primarily on performance. While pay was not modeled as a

tournament in the university sampled, the major research grants were awarded selectively to participants, and were determined by a competitive, merit-based, and transparent process (see the “Measures” section). Thus, while exploratory, the interaction between grant dispersion and communal sharing preferences on trustworthiness perceptions provides an additional test of our hypothesis, giving insight into the generalisability of the findings.

We re-ran our analyses with communal sharing preferences, grant dispersion (adjusted for department size), and their cross-level interaction as the focal predictors in the models. Results showed that the interaction was significant ($\gamma = -.76, p < .01$). The nature of the interaction mirrors our results for pay dispersion (see Figure 2) despite only a moderate correlation between pay dispersion and grant dispersion ($R = .33$).

FIGURE 2. Plotted cross-level interaction for grant dispersion $\times$ communal sharing preferences on trustworthiness perceptions.

*Note:* Communal sharing preferences plotted at one standard deviation above (“high”) and below (“low”) the mean.

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**GENERAL DISCUSSION**

Decisions about pay are of the utmost consequence in organisations (e.g. Bloom, 2008; Pfeffer & Davis-Blake, 1992; Pfeffer & Langton, 1988). As a result, understanding how to best structure pay has become a topic of interest to scholars (e.g. Bloom, 2008). Our research explored individual-level trust effects of pay dispersion in groups. We found no evidence for direct effects of pay dispersion on trustworthiness perceptions. These results are consistent with research illustrating the complexity of pay dispersion’s effects and the need for theoretical development (e.g. Shaw & Gupta, 2007; Shaw et al., 2002). The most intriguing findings of this study are those demonstrating when disparity in pay was more likely to foster trust perceptions.
While research has started to explore conditions under which pay dispersion yields favorable and unfavorable results, little is known about how individual preferences contribute to these outcomes (e.g. Begley & Lee, 2005; Trevor & Wazeter, 2006). We proposed that communal sharing preferences influence responses to pay dispersion, and our findings suggest that trustworthiness perceptions vary as a function of pay dispersion and preferences for how relationships and resources should be distributed. As a result, the present research provides evidence of the role that individual attributes play in determining the efficacy of pay dispersion.

Notable is the nature of the cross-level interaction that emerged from our data. For individuals with weaker preferences for communal sharing, pay dispersion was positively related to trustworthiness perceptions, suggesting that greater pay dispersion is not always detrimental to trust, but may positively shape perceptions of trustworthiness. However, for those with stronger preferences for communal sharing, the relationship that emerged between pay dispersion and perceived trustworthiness of group members, while negative, was insignificant. This pattern may have emerged because individuals with communal sharing preferences may be more trusting in general (given that communal sharing requires deep interdependencies; Sheppard & Sherman, 1998), and thus their perceptions of group members’ trustworthiness is less affected by the situation. Thus, because more moderate levels of pay dispersion were observed in our data compared to what might be expected in highly competitive industries, replicating our findings in samples with highly stratified pay could further test this possibility.

In addition to our hypothesised findings, we also included exploratory analyses. The results of these analyses showed that communal sharing moderated the relationship between grant dispersion and perceived trustworthiness. These results highlight the importance of reward distributions more generally and suggest that individual attributes may alter the effects of reward structures even in highly competitive or merit-based contexts, enhancing confidence in the robustness of our results despite the nature and determinants of pay within our sample.

Theoretical and Empirical Contributions

Recognising that individuals have different preferences for hierarchical structures, and that these preferences shape their responses to pay dispersion, both complicates and enriches the pay dispersion literature. The person–situation interaction hypothesis tested herein complements tournament and fairness theories (e.g. Bloom, 1999; Lazear & Rosen, 1981), shedding new light on why findings from the pay dispersion literature have not been consistent. For instance, individual differences may explain why some individuals are motivated by greater dispersion, whereas others perceive inequities as unjust.
discouraging. If so, accounting for this complexity in theories of pay dispersion will be necessary; likewise, researchers will be challenged to collect data that captures both individual attributes and group-level pay dispersion. Yet, with a large individual differences literature on which to draw, integrating a person–situation interaction approach provides a wide platform for future theory development.

Another important contribution from our study stems from our concentration on trustworthiness perceptions. Previous pay dispersion research has alluded to trust concepts as central mechanisms in understanding the efficacy of pay dispersion (e.g. Ensley et al., 2007; Levine, 1991). Trust perceptions are inexplicitly intertwined with cooperation (Johnson & Lord, 2010); we argue that without an appreciation of trust and cooperation in groups with dispersed pay, understanding group performance (i.e. a focus of the pay dispersion literature) is impossible. However, empirical investigation into the relationship between pay dispersion and trust perceptions is limited given that most empirical studies have relied on archival sources (e.g. Bloom, 1999; Pfeffer & Langton, 1993; Shaw et al., 2002; Trevor & Wazeter, 2006) and trust concepts have been left unmeasured. We collected self-reported data, and therefore, could explore employee perceptions of trustworthiness directly. In this way, we make a significant empirical contribution to the pay dispersion literature.

While our exploratory analyses confirmed that the study’s results hold when the opportunity for rewards to be completely dispersed in groups exists, they also point to the need to study reward and resources distributions in addition to pay. An inherent assumption of the pay dispersion literature is that rewards can be structured to ultimately influence employee attitudes and behaviors. Pay is one reward important to employees, but the salience of other rewards is clear (e.g. status, resources, power; Pfeffer & Davis-Blake, 1992). For example, Christie and Barling (2010) illustrated the importance of dispersed awards to National Basketball League players. By exploring grant dispersion in our study of academics, we showed that, like pay dispersion, how other salient rewards are dispersed in groups shapes trust. Therefore, a complete understanding of pay dispersion’s effects may require accounting for reward dispersion more generally, especially if pay is incongruent with these other incentives. Yet, to the extent that pay and other important rewards are congruent, their distribution may represent the status structure of the group more generally (Christie & Barling, 2010). Understanding status structures then may help researchers to more clearly understand the mechanisms underlying pay dispersion’s effects.

Practical Contributions

The findings of this research also have practical implications for organizational decision-makers; they suggest that managers will face challenges when
deciding how to structure pay because a single structure is unlikely to be universally favored. Thus, determining employee preferences before making broadly based pay decisions is necessary. Developing strong culture, leadership, or socialisation practices could help develop shared preferences or values among employees (e.g. Salvaggio, Schneider, Nishii, Mayer, Ramesh, & Lyon, 2007) that would simplify decisions about pay structure. Conversely, if a pay structure is firmly in place, managers can carefully compose groups, selecting those individuals who best fit the environment (Schneider, 1987). In addition, career counselors and coaches should consider the way in which individual preferences moderate the effects of pay dispersion in any guidance that they offer.

Limitations and Future Research

This research has several strengths. For example, the independent and moderator variables were drawn from multiple sources, lessening problems of mono-method bias and hypothesis guessing, and participants in the sample worked at a single organisation, helping to hold constant potential organisational-level confounds such as policies, culture, and performance. However, despite these strengths, several limitations should guide future research. First, we focused on preferences for communal sharing, but other individual preferences may also be of interest. Future research may wish to consider more specific preferences, such as those regarding pay, pay structures, or pay ranges (e.g. Tang, 1996) directly (in which case, researchers could use polynomial regression to explore P–E fit and congruence lines specifically; e.g. Edwards & Parry, 1993), or wider preferences as reflected in cultural values. Personality traits may also account for the relationship between pay dispersion and individual outcomes. Trevor and Wazeter (2006) suggest that equity sensitivity may determine individuals’ reactions to pay structure, where more sensitive individuals could fit better in compressed distributions.

Second, this study used a cross-sectional design; future research could benefit from longitudinal data, which resolve issues of temporal ordering. Researchers applying a longitudinal approach could also pose a number of unanswered questions. For example, perhaps over time individuals’ preferences develop (e.g. in our sample, professors’ preferences for communal sharing may have strengthened upon being socialised into a unionised environment), or change in response to the pay structure. For example, our data show a positive correlation between status and communal sharing preferences; it could be that as individuals gain status, they feel more secure in their roles and are more comfortable sharing resources. Changing preferences mean that individual responses to pay dispersion would not be static over time. Currently, little is known about how individuals react to changes in pay
dispersion, which may occur strategically at the organisational level. Changes in pay dispersion may also be brought on by the loss or addition of group members (especially “star” performers; see Bloom, 2008), which is more likely to occur when individuals’ preferences are not satisfied by the group’s distribution of pay. Tenure will then be an important variable to incorporate into future studies of reactions to changes in pay dispersion. Understanding individuals’ awareness of alterations in pay structure and how they adapt to any changes could provide deeper insight into the question of whether and when pay dispersion is effective. Perhaps in the midst of changes, employees focus on pay comparisons with referents in other groups or organisations, which should influence their pay satisfaction (e.g. Bordia & Blau, 2003). Thus, future research should consider how pay comparisons with multiple referents complicates our understanding of pay structure efficacy (e.g. Trevor & Wazeter, 2006).

Third, the outcome and moderator variables in this study were self-reported. While trustworthiness perceptions and communal sharing preferences may be difficult to measure differently, additional external perceptions of trustworthy behavior or other cooperative behaviors would enhance this research. Past research has measured cooperative behaviors using supervisor or co-worker reports, which may limit any social desirability or faking biases that can result from self-reported accounts (e.g. Kamdar & Van Dyne, 2007). Accordingly, we recommend that the findings of this study be interpreted cautiously in light of the measures used.

Next, our sample was drawn from an organisation that publicly reports all salaries of the sampled employees. As a result, employees should have relatively accurate depictions of the level of pay dispersion in their departments. Generalising the findings to organisations where complete pay secrecy is practiced may be unwarranted if secrecy distorts employee perceptions of actual levels of pay dispersion. In these cases, it would be intriguing to explore how perceptions of pay dispersion relate to trust in management.

Finally, before generalising the results of this research, features of the organisation and research context should be considered. Like most Canadian universities, the organisation sampled is unionised, suggesting that pay may be more closely related to rank than to merit or performance in this environment as compared to non-unionised organisations. In addition, the pay ranges (and by extension, pay dispersion) in this organisation may be more truncated than in private sector organisations; perhaps pay dispersion would yield a stronger and/or different association with the study variables if salaries were completely unconstrained by floor and ceiling limits. Thus, the findings presented here may be more reflective of organisations that create salary schedules based on rank, and utilise salary floors and ceilings. However, that a significant cross-level interaction emerged in this research context speaks to the breadth of the tournament analogy of pay dispersion, which extends beyond traditional
“winner-takes-all” contests (Lazear & Rosen, 1981). Indeed, notable is that our exploratory analyses showed that dispersion in research grants (which are merit-based and widely dispersed) interacted similarly with communal sharing preferences to predict trustworthiness perceptions. However, while both salary and research grants are important resources to academics, given their differences, the extent to which the findings can be replicated in organisations with considerably different pay systems (e.g. very strong pay-for-performance) remains to be tested in future research.

Conclusion

Considerable debate remains on the presumed consequences of dispersed pay. The current study accounts for some past discrepancies in research findings. Specifically, individuals’ preferences for communal sharing moderated the effects of pay dispersion on perceptions of trustworthiness within the group, suggesting that understanding pay dispersion’s effects at the individual level will require an appreciation of the role that individual attributes play in shaping trust (and perhaps other outcomes as well). Replicating these results in other organisations and using longitudinal data would further advance our understanding of pay structure’s effects, both conceptually and practically—a critical issue for scholars and practitioners alike.

REFERENCES


