
Extending Evidence for Inter-Individual Differences in Social Comparison Orientation to Pay Fairness Evaluations

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**Kimberly K. Merriman** 

Manning School of Business, University of Massachusetts
Lowell, Lowell, MA, USA

Atthaphon Mumi

Maharakham Business School, Maharakham
University, Maha Sarakham, Thailand

Lauren A. Turner

University of Massachusetts Lowell, Lowell, MA, USA

Abstract

This research extends the limited support for social comparison tendencies as an individual difference variable and a key moderator of pay fairness perceptions. Through three studies comprised of five data collections, the following adapts a measure of social comparison orientation to pay contexts and examines its association with heightened perceptions of distributive fairness in hypothetical and actual scenarios of pay equity, over-reward, and under-reward. In keeping with Gibbons and Buunk's construal, our targeted operationalization of social comparison orientation demonstrated inter-individual variation and intra-individual stability, providing corroboration of distinct individual predispositions towards social comparison. Our experimental findings further support this point in that socially relative pay

Corresponding Author:

Kimberly K. Merriman, Manning School of Business, University of Massachusetts Lowell, One University Avenue, Lowell, MA 01854, USA.

Email: kimberly_merriman@uml.edu

information had a stronger impact on pay fairness evaluations among individuals predisposed to socially compare and a relatively weak impact on those that were not. This investigation is complementary but distinct from the prevalent focus on situational factors as drivers of social comparison. Further, examining this point in the context of pay is timely based on the recent level of public and managerial attention given to the fairness of relative pay differences.

Keywords

Social comparison orientation, relative pay, pay equity perceptions, distributive fairness, individual difference

Introduction

Gibbons and Buunk's (1999) seminal findings regarding inter-individual differences in social comparison tendencies were published more than 15 years ago. Research in the meantime has remained largely focused on social comparison as a state-level variable influenced by situational factors (see Garcia, Tor, & Schiff, 2013 for overview; Mussweiler, 2003). These two views of social comparison are distinct, but not opposed. Rather we would expect the situational and individually inherent aspects of social comparison to have an interactive relationship. That is, it stands to reason that individuals who have a predisposition to socially compare should react stronger to situationally cued social comparison information (Thau, Aquino, & Wittek, 2007). We extend support for this supposition by modeling social comparison orientation as a moderator of the relationship between socially comparative pay information and pay fairness evaluations. This study's intention, and one of its key contributions for research, is to extend the limited support for social comparison tendencies as an individual difference variable, in keeping with a recent call for empirical attention to this point (Schneider & Schupp, 2014).

Further, we consider pay fairness evaluations to be a highly relevant study context since various distributive fairness theories invoke the concept of social comparison, but do not acknowledge differences between individuals in frequency of social comparisons. The topic of relative pay comparisons has also garnered much public attention as of late. Media worldwide are scrutinizing who earns more and construing these relative comparisons in terms of fairness. Organizational scholars, on the other hand, have broadened their model of how individuals form pay fairness perceptions, going well beyond social comparisons to encompass non-social benchmarks, procedural fairness, attributions, and more (e.g., Folger, 1986a, 1986b, 1987; Folger & Cropanzano, 1998, 2001). These elaborations have undoubtedly added precision to our understanding of how fairness perceptions are formed. Yet in the process, the basic notion that

pay is socially compared seems to have fallen from scholarly favor—despite having risen in public interest. We set aside the many other dimensions and attributes of the fairness judgment process to better understand one arguably important and timely aspect of how individuals come to see their own pay as (un)fair.

Theoretical background

Social comparison in models of distributive fairness

The concept of social comparison is common to multiple theories of distributive fairness, including relative deprivation, referent cognition theory, and equity theory. However, these theories do not acknowledge inter-individual variation in social comparison tendencies, but instead treat individuals as uniformly driven in their social comparison behaviors when given the same situational contingencies (Schneider & Valet, 2013). Nonetheless, the theories are relevant to the present research as a way to understand the fundamental role of social comparison in the evaluation of pay outcomes.

Relative deprivation theory states that feelings of resentment derive from comparative rather than absolute disadvantages and, in its egoistic form, can result from an individual's comparison to referent others (Crosby, 1976; Runciman, 1966). Equity theory more specifically models how inequity is computed through social comparisons (Adams, 1965). Equity theory has been applied predominantly to organizational behavior and particularly to pay or reward inequity (Greenberg, 1990). It states that employees compare their own ratio of outcomes received and inputs contributed to a referent other's ratio of exchange. A perceived inequality of the self-versus-other ratio causes distress and, in turn, motivates efforts to restore equity or to leave the exchange relationship altogether (Adams, 1963, 1965).

Referent cognitions theory (Folger, 1986a, 1986b, 1987) is a fairness evaluation framework that integrates aspects of relative deprivation and equity theory and highlights the role of procedural judgments. Per this theory, mental simulations invoke what could have been, and this provides individuals a frame of reference to judge the relative favorability of outcomes. Social comparison is put forth as one common source for these cognitions. Although referent cognitions theory and subsequent frameworks (Folger & Cropanzano, 1998, 2001) have elaborated on the means through which outcome judgments are formed, social comparison remains a basic way in which inequity perceptions may emerge. By considering individual differences in tendency to socially compare, the present study implicitly highlights the point that some individuals may rely more on other identified means through which pay fairness is evaluated, such as on intrapersonal referents (previous experiences and mere speculation) or

system referents that stem from promises made by the organization (Goodman, 1974; O'Neill & Mone, 2005).

Social comparison as an individual difference

Social comparison theory as initially described by Festinger (1954) portrays individuals as universally driven to evaluate themselves. Festinger's original conceptualization posited uncertainty affecting the self as the overarching motivation for social comparison. It is now generally accepted that being in a state of uncertainty promotes a need for social comparison (Stapel & Tesser, 2001). In social comparison research, this has been interpreted broadly to include essentially any form of uncertainty that has relevance to who you are or what your future holds, including situationally induced uncertainty, such as change and competition, and individual characteristics associated with self-uncertainty, such as low self-esteem (see overview in Gibbons & Buunk, 1999).

Whereas researchers have acknowledged that certain types of individuals may be more likely to socially compare (e.g., Hemphill & Lehman, 1991; Steil & Hay, 1997), Gibbons and Buunk (1999) were the first to identify social comparison tendency as an individual difference in itself, potentially able to account for variation in social comparison behaviors beyond situational influences. The concept of inter-individual variation in social comparison tendencies was drawn from the notion that people who are chronically uncertain about aspects of the self would be more inclined to engage in social comparison than others. Gibbons and Buunk's developed a measure to capture the variation among individuals in social comparison orientation and demonstrated that one's tendency to socially compare is relatively stable over time, even though social comparison behaviors also reflect the temporary influence of contextual factors. Further, social comparison orientation was distinct from (only moderately correlated with) theoretically linked trait variables such as other orientation and neuroticism, as expected since these other constructs do not capture the comparison motive of self-evaluation.

Subsequent research and empirical support for inherent social comparison tendencies is limited, particularly in relation to fairness evaluations. A search uncovered two relevant studies. Thau et al. (2007) found the relationship between employee fairness perceptions, and their antisocial work behavior was stronger for those high in social comparison orientation, with situational factors controlled. Fairness judgments in this case pertained to interpersonal treatment from their supervisor. Another study focused more specifically on distributive fairness evaluations (Schneider & Valet, 2013). Using panel data representative of the German working population, a study found that individuals with relatively low earnings compared to their respective occupational means also reported lower justice perceptions regarding their earnings, and this relationship was strongest for those high in social comparison orientation.

The researchers attribute this to the transformation of comparative information to self-evaluation by those prone to social comparison, though causality is only inferred due to the cross-sectional research design.

Our following investigation uses a multi-study, quasi-experimental design to extend support for the emerging findings on inter-individual variation in social comparison tendencies. We first empirically adapt the measurement of social comparison orientation for the domain of pay (Study 1) before testing it as a moderator of pay fairness evaluations when social comparison information is manipulated in experimental vignettes (Study 2) and within an actual paid task (Study 3). Through experimental design, we are able to hold situational influences constant in order to focus on inter-individual differences in social comparison. Informed consent was obtained with each study for experimentation with human subjects.

Study 1: Adaptation of the social comparison orientation scale

The original measure of social comparison orientation developed by Gibbons and Buunk (1999) addresses broad aspects of self-comparison such as one's social skills, accomplishments, opinions, experiences, approach to problems, and loved ones (as a reflection on oneself). Items from the original generalized measure were adapted by exchanging these broad terms for targeted terms (compensation, rewards, pay, and earnings) or phrases. For instance, "I often compare myself with others with respect to what I have accomplished in life" was translated to "I often compare myself to others with respect to what I am earning." Responses were made on a seven-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). One of the original 11 scale items, pertaining to comparison of loved ones rather than oneself, had no direct translation for the present purpose and was not included. Prior to conducting the experiments of interest, we conducted two data collections to assess factor structure and internal consistency of the measurement items, and within-person stability over time (test–retest reliability).

Our logic in adapting the social comparison orientation scale to our domain of study is consistent with other "dispositional" measures. For instance, achievement goal orientation has been operationalized at the level of major life domains such as work, academics, and athletics (see Vandewalle, 1997). This is because assessment of dispositional characteristics at a global level—without reference to or clarity about a particular context, and/or control for contexts of disinterest—risks overlooking relevant within-person variance across behavioral domains (Mischel & Peake, 1982; Mischel, Shoda, & Mendoza-Denton, 2002). We contend that domain-specific operationalization of social comparison orientation is particularly relevant since uncertainty pertaining to the self is

Table 1. Study I: Confirmatory factor analyses.

Model	χ^2	df	RMSEA	IFI	CFI
Revised two-factor model	109.08	34	.14	.91	.91
Initial two-factor model	138.13	34	.17	.88	.88
One-factor model	209.95	35	.21	.80	.79

RMSEA: root-mean-square error of approximation; IFI: incremental fit index; CFI: comparative fit index.

an overriding motivation for social comparison (Festinger, 1954; Stapel & Tesser, 2001). That is, it stands to reason that individuals can hold different levels of inherent self-certainty in different life domains and certainly with respect to a single domain versus a global aggregation of all life domains.

Confirmatory factor analysis

Data were collected via a survey of working adults solicited through a part-time MBA program. We obtained 114 completed surveys from a pool of approximately 140 individuals, for a response rate of 81%. All respondents were employed and had an average of 4.7 years of service at their current organization and an average of 11.1 years of overall work experience. Occupationally, 32% of respondents identified themselves as managerial or executive, 24% professional, 13% engineer, and 12% sales. The remaining respondents were divided among office/clerical, technical, human resources, consultant, and other. The sample had an average age of 34 years, was 61% male, and was predominately (83%) Caucasian.

Gibbons and Buunk (1999) reported a two-factor structure in their development of the generalized measure of social comparison orientation, generally in keeping with Festinger's (1954) conceptualization. Their first factor emphasized relative comparisons (How am I doing?), and the second factor reflected interest in others thoughts and opinions (What should I think or feel?). We encountered equivalent results with the adapted scale items. Factor loadings called for the repositioning of one item from factor 2 to factor 1. However, Gibbons and Buunk (1999) reported empirical inconsistency in factor loading for their item with the same prefix and a subsequent revalidation of the Gibbons and Buunk scale also found the item loaded on factor 1 rather than factor 2 (Schneider & Schupp, 2011, 2014). As shown in Table 1, the revised two-factor model provided an acceptable fit to the data and indicated a better fit than the one-factor model. Table 2 lists all items and loadings for the two-factor structure. Henceforth in the paper, the two factors are labeled *SCOrrelative* and *SCOpinion*.

Scale reliability

Additional data were collected via a survey of part- and full-time MBA students, reflecting an adult population that is typically working or with work experience. In order to assess temporal stability of the measures, the survey was

Table 2. Study 1 scale items and standardized loadings for targeted social comparison orientation.

Item	Standardized loadings	
	Relative comparison	Others' opinions
I pay a lot of attention to how I am compensated compared with how others are compensated at work.	.85	
If I want to find out how well I am paid, I compare what I am paid with what others are paid.	.84	
I am not interested in comparing my compensation to others. (R)	.75	
I often compare myself to others with respect to what I am earning.	.78	
I never evaluate my compensation relative to that of other people. (R)	.71	
I often compare how I am doing in terms of compensation with other people.	.85	
I like to talk with others about mutual experiences with rewards at work.		.59
I often try to find out what others think who face a similar compensation situation as I face.		.92
I like to know what others in a similar compensation situation would do.		.91
I try to find out what others think about their compensation.		.81

Note: The table presents results for the revised two-factor model.

administered twice, one or two weeks apart depending on the class schedule. Anonymity of participants was maintained through use of a unique identifier used to match time 1 and time 2 responses, and no demographic or otherwise identifying information was collected. We obtained 80 completed surveys from a pool of 99 individuals during time 1 survey administration, for a response rate of 81%. Pairing of time 1 and time 2 responses and listwise deletion of missing data resulted in 61 completed, matched surveys.

Cronbach's alphas for each of the two factors indicated good internal consistency (Nunnally, 1978): $\alpha = .88$ (time 1) and $\alpha = .87$ (time 2) for the six items that comprised *SCORelative*, and $\alpha = .80$ (time 1) and $\alpha = .84$ (time 2) for the four items that comprised *SCOopinion*. We also conducted test-retest reliability to assess temporal stability. Social comparison orientation is considered a relatively stable characteristic that is also sensitive to situational factors (Gibbons & Buunk, 1999). Thus some variation over time is expected. The following correlation coefficients were indicated by the time 1 and time 2 scores (one to two weeks apart) of the data from this scale reliability sample: *SCORelative*, $r = .75$ and *SCOopinion*, $r = .63$. Results suggest temporal reliability is good (Nunnally, 1978). The results are comparable to those found by Gibbons and Buunk.

Two quasi-experimental studies follow to examine whether individual social comparison orientation moderates the strength of the expected effect of social comparison information on perceived pay fairness. Study 2 conveys social comparison information through short vignettes. Study 3 involves social comparison information embedded within an actual paid task.

Study 2: Scenario-based experiments in predicting distributive fairness

In this study, we examined the predictive validity of *SCOrelative* and *SCOopinion*, with specific attention paid to further distinguishing these two factors. Employing two additional data collections, we investigated whether perceptions of distributive fairness are related to individual tendency to socially compare. Distributive outcomes were manipulated through experimental scenarios to reflect conditions of under-reward, over-reward, and equity. Following the distributive fairness theories and cross-sectional findings (Schneider & Valet, 2013) outlined earlier, we expect only *SCOrelative* to influence pay fairness evaluations. This is consistent with Gibbons and Buunk (1999) initial scale development in that they found the two dimensions of social comparison orientation highly correlated but discriminable and suggested there may be contexts in which one dimension holds more relevance.

Experimental procedure

Participants were presented with a series of pay scenarios, one at a time, and asked to rate whether the amount of pay or bonus they are to receive seems fair. *SCOrelative*, *SCOopinion*, and demographics were assessed after the scenarios were completed. Outcome equity within the scenarios was manipulated in keeping with equity theory formulations. That is, inputs and outcomes were highlighted for the respondent relative to a referent other. All inputs were explicitly held equal, following extant literature suggesting individuals are more sensitive to variation in outcomes versus inputs (King, Miles, & Day, 1993), while outcomes were manipulated to reflect conditions of under-reward, over-reward, and equity.

Table 3 lists each scenario. Importantly, we included pay conditions in which we expect those higher in *SCOrelative* to respond more favorably (equitable pay) and less favorably (under-reward) relative to those lower in *SCOrelative*. In this way, we can eliminate the possibility that those higher relative to lower in *SCOrelative* simply find all pay outcomes less fair. We also include a control condition (over-reward) in which *SCOrelative* should have no influence on pay fairness evaluations. Our reasoning is that individuals are less sensitive to over-reward versus under-reward inequity (Adams, 1965; e.g., Shore, 2004) and social comparison information holds little importance in the context of highly positive outcomes, even for those most likely to seek this information. For instance,

Table 3. Study 2 experimental scenarios.

Under-reward outcome	Over-reward outcome	Equitable outcome
You are a professor of accounting that is joining a new university at a pay rate of \$138,000 per year. The other three accounting professors at your new university (all similar to you in ability and experience) earn \$139,000, \$144,000, and \$147,000 per year.	You are a professor of accounting that is joining a new university at a pay rate of \$138,000 per year. The other three accounting professors at your new university (all similar to you in ability and experience) earn \$137,000, \$132,000, and \$127,000 per year.	You are a professor of accounting that is joining a new university at a pay rate of \$138,000 per year. The other three accounting professors at your new university (all similar to you in ability and experience) earn \$138,000, \$137,900, and \$138,100 per year.

findings show that receiving positive feedback on a test diminishes interest in how others performed (Pyszczynski, Greenberg, & LaPrelle, 1985). The findings taken together will provide stronger support for the posed mechanism, that those higher relative to lower in SCOrrelative process social comparison information more saliently for self-evaluation even when that information is explicit and obvious to all.

Methods

Sample. Two samples were collected (labeled samples C and D). In both cases, the scenario and survey were administered online to a sample of working adults enrolled in a part-time MBA program. For sample C, 71 responses were obtained from a pool of 95 individuals, for a response rate of 75%. Respondents had an average of 4.4 years of service at their current organization and an average of 8.5 years of overall work experience. Occupationally, 41% of respondents identified themselves as managerial or executive, 18% professional, and 16% engineer. The remaining respondents were divided among sales, office/clerical, technical, human resources, consultant, and other. The sample had an average age of 31 years, was 72% male, and was predominately (85%) Caucasian.

For sample D, 85 responses were obtained from a separate pool of 107 individuals, for a response rate of 79%. Respondents had an average of 3.7 years of service at their current organization and an average of 9.0 years of overall work experience. Occupationally, 44% of respondents identified themselves as managerial or executive, 24% professional, and 11% engineer. The remaining respondents were divided among sales, office/clerical, technical, human resources, consultant, and other. The sample had an average age of 32 years, was 67% male, and was predominately (82%) Caucasian.

Measures. *SCOrrelative* and *SCOOpinion* were assessed using the six-item and four-item scales, respectively, detailed under Study 1 and shown in Table 2. To assess perceptions of distributive fairness, each respondent rated the fairness of their hypothetical pay outcome on a seven-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Results

Tables 4 and 5 report the means, standard deviations, and bivariate correlation coefficients of variables used in the analyses from samples C and D, respectively. Alpha reliabilities for each multi-item measure are provided in parentheses along the diagonal.

Zero-order correlations provide preliminary support for our contention that inter-individual differences in social comparison tendencies are significantly related to pay fairness evaluations in the context of social comparison information. Data from sample C indicated that *SCOrrelative* was significantly intercorrelated with perceptions of fairness for under-reward inequity ($r = -.21, p < .05$) and not for over-reward inequity ($r = -.06, ns$), in keeping with the notion that individuals are less sensitive to over-reward and have less interest in social

Table 4. Study 2 sample C Pearson correlations and descriptive statistics ($n = 71$).

Variable	Mean	SD	1	2	3	
1. Under-reward fairness	3.90	1.49				
2. Over-reward fairness	4.66	1.57	.24*			
3. <i>SCOrrelative</i>	4.41	1.37	-.21*	.07	(.91)	
4. <i>SCOOpinion</i>	4.15	1.22	-.06	.12	.59***	(.78)

Note: *SCOrrelative*: social comparison orientation, interest in relative comparison; *SCOOpinion*: social comparison orientation, interest in others' opinions.

Reliabilities (α) reported in parentheses.

* $p < .05$, *** $p < .001$, single-tailed.

Table 5. Study 2 sample D Pearson correlations and descriptive statistics ($n = 85$).

Variable	Mean	SD	1	2	3	4
1 Under-reward fairness	4.01	1.64				
2 Over-reward fairness	4.71	1.57	.22*			
3 Equity fairness	6.00	.99	-.02	.15		
4 <i>SCOrrelative</i>	4.24	1.18	-.20*	-.05	.37***	(.89)
5 <i>SCOOpinion</i>	3.67	1.19	.05	-.03	.05	.39*** (.82)

Note: *SCOrrelative*: social comparison orientation, interest in relative comparison; *SCOOpinion*: social comparison orientation, interest in others' opinions.

Reliabilities (α) reported in parentheses.

* $p < .05$, *** $p < .001$, single-tailed.

comparison information in highly positive contexts. Data from sample D replicated this pattern and further indicated a significant correlation between *SCOrrelative* and fairness perceptions for an equitable outcome ($r = .37, p < .001$).

SCOopinion was not significantly related to fairness perceptions across any of the conditions in samples C and D. Thus, the overall results suggest that *SCOrrelative* is the more relevant dimension of social comparison orientation in the domain of pay fairness evaluations. Therefore, our next study focuses exclusively on *SCOrrelative*.

Study 3: Paid-task experiment in predicting distributive fairness

Study 3 investigated perceptions of distributive fairness in relation to *SCOrrelative*, but with several key differences to enhance insights. Study 3 takes place in an actual paid context to test generalizability beyond hypothetical scenarios. The distributive outcome was held constant in this experiment (i.e., all employees were paid the same), and instead employee inputs inherently varied based on two distinct employee skill classifications. Also, the measurement of *SCOrrelative* was conducted one to four days prior to the presentation of social comparison information and assessment of fairness perceptions in order to minimize the potential for common method bias and to further inform temporal robustness.

Experimental procedure

Participants were hired through Amazon Mechanical Turk (MTurk) to complete an initial and follow-up research survey. The initial survey paid a somewhat attractive rate relative to the time allotted to complete the task, and considering the typical rate paid to the average MTurk worker. However, there is also a category of above average MTurk workers that are certified as Masters based on their proven work history, accuracy, and reliability. Masters generally garner higher pay than the average MTurk worker by qualifying for higher paying tasks. For the experiment, workers were hired in batches in order to vary the stipulated minimum level of worker qualifications so that approximately half of the participants were certified Masters and the remainder were not. In sum, the pay outcome was held constant while employee inputs were varied based on the presence or absence of the Masters qualification.

The initial survey assessed *SCOrrelative*, participant demographics, and an engagement check and included distractor questions so respondents would remain naïve as to the study's purpose. Note that although the same pay rate was paid to all, participants were only initially privy to the pay rate paid the small batch in which they were recruited. After completion of the first survey, all respondents were contacted one to four days later and offered additional payment

to complete a second short survey. The follow-up survey provided social comparison information regarding the initial pay rate and then assessed perceptions of fairness. It stated: The typical rate recently paid to all MTurk workers for completing the X minute research survey was \$X. Does this pay practice seem fair? The intention was to provide a point of social comparison for the initial pay received that would reflect a subjectively favorable comparison for non-Masters and a subjectively unfavorable comparison for Masters. The salience of this social comparison information for evaluative purposes, and therefore its influence on pay fairness ratings, was expected to vary based on the degree of individual *SCOrrelative*.

Said another way, we predict individual *SCOrrelative* and Masters status will have an interactive effect on pay fairness perceptions. *SCOrrelative* will have a negative relationship with fairness perceptions for Masters. At the same time, regarding the same pay practice, *SCOrrelative* will have a positive relationship with fairness perceptions for non-Masters.

Methods

Sample. The sample consisted of freelance workers hired through Amazon Mechanical Turk (MTurk), an online marketplace for completion of short, “human intelligence” tasks. This type of environment provides an ideal blend of naturalistic setting and experimental control (Aguinis & Edwards, 2014; Aguinis & Lawal, 2012). Participants were hired based on the minimum criteria of U.S. residency, to limit potential cultural confounds, and prior completion of at least 100 tasks at a minimum of a 95% success rate. As noted earlier, certain hiring batches called for higher qualifications by restricting participation to those with the Masters certification. Each participant was assigned a qualification code that prevented them from completing the survey a second time.

A total of 182 workers were hired over the course of three weeks in batches of approximately 20 at a time. A sample size of 159 remained for the initial survey after deletion of 23 cases that failed the engagement check. As described earlier, each worker was contacted one to four days after completion of the initial survey with an invitation to complete a paid follow-up survey. A total of 87 workers responded to the follow-up survey out of the refined initial pool, for a response rate of 55%. The initial sample age ranged from 19 to 68 years, with an average age of 36 and a median of 32. The sample was roughly even in gender (58% male), and predominately (75%) Caucasian. There were no notable differences in demographics or mean SCO between the initial and follow-up pools, suggesting no bias in this regard among follow-up participants.

Measures. *SCOrrelative* was assessed in the initial survey, using the same six items as in Study 2. The initial survey also asked participant age, sex, and race and included an engagement check that consisted of an embedded question with a prescribed answer. Distributive fairness perceptions were assessed in the follow-

up survey, after social comparison information was provided, by asking respondents whether “this pay practice seems fair,” on seven-point response scale ranging from strongly disagree to strongly agree.

Results

Table 6 reports the means, standard deviations, and correlation coefficients of Study 3 variables. Alpha reliabilities for each multi-item measure are provided in parentheses along the diagonal.

We used hierarchical regression analyses to examine the interactive effect of *SCOrelative* and Masters certification status on distributive fairness perceptions (results reported in Table 7). Main effects were examined in step 1, and the interaction term was entered in step 2 to isolate the additional variance explained. Main effects were not significant; neither *SCOrelative* nor Masters status predicted distributive fairness perceptions. However, the interaction term was significant in explaining variance in distributive fairness perceptions ($\beta = -.54, p < .01$). To interpret the interactions results, we computed and plotted the simple slopes for each relationship of interest at one standard deviation above and below the mean (see Figure 1). *SCOrelative* was positively associated

Table 6. Study 3 sample E Pearson correlations and descriptive statistics ($n = 87$).

Variable	Mean	SD	1	2	
1 Distributive fairness	5.43	1.27			
2 Masters status	.30	.46	-.01		
3 <i>SCOrelative</i>	4.42	1.41	-.01	-.02	(.95)

Note: Masters status: 0 = non-Masters, 1 = Masters. *SCOrelative*: social comparison orientation, interest in relative comparison.

Reliabilities (α) reported in parentheses.

Table 7. Study 3 regression results for distributive fairness perceptions ($n = 87$).

Variable	Step 1 Main effects	Step 2 Interaction
<i>SCOrelative</i>	-.01	.31*
Masters status	-.49	1.9*
<i>SCOrelative</i> × Masters status		-.54**
Total R^2	.01	.09***
ΔR^2		.08***

Note: Masters status: 0 = non-Masters, 1 = Masters.

SCOrelative: social comparison orientation, interest in relative comparison.

Values are unstandardized coefficients.

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

with distributive fairness perceptions for non-Masters and negatively associated with distributive fairness perceptions for Masters. The findings support our prediction and conjecture that *SCOrelative* enhances salience of the inequity (or equity) inherent in the social comparison information provided.

In summary, the combined results from our three studies inform understanding of SCO in the context of pay comparisons. Study 1 shows that SCO maintains its factor structure and demonstrates a significant degree of intraindividual stability when translated to the domain of social pay comparison, in keeping with the seminal findings of Gibbons and Buunk (1999). Most importantly, the “relative” dimension of SCO is shown to moderate pay fairness perceptions in the context of salient social comparison information pertaining to pay. Regardless of whether relative pay differences were anchored in the pay outcome itself (Study 2) or in the worker inputs contributed (Study 3), participant responses to the social comparison information provided corresponded with theoretically expected perceptions of fairness for those higher but not lower in *SCOrelative*, as we uniquely predicted.

Discussion

The preceding findings extend the limited support for social comparison tendencies as an individual difference variable, whereas extant research predominately focuses on situational factors as drivers of social comparison (Mussweiler, 2003). These two views are distinct, but not opposed. Rather our findings

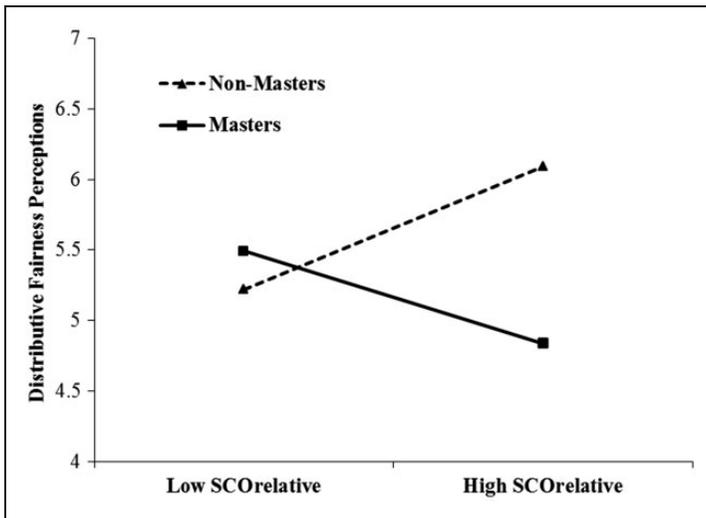


Figure 1. Study 3 plot of interaction effects on distributive fairness perceptions. *SCOrelative*: social comparison orientation, interest in relative comparison.

complement the research on situational factors by showing that employees who have a predisposition to compare their pay to others will react stronger to situational cues pertaining to distributive fairness. There are some supporting findings for this general view in the fairness domain, as described earlier (Schneider & Valet, 2013; Thau et al., 2007). However, our experimental design and targeted focus provide a finer grained test of the moderating role of inter-individual differences in social comparison tendencies.

Through three studies comprised of five data collections, we adapted a measure of social comparison orientation to pay contexts and examined its association with heightened perceptions of distributive fairness in hypothetical and actual scenarios of pay equity, over-reward, and under-reward. In keeping with Gibbons and Buunk (1999) initial construal and findings, our targeted measure of social comparison orientation demonstrated inter-individual variation and intra-individual stability, corroborating that individuals carry distinct predispositions towards social comparison. Our experimental findings further support this point by showing that social comparison information cued by the situation has a stronger impact on pay fairness evaluations among individuals that are predisposed to socially compare and a relatively weak impact on those that are not predisposed to socially compare.

More specifically, for Study 2, we manipulated pay equity within scenarios in keeping with equity theory formulations of inputs and outcomes. As expected, even with the same social comparison information transparent to all, *SCOrelative* was significantly related to perceptions of distributive fairness within under-reward contexts (negative relation) and equitable pay contexts (positive relation). Consistent with our reasoning that social comparison information holds little importance in the context of highly positive outcomes (Pyszczynski et al., 1985), an over-reward was seen as similarly fair by all. It is also notable that *SCOopinion*, one of the two dimensions of SCO, was not significantly related to perceptions of fairness in either condition. The divergent results speak to the process by which individuals evaluate distributive fairness. In keeping with fundamental equity theory precepts, the primary role of social comparison information is to assess relative standing (in regards to inputs contributed in proportion to outcomes attained). Comparison of opinions—asking oneself how others would think or what others would do—does not provide this fundamental information.

Study 3 was conducted in the context of an actual paid task and used a more elaborate activation of under-reward inequity and pay equity that held pay rate constant while employee inputs (skill certification status) varied. Two features of the study design further enhanced its rigor. *SCOrelative* and pay fairness perceptions were assessed on separate days. The employment platform standardized and anonymized all contact between the worker and the employer (researcher), inherently holding constant all forms of procedural and interpersonal fairness so that only distributive fairness attributes varied. We again found

that *SCOrelative* predicted pay fairness perceptions in both the expected positive direction for equitable pay and negative direction for under-reward. Thus preliminary support is provided for the generalizability of *SCOrelative* effects to an actual paid task setting and to pay (in)equity that stems from inputs contributed rather than simply outcomes received.

Implications for future research

The experimental results regarding fairness evaluations were consistent with theories of distributive fairness such as equity theory, but only, or more so, when individuals were prone towards social comparison. Therefore these findings suggest that social comparison orientation could be particularly relevant as a control or a moderating variable in the application of distributive fairness frameworks that incorporate relative comparison. In fact, the inconsistent predictive ability of equity theory has been noted as a shortcoming of an otherwise well-founded theory (Allen & White, 2002; Greenberg, 1990; Mowday, 1991). Further, our findings suggest that the social comparison orientation subscale emphasizing relative comparison, and not the subscale emphasizing opinion of others, is the most relevant in pay fairness evaluation contexts. Gibbons and Buunk (1999) indicated that the former dimension may be particularly appropriate in performance contexts, though subsequent research has paid little attention to the measure's subscales.

This research also holds subtle implications for the role of social comparison tendencies in relation to other organizational phenomena beyond employee fairness perceptions. Scholars have noted the need to integrate organizational phenomena and social comparison processes in future research (Greenberg, Ashton-James, & Ashkanasy, 2007). Greenberg et al. (2007) make the insightful point that many procedures within organizations, such as relative pay policies and performance appraisal systems (we also suggest promotion practices), are essentially designed to impose social comparisons and theoretically make social comparison difficult for employees to ignore. Yet the findings herein suggest individual tendency towards social comparison determines attention to even contextually imposed social comparison information. By extension, we suggest a compelling area for future research is consideration of social comparison orientation in relation to individual career advancement. For instance, from a person-organization fit perspective, social comparison orientation may determine fit within tournament structured organizations that promote and pay employees based on relative performance versus bureaucratic organizations that promote and pay based on objectively set standards such as years of experience. There is further value in researching receptivity to imposed social comparison information from a framing perspective, to determine ways organizations may help employees with low social comparison orientations to

gain the intended value from organizational practices that rely on social comparison information.

Practical managerial implications

This research also speaks to a topic of growing public interest, that of relative pay and its perceived fairness. For instance, legislators and social advocates have called for disclosure of employee pay comparison information within organizations as a means to reduce pay inequities through self-awareness of relative differences. Our findings shed doubt on the notion of pay transparency as an effective source of information for all employees. However, workplaces are increasingly surveying their employees and relying on this information for greater accuracy in decision making, and SCO could be assessed and used in this way. At the organization or group level, an aggregate assessment of employee tendency towards social comparison would enable consideration of strategic fit when structuring compensation systems. For instance, a general acceptance of larger salaries for newly hired versus long-term employees (e.g., common among faculty at some academic institutions) would suggest an aggregate lower degree of reliance on social comparison information in pay fairness evaluations. Conversely, employee pushback over two-tier wage structures for unionized workers at General Motors demonstrates a greater social comparison tendency among the newly hired, lower paid subset of employees. Ongoing assessment of SCO would alert employers to the greater potential for perceived fairness violations with their compensation system.

Limitations and conclusion

These findings must also be viewed in context of the study limitations. The studies were experimental in design, which strengthens claims of causality but calls for replication in non-experimental contexts to confirm generalizability. Another potential limitation is that pay fairness was assessed with a single item. However, the use of a single-item measure is arguably appropriate in this case based on the singular nature of the construct and our desire to reduce the threat of common method bias (Bergkvist & Rossiter, 2007). It also helped keep respondents naïve as to the study purpose by not overly emphasizing fairness concerns.

Notwithstanding these limitations, the current research provides support for social comparison orientation as an important individual difference variable for research and practice, and particularly for the domain of pay fairness evaluations. The findings corroborate that situational cues have a stronger (or weaker) impact based on a person's tendency to more (less) frequently engage in social comparisons. Though this point has been suggested by earlier researchers, it is yet to be widely explored in empirical research. The preceding set of

studies highlight one ubiquitous domain in which consideration of inter-individual differences in social comparison orientation enhances predictiveness and understanding.

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ORCID iD

Kimberly K. Merriman  <https://orcid.org/0000-0003-3175-1141>

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Author Biographies

Kimberly K. Merriman is a Professor of Management at the Manning School of Business, UMass Lowell. She researches compensation, performance management and human capital in relation to various aspects of work and organizations. Her work is widely published and cited.

Atthaphon Mumi is a lecturer of management and entrepreneurship at Mahasarakham Business School, Mahasarakham University, Thailand. He earned his PhD in entrepreneurship from the University of Massachusetts Lowell, MA, USA. His research interests broadly include the entrepreneurial process, corporate entrepreneurship, digital entrepreneurship, organizational strategy, and social media. Atthaphon serves as the editorial review board member of the Small Business Economics Journal and the Journal of Entrepreneurship in Emerging Economies. He can be reached at atthaphon.m@mbs.msu.ac.th.

Lauren A. Turner is the Senior Associate Vice Chancellor for Human Resources and Organizational Strategy & Effectiveness at the University of Massachusetts Lowell and a Lecturer at the Manning School of Business. She has decades of CHRO experience, including leading diversity management strategies, and served as past president of CUPA-HR, a national association of HR professionals. She earned her PhD in leadership and organizational studies from the University of Massachusetts Lowell. Her research interests include leadership effectiveness and cultural intelligence and their effects on organizational climate and diversity management practices. She can be reached at Lauren_Turner@uml.edu.