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Antecedents and consequences of upward and downward social comparisons: An investigation of Chinese employees
Sharon Foley Hang-yue Ngo Raymond Loi

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# Antecedents and consequences of upward and downward social comparisons

## An investigation of Chinese employees

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## Sharon Foley

Department of Human Resources and Organizational Behavior. Tsinghua University, Beijing, China

## Hang-yue Ngo

Department of Management, The Chinese University of Hong Kong, Hong Kong, and

## Raymond Loi

Faculty of Business Administration, University of Macau, Taiba, Macau

#### Abstract

Purpose – The purpose of this paper is to extend and test a theory of uncertainty and directional social comparisons. Prior studies have posited that uncertainty leads to increased upward and downward social comparisons. The authors' view is that uncertainty affects upward and downward comparisons differentially. They test their theory in the Chinese workplace, and focus specifically on employees' comparisons of career progress. Workplace consequences of social comparisons are also investigated.

**Design/methodology/approach** - The authors achieve their objectives by collecting data from respondents in China that measure uncertainty, directional social comparisons, organizational commitment and job satisfaction. They use a longitudinal design to assess causality.

Findings - This paper found that perceived organizational support, an antecedent that lowers uncertainty in the workplace, is related to upward social comparison, whereas psychological entitlement, an uncertainty-raising antecedent, is related to downward social comparison. Upward social comparison positively affected organizational commitment, whereas downward social comparison positively impacted job satisfaction.

Research limitations/implications – The data collection relied on self-reports and hence the findings may be adversely affected by common method bias. Another limitation involves the generalizability of results, given that the respondents were drawn from three large firms in China.

Originality/value - This paper indicates that directional social comparison processes serve as an important mechanism for understanding how employees' work attitudes are developed. It also demonstrates the applicability of social comparison theory to the study of organizational behavior in

**Keywords** China, Perceived organizational support, Downward social comparison, Psychological entitlement, Upward social comparison

Paper type Research paper

#### 1. Introduction

As a regular part of our daily lives, social comparisons have been studied in a wide © Emerald Group Publishing Limited variety of contexts, including the organizational context, mainly in the domain of



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organizational justice (Brown *et al.*, 2007; Buunk *et al.*, 2005). In a recent organizational study using an uncertainty perspective, Brown *et al.* (2007) examined social comparisons on various dimensions, and included three uncertainty-related antecedents: role ambiguity, task autonomy and core self-evaluations. They argued that if an antecedent lowered uncertainty, then individuals increased both upward and downward social comparisons (USC and DSC), and vice versa.

We take an alternative view that uncertainty-related antecedents will affect USC and DSC differentially. Specifically, if an antecedent reduces uncertainty, an individual will tend to compare upward; if an antecedent raises uncertainty, the tendency will be to compare downward. Our study extends Brown *et al.*'s (2007) work by proposing a model of directional social comparisons using a measure specific to career progress, instead of using a global measure that may require a great deal of retrospection and synthesizing of information. We investigate two under-explored uncertainty-related antecedents, perceived organizational support (POS) and psychological entitlement (PE), and hypothesize their differential effects on USC and DSC, which then influence two attitudinal outcomes (i.e. organizational commitment and job satisfaction) based on contrast and assimilation effects. We posit that both contrast and assimilation effects are evident in organizations, depending on the context and individuals' uses of the comparisons.

In our conceptual model (Figure 1), USC and DSC are expected to mediate the relationship between the two antecedents and the two attitudinal outcomes, organizational commitment and job satisfaction. Arguably, POS reduces career progression uncertainty for employees via providing additional information, whereas PE generates uncertainty due to greater misinformation. By actively engaging in social comparisons, we expect employees can better manage work-related uncertainty and hence display more positive job attitudes.

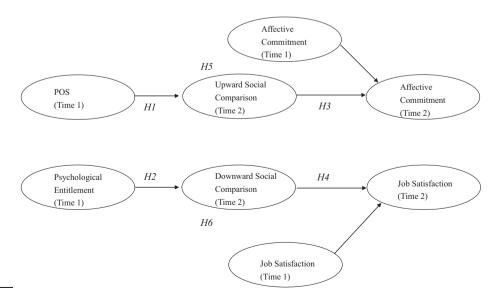


Figure 1.
Conceptual model

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Several hypotheses are developed and tested with a sample of employees in three organizations in China. China is one of the fastest-growing economies in the world, and is experiencing dramatic ongoing changes (Isenhour et al., 2012). Under a fast-changing and uncertain situation, Chinese employees tend to seek information from others and to make social comparisons frequently to evaluate their current status and plan for their careers. China thus provides an excellent setting to conduct an empirical study on antecedents and consequences of career progress social comparisons. We collected the data from the same respondents at two points in time, thus utilizing a longitudinal research design for testing causality among variables. Specifically, our longitudinal design demonstrates causal relationships between independent variables (i.e. POS and PE) as measured at Time 1 and outcome variables (i.e. organizational commitment and job satisfaction) as measured at Time 2. Our study also answers the call of Brown et al. (2007) to examine other variables reflecting work-related uncertainty, and Eddleston (2009) to test her career progression USC/DSC measures in additional cultural and organizational settings. In addition, it is important to advance theory and research in China through the identification of unique aspects of Chinese organizational behaviors (Isenhour *et al.*, 2012).

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#### 2. Literature review

#### 2.1 Social comparison theory

Social comparison theory postulates that individuals have a drive to evaluate their own opinions and abilities, and then compare themselves with similar others to obtain self-information (Festinger, 1954). Equity theory posits that equity assessment involves a comparison of one's inputs and obtained outcomes relative to a referent comparison other (Adams, 1965). Fully understanding human behavior at work requires appreciating social comparison processes (Greenberg et al., 2007), and how an individual's performance compares with that of the comparison target has important implications for his/her self-esteem and psychological well-being (Suls and Mullen, 1982). In careers research, USC has been conceptualized as the degree to which individuals compare their career progress to others who have attained more success in their careers; DSC compares to others who are less successful (Eddleston, 2009). USC is associated with a desire to improve one's performance, and DSC with a desire to protect or enhance one's view of the self. Career progress is a dimension of relative standing; without comparison others, an evaluation of one's career progress is almost impossible. Career uncertainty refers to uncertainty regarding promotions, pay raises, etc. This uncertainty affects whether an employee will aspire to climb the organizational ladder. In the rapidly developing Chinese economy, employee income is relatively low and well-paid jobs are limited, creating a strong sense of competition (Lam and Huang, 2013).

Social comparisons in the workplace arise from informal interactions (Goodman and Haisley, 2007), or when working closely together in a work group (Molleman et al., 2007). Employees often rely on co-workers to help them evaluate and comprehend their work duties, performance, compensation and career trajectories, especially under conditions of ambiguity and uncertainty (Shah, 1998). Individual interest in social comparisons is often motivated by the need to reduce uncertainty (Festinger, 1954). As pointed out by Brown et al. (2007), some situational and dispositional factors that are related to uncertainty (and its reduction) could be possible antecedents of how frequently individuals engage in directional social comparisons.

#### 2.2 Perceived organizational support

POS is generally defined as employees' global beliefs about the extent to which the organization values their contributions and cares about their well-being (Eisenberger *et al.*, 1986). POS signifies to employees the organization's readiness to reward their increased work efforts and provide assistance when they need to carry out their job duties (Eisenberger *et al.*, 1986). Previous studies have shown that POS is significantly related to some attitudinal and behavioral outcomes (Rhoades and Eisenberger, 2002; Wayne *et al.*, 1997). Mussweiler (2007) proposed that there are variables that make self-knowledge more cognitively accessible, and that certain kinds of self-knowledge lead to either assimilation or contrast. POS may create a context in which self-knowledge about career progress becomes available to those employees who are supported. Priming individuals with the words "we" and "us" induces a social self-construal that fosters assimilation (Stapel and Koomen, 2001). Applied to our model, POS increases self-knowledge pertinent to career progress and fosters a connection to those more successful, thereby directing an employee to assimilate upwards.

From the perspective of Chinese employees, POS implies greater access to organizational resources which are critical for an individual's career advancement (Loi and Ngo, 2010). The support and attention from management may help them stand out from their colleagues and better achieve their career goals. This acts to reduce the uncertainty associated with their future careers.

In assessing the extent to which directional social comparisons predict employees' job attitudes, Brown *et al.* (2007) included POS as an antecedent in their model. They found that USC was negatively related to job satisfaction and affective commitment, while DSC was positively related to these two attitudinal outcomes. These effects were over and above the significant positive effect of POS on the outcome variables. Although Brown *et al.* (2007) posited that POS may capture uncertainty and hence impact social comparisons, they did not explicate why or how POS exerts its effect. Moreover, they found no significant effect of POS on USC and DSC in their study.

#### 2.3 Psychological entitlement

PE can be conceptualized as an individual difference variable that affects employees' self-perceptions and expectations regarding their rewards and work outcomes (Campbell *et al.*, 2004), and it involves some perceptual and cognitive processes that influence individual's behaviors (Harvey and Martinko, 2009). Entitled individuals consistently believe that they deserve preferential rewards and treatment, often with little consideration of actual qualities or performance levels (Campbell *et al.*, 2004; Harvey and Martinko, 2009). Cacioppo *et al.* (1986) suggested that entitled individuals demonstrate a self-serving attribution style – a tendency to take credit for positive outcomes, and to attribute negative outcomes to external causes. A strong sense of entitlement negatively affects the judgment of individuals in leadership positions (Levine, 2005), and has a pervasive and largely unconstructive impact on social behavior (Campbell *et al.*, 2004). It has been shown in previous research that PE was associated with reduced work satisfaction, increased workplace conflicts and turnover intentions (Harvey and Martinko, 2009).

PE involves a distorted view of one's self and a chronic search for self-esteem that leads to misinformation and misalignment (Moeller *et al.*, 2009). People with high levels

of PE tend to experience uncertainty as to their own capabilities, given that a discrepancy often exists between their own perceptions and expectations and others' regarding their deserved rewards and outcomes. To reduce such uncertainty, entitled individuals are inclined to engage in social comparisons. With a strong motive to protect and enhance one's view toward the self, they would engage more in DSC rather than USC (Buunk and Gibbons, 2007).

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#### 2.4 Organizational commitment and job satisfaction

Organizational commitment is the level of psychological attachment of an organizational member to his/her organization. A highly committed employee tends to have a strong belief in the organization's goals and values, a willingness to exert considerable efforts on behalf of the organization and a strong desire to maintain membership in the organization (Mowday et al., 1982). Affective commitment refers to employees' emotional attachment to the organization (Allen and Meyer, 1990). Job satisfaction is an emotional state resulting from the evaluation or appraisal of one's job experiences (Locke, 1976). This attitudinal variable is generally recognized as a multi-faceted construct that includes employee feelings about a variety of both intrinsic and extrinsic job elements (Howard and Frink, 1996).

#### 3. Hypotheses development

#### 3.1 Antecedents of social comparisons

Goodman and Haisley (2007) argued that the organizational context is critical in shaping how social comparison processes unfold. According to Eisenberger et al. (1990), employees who perceive support from their organization expect their high efforts will lead to desirable rewards such as pay raises and promotions. In addition, POS enhances their self-esteem and identification with the organization (Armeli et al., 1998), and thereby makes them feel optimistic about their career progression. POS makes self-knowledge about career progress more accessible, predisposing an individual to assimilate upward.

We argue that employees who perceived more POS tend to have a high expectation regarding their future careers. To reduce uncertainty in this regard, they seek additional information, particularly through interaction and communication with their superiors (Hogg, 2000). They are likely to affiliate and identify with successful persons within the organization, who provide them with a role model and act as their sponsors in career development (Eisenberger et al., 2001; Rhoades et al., 2001). When individuals observe a more successful referent and construe themselves as like that person, they will have a strong tendency to compare themselves with that person (Gibson and Lawrence, 2010; Ibarra, 2000). Mussweiler (2007) suggested that when the comparison being made is for "similarity testing", it leads to an assimilation effect.

Based on the above arguments, individuals high in POS would have increased self-knowledge and less uncertainty related to career progression. To obtain support and valuable information and thereby reduce uncertainty about their career prospects, they tend to have more interaction with successful and senior people in the organization (Eisenberger et al., 1986, Rhoades et al., 2001), and this prompts them to compare upwards. When employees perceive similarity with superior others in organizational support, a characteristic correlated to career progression, career-progress comparison is directed upward:

#### H1. POS is positively related to USC.

PE refers to an individual's tendency toward inflated self-perceptions and unjustifiable expectations regarding praise, rewards and other positive outcomes (Campbell *et al.*, 2004; Harvey, 2009). This construct is associated with a diminished need for cognition, suggesting that entitled individuals were more likely than others to form opinions and reach conclusions without a thorough consideration of relevant information (Cacioppo *et al.*, 1986; Harvey and Martinko, 2009). Although it is natural to desire and work toward a positive self-image, entitled individuals appear less willing to accept information that contradicts this view (Harvey and Martinko, 2009). Having a distorted view of themselves, they are likely to experience inconsistency (i.e. discrepancy in expectations between themselves and others) and uncertainty regarding their inputoutput ratio at work.

To obtain an understanding of their own capabilities and social situation around them, entitled individuals may actively engage in social comparisons. Bonifield and Cole (2008) contended that individuals who experience distress may improve their subjective well-being by spontaneously comparing themselves with others who are doing worse than they are. People often seek and recall social comparison information favorable to them to hold the view that they are superior to others (Larrick et al., 2007). When the comparison being made is used for "dissimilarity testing", it leads to contrast (Mussweiler, 2007). Based on the idea of a contrast effect, individuals typically evaluate themselves more positively after comparing themselves with inferior others (Suls and Wheeler, 2000). In China, there is a great deal of uncertainty for employees regarding their future careers (Loi and Ngo, 2010), and entitled employees are likely to hold inaccurate appraisals of their career potential and career progress. Because individuals high in PE feel entitled to more than those they compare with, we predict that they tend to compare downward when assessing their career progress to be certain of their superior career progression and maintain a positive self-image. Contrast is facilitated by the salience of the individual self ("I") (Suls et al., 2002). Inducing a personal self-construal by priming individuals with the words "I" and "me" leads to a contrast effect (Stapel and Koomen, 2001). Applied to our model, PE induces a personal (rather than social) self-construal, relating to a contrast effect downward when assessing career progress:

H2. PE is positively related to DSC.

#### 3.2 Outcomes of social comparisons

In their study, Brown *et al.* (2007) hypothesized and found that the more frequent the USC, the lower the affective commitment for employees. They based their hypothesis on contrast effects, specifically that contrast effects resulting from USC create a higher reference point, one that is likely to diminish perceptions among individuals that they are receiving positive benefits. In our study, we posit that USC of career progression is based on assimilation, or likening oneself to those who are superior in terms of career progression. Comparing oneself upward with an individual with whom we identify is likely to increase confidence in the capacity to gather together the resources required to meet the demands of the environment, resulting in lower uncertainty and stress levels (Greenberg *et al.*, 2007). An environment is created where there is career certainty, knowledge accessibility, career support and a prediction of future career success. Hence,

employees who assimilate upward tend to have a positive expectation and evaluation of their career prospects in the organization, and are more committed to it:

H3. USC is positively related to affective commitment.

Brown *et al.* (2007) hypothesized and found that the more frequent the DSC, the higher the job satisfaction. Specifically, they argued that contrast effects from DSC set a lower reference point against which to evaluate one's current situation, one that is likely to inflate perceptions among individuals that they are receiving positive benefits. DSC may also meet emotional needs by making people feel fortunate in comparison with others. With higher self-esteem, employees who contrast downward would have a favorable appraisal of their job and job experience, and hence higher job satisfaction.

We posit that employees who contrast themselves relative to inferior others have a personal (rather than social) focus that may lead to a preoccupation with their job, rather than some social outcomes (e.g. organizational commitment). The feeling of self-enhancement that accompanies DSC may lead to a perception of satisfaction with one's job:

H4. DSC is positively related to job satisfaction.

#### 3.3 Mediating hypotheses

A large body of research provides evidence for the positive relationships between POS and organizational commitment, and between POS and job satisfaction (Eisenberger et al., 1997; Loi et al., 2006; Rhoades et al., 2001; Yamaguchi, 2001). While these positive relationships are often explained in light of the social exchange theory (Blau, 1964; Eisenberger et al., 1986), we suggest that social comparison processes could be another mechanism that links POS with employees' work attitudes. Specifically, individuals with high POS tend to engage more in USC, which in turn leads to a higher level of affective commitment. USC explains why support from an organization relates to an employee's commitment to it. Supported employees assimilate upwards to those superior in career progress. POS acts as the environmental primer for a social self-construal and likening oneself to those whose career progress provides inspiration and hope. POS lowers career uncertainty and increases career self-knowledge. We expect it generates USC, and in turn fosters affective commitment:

#### H5. USC mediates the effect of POS on affective commitment.

PE has been found to be positively associated with work attitudes and behaviors such as interpersonal conflict, turnover intentions and counterproductive and unethical behaviors (Fisk, 2010; Harvey and Martinko, 2009; Levine, 2005). There are, however, some beneficial aspects of PE. For example, feelings of entitlement may promote confidence in one's abilities, and create an aura of self-assurance necessary for leadership (Campbell *et al.*, 2004). Research evidence indicates that DSC can improve subjective well-being (Bonifield and Cole, 2008) and produce positive affect (Michinov, 2001). It is plausible that DSC may offset some of the negative impact associated with PE. Arguably, DSC could be a psychological mechanism that mediates the effect of PE on job attitudes. Employees who have a higher level of PE tend to frequently compare downward. PE primes individual (rather than social) self-construals that foster contrast to those less adept in their careers. Entitled employees tend to see themselves as dissimilar to those who lack career potential, and thus bolster their self-image. With a

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high level of DSC, individuals would have a positive appraisal of their employing organization and work environment, and hence report a higher level of job satisfaction:

H6. DSC mediates the effect of PE on job satisfaction.

#### 4. Method

#### 4.1 Sample and procedure

Data for this study were collected in two phases from employees of three large companies located in China. These companies are engaged in manufacturing of multimedia electronics, telecommunication and energy. With the permission of the three companies' senior management, 220 employees from each company participated as our respondents. The majority of respondents are technical, marketing and administrative staff. The human resource department of the three companies helped to distribute a self-administered questionnaire to each selected employee. On the cover page of the questionnaire, we explained the purpose of this study and assured the confidentiality of responses. The respondents were requested to put the completed questionnaire directly into a sealed envelope. A representative from the university was sent to each organization to collect the sealed envelopes.

Phase 1 of data collection was conducted in November 2008. On the questionnaire, we asked the respondents to rate their POS, PE, affective commitment and job satisfaction. In this phase, we received a total of 591 questionnaires, representing a response rate of 89.5 per cent. Nine months later, we started the Phase 2 data collection by sending another questionnaire to those who responded to the earlier survey. Respondents in Phase 1 were assigned an ID number to identify participants for Phase 2. In both phases, confidentiality and anonymity were assured. In this phase, we asked the respondents to rate the frequency of their USC, DSC, affective commitment and job satisfaction. Among them, 256 responded to our survey, yielding a response rate of 43.3 per cent. Nineteen questionnaires were not useable due to too many missing responses. Our final sample consists of 237 employees. We checked for possible non-response bias by comparing several key demographic attributes (i.e. gender, age, educational level and organizational tenure) between the respondents and non-respondents in our Time-2 survey using t-tests. No significant differences between these two groups were detected.

Of the respondents in the final sample, 47.4 per cent were female. The modal age category was 31-40 years; 86.1 per cent of them were in the age range of 21-40. Their average organizational tenure was 9.45 years. Regarding educational attainment, 51.5 per cent had earned a university degree. The distribution of the respondents among the three companies was 52 (21.9 per cent), 99 (41.8 per cent) and 86 (36.3 per cent), respectively.

#### 4.2 Measures

Both questionnaires were administered in Chinese using well-established scales developed by Western researchers. Back translation was conducted where the original English version was translated into Chinese and then translated back into English to ensure proper translation. Respondents used a six-point Likert-type scale (1 = "strongly disagree"; 6 = "strongly agree") to respond to the measures mentioned in the following text.

4.2.1 Perceived organizational support. This variable was measured with a short version consisting of five items selected from the original scale of Eisenberger et al. (1986). A sample

item is "My organization strongly considers my goals and values". In this study, the coefficient alpha for the scale was 0.92.

4.2.2 Psychological entitlement. We adopted three items from the psychological entitlement scale developed by Campbell *et al.* (2004). A sample item is "I honestly feel I'm just more deserving than others". This scale had a coefficient alpha of 0.77.

4.2.3 Upward social comparisons. This construct was measured by the four-item scale developed by Eddleston (2009). A sample item is "I often evaluate my progress by comparing my career to those who are more successful than myself". Coefficient alpha was acceptable at 0.81.

4.2.4 Downward social comparisons. We used the five-item scale also developed by Eddleston (2009). A sample item is "When evaluating my career I tend to focus on how I have experienced more success in my career than others". Coefficient alpha for this construct was 0.83.

4.2.5 Affective commitment. We measured this variable with a shorter version consisting of four items selected from the original affective organizational commitment scale of Allen and Meyer (1990). A sample item is "This organization has a great deal of personal meaning for me". Scale reliabilities recorded at 0.79 in Time 1 and 0.82 in Time 2.

4.2.6 Job satisfaction. We used the three-item scale developed by Price and Mueller (1981) to measure this variable. A sample item is "I find real enjoyment in my job". Scale reliabilities recorded at 0.89 in Time 1 and 0.84 in Time 2.

#### 4.3 Analytical strategy

We used structural equation modeling (SEM) to assess the fit of our hypothesized model, using LISREL 8.54. One limitation of SEM is that a large sample size is needed in estimating models that carry too many observed indicators. We conducted item parceling to keep the ratio between indicators and latent constructs more manageable. Item parceling is recommended by previous studies, as it will not change the content domain of the construct and can achieve a more parsimonious SEM model with fewer chances for residuals to be correlated or dual loadings to emerge (Bandalos and Finney, 2001; Little *et al.*, 2002). Following the procedures suggested by Brooke *et al.* (1988) and Schneider *et al.* (2005), we reduced the number of observed indicators for each construct to three, based on the factor loadings from the confirmatory factor analysis (CFA) for each of the constructs. The items with the highest and lowest loadings of the construct were averaged to form the first indicator. Items with the next highest and lowest loadings were combined next, and so forth until all items were assigned to one of the three indicators for each construct.

Overall model fit was examined by fit indices, including root-mean-square error of approximation (RMSEA), comparative fit index (CFI) and incremental fit index (IFI). Poor model fit is indicated by an RMSEA value exceeding 0.10, a CFI value below 0.90 or an IFI value below 0.90 (Browne and Cudeck, 1993; Byrne, 1998). After evaluating the model fit, we used the standardized parameter estimates in the model to test *H1* to *H4*.

To test the mediating hypotheses, we followed the procedure as suggested by Schneider *et al.* (2005). First, we check the significance of the structural paths in our hypothesized fully mediated model. Then, we use chi-square difference tests to compare our hypothesized model with a partially mediated structural model which includes the direct paths from antecedents (i.e. POS and PE) to outcome variables (i.e. affective

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IJOA 24,1 commitment and job satisfaction). A non-significant chi-square change in the model comparison indicates full mediation.

#### 5. Results

Table I displays the means, standard deviations and inter-correlations among the study variables. POS is positively correlated with USC (r = 0.23,  $p \le 0.01$ ) and affective commitment (r = 0.22,  $p \le 0.01$ ). Interestingly, PE is significantly correlated with DSC (r = 0.17,  $p \le 0.01$ ), but not with job satisfaction (r = 0.09, ns).

Before estimating the hypothesized model, we conducted CFA to assess the distinctiveness of the constructs under study. The eight-factor measurement model achieved a good model fit in terms of various fit indices, with  $\chi^2$  (224) = 544.93, RMSEA of 0.07, CFI of 0.94 and IFI of 0.94. In comparing this eight-factor model with the one-factor model (i.e. loading all items on one factor), a significant chi-square difference resulted ( $\Delta\chi^2$ (28) = 1,756.23, p < 0.001). The above results support the distinctiveness of the constructs.

Figure 2 shows the LISREL results of our conceptual model. Overall model fit was acceptable with  $\chi^2$  (240) = 735.76, RMSEA of 0.09, CFI of 0.91 and IFI of 0.91. Specifically, POS was positively related to USC ( $\gamma=0.25, p<0.01$ ), which supported H1. PE was also found to be positively related to DSC ( $\gamma=0.18, p<0.05$ ), thus provided support to H2. USC was positively related to affective commitment ( $\beta=0.31; p<0.01$ ), whereas DSC was positively related to job satisfaction ( $\beta=0.28; p<0.01$ ). These results supported both H3 and H4.

In testing our mediating hypotheses, we compared the fully mediated model with a partially mediated model in which the direct effects between the antecedents and the outcome variables (i.e. from POS to affective commitment and from PE to job satisfaction) were added (Table II). Adding these two direct paths did not significantly improve the overall model fit ( $\Delta\chi^2$  (2) = 0.30, ns), and the coefficients of these two direct paths were not significant ( $\gamma$  = 0.04 and 0.02, respectively, ns). Therefore, we can conclude that USC fully mediated the relationship between POS and affective commitment, and DSC fully mediated the relationship between PE and job satisfaction. Given the results, both H5 and H6 were supported.

#### 6. Discussion and conclusions

In this study, we develop and test a model of directional social comparisons using data collected from 237 Chinese employees in three companies at two points in time. Our model includes POS and PE as antecedents, and affective commitment and job satisfaction as consequences of social comparisons. The empirical results supported all our hypotheses. First, we found that POS has a strong and positive effect on USC. Employees who perceive support from their organization tend to compare their career progress with individuals more successful in their careers. This helps employees to reduce the uncertainty associated with their future careers and also motivates them to achieve in their organization. Second, we found a significant effect of PE on DSC. Entitled employees tend to compare their career progress with those who are less successful than they are, as this helps them to maintain their self-image.

Turning to the consequences of social comparisons, our findings revealed that USC has a positive effect on affective commitment, while DSC has a positive effect on job satisfaction. These findings provide evidence for an assimilation effect for the former,

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Variables	Mean	SD	1	2	3	4	2	9	7	8
Perceived organizational support	3.58	1.14	(0.92)							
Psychological entitlement	3.29	1.20	0.08	(0.77)						
Affective commitment (Time 1)	4.36	1.05	0.49**	0.14*	(6.79)					
Job satisfaction (Time 1)	4.37	1.14	0.50**	0.07	0.61**	(68.0)				
Upward social comparison	3.85	1.15	0.23**	0.12	0.15*	0.24**	(0.81)			
Downward social comparison	3.68	1.01	0.12	0.17**	80.0	0.07	0.46**	(0.83)		
Affective commitment (Time 2)	4.43	1.03	0.22**	60.0	0.22**	0.25**	0.24**	0.24**	(0.82)	
Job satisfaction (Time 2)	4.51	1.05	0.17**	60.0	0.19**	0.27**	0.09	0.16*	0.64**	(0.84)

**Notes:** N ranged from 232 to 237; \*p < 0.05; \*\*p < 0.01; all two-tailed tests; Cronbach's alphas are displayed on the diagonal in parentheses

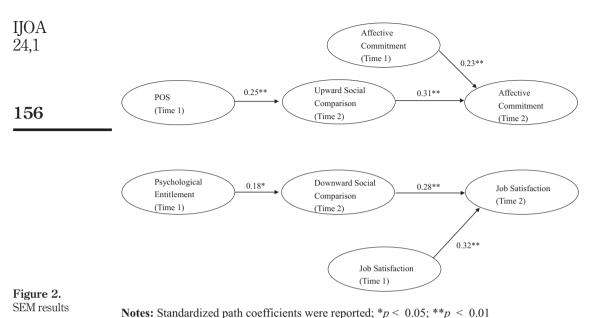
Table I.

Means, standard

deviations and

correlations among

study variables



**Table II.**Results of structural equation modeling for testing mediating effects

Models	$\chi^2$ (df)	$\Delta\chi^2$ ( $\Delta \mathrm{df}$ )	RMSEA	CFI	IFI
Fully mediated model (conceptual model) Partially mediated model (adding direct paths: POS → affective commitment	735.76(240)**		0.09	0.91	0.91
and PE $\rightarrow$ job satisfaction)	735.46(238)**	0.30(2)	0.09	0.91	0.91
<b>Note:</b> ** $p < 0.01$					

and a contrast effect for the latter. Although not predicted, DSC is positively and significantly related to organizational commitment. Exposure to someone less fortunate can lead to either positive or negative evaluations (Suls *et al.*, 2002). Our two mediating hypotheses were also supported, as USC mediated the relationship between POS and affective commitment, while DSC mediated the relationship between PE and job satisfaction. These findings indicate that social comparison processes serve as important mechanisms linking employees' perceptions with their job attitudes. Specifically, POS contributes to their making more upward comparisons, which in turn leads to increased affective commitment. Those who feel a high level of entitlement may develop a positive self-evaluation and reduce uncertainty and psychological inconsistency at work via DSC, and hence they report a higher level of job satisfaction.

There are several contributions of our study to the current literature. First, it adds to our understanding of the role played by social comparison processes in organizations. In particular, our study answers the call of researchers (Brown *et al.*, 2007; Eddleston, 2009; Taylor and Lobel, 1989) to distinguish among and identify the antecedents and consequences of different kinds of social comparison activity in the workplace. Second,

our findings indicate that uncertainty reduction represents a fundamental aspect of social comparisons. Third, it demonstrates the applicability of the social comparison theory to the study of organizational behavior in China. Ours is the first known study conducted in China to investigate how career progression USC and DSC affect employees' work attitudes. Fourth, unlike Brown *et al.*'s (2007) study, we found that both contrast and assimilation effects were present in our sample.

Upward and downward social comparisons

Our findings also provide some practical implications for organizations. First, managers need to be aware that employees compare their career progress in both upward and downward directions, and that these comparisons have differential implications for their organizational commitment and job satisfaction. Managers who are striving to understand how employees' perceptions of the work environment are related to positive work attitudes can now look to social comparisons to provide some additional insights. For example, when attempting to get to know their subordinates better, managers can ask, "How do you rate your career progress?", and listen for cues indicating USC or DSC. Shah (1998) recommended that managers pay particular attention to groups with greater uncertainty regarding career progress, as their focus on information acquisition can be distracting. Training programs and mentoring activities can be established to ensure that employees receive the information necessary to assess their pay, benefits and promotion potential (Shah, 1998).

Our study has several strengths. First, the research design was longitudinal, which provides stronger evidence regarding direction of causality than cross-sectional data. With the help of several HR directors, we were able to survey employees in three firms in China at two points in time. Second, in undertaking this research, we answered Eddleston's (2009) call to assess, in additional occupations and studies, the degree to which individuals make USC and DSC when assessing their career progress. The measures developed by Eddleston were found to be applicable in the Chinese context.

Several limitations of this study should be acknowledged. Our data collection relied on self-reports, therefore the results may be contaminated by common method bias. However, several researchers have argued that where the variables of interest are attitudinal or perceptual, it is appropriate to use self-reported data (Maurer and Tarulli, 1994; Spector, 1994). In addition, the response rate for the second wave was lower than the first wave, as some respondents dropped out. However, no significant differences in terms of demographic characteristics were found between two groups. Another limitation involves the generalizability of our results. Given that our data set was drawn from technical, marketing and administrative employees in three large firms, our sample may not be representative of the general working population in China. Finally, the results of LISREL indicated that the overall model fit of our conceptual model was barely acceptable, although all the path coefficients are significant.

Our study also suggests several avenues for future research. First, additional outcome variables such as turnover intentions and job performance could be investigated. Second, moderating variables could be explored that may affect how individual differences and situational characteristics relate to different types of social comparisons and their consequences. Additionally, the inclusion of some organization-level antecedents of directional social comparisons, such as organizational climate and human resource practices, is also desirable.

To conclude, our study identified some important antecedents and consequences of social comparisons and provided an important step toward understanding the

mediating role of USC and DSC. It shows that directional social comparisons are quite prevalent among Chinese employees, and have significant effects on their job attitudes. More research in different organizational settings should be conducted in the future to examine the reasons why employees make upward and downward comparisons in their organization, conditions under which these comparisons are made and behavioral outcomes of these comparisons.

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Corresponding author

Sharon Foley can be contacted at: foleyphd@hotmail.com

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