

**Unraveling the Interplay of Social Comparisons, Envy, and Their Implications for Job
Performance**

Faculty of Behavioural and Social Sciences ,University of Groningen

Master Thesis

Aliakbar Miaei

S3079198

Dr. Dick Barelds

Abstract

This study investigates the complex relationships between social comparisons, benign and malicious envy, and job performance using the CSS and IWPS scales combined to represent positive aspect of job performance, and the CWP scale to delve into the negative aspects of job performance in modern work settings. Benign envy has been recognized as a motivator for improved performance, motivated by a desire to observe successful peers, whereas malicious envy is associated with poor performance and unproductive behaviours. These psychological dynamics are becoming increasingly important in today's growing professional arena, which is exacerbated by gig and remote work dynamics. Our work emphasizes the importance of organizational tactics to mitigate the negative effects of malicious envy while utilizing the positive motivational drive of benign envy, aiming for an optimized performance environment.

Keywords: social comparisons, benign envy, malicious envy, job performance, workplace dynamics.

Unraveling the Interplay of Social Comparisons, Envy, and Job Performance

In today's competitive environment, the modern workplace is characterized by an increasing need for employees to assess their performance, skills, and accomplishments relative to their co-workers (Buunk & Gibbons, 2007). This phenomenon, known as social comparison, has significant implications for various aspects of employees' work lives, such as motivation, task performance, job satisfaction, and overall productivity (Gibbons & Buunk, 1999). These contemporary struggles have further amplified employees' tendencies to engage in upward social comparison, as they strive to maintain their job security and navigate the uncertainties brought about by an ever-evolving work landscape. Central to these uncertainties is the emergence of the gig economy, which refers to a labour market dominated by short-term contracts or freelance work as opposed to permanent jobs (Kalleberg, 2000). Workers in the gig economy, often having limited job stability and facing fierce competition, may frequently engage in social comparison to evaluate their standing and identify areas for improvement. Additionally, employees working remotely may experience increased feelings of isolation and detachment from their co-workers, exacerbating social comparison tendencies as they seek to gauge their performance relative to their peers (Gajendran & Harrison, 2007).

To clarify the previously discussed relationship between upward social comparison in the evolving landscape of the gig economy and its potential impact on job performance, we must first define job performance within the framework of contemporary workplace challenges. Job performance refers to the extent to which employees effectively accomplish their tasks and contribute positively to organizational goals (Dajani, 2015). This encompasses various dimensions, including task performance, contextual performance, and adaptive performance, collectively capturing an employee's proficiency and adaptability in achieving work-related objectives (Griffin et al., 2007). The intricate relationship between upward

social comparison and job performance is multifaceted. Recent studies indicate that this relationship can be predominantly positive, as social comparison can serve as a motivator for employees, contingent upon individual characteristics and environmental factors (Lange & Crusius, 2014).

Upward social comparison, where individuals evaluate their performance and achievements against those perceived as superior or more successful (Festinger, 1954), is particularly relevant in the contemporary workplace. Human behavior can be strongly influenced by social comparison, as individuals often strive to gauge their own skills and accomplishments relative to those of others (Festinger, 1954). According to Lockwood and Kunda (1997), upward social comparison can foster job performance by inspiring employees to emulate their high-performing peers and adopt more effective work strategies. It is important to note that factors such as the growing use of performance metrics like key performance indicators (KPIs), and the expansion of remote work fueled by ongoing digital transformation and the recent global pandemic, encourage employees to compare their performance against that of their peers. For example, employees in a sales team might compare their sales numbers against the top performer, while software developers could evaluate their efficiency by examining the number of tasks completed by others. These factors facilitate social comparison through digital channels, such as video conferences, shared documents, and project management platforms (Hysa & Spálek, 2019).

Research has shown that upward social comparison can lead to both positive and negative outcomes for employees. On one hand, it can enhance motivation, facilitate learning, and improve job performance by providing a benchmark for success (Lockwood & Kunda, 1997). For instance, a junior employee might feel motivated to improve their skills after observing a senior colleague's expertise. On the other hand, excessive or maladaptive upward social comparison can result in feelings of inadequacy, stress, and reduced job satisfaction,

ultimately harming job performance (Buunk & Gibbons, 2005). For example, an employee constantly comparing themselves to high-performing colleagues might experience burnout and decreased self-esteem. Therefore, understanding the intricate relationship between upward social comparison and job performance is essential for devising tailored interventions and strategies that promote employee wellbeing and productivity in the contemporary workplace.

Hence, the objective of this research is to investigate the association between upward social comparison and job performance, considering the mediating roles of dispositional envy—both benign and malicious envy—in the model. This understanding can contribute to the development of effective strategies that enhance worker productivity and performance in today's dynamic workplace (Khan & Noor, 2020). By examining the mediating impact of benign and malicious envy, we aim to offer valuable insights into the complex interplay between these factors and provide guidance for creating efficient workplace approaches.

Mediating effect of envy in the relationship between upward social comparisons and job performance

Building upon the previously discussed relationship between upward social comparison and job performance, envy emerges as a key factor in determining the consequences of such comparisons on motivation, engagement, and productivity (Vecchio, 2005). Envy, a multifaceted emotion rooted in an individual's perception of deficiency in relation to a desired attribute or possession held by another, holds significant influence over employees' reactions when engaging in upward social comparison within the workplace (Parrott & Smith, 1993). Notably, envy can take on two distinct forms, each carrying unique implications for workplace dynamics: benign envy and malicious envy (Van de Ven et al., 2009).

Benign envy is characterized by a desire to improve oneself and attain the envied attributes or possessions, without harboring ill-will towards the person who possesses them

(Van de Ven et al., 2009). In the workplace, benign envy can serve as a motivating force that drives employees to emulate their high-performing peers, leading to increased effort, enhanced learning, and ultimately, improved job performance (Cohen-Charash, 2009). For instance, an employee who notices a coworker receiving recognition for exceptional performance might feel benign envy and become motivated to work harder and refine their skills to achieve similar success. By focusing on the potential for self-improvement, benign envy can prompt individuals to engage in adaptive coping strategies that help them bridge the performance gap with their peers (Van De Ven et al., 2011a). While benign envy can have positive effects on employees' job performance, it is important to recognize that envy can also manifest in a more destructive form, known as malicious envy.

Malicious envy is characterized by a desire to diminish the other person's success or bring them down to one's own level, often accompanied by feelings of resentment and ill-will (Van de Ven et al., 2009). Malicious envy can have detrimental effects on job performance, as it may lead employees to engage in counterproductive work behaviors, such as undermining their peers or sabotaging their efforts (Duffy et al., 2002). For example, an employee experiencing malicious envy might spread negative rumors about a high-performing coworker to damage their reputation or attempt to hinder their progress on a project. Instead of focusing on self-improvement, individuals experiencing malicious envy may become preoccupied with the perceived injustice of their peers' success, resulting in feelings of frustration and a reduced ability to concentrate on their tasks (Smith & Kim, 2007).

Upward social comparisons can evoke both benign and malicious envy, depending on various factors, such as the perceived attainability of the envied person's success and the individual's dispositional tendency to experience one form of envy over the other (Lange & Crusius, 2014). For instance, when employees perceive their high-performing peers'

achievements as attainable and the comparison as relevant to their own goals, they are more likely to experience benign envy and adopt constructive strategies for self-improvement (Van de Ven et al., 2011a). Conversely, when the perceived performance gap is considered insurmountable or the comparison is deemed irrelevant to one's own goals, malicious envy may arise, leading to negative consequences for job performance (Smith & Kim, 2007).

Examining the ways in which benign and malicious envy emerge from upward social comparisons, and their subsequent effects on job performance, is crucial for a comprehensive understanding of the complex interplay between social comparison, envy, and job performance in the workplace. By analyzing these relationships, researchers and organizations can devise strategies that alleviate the detrimental consequences of malicious envy while promoting the adaptive aspects of benign envy. This understanding can contribute to fostering a healthy work environment, wherein employees are motivated to improve their performance and engage in constructive behaviors.

In conclusion, gaining a deeper understanding of the intricacies of benign and malicious envy and their associations with upward social comparison is essential for optimizing employee well-being, motivation, and job performance in the competitive work environment. By investigating the factors that contribute to the emergence of these distinct forms of envy and their implications for job performance, researchers and practitioners can establish evidence-based strategies that foster a positive and productive workplace. As organizations place increasing importance on understanding and managing employees' emotions, the study of envy and its manifestations in the workplace becomes even more vital for cultivating healthy and successful work environments.

In contemporary workplaces, understanding the distinct consequences of benign and malicious envy on job performance is essential. While benign envy serves as a catalyst for self-improvement, driving employees to emulate the success of their peers (Van de Ven et al.,

2011a), malicious envy, conversely, results in detrimental effects on performance and fosters counterproductive work behaviors due to the negative emotions associated with unfavorable comparisons (Smith & Kim, 2007).

Research suggests that benign envy supports goal-directed behavior and resilience when encountering obstacles (Salerno et al., 2018), as well as fostering a mindset oriented towards personal growth (Crusius & Lange, 2014). This mindset allows employees to approach challenges as learning opportunities, increasing their receptiveness to feedback and enhancing their learning experiences. Consequently, they become motivated to expand their skillset, hone existing abilities, and implement more effective strategies (Cohen-Charash, 2009).

Malicious envy, however, can hinder employees' concentration and reduce overall performance (Vecchio, 2005). Additionally, it may trigger harmful work behaviors, such as sabotaging colleagues or withholding crucial information (Duffy et al., 2002). Lange and Crusius (2014) provide empirical evidence of the adverse consequences of malicious envy, revealing its potential to compromise complex task performance and intensify the likelihood of causing harm to others.

Lastly, the relationship between upward social comparisons and job performance is intricate, with both benign and malicious envy playing important roles. While benign envy has the ability to improve job performance by acting as a motivator, malicious envy has the opposite effect (Chen & Tang, 2021). Understanding how these two types of envy mediate the consequences of social comparisons on job performance is critical. This realization has far-reaching ramifications for workplace relationships, employee well-being, and organizational productivity.

The present study

Building upon the existing body of research, this study aims to comprehensively examine the nuanced interplay between upward social comparison, benign envy, malicious envy, and job performance. Using the dual-pathway model, we hypothesise that upward social comparisons can have positive and negative impacts on job performance, mediated by different kinds of envy. Given the theoretical underpinnings offered by Festinger's (1954) theory of social comparison, the following research question is posed: How can both benign and malicious envy mediate the effects of upward social comparison on job performance?

The following hypotheses are proposed to address this research question:

Hypothesis 1: We hypothesise that upward social comparisons are positively related to job performance, with benign envy serving as a mediating variable, based on Festinger's (1954) findings, and supported by Van de Ven et al. (2009). This implies that recognizing higher performance in peers might cause benign envy, driving people to engage in constructive behaviour and enhance their performance.

Hypothesis 2: Similar to Cohen-Charash (2009), we suggest that upward social comparisons have a negative impact on job performance when mediated by malicious envy. This approach emphasises how observing superior accomplishments can often incite feelings of malicious envy, resulting in counterproductive behaviours and a deterioration in job performance.

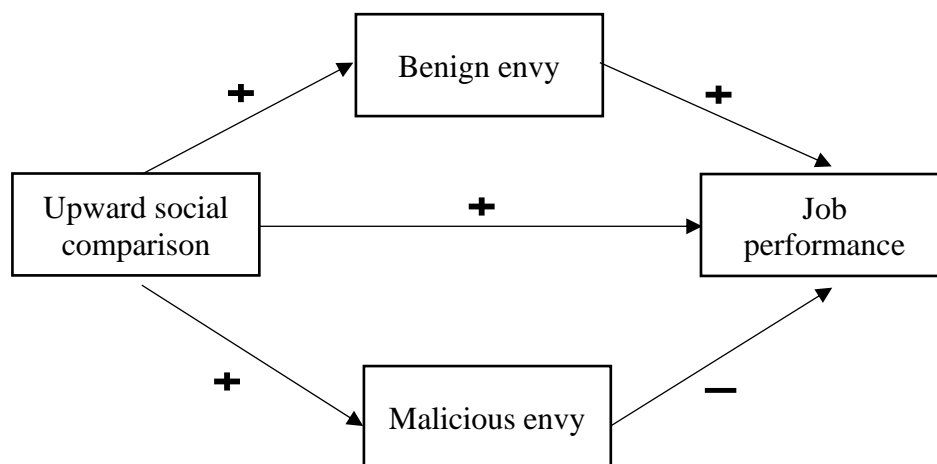
This dual-pathway approach offers a granular understanding of the multifaceted relationship between social comparisons, envy types, and job performance (Figure 1). In addition to our hypothesis, this study acknowledges the dual character of job performance and separates its positive aspects—assessed by the Career Satisfaction (Hofmans et al., 2008) and the Individual Work Performance Scale (IWPS) by Koopmans et al. (2012),—from its negative aspects—assessed by the Counterproductive Work Behaviour (CWP) scales Sypniewska (2020). This particular form of distinction makes it possible to analyse in detail

how social comparison outcomes can diverge and result in either positive or negative workplace behaviours and consequences in depth.

With these pathways in mind, the findings of this study have the potential to inform organizational strategies, emphasizing the construction of supportive settings that maximize the good effects of upward social comparisons while mitigating the possible negative effects of envy.

Figure 1

Conceptual research model



Note: Illustration of the dual-pathway mediation model and proposed hypothesis.

Method

The research we conducted began with a quantitative analysis aimed at revealing the subtle relationships between social comparison, benign envy, malicious envy, and job performance. Utilizing the advanced online survey platform Qualtrics, a systematic recruitment of participants and data collection was carried out. Following a rigorous data sanitization and validation routine, data from a larger initial sample was combined, resulting

in 98 valid responses. This statistically robust sample size lends credibility to the research, allowing us to draw reliable and significant inferences from our findings.

The diversity of participants from a variety of demographic backgrounds enriches the data, establishing a foundation for a more in-depth examination of our fundamental structures. In addition, this diversity enhances the potential generalizability of the study's findings, potentially making them applicable to a broader spectrum of individuals outside our immediate participant cohort.

In pursuit of this participant breadth, a digital-centric method for survey dissemination was deployed. The questionnaire link was widely sent via email and a variety of social media platforms, encompassing but not limited to LinkedIn, Facebook, and Twitter. This method leveraged the extensive reach of these digital channels to engage a diverse group of potential participants. The use of digital channels also provided accessibility, allowing individuals from various regions, employment sectors, and cultural backgrounds to participate, thereby broadening the diversity of our sample.

The survey instrument for this study, delineated in Appendix B, was designed to be completed within approximately 10 minutes. Participants in this survey were asked to score a series of statements on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The participants' ratings provide a quantifiable representation of their opinions on numerous workplace issues, enabling accurate quantification of these variables.

Measurement

Job performance was assessed using a composite of two differentiated measures and a separate scale, each chosen especially to maintain empirical rigor and correspond to the job performance variable's objectives.

1. Career Satisfaction Scale (CSS), adopted from the original scale by Hofmans et al. (2008).

The CSS is a adopted seven-item measure designed to assess a person's self-perceived professional success and satisfaction. Respondents were asked to agree or disagree with phrases such as "I have achieved a great deal in my work" and "I have been satisfied with my promotions." These items, provided on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), offer a more comprehensive view of a person's perceived job successes and satisfaction (Appendix B). As indicated by its solid Cronbach's alpha values reported in prior studies, the CSS ensures both reliability and precise measurement of the construct it attempts to examine (Hofmans et al., 2008).

2. Individual Work Performance Scale (IWPS) adopted from original scale by Koopmans et al. (2012).

The IWPS is a ten-item tool designed to assess an individual's capacity to accomplish or exceed work objectives as well as their proactivity in improving performance. Items such as "I meet or exceed the performance expectations for my job" and "I actively seek feedback from others to improve my work performance" encourage participants to consider their own efficiency, flexibility, and initiative (Appendix B). The IWPS provides granular insight into an individual's performance proficiency, with responses anchored on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Its prior empirical validations and remarkable reliability coefficients make it an excellent candidate for this study (Koopmans et al., 2012).

3. Counterproductive Work Behavior (CWB) adapted from the original scale by Sypniewska (2020).

The CWB scale was included to provide a more thorough understanding of job performance, specifically behaviors that may impede optimal functioning. This ten-item scale examines behaviors that can have a negative impact on both individual and organizational performance. Statements such as "I have intentionally worked slower than I could have,

negatively affecting my job performance" lead respondents to reflect on possibly ineffective activities. The responses, which ranged from 1 (Strongly Disagree) to 5 (Strongly Agree), indicate the frequency and intensity of these behaviors (Appendix B). The CWB's demonstrated reliability and validity in previous research highlight its importance in this study's methodological apparatus (Sypniewska, 2020).

To further develop our understanding of job performance, we combined CSS and IWPS scores to create a composite variable representing the positive features of job performance which we refer to as the JP_Combine variable in our data analysis. The CWB-adapted scale scores, on the other hand, were examined individually, providing insight into the negative aspects of Job performance, which we have labelled as JP_CWP in our dataset. This division allows for a comprehensive and multidimensional examination of the job performance construct in the modern workplace context.

This study used two notable scales to dive into the complex construct of social comparison: an 11-item scale from the Iowa-Netherlands Comparison Orientation Measure (INCOM) developed by Gibbons and Buunk (1999), and a 10-item scale from the Identification and Contrast Comparison scale developed by Van Der Zee et al. (2000).

The INCOM scale, which includes items such as "I frequently compare myself with others with respect to what I have accomplished in life" and "If I want to learn how to do something, I look at how others do it," is designed to assess individuals' tendency to engage in social comparison across a variety of life domains. It aims to discover how frequently and in what ways individuals compare themselves to others, whether for self-evaluation or self-improvement. On the other hand, the Identification and Contrast Comparison scale, with statements including "I often compare myself to colleagues who are similar to me in terms of job performance" and "Comparing myself with colleagues who have achieved more helps me set higher goals for myself," narrows its lens to the intricate comparative tendencies inherent

in the professional realm, exploring how individuals compare themselves to peers within a work context (Appendix B).

Following a strategic combination of these scales, a cohesive measure of 21 items was developed with the purpose of thoroughly capturing the diverse aspect of social comparison within the organizational tapestry. Participants were asked to rate each statement on a 5-point Likert scale, with "1" representing "strongly disagree" and "5" representing "strongly agree." The reliability analysis of this combined scale yielded a notable Cronbach's Alpha of 0.89, demonstrating good internal consistency among the components. This sterling coefficient not only attests to the accurate measurement of the social comparison construct, but it also enhances the rigorous scientific framework that underpins our inquiry into the multifaceted dimensions of social comparison, as detailed in Appendix B.

Lastly, this study employed the precisely developed 10-item Benign and Malicious Envy Scale (Lange & Crusius, 2014), a well-regarded instrument designed to capture the complex nuances of both benign and malicious envy, two emotions that operate on various dimensions of human experience.

Benign envy, depicted as a positive emotion driven by aspirational desire and motivation, was assessed using carefully selected items. Participants were asked to indicate their agreement with statements such as "When I see a colleague performing better than me, it encourages me to elevate my own performance." Such criteria were pivotal in gauging the extent to which benign envy manifested in the participants' minds and served as motivators in their professional pursuits. Appendix B provides a more comprehensive questionnaire for further insight.

Malicious envy, in contrast to benign envy, is characterized by feelings of animosity towards the successes of others. This emotion, which has the potential to disrupt the fabric of collaborative work settings, was assessed using questions such as "I harbor feelings of

resentment when witnessing a colleague outperforming me." The study sought to illuminate the undercurrents of malicious envy and its consequences within workplace dynamics by assessing reactions to such statements. Appendix B contains a more detailed questionnaire for further information.

Using SPSS, we carefully processed the sorting data before conducting our major data analyses. In order to ensure the consistency and reliability of our dataset, we employed listwise deletion to correct any missing data. This approach was selected because it guarantees full data for every case in the study across all variables, making it straightforward to understand the findings (Little & Rubin, 2002). Listwise deletion works effectively when the amount of missing data is small, reducing the chance of bias, and the assumption that data are missing fully at random (MCAR) is plausible (Dong & Peng, 2013).

However, we discovered that some of the data for the JP_Combine and JP_CWP variables were missing. We concluded that mean imputation was the most effective method given the pattern and makeup of these missing data. When the data are MCAR and there is low or no missingness, mean imputation—replacing missing values with the mean of the observed values for that variable—can be a useful technique (Allison, 2009). The simulation simulations by Dong and Peng (2013) confirm that this approach enables us to maintain our sample size and statistical power without significantly increasing bias.

Upon sorting the dataset, we initiated a rigorous investigation into the complex connections between our major variables, employing SPSS to analyze our data. To discover how our variables might be related, we began with Pearson's correlation analysis.

Following that, we used multiple regression analysis to determine the direct impact of social comparison on job performance. This stage established the foundations for a deeper investigation.

The PROCESS macro tool in SPSS was then employed to advance our analysis. This sophisticated strategy enabled us to study the indirect effects of social comparison on job performance, with a special emphasis on the roles of both benign and malicious envy. The result was a rigorous mediation analysis that illuminated the intricate pathways linking social comparison, envy, and job performance. Finally, a linear regression analysis was conducted to investigate the relationship between job performance on two distinct scales and social comparison.

Hence, our study method was both reliable and thorough. We employed a succession of quantitative analyses, each building on the preceding one, to develop a comprehensive understanding of the relationship between social comparison, envy in its two manifestations, and job performance in its two facets. Our method not only validates our findings, but it also provides a major framework for future research in this field.

Results

This study included a diverse range of participant demographics, which benefited in the investigation of social comparison, benign and malicious envy, and job performance. Out of the initial 151 responses, a thorough validation process provided 98 complete data for analysis. The demographic data revealed a broad age range of 20 to 64 years, with a significant 34.7% being 22-year-olds, presumably indicating early-career professionals navigating their professional spheres.

The gender distribution was balanced, with 39.8% identifying as males and 41.8% as females, providing a basis for further research into gender-based tendencies in social comparison and envy experiences. Linguistically, whereas 32.7% preferred English, 67.3% preferred Dutch, indicating a culturally diverse context for our inquiry.

The employment sectors represented ranged from 15.3% in healthcare to others in IT, banking, and education. A significant 40.8% were classified as "other" sectors, which

encompassed a variety of industries, with hospitality being the most prevalent. This sectoral diversity provided a multidimensional context for examining the dynamics of social comparison, envy, and job performance across a variety of occupational landscapes.

Employment categories showed a similar variation, with 83.7% of participants being salaried employees, giving a highly uniform employment structure suitable to investigating the relationships under investigation. The distribution of work experience and weekly work hours contributed to the demographic variety, with 38.8% having less than a year of experience in their current roles and 31.6% working full-time, more than 33 hours per week.

In summary, the broad demographic spectrum encompassed by our participant group enabled a more nuanced exploration of the interrelationships among job performance, benign and malicious envy, and social comparison. The demographic diversity, spanning age, gender, linguistic preference, employment sectors, and work categories, not only enhances our analysis but also expands the prospects for future research concerning the interplay between these demographic variables and the study's primary constructs.

A correlation study was conducted between the Career Satisfaction Scale (CSS) and the Individual Work Performance Scale (IWPS) before proceeding to inferential research. The aim of this initial investigation was to ascertain the extent of the relationship between the two scales. The results demonstrated a strong positive association, which we denote as JP_Combine ($r = .42, p < .001$). These findings substantiate the rationale for merging the two scales to construct a composite measure of job performance.

For social comparison, the dataset revealed a mean score of $M = 3.35$ with a standard deviation of $SD = 0.60$. The job performance combine, which included both CSS and IWPS indicators, resulted in a mean of $M = 3.82$ and a standard deviation of $SD = 0.44$. The mean for CWB-adapted job performance was $M = 1.94$ with a standard deviation of $SD = 0.62$. Malicious envy had a mean of $M = 1.64$ and a standard deviation of $SD = 0.50$, while benign

envy had a mean of $M = 2.29$ and a standard deviation of $SD = 0.77$. Table A1 contains additional information, including the range (minimum and maximum values) of these variables.

A Pearson correlation analysis was conducted to demonstrate the various relationships between our major constructs. The analysis identified significant connections associated with the objectives of our investigation, as shown in Table A2. As indicated by $r = .54, p < .001$, the social comparison had a strong positive relationship with benign envy. Likewise, the social comparison was significantly related to malicious envy, with $r = .27$ and $p < .01$. Furthermore, $r = .50, p < .001$, demonstrated a strong relationship between benign and malicious envy.

Our findings in the domain of job performance indicated subtle dynamics. As shown in Table A2, Benign envy was negatively related to JP_Combine ($r = -.30, p < .01$) and positively related to JP_CWP ($r = .36, p < .001$). Malicious envy, on the other hand, had a significant negative correlation with JP_Combine ($r = -.36, p < .001$), while maintaining a positive relationship with JP_CWP ($r = .40, p < .001$).

These nuanced associations not only improve our understanding of the multifaceted interactions that exist between social comparison, envy, and job performance, but also pave the way for future research to uncover deeper causation pathways.

Furthermore, the PROCESS macro tool was used to thoroughly explore the mediation effects of benign and malicious envy on the relationship between social comparison and job performance (Table A3). When potential mediating variables were included, the direct effect of social comparison on JP_Combine was found to be non-significant ($B = .153, p < .06$). Similarly, when the association with JP_CWP was examined, the direct effect was found to be non-significant ($B = -.04, p < .72$).

Investigating deeper into the potential mediation mechanisms, the indirect influence of social comparison on JP_Combine via benign envy was caught at ($B = -.11$) with a 95%

confidence interval spanning from [-.21 to -.01]. This effect was considerable, indicating a tangible mediation. The indirect effect of malicious envy on JP_Combinem, on the other hand, was ($B = -.06$), with a 95% confidence interval ranging from [-.12 to -.01], showing a significant mediation.

The analysis of indirect effects revealed that for JP_CWP, benign envy had an effect of $B = .13$, despite the fact that the confidence interval [-.03,.30] exceeded zero, indicating non-significant mediation. Malicious envy, on the other hand, had a $B = .08$ effect with a confidence interval of [.01,.17] that did not include zero, indicating a significant mediation. As a result, malicious envy mediates the connection between social comparison and JP_CWP significantly more than benign envy. Table A3, contains a detailed description of these results, including coefficient estimates, standard errors, and confidence intervals.

Prior to conducting the regression analysis, we checked all required statistical assumptions. Linearity and homoscedasticity were verified by considering scatterplots of the standardized residuals to the standardised predicted values. The Durbin-Watson statistic did not detect autocorrelation, and collinearity diagnostics excluded multicollinearity. It was also discovered that the residuals had a normal distribution. As a result, the regression analysis's assumptions were all successfully satisfied, enabling us to move on confidently with the following study.

Furthermore, linear regression and correlation analyses were used to examine the association between social comparison and job performance. The regression analysis for the Counterproductive Work Behaviour (CWB) scale produced a non-significant result, $F(1, 89) = 2.803, p = .098$, with an R^2 of .031 (Table A4). Similarly, the relationship between social comparison and the combined job performance scale (CSS & IWPS) was non-significant, with an R^2 value of .000, $F(1, 94) = .011, p = .91$, and $F(1, 94) = .011, p < .916$, respectively (Table A5).

Correlation analysis supported these conclusions in addition. The Pearson correlation coefficient for the social comparison and the CWB scale was $r(89) = .18, p = .098$, and $r(94) = -.011, p = .916$ for the combined job performance scale. Furthermore, a strong negative correlation was detected between the two job performance scales, $r(89) = -.56, p < .001$, showing a considerable variance in how these scales interact with social comparison.

The comprehensive results of our study, which illustrate the complex relationship between social comparison, envy, and job performance, necessitate a thorough discussion. These findings require further exploration into their broader implications, potential applications, and avenues for future research.

Discussion

In today's ever-changing organizational context, the current study investigated the complicated relationships between social comparison, both benign and malicious envy, and job performance. This study not only contributes to the existing academic discourse but also reveals new areas for future research on this multifaceted topic.

The combination of the Career Satisfaction Scale (CSS) and the Individual Work Performance Scale (IWPS) to assess job performance was a critical methodological decision that had a significant impact on the study's conclusions. This combination was compared to another indicator, Counterproductive Work Behaviour (CWB). Several foundational considerations underpinned this decision, including the inherent attributes of these scales and the reliability of them.

While the CSS and IWPS are both reliable, they provide different perspectives on job performance. The CSS, captures an individual's self-perceived accomplishments in their professional life, emphasizing self-perceived accomplishments and satisfaction. It provides an in-depth exploration of the fundamental characteristics of job performance, along with perspectives on subjective experiences and self-evaluations of success. The IWPS, on the

other hand, prioritizes actual, externally observable components of job performance such as efficiency, adaptability, and proactive initiative. By merging these two scales and integrating internal self-perceptions with external evaluations, the study intended to provide a holistic and extensive examination of job performance.

Recognizing the dual nature of job performance was also crucial. While the integrated CSS and IWPS scales represent the positive, proactive aspects of job performance, the CWB scale investigates the more reactive, potentially counterproductive behaviours. By distinguishing between these aspects, the study could thoroughly examine the numerous elements that either boost or hinder job productivity. This distinction gives our findings depth and granularity, allowing for a more nuanced understanding of the elements that promote or inhibit optimal performance.

Empirical validation was also crucial in the methodological choices. The factor analysis revealed a substantial positive correlation between CSS and IWPS, confirming the conceptual alignment and mutual reinforcement of these scales. This empirical finding reinforced the rationale for their combination. Additionally, implementing CWB as an independent variable enabled a clearer distinction between positive and potentially negative aspects of job performance. In summary, it is evident that the methodological choices, which were deeply entrenched in empirical rigor and guided by conceptual clarity, significantly impact the study's findings.

Our methodological design assisted in the evaluation of the relationship between social comparison, envy, and two aspects of job performance. In line with previous study, such as that of Vecchio (2005), our findings highlighted the importance of envy following social comparison. Our analysis was strengthened by the nuanced distinction between benign and malicious envy, along with their differing effects on the two job performance scales—CWP and the combined CSS & IWPS.

Despite acting on different emotional spectrums, both benign and malicious envy showed significant relationships with social comparison. This association highlights the emotional complexities evoked by comparison processes. Benign envy, with its motivational undertones, appeared to function as a catalyst for performance enhancement, particularly when measured using the combined job performance scale. Malicious envy, on the other hand, appeared to be more associated with behaviours measured by the CWP scale, potentially impeding optimal job performance.

Furthermore, the findings for social comparison and its direct effect on job performance—both on the combined scale (CSS & IWPS) and the CWB—showed non-significant associations. This shows a complicated interplay between these variables, emphasising the need for a more nuanced study in future research attempts. This demonstrates the varied nature of the impact of social comparison on job performance.

In light of our broader study framework, it becomes essential to delve deeper into the data relevant to our hypotheses and associated research question.

Our primary hypothesis suggested a complex interaction among social comparison, benign envy, and job performance. We hypothesized that benign envy would play an important role in mediating this association. Using well-established theoretical frameworks, we hypothesized that when upward social comparisons are evaluated positively, they can evoke benign envy, which may encourage individuals to bridge the performance gap and improve their job performance.

This hypothesis is supported by empirical evidence. We discovered a significant relationship between social comparison and benign envy, emphasising the possibility of benign envy originating in circumstances of upward comparison. When confronted with peers who outperform them, individuals appear to use the emotion of envy constructively, using it to drive self-improvement and better performance. Significantly, benign envy correlated

positively with the combined job performance scale (CSS & IWPS), implying a potential mediation effect.

However, in addition to analysing our hypothesis, we expanded on the construct by dividing our job performance variable into two unique scenarios. Interestingly, while benign envy correlated positively with the combined job performance scales (CSS & IWPS), its impact on single job performance (CWP) was insignificant. This distinction indicates a complicated relationship between envy and job performance across different contexts, implying that benign envy can improve performance in a combined job performance setting when channelled correctly.

Given the correlational nature of this data, interpretation is critical. Although the findings are convincing, further research is needed to determine causation and delve deeper into the complicated mediating dynamics of benign envy, particularly using experimental or longitudinal approaches.

Our secondary hypothesis proposed a relationship between malicious envy and negative aspects of job performance as measured by the CWB scale. This concept arose from the realization that malicious envy, arising from upward social comparisons, poses dissatisfaction, frequently manifesting in a desire to undermine others, negatively impacting optimal job performance.

The hypothesis is significantly supported by empirical research, which shows a significant positive association between malicious envy and counterproductive work behaviours on the CWB scale. This suggests that individuals experiencing malicious envy are more likely to engage in detrimental actions, negatively impacting their job performance and the broader organizational atmosphere. These findings support the notion of malicious envy as a potential disruptor in professional contexts, highlighting its tendency to undermine the foundation of favourable workplace dynamics.

While malicious envy was significantly associated with negative outcomes on the CWB scale, its interaction with the combined job performance scale (CSS & IWPS) was insignificant. This discrepancy demonstrates the varied impact of envy on job performance across various evaluative settings, emphasizing the necessity for a more nuanced analytical perspective in future research.

Moreover, our findings were enriched further by the demographic diversity of our participants, demonstrating the multidimensional nature of the processes under examination. This diversified background offers exciting potential for future research, offering avenues for additional investigation into how elements such as age, gender, and professional experience may intricately intertwine with the conceptions of social comparison, envy, and the dual facets of job performance.

In summary, while our analysis exposes relationships among the fundamental components, it also emphasizes the importance of continuous and intricate scholarly investigation. Exploring the mechanics of social comparison, dichotomous types of envy, and dual elements of job performance is essential for establishing healthy workplace dynamics and achieving peak job performance.

Implications

Our findings provide a significant contribution to the existing scholarly debate on upward social comparison, envy, and job performance, notably through a comprehensive study of both benign and malicious envy. This study not only confirms some assumptions of earlier theoretical frameworks but also departs in significant ways, expanding the academic discussion. Our study's nuanced emotional dynamics highlight the multifaceted character of workplace emotions, adding to the theoretical knowledge of how these emotional responses may impact job performance outcomes.

The practical implications of our research for organizational management and culture creation are numerous. Organizations should seek to develop settings that limit the negative effects of malicious envy while capturing the motivational essence of benign envy by embracing the dual nature of envy as benign and malicious. Transparency, fairness, and justice, particularly in incentive distribution, appear critical in this scenario (Gardner et al., 2019). Organizations can improve employees' psychological well-being by addressing the causes of malicious envy, such as perceived injustice, and developing a more collaborative and harmonious workplace spirit (Liu et al., 2021).

Furthermore, as revealed by our findings, the encouraging potential of benign envy merits managerial consideration. Organizational leaders should foster an environment in which superior achievements of peers are perceived as aspirational guidelines rather than resentment triggers. This adjustment in perspective on envy can transform it from a potentially destructive force to a motivator for self-improvement and performance enhancement (Chen & Tang, 2021).

Given our findings, a reevaluation of performance measurement and management systems becomes necessary. By embracing an organizational culture that emphasizes the positive aspects of envy, leaders and HR professionals can create a suitable framework for better job performance (Lysova et al., 2019). The development of team structures that encourage healthy competition and peer learning, the implementation of policies that emphasize skill development and continuous learning, and the provision of adequate instruction to leaders for adeptly managing the complex social and emotional dynamics within teams are all effective strategies.

Our research additionally encourages future investigation into current models or frameworks that could be enhanced or expanded depending on our findings. Proposing a model that incorporates the mediation effects of benign and malicious envy between social

comparison and job performance, for instance, could give a more organized approach to organizational implementation. Furthermore, explaining our findings through real-world case studies might provide a tangible roadmap for organizations attempting to negotiate the workplace's complicated emotional setting.

Lastly, our work offers a more sophisticated and actionable understanding of the emotional underpinnings in organizational settings through a deeper engagement with existing theories and a forward-thinking approach to practical application.

Limitation and future study

Our findings have increased our knowledge of the complex relationship between social comparison, envy, and job performance. However, Recognising the limitations ensures that our findings are presented in a balanced and transparent form..

The cross-sectional design of our study is a major disadvantage. While this method provides useful insights, it limits our capacity to track the changing and dynamic nature of the relationships between social comparison, envy, and job performance across time. This is especially important given the fluidity of employment environments and the possibility for individual feelings and perceptions to shift in response to changing situational conditions.

Furthermore, our sample was primarily made up of white-collar professionals. This demographic focus may restrict our findings' generalizability across multiple occupational sectors. Given the varied job features, industry standards, and work cultures inherent in these professions, the dynamics of social comparison, envy, and job performance may appear differently in blue-collar settings, part-time roles, and independent contractors.

Given our methodological choices, future research may benefit from using longitudinal or experimental approaches. Such methodologies would allow for a more in-depth examination of the temporal dynamics and the causal relationship between the central

constructs. Diversifying the sample to include a greater range of demographic groups, sectors, and contexts might also improve the findings' robustness and universality.

While our study focused on envy as a mediator in the association between social comparison and job performance, social comparison's multidimensional nature can interact with a variety of other psychological dimensions. Future research could look into potential mediators such as self-efficacy, perceived justice, admiration, or resentment. Furthermore, investigating potential moderating factors such as personality traits, social norms, or organizational culture could deepen and extend our understanding of the complex processes at work. As a result, while our research provides critical insights, it also highlights the topic's depth, pointing to numerous options for future scholarly investigation.

Conclusion

Our investigation contributes significantly to the field of organizational behaviour by methodically studying the interrelationships between social comparison, benign and malicious envy, and job performance using the CSS, IWPS, and CWP scales. These scales revealed complex facets of envy shedding light on an age-old topic from a new perspective. The study's methodological rigour, particularly the use of the CSS, IWPS, and CWP scales, allowed for a divided evaluation of job performance. This methodological decision showed the emotional complexities interwoven in social comparison dynamics within professional settings, allowing for a more thorough understanding of the resulting emotional responses, particularly benign and malicious envy.

The analytical rigour with which our study dissects envy's dualism and its implications for job performance is a defining feature of this investigation. The distinction between benign and malicious envy, as well as their respective influences, provides important insights into how these opposing emotional responses interact with social comparison in a professional setting. Our recognition of benign envy as a potentially beneficial force, in

contrast to the ambiguous or even destructive role of malicious envy, emphasizes the multidimensional nature of envy.

Furthermore, our research goes beyond simply supplementing current information. It questions and expands on fundamental assumptions, going beyond Festinger's (1954) first definition of the direct relationship between social comparison and job performance. Our nuanced findings, which emphasize envy's mediation role, reveal the intricate emotional fabric woven into social comparison dynamics.

While our research sheds light on this topic, it is critical to recognise its inherent limits. The cross-sectional approach, as well as the demographic makeup of our sample, may have an impact on the generalizability and depth of our findings. Nonetheless, these constraints do not decrease our contributions. Instead, they encourage future research to dive deeper, use different approaches, widen sample diversity, and investigate additional mediator and moderator variables. The goal is to learn more about the confusing nexus of emotions, motivations, and behaviors that support the social comparison process.

To summarise, our findings show that an organization's emotional climate has a major impact on its operational outcomes. The findings highlight the significance of understanding emotional reactions, particularly envy, within the context of social comparison. The apparent conclusion is that for organizations to prosper, they must precisely control their emotional climate, notably by limiting malicious envy while encouraging its benign counterpart. These initiatives promise improved job performance, which will benefit both individuals and institutions.

Finally, our research not only advances academic understanding of the complicated relationship between social comparison, envy, and job performance, but it also provides practical insights for organizational stakeholders. Our study promotes a more compassionate and comprehensive approach to understanding and controlling emotions in the workplace by

merging theory and practice, benefiting both the scholarly community and organizational practitioners.

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Appendix A

Table 1

Descriptive Statistics

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
JP_Combine	98	2,50	4,88	3,8194	,43373
JP_CWP	98	1,00	4,00	1,9380	,60100
SocoialComparison	98	1,67	4,57	3,3491	,59647
Envy_Benign	98	1,00	4,40	2,2857	,76576
Envy_Malicious	98	1,00	3,00	1,6403	,49558

Table 2*Correlation*

	JP_Combine	JP_CWP	SocialComparison	EnvyBenign	EnvyMalicious
JP_Combine	1	-,540	-,010	-,299	-,362
JP_CWP	-,540	1	,165	,360	,396
SocialComparison	-,010	,165	1	,536	,269
EnvyBenign	-,299	,360	,536	1	,499
EnvyMalicious	-,362	,396	,269	,499	1

Note: Correlation is significant at the 0.01 level (2-tailed)

Table 3*Direct and Indirect Effect of Social Comparison on Job Performance*

	Predictors	B	SE	t	p	%CI
JP_Combine	SocialComparison	0.15	0.08	1.91	0.06	(-0.01, 0.31)
	EnvyBenign	-0.11	.05	-2.21	0.03	(-0.21, -0.02)
	EnvyMalicious	-0.06	0.03	-2.64	0.01	(-0.12, -0.01)
JP_CWP	SocialComparison	-0.04	0.11	-0.36	0.72	(-0.26, 0.18)
	EnvyBenign	0.13	0.08	1.95	0.05	(-0.03, 0.38)
	EnvyMalicious	0.08	0.04	2.69	0.01	(0.01, 0.17)

Table 4*Model Summary of Regression Analysis For Job performances Predictors*

	<i>R</i>	<i>R Square</i>	<i>Adj. R Sq.</i>	<i>Std. Error</i>
JP_Combine	0.010	0.000	-0.010	0.4359
JP_CWP	0.165	0.027	0.017	0.5958

Table 5*ANOVA Result for Regression Model Predicting Job Performance*

	df	Mean Square	F	Sig.
JP_Combine	1	0.002	0.010	0.919
Residual	96	0.190		
Total	97			
JP_CWP	1	0.953	2.685	0.105
Residual	96	0.355		
Total	97			

Appendix B

Survey

Form of contents

Dear Participant, We invite you to participate in a survey about job performance and its relationship to upward social comparison at work. This survey is being conducted by Ali Miaei, a master's student at the University of Groningen, to better understand the impact of envy on the relationship between upward social comparison and job performance in the workplace. Your participation in this survey is completely voluntary. You have the right to withdraw from the survey at any time without penalty or loss of benefits. The information you provide will be kept strictly confidential and will only be used for the purpose of this research project. We will not share your personal information with anyone outside of the research team. Your responses will be anonymous, and only aggregate data will be reported. If you have any questions about the survey or would like further information, please do not hesitate to contact A.Miaei@student.rug.nl. By clicking on the "Yes, I consent" button at the bottom of this page, you are indicating that:

You have read the information about the research and have had enough opportunity to ask questions about it.

You understand what the research is about, what is being asked of you, the potential consequences of participation, how your data will be handled, and what your rights as a participant are.

You understand that participation in the research is voluntary, you choose to participate, and you can stop participating at any moment without needing to explain why. Stopping will have no negative consequences for you.

Thank you for your participation.

Demographic Part***Career branch***

(Please specify the branch or industry of your career).

healthcare,

IT,

finance,

education,

others

Employment type

(Please indicate your type of employment).

Employed by an organization

Self-employed/Independent worker (ZZP)

Volunteer

Intern

Unemployed

Other (please specify)

Years of working in current function

(Please indicate how many years you have been working in your current function).

Less than 1 year

1-2 years

3-5 years

6-10 years

More than 10 years

Hours per week

(Please indicate how many hours you work per week).

0-8 hours

9-16 hours

17-24 hours

33 hours or more

Age

(Please enter your exact age. Use numbers only).

Gender:

(Please indicate your gender.)

Male

Female

Non-binary

Prefer not to say

Answer scales

5 Likert scale:

“Strongly disagree”

“Disagree”

“Neither agree nor disagree”

“Agree

““Strongly agree”

Envy

In this section, we will be assessing your feelings of envy in the workplace. Envy is the emotion experienced when someone desires another person's qualities, achievements, or possessions. It is important to understand that feelings of envy are natural and can manifest in various ways. Please read the following statements and rate your level of agreement with each item based on your personal experiences.

A) Benign and Malicious Envy Scale BeMaS (Lange & Crusius, 2014).

I feel inferior to people who are better than me in an important area.

I sometimes envy others who have a higher status than me.

I envy those who have qualities I would like to possess.

I envy others who are more successful than me.

I sometimes feel envy when someone is better than me in an important area.

If I envy someone, I would like to see them fail in the future.

I envy others so much that I wish they would fail in the future.

When I envy others, I often wish that they would fail in the future.

If I envy someone, I would like to harm them in some way.

When I feel envy, I often wish to harm the envied person.

Social Comparison

The following section focuses on social comparison in the workplace. Social comparison refers to the process of evaluating oneself in relation to others. This can be done by comparing one's abilities, achievements, and other aspects of life to those of their peers or colleagues. Your responses to the items in this section will help us better understand how social comparison affects individuals in their work environment. Please read each statement carefully and rate your level of agreement based on your own experiences.

A) The Iowa-Netherlands Comparison Orientation Measure (INCOM) by Gibbons & Buunk (1999).

I often compare myself with others with respect to what I have accomplished in life.

I always pay a lot of attention to how I do things compared with how others do things.

I always like to know what others in a similar situation would do.

If I want to find out how well I have done something, I compare what I have done with how others have done.

I often compare how my loved ones (boy or girlfriend, family members, etc.) are doing with how others are doing.

I often compare myself with others.

If I want to learn how to do something, I look at how others do it.

I enjoy it when someone else does worse than me in something I do.

I often try to find out what others think who are in the same situation as I am.

I always compare myself with others who are doing worse than I am.

If I meet someone who is better than me, I try to improve myself.

B) identification and contrast comparison (Van Der Zee et al., 2000).

I often compare myself to colleagues who are similar to me in terms of job performance.

I feel a sense of connection with coworkers who face similar challenges at work.

I find it helpful to compare my work performance with that of colleagues who are at the same level as me.

I identify with coworkers who are dealing with similar work-related issues.

I feel that I can learn from comparing myself to colleagues who are in a similar job position.

I often compare myself to colleagues who are performing better than me to see how I can improve.

I feel motivated when I compare my work performance with that of more successful coworkers.

I like to know how my job performance compares to others who are doing better in their jobs.

Comparing myself with colleagues who have achieved more helps me set higher goals for myself.

I feel inspired when I compare myself to coworkers who are advancing in their careers.

Job Performance

This section of the questionnaire focuses on your job performance. Job performance refers to how well an individual performs their job tasks and responsibilities. This can include aspects such as productivity, efficiency, and overall effectiveness in their role. By evaluating your job performance, we aim to understand how it may be influenced by factors such as social comparison and envy. Please read each statement and rate your level of agreement based on your personal experiences in your current role.

A) Career Satisfaction Scale (CCS)), adopted from the original scale by Hofmans et al. (2008).

I have achieved a great deal in my work.

I am successful in my career.

I have received recognition for my work.

I have had good opportunities for advancement.

I have been satisfied with my promotions.

I have had a successful work life.

I have been satisfied with my work life.

B) Individual Work Performance Scale (IWPS)), adopted from the original scale by Koopmans et al. (2012).

I am able to accomplish the goals I set for myself at work.

I successfully complete my work tasks.

I am efficient in my work.

I meet or exceed the performance expectations for my job.

I am committed to achieving the goals set for my job, even when faced with obstacles.

I take the initiative to identify and solve work-related problems.

I am able to prioritize and focus on important tasks in my work.

I can adapt to changes in my job responsibilities and work environment.

I actively seek feedback from others to improve my work performance.

I am effective in managing my time and resources to complete tasks.

C) Counterproductive Work Behavior (CWB) adapted from the original scale by Sypniewska (2020).

I have intentionally worked slower than I could have, negatively affecting my job performance.

I have neglected to follow my supervisor's instructions, which hindered my job performance.

I have failed to put in the required effort to complete tasks on time, reducing my job performance.

I have intentionally made errors in my work, impacting my overall job performance.

I have avoided taking on additional tasks or responsibilities that could have improved my job performance.

I have not kept my skills and knowledge up to date, which has negatively affected my job performance.

I have withheld important information that could have improved my team's performance.

I have spent excessive time on personal activities during work hours, which has hindered my job performance.

I have been reluctant to adapt to new procedures or technology that could have enhanced my job performance.

I have ignored or disregarded feedback that could have improved my performance at work.