ABSTRACT

Past research shows that people use local social comparison information more than general social comparison information when both are given (Zell & Alicke, 2010). The present studies examined the extent to which people seek local comparisons when they have already received general comparison information. In Study 1, students received their exam grades and were either told or not told the average score. In Study 2, laboratory participants received feedback indicating favorable, unfavorable, or no information about general standing. Both studies showed that participants were more interested in local comparison with peers when they lacked information about general standing.

INTRODUCTION

When it comes to evaluating the attributes, opinions and abilities of the self, few information sources are as prized as social comparison (Festinger, 1954, Guimond, 2007). People compare themselves to others on a daily basis (Summerville & Roese, 2008; Wheeler & Miyake, 1992) and these comparisons have diverse consequences for affect, cognition, and behavior (Mussweiler, 2003). According to recent studies, local social comparisons with a few immediate peers overshadow general comparisons with aggregated information from a larger group (Alicke, Zell, & Bloom, 2010; Buckingham & Alicke, 2002; Zell & Alicke, 2010). In one study, for example, participants who were told they had the highest score in their small group, but occupied the 32nd percentile for their university rated themselves more favorably than participants who were told they had the lowest score in their group, but occupied the 84th percentile (Zell & Alicke, 2009).
Whereas prior research demonstrates that people use local social comparison information more than general comparison information when both are given, the purpose of the present research was to examine to what extent people actually seek local social comparisons when they have already received general comparison feedback such as the average test score. It is possible that people have such a strong preference for local comparison that they seek local standards regardless of their knowledge of general standards. For example, students may compare their exam scores with those of their classmates even when they know the average score on a test. Likewise, employees may wish to compare their salaries with those of their co-workers even if they are provided with information about the typical compensation of employees at their company.

Alternatively, the presence of general social comparison information may reduce peoples’ tendency to engage in local social comparison with peers. For example, students may be less likely to compare their exam scores if they know the average score because comparison to the average should reduce uncertainty about their level of performance. In support of the link between uncertainty and social comparison, a number of studies have found that social comparison is related to traits that are marked by uncertainty about the self such as neuroticism (Gibbons & Buunk, 1999), depression (Weary, Elbin, & Hill, 1987), low self-esteem (Wood & Lockwood, 1999), and low self-concept clarity (Butzer & Kuiper, 2006). In addition, research indicates that people are more likely to compare with others when they are uncertain about specific aspects of their lives including their job, marriage, or understanding of recent events (Buunk, Schaufeli, & Ybema, 1994; Buunk & VanYperen, 1991).

Based on the literature in the previous paragraph, we hypothesized that people who do not receive general comparison information (e.g., the average score) are more likely to engage in local social comparison with peers than people who do receive general comparison information. We tested this hypothesis in two studies. The first study was a quasi-experiment in which we measured students’ performance in an actual class, manipulated whether they were told the average score, and then measured their self-reported social comparison with peers. The second study was a controlled laboratory experiment in which we manipulated participants’ scores and the average score on a standardized test and then measured their interest in seeing other participants’ scores.

Past studies have also examined social comparison in academic settings, but have focused on middle school students. These studies show that most middle school students identify a typical comparison target (rather than reporting that they do not typically compare with anyone) despite the fact that general comparison standards are pervasive in school settings (Blanton, Buunk, Gibbons, & Kuyper, 1999; Huguet et al., 2009). Nevertheless, it is unclear from this research whether depriving students of general comparison information boosts local comparison with peers. Moreover, asking students to identify another person with whom they compare may suggest to students that local comparison is the normative response. To alleviate this concern, we simply asked participants to recall whether they had compared with classmates (Study 1) and whether they would like to compare with similar others (Study 2).

STUDY 1
111 introductory psychology students from Towson University participated for extra credit. After removing 2 students who did not accurately recall if they were given the average score, the final sample included 109 student participants (78 female). The study was conducted using four independent sections of introductory psychology at Towson University. All four sections were taught by the same instructor on the same days of the week and the material tested was identical across the four sections. Students in all four sections also had access to a secure course website (Blackboard) where they could look up their own exam score (but not the scores of other students) and the average score (in the sections in which the average was provided); scores were posted on this website the day before the exams were returned to students in class. A random process (coin flip) determined which sections did and did not receive the average exam grade.

After receiving their graded exams in class, students in each of the four course sections were asked to fill out a short questionnaire on “grades and social comparison.” This questionnaire first asked students to report their own exam score. Students were then asked to report whether or not they had found out the grades of any other people in their class and, if so, how many. The last part of the questionnaire asked students to report whether or not their instructor had provided the average grade, and if so, what the average grade was in their class. These two items served as a feedback manipulation check. Participants accurately reported their scores: Descriptive statistics for the reported scores ($M = 75\%$, $SD = 13\%$) were similar to the actual statistics provided by the instructor ($M = 73\%$, $SD = 13\%$).

Class section and gender were not significantly related to the dependent variables, so these variables were not included in the analyses. We first used a logistic regression analysis to test whether general comparison (whether the average was provided or not), students’ exam scores (standardized), and the interaction of the two variables influenced whether or not participants engaged in local social comparison. The only significant effect was the effect of general comparison, $Wald = 4.18$, $p < .05$. As anticipated, students who were not told the class average (71.7\%) were significantly more likely to make local social comparisons than students who were told the class average (53.1\%). We also used multiple regression to test the effects of general comparison and exam score on the number of local comparisons reported. This analysis showed that general comparison had a significant effect on local comparison, $Beta = -.35$, $t(108) = -3.84$, $p < .001$. Students who did not receive the average score reported significantly more local comparisons ($M = 1.72$, $SD = 1.42$) than participants who did receive the average ($M = 0.82$, $SD = 0.93$). Neither the main effect of exam score nor the General comparison X Exam score interaction were significant, $ps > .05$.

Study 1 provides an externally valid demonstration of social comparison behavior, but some students may have encountered social comparisons without seeking them (e.g., if they overheard classmates discussing their scores). In Study 2, we addressed this limitation and examined the reliability of our findings in a laboratory experiment.

**STUDY 2**

125 female students from Towson University participated in partial fulfillment of a course requirement, and were tested in individual laboratory sessions. Participants were randomly assigned to conditions in a 3 (General comparison: no average, above average, below average) X
2 (Test score: low, high) between-subjects factorial design. Participants were given 20 minutes to complete a 50-item spatial ability test (Serebriakoff, 1998). While waiting for their scores, participants read an information sheet which stated that past research had established the reliability and predictive validity of this test. In the above and below average conditions, the information sheet also included a bogus average score that was ostensibly based on over 200 female students who had taken the same test in the previous semester. The average score was manipulated to be 5 points higher or lower than the bogus score participants would eventually receive.

The experimenter allowed participants 2 to 3 minutes to read the information sheet, and then returned to deliver the feedback and questionnaires. The experimenter read the participant’s score from a clipboard and instructed the participant to write down their score on the information sheet. The test scores were either 26 (low) or 36 (high) out of 50. The experimenter then said, “Now there’s an optional part of the experiment. Would you like to look over the scores of some of our previous participants to see how some other students did? You can look at up to 20 scores. But of course you don’t have to look over any, this is optional.” The experimenter recorded whether participants were interested in seeing other participants’ scores and, if so, how many they wanted to see. The experimenter then asked participants to fill out a questionnaire while he or she ostensibly retrieved the requested information. On the questionnaire, participants provided demographic information, and responded to manipulation checks.

We first treated local social comparison as a dichotomous dependent variable (yes, no). In a three-way loglinear analysis (test score and general comparison predicting local comparison), the main effect of local comparison was significant, partial chi-square (1) = 19.73, \( p < .001 \), which indicates that, overall, participants were more likely to avoid local comparison (70%) than seek it (30%). This effect was qualified by a significant General Comparison X Local Comparison interaction, partial chi-square (2) = 15.20, \( p < .01 \) [1]. Follow-up tests showed that participants who did not receive the average score (54%) were more likely to seek local social comparisons than participants who scored above average (19%) or below average (19%), chi square (1) = 10.77, \( ps < .01 \) (See Table 1). Test score (low vs. high) was not significantly related to social comparison seeking, \( p > .05 \).

We also analyzed local social comparison as a quantitative variable (i.e., the number of comparison scores the participant requested). In a 3 (General comparison: no average, above average, below average) X 2 (Test score: low, high) ANOVA, the only significant effect was the main effect of general comparison, \( F(2, 119) = 8.49, p < .001 \). Follow up tests showed that participants who did not receive the average score (\( M = 4.20, SD = 5.64 \)) requested more local comparisons than participants who received above average (\( M = 1.26, SD = 2.89 \)) or below average feedback (\( M = 1.33, SD = 3.65 \), \( ps < .05 \).

Consistent with Study 1, participants in Study 2 were most interested in social comparison when they did not know the average score. Participants who were not told the average score were more likely to request other participants’ scores from the experimenter than participants who received the average.

**TABLE 1.**
LOCAL COMPARISON SEEKING AS FUNCTION OF TEST SCORE AND GENERAL COMPARISON FEEDBACK (STUDY 2).

<table>
<thead>
<tr>
<th>Test Score</th>
<th>General Comparison</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>No average</td>
<td>11</td>
<td>10</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Above average</td>
<td>4</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Below average</td>
<td>7</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>22</td>
<td>41</td>
<td>63</td>
</tr>
<tr>
<td>High</td>
<td>No average</td>
<td>11</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Above average</td>
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<tr>
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<td>Below average</td>
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<td>Totals</td>
<td></td>
<td>38</td>
<td>87</td>
<td>125</td>
</tr>
</tbody>
</table>

Legend: Regardless of whether they received low or high scores on the test, participants who did not receive general comparison information (the average score) were significantly more likely to seek local comparison information (comparisons with other individuals).

DISCUSSION

In the present studies, we tested the effect of general comparison on local social comparison among students in actual classes (Study 1) and in a controlled laboratory experiment (Study 2). We found that students were more interested in local comparison with peers when they lacked information about their general standing. In both studies, participants who received only their own score were more interested in making local social comparisons than participants who received their own score plus information about the average performance. This is consistent with the premise that uncertainty about the meaning of performance feedback motivates social comparison.

The present findings highlight a distinction between using social comparison that has been provided and actually seeking social comparison. Previous research has shown that peoples’ self-evaluations and behavior are affected by local social comparisons with one or a few peers even when more valid standards of comparison, such as the average, are available (Alicke et al., 2010; Buckingham & Alicke, 2002; Zell & Alicke, 2009). It appears that people cannot help but use social comparison information if it is provided, but what if it is not provided? The present research shows that people are substantially less likely to seek such local social comparisons when they already know the average score.

The present research also suggests that the method used to ask people about their social comparison behavior is important. Past studies in school settings, in which students were asked to nominate a student with whom they typically compare their academics or indicate that they do
not typically compare with anyone in the class, revealed higher rates of comparison than the present studies (Blanton, Buunk, Gibbons, & Kuyper, 1999; Huguet et al., 2009). This discrepancy may be due to the specificity of the comparison dimension (i.e., we only asked about comparisons on a specific test) or the possibility that the phrasing of the question in past studies led participants to assume that comparison is the appropriate response. The rate of social comparison was even lower in our Study 2, but this is likely due to the fact that the laboratory performance had no bearing on students’ academic standing.

Although the present research supports our hypothesis, there are several limitations to the present studies. We did not measure uncertainty, so our data do not provide direct support for our contention that people seek social comparison to reduce uncertainty. In addition, it is possible that other types of information (e.g., whether a score reaches a particular benchmark for success; see Moore & Klein, 2008), besides general comparison, would also reduce local social comparison. Furthermore, our measures of social comparison seeking were imperfect in that we relied on self-reports of behavior (Study 1) and interest in seeing others’ scores (Study 2) rather than directly observing social comparison behavior.

Despite the need for future research to address these limitations, the current findings have a number of tentative implications. Teachers who wish to curtail social comparison in their classrooms may consider providing the average score. Managers who wish to curtail wage comparisons in organizations may provide aggregate comparison information about the average salary in their company or profession. Self-assessment is a difficult and complex task. Providing people with useful standards, such as general comparisons, may reduce uncertainty about the self and free up resources normally consumed by peer comparison for more enjoyable and productive pursuits.

ENDNOTE

1. Three of the twelve cells in this design had expected frequencies of less than five. However, given that the three-way interaction was not significant, the effects we report all involve cells with expected frequencies of at least five.

REFERENCES


APPENDIX 1: CORRELATION MATRIX FOR STUDY 1

<table>
<thead>
<tr>
<th></th>
<th>General Comparison</th>
<th>Exam Grade</th>
<th>Local Comparison (dichotomous)</th>
<th>Local Comparison (quantitative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Comparison</td>
<td>1.00</td>
<td>.10</td>
<td>-.19*</td>
<td>-.35**</td>
</tr>
<tr>
<td>Exam Grade</td>
<td></td>
<td>1.00</td>
<td>.04</td>
<td>.01</td>
</tr>
<tr>
<td>Local Comparison (dichotomous)</td>
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<td></td>
<td>1.00</td>
<td>.77**</td>
</tr>
<tr>
<td>Local Comparison (quantitative)</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note. N = 109. For general comparison, -1= No average, 1= Average. For dichotomous local comparison, 0= No, 1= Yes. *p < .05, **p < .01.

APPENDIX 2: CORRELATION MATRIX FOR STUDY 2

<table>
<thead>
<tr>
<th></th>
<th>General Comparison</th>
<th>Absolute Feedback</th>
<th>Local Comparison (dichotomous)</th>
<th>Local Comparison (quantitative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Comparison</td>
<td>1.00</td>
<td>.01</td>
<td>.31**</td>
<td>-.27**</td>
</tr>
<tr>
<td>Absolute Feedback</td>
<td></td>
<td>1.00</td>
<td>.10</td>
<td>-.08</td>
</tr>
<tr>
<td>Local Comparison (dichotomous)</td>
<td></td>
<td></td>
<td>1.00</td>
<td>-.78**</td>
</tr>
<tr>
<td>Local Comparison (quantitative)</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note. N = 125. For general comparison, 1= No average, 2= Above average, 3= Below average. For absolute feedback, 1= Low, 2= High. For dichotomous local comparison, 1= Yes, 2= No. **p < .01.

AUTHORS’ NOTE
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