Self-evaluative effects of dimensional and social comparison

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HIGHLIGHTS

• Participants learned that they performed better or worse than other people (social comparison).
• Participants learned that they performed better or worse in one domain than another domain (dimensional comparison).
• Both comparison types significantly influenced self-evaluations and affective reactions.
• The influence of social comparison was significantly stronger than dimensional comparison.

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ABSTRACT

During self-evaluation, people compare their performance in one domain to their performance in other domains (dimensional comparison). Additionally, people compare their own performance to the performance of relevant peers (social comparison). Most experimental research on self-evaluation has investigated the effects of either dimensional comparison or social comparison, despite the fact that people often evaluate themselves in the context of both standards. To address this gap, the current research examined the interplay of dimensional and social comparison during self-evaluation. Participants received manipulated feedback indicating that they performed better or worse in one domain than another domain, and better or worse than other people. Both comparison types significantly influenced self-evaluations and affective reactions; however, the effect of social comparison was significantly stronger than dimensional comparison. These findings support prior theories on the important roles of dimensional and social comparisons in self-evaluation, but also suggest that social comparison is more impactful.

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Julie receives her GRE scores and is deciding whether or not to pursue graduate study in a math-related field. Her math and verbal scores are significantly above average; however, her verbal score is significantly better than her math score. How should Julie evaluate her math performance? Should she be pleased that she ranked above average in comparison to her peers? Or should she be disappointed that she performed worse in math than in verbal? This example illustrates two fundamental processes that occur when people receive feedback about their performance: social comparison (Festinger, 1954; Mussweiler, 2003) and dimensional comparison (Marsh, 1986; Möller & Marsh, 2013). According to social comparison research, people compare their own performance to the performance of relevant peers; people who outperform their peers (downward comparison) typically feel better about themselves than people who underperform their peers (upward comparison; Aicke, Zell, & Guenther, 2013). According to dimensional comparison research, people compare their performance in a given domain (e.g., math) to their performance in other domains (e.g., verbal); people typically feel better about their performance in the target domain when it ranks superior (downward comparison) as opposed to inferior to their performance in a standard domain (upward comparison; Pohlmann & Möller, 2009).

Educational theories, such as the Internal/External Frame of Reference Model, have long argued that dimensional and social comparisons are fundamental determinants of self-evaluations (Marsh, 1986; Möller, Retelsdorf, Köller, & Marsh, 2011). In support of this position, numerous studies conducted by educational psychologists demonstrate the effects of dimensional and social comparison information on self-evaluations (see Chiu, 2012; Möller, Pohlmann, Köller, & Marsh, 2009), but only a few of these studies are experimental in nature. Conversely, social psychologists have conducted numerous experiments demonstrating the causal effects of social comparison information on self-evaluations and affective reactions following performance (see Fiske, 2011; Suls & Wheeler, 2000), but as of present, few social psychologists have recognized the possibility of dimensional comparison effects. As illustrated in our example above, people often have access to both standards, and daily diary studies support the notion that dimensional and social comparisons both occur regularly in everyday life (Möller & Husemann, 2006; Summerville & Roese, 2008). Thus,
it is critical to understand the causal effects of both dimensional and social comparison on self-evaluations.

In the present report, we introduce dimensional comparison theory (Möller & Marsh, 2013) to social psychology in effort to address two primary questions regarding self-evaluation. First, we examine whether dimensional and social comparisons can exert simultaneous effects in the same experimental context. In other words, if people receive feedback that provides both dimensional and social comparison information, do both standards exert significant effects? Research addressing this question would contribute to a growing body of scholarship on how people evaluate themselves in the context of multiple standards and whether social comparison effects continue to occur in the presence of other standards (Wood & Wilson, 2003). Along these lines, previous research indicates that social comparisons influence self-evaluations even when people also have objective information (Klein, 1997) or temporal comparison information (Zell & Alicke, 2009). The current study contributes to this literature by examining whether social comparisons influence self-evaluations even when people also have dimensional comparison information.

Second, we examine the relative size of dimensional and social comparison effects. Although both standards have long been regarded as important determinants of self-evaluations, our novel approach allowed for the first test of whether one standard has a more potent influence on self-evaluations and affective reactions than the other. Such knowledge would be of important theoretical and practical value, given that self-evaluations of competence in specific domains predict important life choices such as the selection of academic majors and careers (e.g., Ehringer & Dunning, 2003). Emerging research indicates that social comparisons are more strongly associated with self-evaluations than dimensional comparisons (see Möller et al., 2009 for a meta-analysis), but it remains unclear whether social comparisons have a stronger causal influence on self-evaluations than dimensional comparisons.

Previous research

To our knowledge, only two published experiments have examined how people evaluate themselves in the context of both dimensional and social comparison. In one study (Pohlmann & Möller, 2009, Study 3), participants received social comparison information indicating that they ranked above average, average, or below average on a word analogies test (downward, lateral, and upward social comparison), and average on a figure analogies test. The result of this feedback was that their performance on the figure analogies test ranked worse, about the same, or better than their performance on the word analogies test (upward, lateral, and downward dimensional comparison). Participants in the downward dimensional comparison condition evaluated themselves more favorably and felt better about their performance than participants in the lateral and upward dimensional comparison conditions, despite the presence of social comparison information. However, the potential simultaneous effect of social comparison information was not assessed in this experiment.

A related study provided initial evidence suggesting that dimensional and social comparison simultaneously influence self-evaluations and affective reactions (Möller & Köller, 2001, Study 3). Participants received social comparison information indicating that they performed above average, average, or below average on a figure analogies test (upward, lateral, and downward social comparison), and dimensional comparison information indicating that their figure analogies performance ranked better or worse than their performance on a word analogies test (downward and upward dimensional comparison). Participants in the downward social comparison conditions evaluated themselves more favorably and felt better about their performance than participants in the upward social comparison conditions. Similarly, participants in the downward dimensional comparison conditions evaluated themselves more favorably and felt better about their performance than participants in the upward dimensional comparison conditions. However, this study did not examine whether social comparison had a stronger influence than dimensional comparison. Thus, additional research is needed to explore the simultaneous and relative effects of dimensional and social comparison in self-evaluation.

The current research

We conducted two experiments to address these critical gaps in the self-evaluation literature. In both experiments, participants completed brief tests of quantitative and verbal reasoning skills. Then participants received manipulated dimensional and social comparison feedback. Social comparison in both studies was manipulated by informing some participants that they ranked 30 percentile points better or worse than average in the target domain. Similarly, dimensional comparison was manipulated by telling some participants that they ranked 30 percentile points better or worse in one domain (verbal reasoning) than another domain (quantitative reasoning). Thus, the absolute size of social and dimensional comparison manipulations in the present research was largely equivalent (i.e., 30 percentile points). On the basis of prior theories specifying that dimensional and social comparison yield simultaneous, independent effects (Marsh, 1986; Möller et al., 2011) as well as preliminary experimental evidence (Möller & Köller, 2001, Study 3), we anticipated that both standards would exert significant effects on self-evaluations and affective reactions.

Furthermore, we proposed that social comparisons would have a more potent influence on self-evaluations and affective reactions than dimensional comparisons. Success in a variety of contexts (e.g., athletics, school, and work) is typically defined by one’s social status, that is, how well one is performing in relation to others (Fiske, 2011; Frank, 1985). Additionally, obtaining high social status confers numerous benefits, including better physical (Akinola & Mendes, 2014; Kraus, Adler, & Chen, 2013) and mental health (Boyce, Brown, & Moore, 2010) as well as increased respect, admiration, and influence in important social groups (Anderson, Kraus, Galinsky, & Keltner, 2012). Conversely, performing better in one domain than another domain may not necessarily reap social and material rewards, especially if one’s performance in both domains is below average. Thus, although social and dimensional comparison may be useful sources of information that people consider during self-evaluation, the influence of social comparison should be substantially stronger than dimensional comparison.

Study 1

Our initial test of dimensional versus social comparison adopted several elements from a related study (Pohlmann & Möller, 2009, Study 3). Specifically, participants completed two tests and received manipulated feedback about their performance on the first test, while feedback on the second test was held constant. Social comparison information indicated how well participants performed on the first test in comparison to relevant peers. Next, the dimensional comparison implications of the feedback were highlighted, by stating how well participants performed on the second test in comparison to the first test. As in the prior study, dependent measures were administered following the second set of feedback to assess self-evaluative and affective reactions to dimensional comparison. However, unlike the prior study, dependent measures were also administered following the first set of feedback to assess self-evaluative and affective reactions to social comparison. Thus, our design not only served as a conceptual replication of a key study conducted previously on dimensional comparison (Pohlmann & Möller, 2009, Study 3) but also included additional measures that allowed for a novel test of whether social comparison is more influential than dimensional comparison.
Table 1

<table>
<thead>
<tr>
<th>Feedback conditions</th>
<th>Quantitative test</th>
<th>Verbal test</th>
<th>Social comparison direction</th>
<th>Dimensional comparison direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
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<tr>
<td>Condition 1</td>
<td>Below average</td>
<td>Average</td>
<td>Upward</td>
<td>Downward</td>
</tr>
<tr>
<td>Condition 2</td>
<td>Average</td>
<td>Average</td>
<td>Lateral</td>
<td>Lateral</td>
</tr>
<tr>
<td>Condition 3</td>
<td>Above average</td>
<td>Average</td>
<td>Downward</td>
<td>Upward</td>
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<tr>
<td>Study 2</td>
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<tr>
<td>Condition 1</td>
<td>Below average</td>
<td>Below average</td>
<td>Upward</td>
<td>Lateral</td>
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<tr>
<td>Condition 2</td>
<td>Below average</td>
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<td>Lateral</td>
<td>Downward</td>
</tr>
<tr>
<td>Condition 3</td>
<td>Above average</td>
<td>Average</td>
<td>Lateral</td>
<td>Upward</td>
</tr>
<tr>
<td>Condition 4</td>
<td>Above average</td>
<td>Above average</td>
<td>Downward</td>
<td>Lateral</td>
</tr>
</tbody>
</table>

Note: Dimensional comparison direction is determined from the perspective of the second (verbal) test in relation to the first (quantitative) test. Social comparison direction is determined by feedback on the first test in Study 1 and by feedback on the second test in Study 2.

Method

Participants and procedure

Participants were 122 introductory psychology students who participated in exchange for course credit at a university in the Southeastern United States (89 females, \( M_{age} = 19.37 \), 57 Caucasian, 36 African American). Participants first completed a 15-item quantitative reasoning test and a 20-item verbal reasoning test. Pilot testing found that the quantitative and verbal reasoning tests were of comparable difficulty and that performance on both tests was sufficiently ambiguous to promote the believability of false performance feedback.

After completing both tests, participants received manipulated feedback about their performance that was determined using random assignment. First, participants received social comparison feedback, indicating that their quantitative performance ranked better than 81%, 51%, or 21% of 259 test takers at their school and therefore ranked above average, average, or below average. Then, participants evaluated their quantitative performance, ability, and task-specific ability on 1 (very poorly/bad) to 9 (very well/good) scales (\( \alpha = .85 \)). Participants also indicated how happy, sad, proud, distressed, satisfied, and disappointed they felt about their quantitative performance on 1 (not at all) to 9 (extremely) scales (\( \alpha = .91 \)).

Next, all participants received feedback indicating that their verbal performance was better than 53% of 259 test takers at their school and therefore ranked average. Additionally, to highlight dimensional comparison, participants were told that their verbal performance ranked better, about the same, or worse than their performance on the quantitative test, as appropriate for their condition. Participants then completed items assessing verbal self-evaluations (\( \alpha = .82 \)) and affective reactions (\( \alpha = .88 \)) that were similar to those provided after the quantitative test. A summary of the feedback conditions is provided in Table 1 and a sample feedback protocol is provided in Table 2.

Manipulation checks and suspicion probe

At the end of the study, participants completed manipulation checks asking them to recall whether their quantitative and verbal performances were above average, average, or below average, and whether their verbal performance was better, about the same, or worse than their quantitative performance. Participants were also probed for suspicion about the feedback using a funnel debriefing. Data from 16 participants were excluded for failing one or more of the manipulation checks and/or the suspicion probe. All reported results were unchanged when these participants were retained (see Supplemental Materials).

Analytic strategy

In our repeated measures design, the influence of quantitative feedback on quantitative self-evaluations and affective reactions reflects the influence of social comparison (see Table 1). Along these lines, feedback indicating above average, average, and below average performance on the quantitative test reflects downward, lateral, and upward social comparisons, respectively. Conversely, the influence of quantitative feedback on verbal self-evaluations and affective reactions reflects the influence of dimensional comparison. Along these lines, feedback indicating above average, average, and below average performance on the quantitative test reflects upward, lateral, and downward dimensional comparisons, respectively. We used planned contrasts to examine whether the effect of upward versus downward social comparison was significantly stronger than the effect of upward versus downward dimensional comparison on both self-evaluations and affective reactions.

Results

Self-evaluations

A 3 (quantitative feedback: above average, average, below average) by 2 (evaluation dimension: quantitative, verbal) ANOVA was conducted on self-evaluations with repeated measures on the second factor. As anticipated, the quantitative feedback by evaluation dimension interaction was significant, \( F(2, 103) = 133.73, \ p < .001, \ \eta^2_p = .72 \) (see Fig. 1, left panel). Follow-up analyses were conducted to decompose this interaction.

A significant effect of social comparison was obtained, \( F(2, 103) = 57.70, \ p < .001, \ \eta^2_p = .53 \), such that participants told that their quantitative performance ranked above average evaluated their quantitative performance and ability more favorably than participants told that their quantitative performance ranked average or below average (all groups were significantly different, \( ps < .001, \ ds > .89 \)). Further, a significant effect of dimensional comparison was obtained, \( F(2, 103) = 18.27, \ p < .001, \ \eta^2_p = .26 \), such that participants told that their quantitative performance ranked above average evaluated their verbal performance and ability less favorably than participants told that their quantitative performance ranked average or below average (all groups were significantly different, \( ps < .001, \ ds > .93 \)).

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Table 2

<table>
<thead>
<tr>
<th>Quantitative feedback</th>
<th>Verbal feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>259 students have completed the Quantitative Reasoning Test. Your performance ranked better than 81% of these students. Your performance ranked ABOVE AVERAGE.</td>
<td></td>
</tr>
<tr>
<td>259 students have completed the Verbal Reasoning Test. Your performance ranked better than 53% of these students. Your performance ranked AVERAGE. You performed WORSE on the Verbal Test than the Quantitative Test.</td>
<td></td>
</tr>
</tbody>
</table>

1 In both studies, data were collected until at least 40 participants were obtained in each experimental group.
performance ranked average or below average (all groups were significantly different, \( p < .01, ds > .63 \)). However, consistent with our primary prediction, the influence of quantitative feedback was significantly stronger on quantitative self-evaluations than on verbal self-evaluations, \( F(1, 103) = 9.59, p = .003, \eta^2_p = .09 \). This finding suggests that social comparison had a stronger influence on self-evaluations than dimensional comparison.

### Affective reactions

Parallel results were obtained on affective reactions (see Fig. 1, right panel). A 3 (quantitative feedback) by 2 (evaluation dimension) ANOVA with repeated measures on the second factor yielded a significant quantitative feedback by evaluation dimension interaction, \( F(2, 103) = 107.08, p < .001, \eta^2_p = .68 \). As before, the effect of social comparison was significant, \( F(2, 103) = 54.01, p < .001, \eta^2_p = .51 \). Participants told that their quantitative performance ranked above average felt better about their quantitative performance than participants told that their quantitative performance ranked average or below average (all groups were significantly different, \( p < .005, ds > .66 \)). The effect of dimensional comparison was also significant, \( F(2, 103) = 14.00, p < .001, \eta^2_p = .21 \). Participants told that their quantitative performance ranked above average felt worse about their verbal performance than participants told that their quantitative performance ranked average or below average (all groups were significantly different, \( p < .02, ds > .61 \)). More importantly, however, the influence of quantitative feedback was significantly stronger on quantitative affective reactions than on verbal affective reactions, \( F(1, 103) = 9.01, p = .003, \eta^2_p = .08 \), which suggests that social comparison had a stronger influence on affective reactions than dimensional comparison.\(^2\)

### Supplemental analyses

Recent research suggests that downward comparisons, regardless of whether they are dimensional or social, may have a stronger influence on self-evaluations and affective reactions than upward comparisons, presumably because downward comparisons are more flattering (Möller & Pohlmann, 2010; Pohlmann & Möller, 2009). We conducted a weighted contrast to test this possibility in the current study using the following contrast codes (+1, −2, +1 for upward, lateral, and downward comparisons, respectively; see Möller & Pohlmann, 2010 for a similar analysis). Consistent with prior research, the effect of downward (versus lateral) social comparison was significantly stronger on affective reactions than the effect of upward (versus lateral) social comparison, \( F(1, 103) = 5.59, p = .02, \eta^2_p = .05 \) (see Fig. 1). However, downward social comparison did not have a significantly stronger effect on self-evaluations than upward social comparison, \( F(1, 103) = 2.87, p = .09, \eta^2_p = .03 \). Further, downward dimensional comparison did not have a significantly stronger effect on self-evaluations or affective reactions than upward dimensional comparison, \( F(1, 103) = 0.11, p = .74, \eta^2_p = .001, \) and \( F(1, 103) = 0.02, p = .90, \eta^2_p < .001 \), respectively. Thus, our results provided inconsistent support for the argument that downward comparisons exert stronger effects than upward comparisons; we elaborate on this point in the General Discussion.

### Discussion

Study 1 results complement a previous study by suggesting that dimensional comparison effects can be obtained even when people also have social comparison information (Pohlmann & Möller, 2009, Study 3). Unique to the current report, Study 1 results also suggest that social comparison may be a stronger determinant of both self-evaluations and affective reactions than dimensional comparison. That is, the effect of upward versus downward social comparison was significantly stronger than the effect of upward versus downward dimensional comparison.

### Study 2

Our first experiment had two limitations that necessitated additional research. First, we tested social comparison by examining the effect of performance feedback on quantitative evaluations and tested dimensional comparison by examining the effect of performance feedback on verbal evaluations. One could argue that perhaps social comparison yielded a stronger effect because quantitative evaluations are more susceptible to the influence of performance feedback than verbal evaluations. Second, in Study 1, the effect of social comparison was tested before dimensional comparison. Perhaps the effect of dimensional comparison was diminished as a function of being assessed after social comparison. Study 2 utilized a similar methodology as Study 1 but included important modifications to the feedback levels to address these concerns. That is, two feedback conditions examined the effect of upward versus downward dimensional comparison with regards to verbal performance in the context of a lateral (i.e., neutral) social comparison. Additionally, two feedback conditions examined the effect of upward versus downward social comparison with regards to verbal performance in the context of a lateral (i.e., neutral) dimensional comparison. In sum, social and dimensional comparison information in Study 2 were based on the same dependent variables (verbal evaluations) thus eliminating any possibility of an order effect or confounding of social/dimensional comparison with feedback domain.

### Methods

#### Participants and procedure

Study 2 followed an identical procedure to that of Study 1 in all ways except those noted below. Participants were 174 introductory psychology students (139 females, \( M_{\text{age}} = 19.86, 78 \) Caucasian, 45 African American). After completing quantitative and verbal reasoning tests, participants received manipulated feedback indicating that their quantitative performance ranked better than 81% or 21% of 259 test takers at their school and therefore ranked above average or below average. To reinforce the quantitative feedback, participants then completed quantitative self-evaluation and affective reaction items (αs > .86). However, these items were not relevant to our hypotheses and are not discussed further.\(^3\)

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\(^2\) In both studies, actual performance on the quantitative and verbal reasoning tests did not significantly differ by feedback condition (\( ps > .30 \)). All reported results were unchanged when controlling for actual performance (see Supplemental Materials).

\(^3\) The effect of quantitative feedback on quantitative evaluations in Study 2 was consistent with results obtained in Study 1 (see Supplemental Materials).
Next, participants received manipulated feedback about their verbal performance. Participants in the above average quantitative feedback conditions were told that their verbal performance ranked better than 83% or 53% of 259 previous test takers at their school and therefore ranked above average or average. To highlight dimensional comparison, these participants were told that their verbal performance ranked about the same or worse than their quantitative performance, as appropriate for their condition. Similarly, participants in the below average quantitative feedback conditions received information, indicating that verbal performance ranked better than 53% or 23% of 259 previous test takers at their school and therefore ranked average or below average. To highlight dimensional comparison, these participants were told that their verbal performance ranked about the same or worse than their quantitative performance, as appropriate for their condition. A summary of the feedback conditions is provided in Table 1. After reviewing the verbal feedback, all participants completed items assessing verbal self-evaluations and affective reactions (αs > .84), which served as the key dependent variables.

**Manipulation checks and suspicion probe**

Data from 26 participants were excluded for failing one or more of the manipulation checks and/or the suspicion probe. All reported results were unchanged when these participants were retained (see Supplemental Materials).

**Analytic strategy**

In two of the feedback conditions, we varied social comparison (upward, downward) while holding dimensional comparison constant (lateral comparison). Conversely, in the other two feedback conditions, we varied dimensional comparison (upward, downward) while holding social comparison constant (lateral comparison; see Table 1). Thus, our key analysis examined whether the effect of upward versus downward social comparison on verbal self-evaluations and affective reactions was significantly different from the effect of upward versus downward dimensional comparison.

**Results**

**Self-evaluations**

A 2 (comparison type: social, dimensional) by 2 (comparison direction: upward, downward) ANOVA was conducted on verbal self-evaluations. This analysis yielded a significant main effect of comparison direction, $F(1, 144) = 171.64, p < .001, \eta^2_p = .54$. That is, participants in the downward comparison conditions evaluated themselves significantly more favorably than participants in the upward comparison conditions. Follow-up analyses examined the effect of comparison direction within each comparison type.

As expected, participants in the downward social comparison condition evaluated themselves significantly more favorably than participants in the upward social comparison condition, $F(1, 144) = 139.61, p < .001, \eta^2_p = .49$. Similarly, participants in the downward dimensional comparison condition evaluated themselves significantly more favorably than participants in the upward dimensional comparison condition, $F(1, 144) = 44.61, p < .001, \eta^2_p = .24$. However, consistent with our primary prediction, the effect of social comparison was significantly stronger than dimensional comparison, as reflected by a significant comparison type by comparison direction interaction, $F(1, 144) = 13.81, p < .001, \eta^2_p = .09$ (see Fig. 2, left panel).

**Affective reactions**

Parallel results were obtained on affective reactions. The effect of comparison direction (upward versus downward) on verbal affective reactions was significant for both social and dimensional comparison.

**Discussion**

Study 2 replicated the key results of Study 1 while addressing its limitations. That is, social comparison had a more pronounced influence than dimensional comparison even when both standards were evaluated using the same performance domain (verbal reasoning) and when potential order effects were neutralized.

**General discussion**

Consistent with prior theories arguing that internal and external frames of reference simultaneously contribute to the self-concept (Marsh, 1986; Möller et al., 2011), our experiments obtained significant effects of dimensional and social comparison, and both effects were relatively large in size. Furthermore, we directly pitted dimensional and social comparison standards against each other and found, consistent with predictions, that social comparison had a stronger influence on self-evaluations and affective reactions than dimensional comparison. As we outline below, our data contribute to both dimensional and social comparison theories.

First, although numerous correlation-based studies have provided evidence consistent with dimensional comparison effects (see Möller et al., 2009), our results are among only a few experimental studies demonstrating the causal nature of such effects. That is, our results independently support and extend prior experimental research on dimensional comparison effects, which had up until now been conducted by only a small group of researchers (e.g., Möller & Köller, 2001; Pohlmann & Möller, 2009). Further, our results bolster a previous experiment showing that dimensional comparison effects obtain even when people also have unambiguous social comparison information (Pohlmann & Möller, 2009, Study 3). It is surprising that people with the same performance rank (e.g., 53rd percentile) can have dramatically different self-evaluations and affective reactions as a function of dimensional comparison. One might expect people to focus exclusively on their social comparative rank during self-assessment, but our results showed that people also consider the dimensional comparison implications of their performance. In this light, our findings support emerging theories arguing that dimensional comparison is a key determinant of the self-concept (Marsh et al., 2015; Möller & Marsh, 2013)

Second, our research contributes to a growing body of scholarship on the fundamental importance of social comparison to self and identity processes (Alicke et al., 2013; Fiske, 2011; Suls & Wheeler, 2000).
Whereas past research has shown that social comparison effects continue to occur when people also have objective information (Klein, 1997) or temporal comparison information (Zell & Alicko, 2009), the present findings show that social comparison effects continue to occur when people also have dimensional comparison information. Further, complementing emerging research suggesting that social comparisons have a stronger influence on self-evaluations than temporal comparisons with past selves (Van Yperen & Leander, 2014), our results suggest that social comparisons have a stronger influence on self-evaluations than dimensional comparisons. We argue that the social and material benefits of social status (Anderson et al., 2012; Boyle et al., 2010; Kraus et al., 2013) make people more attuned to social comparisons than dimensional comparisons, but future research is needed to further explore this possibility.

Although our studies provide initial evidence suggesting that social comparisons have a stronger influence on self-evaluations than dimensional comparisons, future research is needed to explore the generality of this effect and whether there are situations in which dimensional comparison is stronger than social comparison. Social comparison effects are reduced in large groups and when comparison referents are dissimilar to the self (see García, Tor, & Schiff, 2013; Zell & Alicko, 2010), and thus it is possible that these types of social comparison are weaker than some dimensional comparisons. Additionally, dimensional comparison effects are maximized when people think that there is a strong inverse relation between the two skills being considered, as they do for math and verbal skills (Marsh et al., 2015; Möller & Marsh, 2013). Nonetheless, it remains possible that dimensional comparison effects are even larger when examining other feedback domains. Finally, as an initial test of dimensional versus social comparison, we selected effects are even larger when examining other feedback domains. Finally, as an initial test of dimensional versus social comparison, we selected
