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Mirrors and reflections

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CHAPTER 3

How attractive am I today?

Effects of Social Comparison Orientation on the range in momentary self-evaluations of attractiveness

While many studies have shown that self-evaluations of women's attractiveness may not always be stable (Altabe, & Thompson, 1990; Henriques, Calhoun, & Cann, 1996; Haimovitz, Lansky, & O'Reilly, 1993; Heinberg, & Thompson, 1992; Pliner, & Chaiken, 1990; Taylor, & Cooper, 1992), individual differences that may affect the flexibility in self-evaluations of attractiveness have not received much attention. It seems likely that this flexibility is limited; in other words, while individuals may fluctuate in their momentary self-evaluations of attractiveness, these fluctuations may have boundaries. We assume that in general, woman will have an upper boundary above which their self-evaluation never rises, and a lower boundary below which their self-evaluation never sinks. These boundaries mark a personal range in momentary self-evaluations, in other words, all momentary self-evaluations will fall between the upper and lower boundary. This personal range will differ between individuals, i.e., some women will have more extreme ups and downs in their momentary self-evaluations, and, therefore have a wider range in momentary self-evaluations than women who have less extreme ups and downs.

The goal of the present research was to examine the relationship between social comparison orientation (SCO) and the personal range in self-evaluations of attractiveness among women. Social Comparison Orientation (SCO) refers to individual differences in the tendency to compare oneself with others, which is assessed by a scale developed by Gibbons and Buunk (1999). Buunk and Gibbons (2006) characterized the typical comparer by the following features: a strong activation of the self, a strong interest in the feelings of others, and a tendency to have a low self-esteem and to be high in neuroticism. There is some evidence from

outside the attractiveness domain that individuals high in SCO respond more strongly, and often more negatively, to a wider range of social comparison targets (Van der Zee et al., 1998; Buunk et al., 2006). In particular, it seems that even rather distant targets may evoke social comparisons responses among individuals high in SCO. For example, non-depressed individuals have been found to be affected in their mood by information about a depressed other when they were high in SCO, and not when they were low in SCO (Buunk, & Brenninkmeijer, 2001). This suggests that typical comparers tend to relate what happens to others to themselves, even when the situation of the other is quite different from their own. Following Festinger's (1954) reasoning, who stated that comparisons are only useful when the standing on the comparison dimension is perceived as relatively similar, it seems plausible that those high in SCO will be more inclined than those low in SCO to perceive objectively distant others as rather similar in standing. Thus, those high in SCO will, more than those low in SCO, compare themselves with very unattractive as well as very attractive targets. As social comparisons imply perceiving others as similar, we hypothesize that this wider range of comparison targets are in part due to the fact that women high in SCO have a wider range in the momentary self-evaluations of their attractiveness than those low in SCO. This wider range in self-evaluations will also lead to a wider range of relevant comparison targets among those high in SCO.

It may be argued that it is not a high SCO, but rather a low self-esteem that will affect the range of self-evaluations of attractiveness, given the fact that SCO has been found to be moderately, and negatively related to self-esteem (Gibbons et al., 1999). However, it seems logical to assume that self-esteem will only be accompanied with both a relatively less high upper and a relatively low boundary of one's self-evaluations, but that the range in these self-evaluations may be more or less stable, even for those with low self-esteem. Therefore, we expect that relationships between of SCO and the range of momentary self-evaluation of attractiveness will remain even when controlling for self-esteem.

Overview

In the present research we tested the hypothesis that those high in SCO will have a relatively wider personal range in momentary self-evaluations of attractiveness (Study

3.1, Study 3.2 and Study 3.3). In study 3.4, the same hypothesis was tested, controlling for self-esteem.

First, in Study 3.1, the hypothesis that individuals high in SCO have a wider range in self-evaluations was tested by asking the participants to judge how attractive they felt on their most attractive moment (highest self-evaluations of attractiveness, upper boundary) and on their least attractive moment (lowest self-evaluations of attractiveness, lower boundary), without any further instructions. In the second study, lowest and highest self-evaluations of attractiveness were related to a real life situation, i.e. catching a glimpse in a shop window, but without any reference to a social environment. In the third study, the lowest and highest self-evaluations of attractiveness were generated within a social comparison context. Participants had to estimate their lowest and highest self-evaluation of attractiveness on a scale with two photographs as anchors. Finally, in Study 3.4, the most positive and the most negative momentary self-evaluations of attractiveness were assessed independently, and the effect of SCO was examined controlling for self-esteem.

STUDY 3.1

Method

Participants and Procedure. Seventy-nine female undergraduates at the University of Groningen participated in this study in exchange for € 5 (mean age = 19.5, $SD = 1.70$).

Participants completed the questionnaire and tasks in separate rooms, and all questionnaires and other questions were completed on computers. Participants first completed the SCO scale (Gibbons, & Buunk, 1999) ($M = 3.80$, $SD = 0.48$, Cronbach's $\alpha = .76$). The scores of the questions were summed and divided by the amount of questions and then standardized. This scale consisted in eleven questions. Examples of items are: "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 always pay a lot of attention to how I do things compared with how others do things". Participants could indicate how much they agree with

each statement by using a 5-point scale ranged from 1 (*I strongly disagree*) to 5 (*I strongly agree*).

Next, a filler task was introduced to separate the assessment of SCO from the assessment of the attractiveness range. The attractiveness range was assessed with two questions, after the following instruction: “Most people fluctuate in their judgments about their own attractiveness.” Next, participants were asked “What is the most positive judgment you have had about your attractiveness?” and “What is the most negative judgment you have had about your own attractiveness?” Answers were given by means of a slider. The participants could move, by means of the mouse, a button on a vertical line to a position they chose. The anchors of the line were positioned on the top (*very attractive*) and the bottom (*not at all attractive*) of the line. When the knob was in the right position, participants had to press the enter button. The scores were transformed to a scale from 0 and 100. When the participants answered the second question, they could still see their answer on the first question.

Results

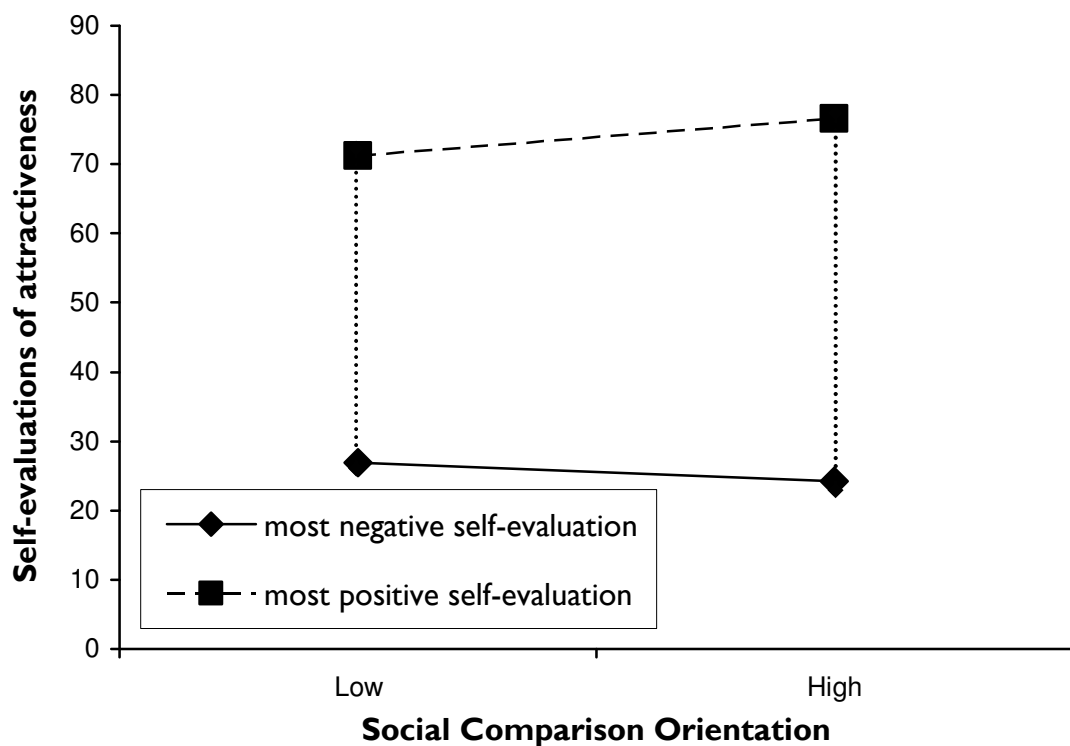
The scores on the SCO scale were standardized for use in the statistical analysis. The mean of the best self-evaluations of attractiveness was 73.92 ($SD = 9.46$) and for the worst self-evaluation of attractiveness 25.58 ($SD = 5.25$).

To test the hypothesis that women high and low in SCO differed in their range of self-evaluation of attractiveness, the range was calculated by subtracting the worst self-evaluation of attractiveness from the best self-evaluation of attractiveness (Mean difference score ($M = 48.33$, $SD = 11.09$)). A regression analysis with the standardized SCO-scores predicting the difference scores, revealed that the effect of SCO was significant, indicating that the attractiveness range differed between participants low and high in SCO, $B = 4.028$, $t = 3.420$, $p = .001$. Thus, as predicted, the higher the SCO, the wider was the personal range of self-evaluations of attractiveness.

Using difference scores leaves us with the question whether differences between high and low SCO are in fact driven by differences on both components or just on one of the components from which the range is calculated. Therefore, we also did separate regression analyses for the lowest and highest self-evaluation of

attractiveness With increasing levels of SCO, the upper boundary increased ($b = 2.67, t = 2.56, p = .012$), and the lower boundary decreased ($b = -1.36, t = -2.34, p = .022$). Thus, the difference in range between those low and high in SCO was due to a higher upper boundary as well as a lower lower boundary among those high in SCO as compared to those low in SCO. The statistics of the separate regression analyses were used to draw the simple slopes based on the original scores for different levels of SCO, with two vertical lines to indicate the personal range for individuals low (-1 SD) and high ($+1$ SD) in SCO. (Figure 3.1). This figure shows that the range of the two self-evaluations of attractiveness is wider for those high in SCO than for those low in SCO.

Figure 3.1. Range in self-evaluations of attractiveness for low and high in SCO (Study 3.1)



STUDY 3.2

Introduction

The results of Study 3.1 showed that individuals high in SCO have a wider personal range of attractiveness evaluations than individuals low in SCO. A potential limitation of Study 3.1 was that participants were simply asked to mark attractiveness scores for the best and the worst moments on a single line. Although the line was anchored with 0 (*not at all attractive*) and 100 (*very attractive*), the interpretation of the exact position of the marks remained implicit. Implied was that the participants remembered a specific worst and best moments, but no explicit instructions were given to guide the thoughts of the participants about these moments. They were free to choose their own best and worst moment. Therefore, their memories about these moments may have been subject to various biases. To provide for a more valid assessment of the self-ratings, in Study 3.2, a situation was specified, i.e., seeing oneself in a shop mirror.

Method

Participants and Procedure. Sixty-nine female undergraduates at the University of Groningen were recruited in the University Library to participate for free (mean age = 20.62, $SD = 2.26$).

In Study 3.2, a paper and pencil method was used for practical reasons. The order of materials was identical to that in Study 3.1. The mean score of SCO in this sample was 3.84 ($SD = 0.59$) and Cronbach's alpha was .75. The instruction differed slightly from those in Study 3.1: "Sometimes, you catch a glimpse of yourself in a shop window. Your appearance can exceed your expectations or fall short of your expectations." Then two questions were posed: "How attractive were you on the least attractive moment in a shop window? Mark your answer on the line." and "How attractive were you on the most attractive moment in a shop window? Mark your answer on the same line." Both answers were given on the same vertical line of approximately 12.5 cm and the anchors of the line were positioned on the top (*very attractive*) and the bottom (*not at all attractive*) of the line. To compare the results of

Study 3.2 with the results of Study 3.1, the scores in centimeters were transformed into scores on a scale from 0 to 100.

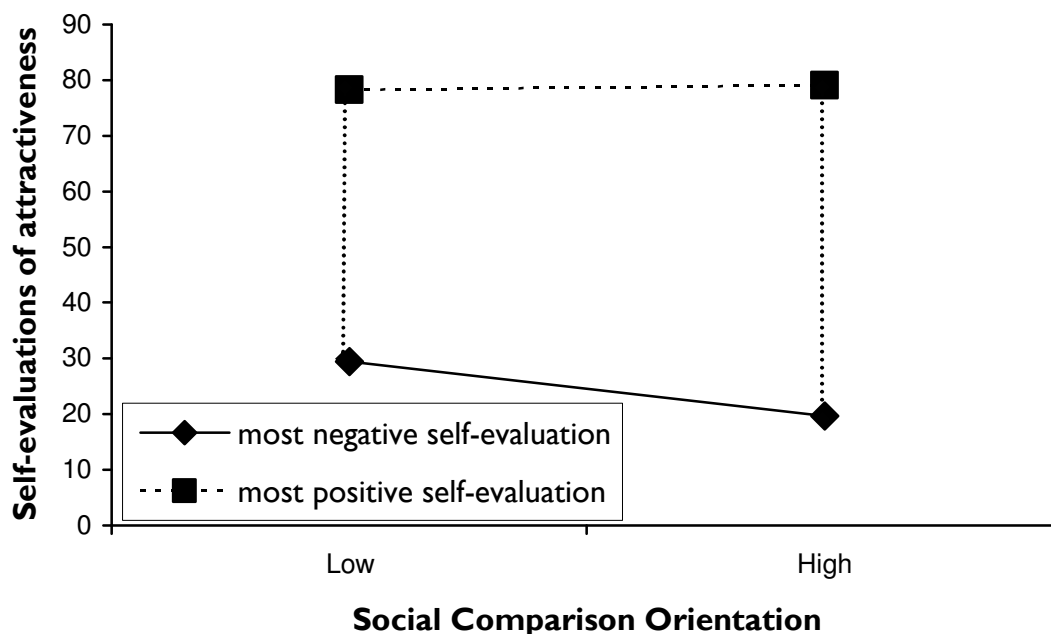
Results

The mean of the worst self-evaluation of attractiveness was 24.81 ($SD = 15.88$) and the mean of the best self-evaluation of attractiveness was 78.65 ($SD = 8.82$). The range was calculated by subtracting the worst self-evaluation of attractiveness from the best self-evaluation of attractiveness. The mean of the range was 53.96 ($SD = 17.11$).

As in Study 3.1, a regression analysis with the standardized SCO-scores predicting the difference scores, revealed that the effect of SCO was significant, indicating that also with this method the attractiveness range differed between participants low and high in SCO, $B = 5.34$, $t = 2.73$, $p = .008$. Thus, again, as predicted, the higher the SCO, the wider was the personal range of self-evaluations of attractiveness.

Again, we also did separate regression analyses for the lowest and highest self-evaluation of attractiveness. Unlike Study 3.1, with increasing levels of SCO, the upper boundary did not change ($b = .42$, $t = .39$, $p = .70$), however, in line with Study 3.1, the lower boundary decreased ($b = -4.92$, $t = 2.65$, $p = .01$). Thus, in this study the difference in range between those low and high in SCO was solely due to a lower lower boundary among those high in SCO as compared to those low in SCO. The statistics of the separate regression analyses were used to draw the simple slopes based on the original scores for different levels of SCO, with two vertical lines to indicate the personal range for individuals low ($-1 SD$) and high ($+1 SD$) in SCO. (Figure 3.2). This figure shows that the range of the two self-evaluations of attractiveness is wider for those high in SCO than for those low in SCO, and that this is mainly due to differences in the lower boundary.

Figure 3.2. Range in self-evaluations of attractiveness for low and high in SCO (Study 3.2)



STUDY 3.3

Introduction

The results of Study 3.1 and Study 3.2 showed that individuals high in SCO have a wider personal range of self-evaluations of attractiveness than individuals low in SCO. Although when specifying the situation in Study 3.2 the same results were obtained as in Study 3.1, there are still some questions left about the validity of the attractiveness dimension itself. It is possible that the interpretation of the attractiveness dimension differed between individuals high and low in SCO. In other words, the interpretation of “very attractive, 100” and “not at all attractive, 0” could have been interpreted differently. Study 3.3 was conducted to anchor the attractiveness dimension itself by using objective standards. Both at the top and the bottom of the line, photographs – pre-tested on attractiveness levels - were added to anchor the attractiveness dimension.

Method

Participants and Procedure. Fifty-three female undergraduates were recruited in the lobby of different university buildings to participate. (age $M = 20.70$, $SD = 2.13$). The materials were identical to those in Study 3.1, but this study used for practical reasons a printed questionnaire. The mean score of the SCO was 3.52 ($SD = 0.51$, Cronbach's $\alpha = .75$). The instruction and the attractiveness questions were also identical to those in Study 3.1, with one difference. In this study, two photographs were added to the *very attractive* and *not at all attractive* anchors on the vertical line. The top of the photograph on the "very attractive" anchor was at exactly the same height as the top of the line, whereas the bottom of the photograph of the "not at all attractive" anchor was at exactly the same height as the bottom of the line.

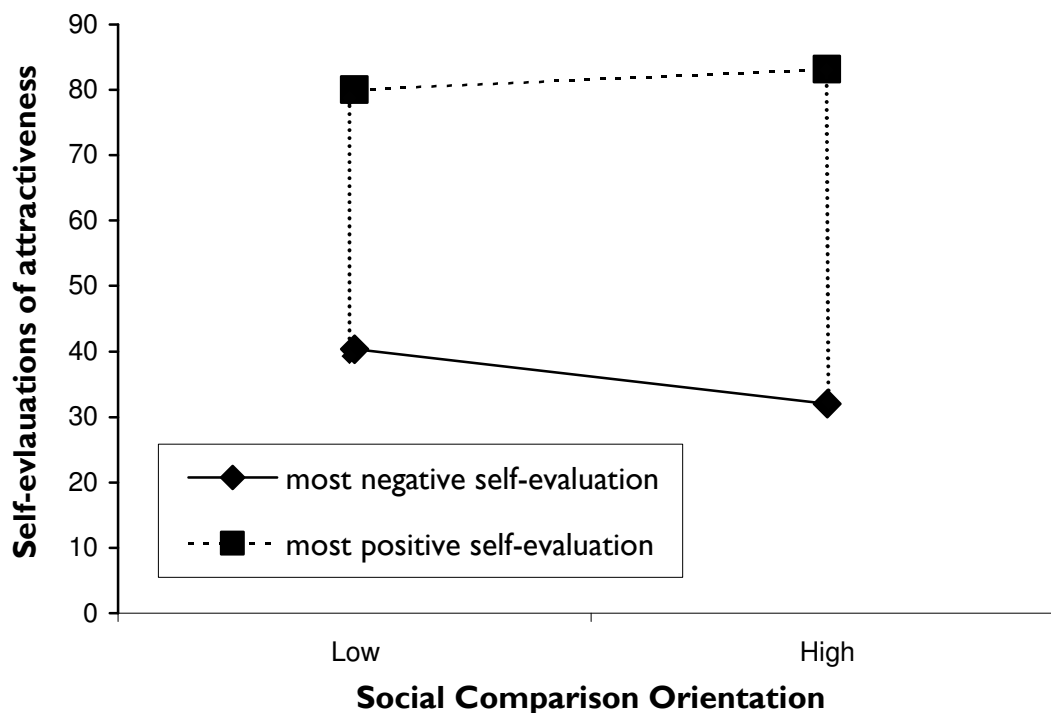
Results

To test the hypothesis of the wider attractiveness range for individuals high in SCO, the range was calculated by subtracting the answer on the question about the lowest self-evaluation of attractiveness from the answer on the question about the highest self-evaluation of attractiveness ($M = 45.34$, $SD = 18.91$). The mean for the lowest self-evaluation of attractiveness was scores was 36.18 ($SD = 18.03$) and for the highest self-evaluation of attractiveness was 81.58 ($SD = 9.12$)

As in Study 3.1 and 3.2, a regression analysis with the standardized SCO-scores predicting the difference scores, revealed that the effect of SCO was significant, indicating that also with this method the attractiveness range differed between participants low and high in SCO, $B = 5.34$, $t = 2.73$, $p = .008$. Thus, again, as predicted, the higher the SCO, the wider was the personal range of self-evaluations of attractiveness.

Again, we also did separate regression analyses for the lowest and highest self-evaluation of attractiveness. As in Study 3.2., with increasing levels of SCO, the upper boundary did not change ($b = 1.56$, $t = 1.24$, $p = .22$), but the lower boundary decreased ($b = -4.12$, $t = -1.71$, $p = .094$), although the effect was only marginally significant.

Figure 3.3. Range in self-evaluations of attractiveness for low and high in SCO (Study 3.3)



Thus, also in this study the difference in range between those low and high in SCO was solely due to a lower lower boundary among those high in SCO as compared to those low in SCO. The statistics of the separate regression analyses were used to draw the simple slopes based on the original scores for different levels of SCO, with two vertical lines to indicate the personal range for individuals low (-1 SD) and high ($+1$ SD) in SCO. (Figure 3.3). This figure shows that as in Study 3.1. and Study 3.2., the range of the two self-evaluations of attractiveness is wider for those high in SCO than for those low in SCO, and that this is, as in Study 3.2., mainly due to differences in the lower boundary.

STUDY 3.4

Introduction

The goal of Study 3.4 was two-fold: to provide again more robust evidence for the hypothesis that the range of momentary self-evaluations differs between those high

and low in SCO, and to examine whether the effects of SCO on the range in self-evaluations of attractiveness remained controlling for self-esteem.

Unlike the previous studies, the upper boundary was assessed two weeks before the lower boundary. This was done to exclude an alternative explanation for the findings in Study 3.1, 3.2 and 3.3. These findings could have been affected by the measurement that was used. Marking two points on the same line could have led to an overestimation of the difference between the two self-evaluations, and this overestimation could have been more pronounced in low or in high in SCO. Thus, by conducting Study 3.4, we had the opportunity to exclude this alternative explanation.

The second aim of Study 3.4 was to filter the possible confounding effects of self-esteem. Although the finding that those high in SCO have a wider range of momentary self-evaluations of attractiveness seems to be robust across various methods, it is possible that the effect of SCO mainly represents an effect of self-esteem. The fact that the separate regression analyses showed only consistent effects for the most negative self-evaluation of attractiveness suggests that the difference in range between those high and low in SCO may primarily reflect an effect of self-esteem. Therefore, in Study 3.4, a measure for self-esteem was added to the design, to check if the effects of SCO remained controlling for self-esteem.

Method

Participants and Procedure. Thirty-three female undergraduate students of the University of Groningen participated (mean age = 20.00, *SD* = 3.31) for course credit.

This study consisted of three on-line parts. In the first part, participants completed the SCO scale. Cronbach's alpha was .82. An e-mail was sent to invite the participants to participate in the second and third part. In the second part, the most positive self-evaluation of attractiveness was assessed, and Rosenberg's Self-Esteem Scale was completed. In the third part, the most negative self-evaluation of attractiveness was assessed.

Most positive self-evaluation of attractiveness. This was assessed with the following question: Most people fluctuate in their judgments of their own attractiveness. "What is the most positive judgment you have had about your attractiveness?" Answers were given on a 10-points scale (0 (*not at all attractive*) – 100 (*very attractive*)).

Rosenberg's Self-Esteem Scale. Rosenberg's Self-esteem Scale (RSE) consisted in ten items (Rosenberg, 1965). Responses were given on a scale from 1 (*I strongly disagree*) to 4 (*I strongly agree*).

Most negative self-evaluation of attractiveness. This was assessed with the following question: "What is the most negative judgment you have had about your attractiveness?", on a 10-points scale.

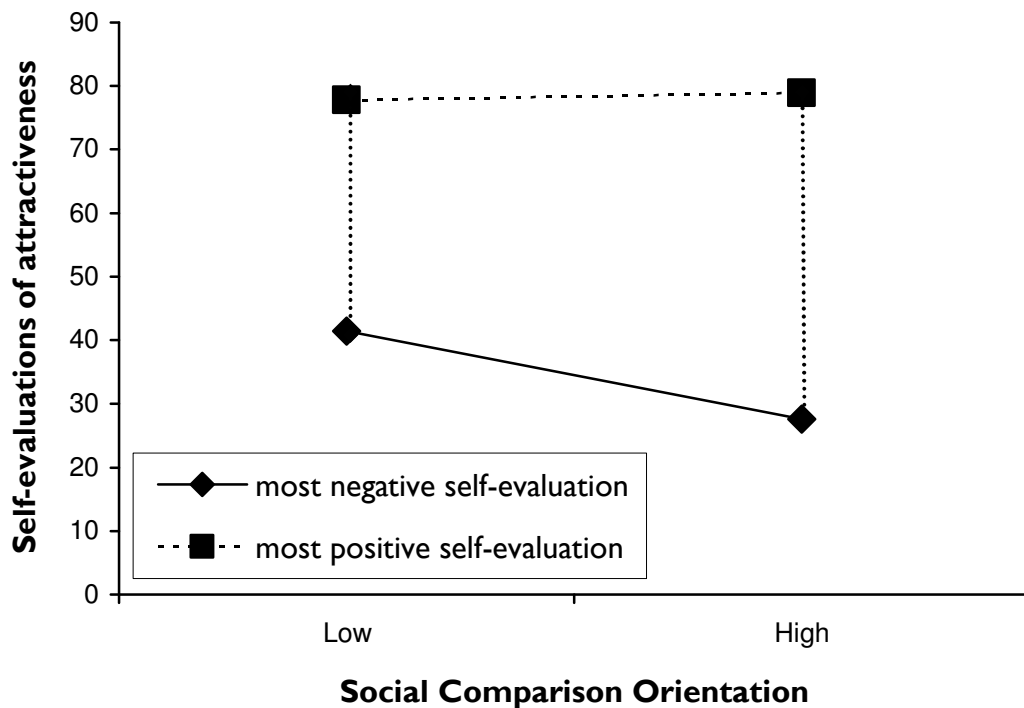
Results and Discussion

Correlation between SCO and RSE. The correlation between SCO and RSE (Rosenberg's Self Esteem Scale) was $-.11$, $p = .33$; this indicates that, although in most studies, higher SCO is associated with lower RSE, in this study RSE and SCO were unrelated. They seem to tap different constructs.

Range. The range was calculated by subtracting the answer on the question about the most negative self-evaluation of attractiveness from the answer on the question about the most positive self-evaluation of attractiveness ($M = 44.34$, $SD = 26.51$). The mean for the most positive self-evaluation of attractiveness was ($M = 34.22$ ($SD = 24.40$) and for the most negative self-evaluation of attractiveness was ($M = 78.73$ ($SD = 12.08$)). The correlation between range and RSE was $r = -.02$, (*ns*) and between range and SCO $.27$, $p = .014$.

A regression analysis was conducted, with range as dependent variable and SCO and RSE entered in the first step and the interaction (SCO X RSE) in the second step. As predicted, the range differed for different levels of SCO, $b = 7.43$, $t = 2.43$, $p = .017$, whereas the main effect of RSE on the range was not significant ($p > .85$). Thus, the finding that those high in SCO had a wider range in momentary self-evaluations of attractiveness could not be explained by differences in RSE. Figure 3.4 shows the predicted range for those high and low in SCO. Although both the most negative and the most positive self-evaluation were lower for those high in SCO than for those low in SCO, the range between the two attractiveness self-evaluations was wider for those high in SCO than for those low in SCO.

Figure 3.4. Range in self-evaluations of attractiveness for low and high in SCO (Study 3.4)



Separate multiple regressions were conducted for the most positive and the most negative self-evaluation of attractiveness with RSE and SCO and the interaction between RSE and SCO as predictors. As expected, increasing levels of RSE, resulted in positive self-evaluations of attractiveness, for the most positive self-evaluation, $b = 6.22$, $t = 5.06$, $p < .001$, and for most negative self-evaluation, $b = -6.04$, $t = 2.39$, $p = .019$). The main effect of SCO for the most negative self-evaluation in the separate analysis was, $b = -6.90$, $t = -2.59$, $p = .011$, but the main effect of SCO for the most positive self-evaluation was not significant, $b = 0.53$, $t = 0.41$, $p = .69$. Thus, when controlling for self-esteem, no effect of SCO on the upper boundary of self-evaluation of attractiveness was found, which suggests that the findings obtained in Study 3.2 and Study 3.3 are not due to effects of self-esteem.

GENERAL DISCUSSION

We hypothesized that one the characteristics of individuals high in SCO would be that they would perceive a relatively high degree of perceived similarity with a wide range of others, which would facilitate comparison processes. The results of four

different studies showed that women high in SCO have indeed a wider personal range in their momentary self-evaluations of attractiveness than those low in SCO. This wider range in self-evaluations of attractiveness may enable women high in SCO to compare themselves with distant –upward as well as downward– targets. Although many studies have shown the effects of SCO as a powerful moderator, until now, little was known about the processes that may underlie the comparison process typical for individuals high in SCO. The present research thus can be taken as a starting point in exploring these processes.

Besides offering insight in the differences in comparison processes between those high and low SCO, these findings contribute to the research on fluctuations in body image. Recently, Melnyk, Cash and Janda (2004) examined that *variability* of momentary self-evaluations and tried to predict this variability with different moderators, for example psychological investment, disturbed eating attitudes and appearance-fixing coping strategies. Their focus was on the variability of momentary self-evaluations and what factors could cause changes in self-evaluations, whereas our focus was on the boundaries of this variability, the *personal range* in momentary self-evaluations of attractiveness.

The findings that those high in SCO have a wider range in self-evaluation of attractiveness is in line with the findings of Haddock (2006). Among those high in SCO, he found a difference between their future and current appraisals of attractiveness, whereas no such difference was found for those low in SCO. This finding suggests that self-appraisals are more flexible for those high in SCO.

Although a consistent finding in all four studies was that those high SCO had a wider range in self-evaluations than those low in SCO, this seems mainly due to differences in the lowest self-evaluation as suggested by Study 3.2 and 3.3 and 3.4. In these studies, the most positive self-evaluation did not differ between those high and low in SCO. However, in Study 3.1, the most positive self-evaluations of attractiveness differed between those low and high in SCO; the most positive self-evaluations were higher for those high in SCO than for those low in SCO. To provide a possible explanation for this finding, it is worthwhile to mention the measure and method differences across the four studies. That is, Study 3.1 differed from Study 3.2 and 3.3 in instruction and from Study 3.4 in method. In Study 3.1, the participants reported the upper and lower self-evaluations at the same time, whereas

in Study 3.4 there was a time interval between the two self-evaluations. The fact that these differences in instruction or lay-out and time interval did not affect the self-evaluation of the lower bond, suggests that especially the lower boundary of attractiveness differs between those high in SCO and low in SCO.

Although it is not directly obvious why those high in SCO have particularly a lower boundary in the evaluation of their attractiveness, this finding could explain why those low in SCO are more affected by downward comparisons, as has been found in several studies. For example, Buunk, Ybema, Gibbons and Ipenburg (2001) asked socio-therapists to read a bogus interview with someone involved in the same profession who was either very successful (upward comparison) or very unsuccessful (downward comparison). SCO did not affect the feelings evoked by the upward comparison.. However, the higher the level of burnout, the more negative affect was evoked by the description of the downward comparison target, but only among individuals high in SCO. In a similar study by Buunk, Van der Zee and Van Yperen (2001), a sample of nurses was exposed to either a downward or an upward target. The higher individuals were in SCO, the more negative affect they reported following exposure to the downward comparison target. Interestingly, this effect stayed the same when controlling for neuroticism. In a study by Buunk and Dijkstra (2001) among lesbian women, evidence was also found that those high in SCO tend to respond particularly negatively to downward comparisons. Participants were presented with a scenario in which they were asked to imagine that their partner was flirting with another woman. These women reported more jealousy when they were exposed to a physically attractive rival as compared to one that was unattractive. However, although SCO did not affect jealousy in response to an attractive rival, high SCO women responded with more jealousy to the unattractive rival.

To conclude, the results of the current studies demonstrate that those high in SCO have a wider range in momentary self-evaluations of attractiveness, than those low in SCO, which may facilitate comparison processes with a variety of others. This may shed new light on a number of previous research on SCO, and may stimulate further research on the way in which SCO affects the processes and outcomes of social comparisons.

