Redefining Social Comparisons: Self-Other Overlap and Social Comparisons of Close Others

by

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Department of Psychology
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Abstract

For more than 60 years, researchers have assumed that social comparisons (i.e., comparisons that occur between the self and another person) must involve the self directly. The self, however, can also include close others. In the present research, I examine whether individuals respond to comparisons involving close others as they would to comparisons involving the self. Four studies (\(N = 2210\)) using recalled (Studies 1-3) and actual (Study 4) comparisons about attractiveness (Study 1) and relationship skills (Studies 2-4) demonstrated that individuals high in self-other overlap decrease domain relevance following upward (i.e., the close other is outperformed by another person) but not downward comparisons (i.e., the close other outperforms another person) to protect their positive partner perceptions. This strategy was absent among those low in self-other overlap. Study 2 demonstrated that this effect extends to best friends, but not casual friends, due to the degree of self-other overlap. Furthermore, when reminded of their partner’s inferiority in a domain, high overlap participants maintained positive global partner perceptions, whereas low overlap participants’ global perceptions were negatively affected (Study 3). Studies 5-8 (\(N = 884\)) examined whether this effect extends to children and parents, who are also included in the self (Study 5), using recalled comparisons about parents (Study 6) and children
(Studies 7-8). Study 6 demonstrates that this effect extends to mothers but not fathers. Parents, however, decreased domain relevance when their child was inferior regardless of overlap (Studies 7 & 8). Moreover, parents and high overlap children demonstrated an attributional bias for their family member’s comparison outcomes: They protected family members by attributing less responsibility to them after upward comparisons and enhanced them by attributing more responsibility to them after downward comparisons. Finally, I examined the causal attributions individuals make following these comparisons to test whether they engage in these strategies to protect themselves, rather than the close other, because they feel personally responsible for the close other’s comparison outcomes. These results suggest that individuals do experience comparisons involving a close other and another person as if they were directly involved, but only if their close other is incorporated into their self-identity.
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Chapter 1
Introduction

Yes, we have our differences, we have our fights.... But, my husband is better than yours and he's better for this reason: He could give two hoots about watching the Super Bowl. When I asked him who was playing he said the “Pittsburgh Pirates.” So, while your husband was sucking back beers, burping the name of his favorite player and doing his own fancy version of a touchdown dance, my husband was doing the dishes. (mom-on-the-edge, 2009)

My 4-year-old daughter is beautiful, smart, caring, loving, and quite articulate. But why is it that every chance I get, I’m comparing her to other 4-year-olds? It started about the time I noticed a friend in my Instagram feed proudly presenting her reading child. What? She can read already? I thought to myself. We’re behind!... Unfortunately, it doesn’t stop with reading. When I peek in on her at dance class, I have to stop myself from looking at the other girls and sizing them up to see which 4-year-old has the moves down. For a split second I wince when I see her facing the opposite direction of the rest of the class. (Borget, 2014)

A quick Internet search reveals numerous blogs in which individuals discuss the comparisons they make between their close others (e.g., romantic partners, parents, and children) and other people. Indeed, as the second quote illustrates, it may be difficult for individuals to avoid making these comparisons. When one finds out that close others are superior or inferior to another person, one may alter one’s evaluations of the other. A man who sees the latest Angelina Jolie film may, for example, come to see his wife as less attractive, at least temporarily. A mother who learns that her son received two Ds on his report card when his best friend received straight As may see her child as less academically successful.

1 Social Comparisons

A vast literature has examined social comparisons, the comparisons that individuals make between themselves and other people (e.g., Buunk, Collins, Taylor, van Yperen, & Dakof, 1990; Lockwood & Kunda, 1997; Mussweiler, Rüter, & Epstude, 2004). This research, however, has assumed that social comparisons involve the self directly. Indeed, in his original Social Comparison Theory, Festinger (1954) asserts that, in the absence of objective criteria, individuals will compare themselves [italics mine] to others as a means of evaluating themselves. Similarly, more recent definitions describe social comparison as “the process of thinking about information about one or more people in relation to the self” (italics mine; Wood, 1996; pp. 520-
521), or as the “process in which individuals relate their own characteristics to those of others” (italics mine; Buunk & Gibbons, 2007, p. 16). In the present research, I challenge the assumption that social comparisons always occur between the self and another person; I argue instead that social comparisons may involve the expanded self: Individuals may make social comparisons that involve close others, the others that they include in their expanded self-concept.

The idea that individuals compare people other than the self is not new. Indeed, past research suggests that individuals may compare one person to another to evaluate personality traits (e.g., Herr, 1986) or attractiveness (e.g., Kenrick & Gutierres, 1980). These comparisons, however, would typically lack the self-protective component that characterizes social comparisons. When one is outperformed on a self-relevant dimension, one's self-perceptions are threatened; the other's success makes one's own abilities seem inferior (e.g., Collins, 1996; Morse & Gergen, 1970; Muller & Fayant, 2010). Past research suggests that individuals are typically so averse to being outperformed that they will distance themselves from superior others (Pleban & Tesser, 1981) and downplay or avoid domains in which they expect to be outperformed (Tesser & Paulhus, 1983). When individuals are themselves the outperformers, in contrast, they may emphasize the importance of the comparison dimension (Tesser & Paulhus, 1983) to enhance their positive self-perceptions.

Thus, a student who compares herself to another student with higher GRE scores may feel worse about herself, and consequently be motivated to protect her self-esteem by devaluing GRE scores. A supervisor who compares the GRE scores of two students, in contrast, will not experience this motivation to change the relevance of the comparison dimension. Comparing one person to another should not be associated with the same motivational consequences observed in past social comparison research. If, however, individuals compare someone who is part of their expanded self, such as their relationship partner, the consequences may be similar to those that occur when one compares the self directly.

2 Comparing One’s Partner to Others

According to Aron and Aron’s (1986) self-expansion model, individuals are motivated to seek out self-expanding experiences (i.e., experiences that increase one’s potential efficacy by gaining resources, perspectives, and identities to achieve one’s goals). One particularly rewarding way of self expanding is to include another person in the self. Consequently, when
individuals become involved in a romantic relationship, their identity begins to merge with their partner’s to some degree. They start to take on their partner’s perspective, characteristics, and resources. As a result, they experience their partner’s outcomes as if they were their own (Aron, Aron, Tudor, & Nelson, 1991). Indeed, when comparisons involve the partner and the self, individuals experience their partner’s outcomes as their own regardless of their own self-evaluative consequences (e.g., Pinkus, Lockwood, Schimmack, & Fournier, 2008). Thus, individuals who view their partner’s identity as highly overlapped with their own may respond to comparisons between their partner and another person as they would to a comparison involving the self – by protecting their partner as they would protect the self. For example, if one’s spouse is outperformed professionally by a friend’s spouse, one may downplay the importance of professional success, thus protecting one’s positive regard for the partner.

2.1 Protecting Perceptions of the Partner

Indeed, past research suggests that individuals are motivated to see their partner as superior to others (Gagné & Lydon, 2001; Murray, Holmes, & Griffin, 1996b). In these studies, however, partners were compared to abstract references such as the average other or the ideal partner; like the “better-than average effect” (Alicke, Klotz, Breitenbecher, Yurak, & Vredenburg, 1995), these abstract references are nebulous and can be manipulated to suit individuals’ motivational needs (Mussweiler, 2003). In contrast, comparisons to specific targets may result in less favourable perceptions of the partner. For example, after being exposed to a Playboy centerfold, husbands rated their wives as less sexually attractive (Kenrick, Gutierres, & Goldberg, 1989). Thus, comparisons to unequivocally superior others do lead to more negative perceptions of the partner, as they do for the self.

Being confronted with negativity about the partner, however, may also raise doubts about the relationship. Romantic relationships require individuals to depend on another person to fulfill their hopes and desires, which also makes them more vulnerable to being hurt by that same person (Murray, 1999; Murray, Holmes, & Collins, 2006) Thus, individuals must convince themselves that their partner is the “right” one in order to quell their doubts about the relationship. To do so, individuals construct overly positive views of their partner by seeing their partner through the filter of their ideals and self-views, to reduce concerns about incompatibilities (Murray, Holmes, & Griffin, 1996a). Indeed, individuals who perceived their
partner more positively experienced declines in conflict and doubts as well as greater increases in relationship satisfaction over the course of a year (Murray et al., 1996b). Upward partner comparisons, however, have the potential to shatter such positive illusions about the partner: Learning that their partner is worse than someone else may lead individuals to question whether their partner can fulfill all their hopes and desires. It remains unclear whether individuals attempt to protect their partner perceptions, and thus quell relationship doubts, following such comparisons as they would protect themselves. The present studies are the first to test this possibility directly.

Research regarding derogation of attractive alternatives (e.g., Johnson & Rusbult, 1989) provides indirect evidence that individuals may strategically protect their partner by disparaging superior others. It is unclear, however, whether individuals use this strategy to protect their partner or themselves. Indeed, Johnson and Rusbult (1989) argue that individuals derogate attractive alternatives to maintain their belief that they are loyal, committed partners. Furthermore, exposure to attractive alternatives elicits automatic self-protective responses from individuals in romantic relationships (Plant, Kunstman, & Maner, 2010), suggesting that derogating attractive alternatives has more to do with protecting the relationship and the self than the partner.

2.2 Expanded-Self Comparisons and Intergroup Comparisons

The literature on intergroup comparisons also provides indirect evidence that individuals are motivated to protect people who are part of their expanded self. For example, when individuals learn that their group is worse than another group on a trait, they tend to devalue the trait (Schmader & Major, 1999). A dyad, as the smallest form of a group, should be subject to similar effects. That is, individuals should be motivated to believe that their relationship is superior to other relationships. Indeed, highly committed individuals tend to see their relationship as better than most other relationships, especially when their relationship is threatened (Rusbult, Van Lange, Wildschut, Yovetich, & Verette, 2000).

In discussing comparisons involving the expanded self, however, I am examining a process that occurs at the individual rather than group level. Comparing a close other to another person is not the same as making an intergroup comparison from one dyad to another. For example, a father who compares his son’s math abilities to those of another child is not making a
comparison at the group level; he is not comparing his own family to the family of the other child. Rather, he is comparing his child to another child directly. Similarly, a woman who compares her partner to a friend’s partner on attractiveness may find her own partner to be inferior. The woman may consider herself to be much more attractive than her friend, and consider her dyad on average to be more attractive than the friend’s dyad. The comparisons of herself to the less attractive friend, and of her dyad to the less attractive dyad thus pose no threat. The comparison between her partner and the friend’s partner, however, is more problematic. My key research question focuses on whether she will be motivated to engage protective strategies to defuse this potentially partner-threatening comparison, even though she herself is not directly involved.

3 Comparing Close Family Members to Others

Up to this point, I have discussed comparisons involving one’s romantic partner, because studies on the “expanded self” have focused on individuals’ inclusion of their partner in the self. However, individuals may also compare close family members, such as parents and children, to others. Parents may be especially likely to compare their child’s outcomes to those of other children. In fact, paediatricians often encourage parents to compare their child to other children to determine whether their child is developing normally (Canadian Paediatric Society, 2016). Similarly, children may compare their parents to the parents of their friends, in part to find out whether their parents are treating them appropriately (Schreiber, 2015). Unlike romantic relationships, however, parents and children are inextricably linked; there is no need to construct overly positive views of the parent or child in order to sustain the relationship. Thus, given the involuntary nature of such relationships, it is possible that the effects of expanded-self comparisons may be amplified for parents and children. That is, parents and children may be especially motivated to see immediate family members favourably, and protect these positive perceptions, in order to foster more positive relationships because such relationships are often difficult to end. I argue that comparisons involving one’s parents and other people as well as those involving one’s children and other people will also be experienced as expanded-self comparisons if one includes these family members in the self.

Parents may be especially likely to include their children in their self-concept, especially while their child is young. Until the child becomes an adult, parents provide more care for the
child than the child provides the parent, making the parent-child relationship an asymmetrical communal relationship. In order to fulfill their responsibility of meeting the child’s needs and desires, parents must see their own resources as their child’s, one of the key components of inclusion of other in the self, because the child has fewer, if any, resources to meet their own needs. Moreover, parents must be able to empathize with the child in order to determine the child’s needs (Bell & Richard, 2000). In other words, parents must see the child’s perspectives as their own, another key component of inclusion of other in the self. Consequently, parents experience the child’s needs as their own, and meeting the child’s needs is the same as meeting one’s own needs (Aron, Lewandowski, Mashek, & Aron, 2013). Finally, parents are also motivated to feel close to their children. One way to foster closeness is to assimilate the other to the self. Indeed, past research has shown that when individuals perceived their romantic partner as more similar to the self, they experienced more positive relationship outcomes (Murray, Holmes, Bellavia, Griffin, & Dolderman, 2002). Similarly, parents may foster more positive relationships with their child by assimilating the child to the self. That is, parents may look for ways in which their child is similar to them; their child may share a unique physical feature (e.g., “She has my eyes”) or temperament (e.g., “He is stubborn just like me”). By fulfilling this desire for closeness, parents readily integrate the child’s identity into their own self-concept, the final component of inclusion of other in the self. Thus, parents may be especially likely to include their child as part of their own identity, and so are especially likely to experience comparisons between their child and another person as an expanded-self comparison. That is, when the child is inferior to another child, parents should be especially likely to downplay the importance of the comparison dimension.

In contrast, children may vary in the degree to which they include their parents in their self-concept. During childhood, children may see themselves as highly overlapped with their parents because their resources are their parents’ resources due to their high degree of dependence on the parent. As children grow older, however, they grow more autonomous and are able to achieve more of their goals without their parents’ resources. Moreover, as children move into adulthood, they may seek self-expansion elsewhere, such as through peer or romantic relationships and new experiences. Indeed, during adolescence, peer (Larson & Richards, 1991) and dating relationships (Feiring, 1996) become more influential. Thus, children gain resources, perspectives, and identities outside of the parent-child relationship. Finally, because children
bear less responsibility for providing care for their parent than their parent does for them for most of their life (Bucx, van Wel, & Knijn, 2012), the need to include the parent in the self may not be as strong as the parent’s need to include the child in the self. Consequently, not all children may include their parents in their self-concept. Like romantic relationships and close friendships, children may include the parent in the self only if they have a particularly close bond. Thus, children may only experience parent comparisons as expanded-self comparisons if the parent is included in the self.

The possibility that individuals make expanded-self comparisons is crucial for a number of reasons. First, the present research makes an important theoretical contribution to social comparison theory. Until now, researchers have assumed that comparisons must involve the self directly. By challenging this assumption, the present research suggests a major shift in traditional understanding of social comparison theory. Thus, researchers should not only examine how such comparisons may affect the self, but also how they affect a variety of other individuals closely connected to the self. Second, a vast literature has shown that social comparison have a significant impact on how individuals view themselves (e.g., Collins, 1996; Morse & Gergen, 1970; Muller & Fayant, 2010), how they behave (e.g., Pinkus, Lockwood, Marshall, & Yoon, 2012; Tesser, 1988), and how they interact with other people (e.g., Pinkus et al., 2012; Tesser, 1988). If these comparisons have such significant and numerous consequences for the self, they may be expected to have similar effects on how individuals see, behave towards, and interact with close others, which in turn affect the relationships that individuals have with these close others. Indeed, an extensive body of research has demonstrated that how individuals see close others has direct implications for relationship outcomes (e.g., Murray et al., 1996a, 1996b; Overall, Fletcher, & Simpson, 2006), with more positive perceptions resulting in more positive outcomes. Moreover, because few close others are perfect, how individuals cope with negative information about close others also affects relationship outcomes; those who are able to contain the implications of such negativity experience more positive relationship outcomes (Limke & Showers, 2010; Murray & Holmes, 1999; Neff & Karney, 2005). Thus, learning that one’s spouse is inferior to a friend’s spouse in an important domain may have very different implications for the relationship depending on whether or not one views the spouse as part of one’s own identity. Consequently, the quality and outcome of one’s friendships, romantic relationships, and family relationships may all be affected by the kinds of expanded-self
comparisons that one makes. To date, the possibility that social comparisons occur at this expanded-self level has not yet been addressed. In my dissertation, I seek to show that such comparisons do indeed occur, and examine how individuals respond when they make these comparisons.

4 Overview of Current Studies

The present studies examined the social comparisons that individuals make between a close other and another individual. I argue that individuals do indeed make social comparisons between their close others and other individuals, and that these comparisons can influence individuals’ perceptions of their close others. Further, I argue that, just as individuals engage social comparison strategies aimed at maintaining positive self-evaluations, so too will they engage in social comparison strategies aimed at maintaining positive close other evaluations.

In eight studies, I examined comparisons of the expanded self. Studies 1-4 focused on comparisons between romantic partners and other individuals. In Study 1, participants recalled comparisons between their romantic partner and another individual in the domain of physical attractiveness. In Study 2, I attempted to replicate the results of Study 1 in a new domain: participants’ recalled comparisons on relationship-relevant traits. I also used Study 2 to examine comparisons involving others with varying degrees of overlap with the self, ranging from low overlap (i.e., acquaintances) to higher overlap (i.e., best friends and romantic partners) to determine the boundaries of expanded-self comparisons. In Study 3, I investigated the effect of expanded-self comparisons on individuals’ perceptions of their partner relative to their ideal to determine whether individuals successfully protected their global partner perceptions. In Study 4, I examined my hypotheses using actual rather than recalled comparisons.

Studies 5-8 examined whether expanded-self comparisons would occur in family relationships beyond those with romantic partners and best friends. First, in Study 5, I examined whether immediate family members (i.e., parents and children) are included in the self to the same degree as romantic partners and best friends. Next, I examined whether participants would experience comparisons involving their parents (Study 6) and their children (Studies 7 and 8) as expanded-self comparisons.

Across studies, I predicted that comparisons involving a close other and another person would indeed affect how participants would view the close other. That is, they would come to
see the close other less positively following an upward comparison, but more positively following a downward comparison. Further, I predicted that individuals who included their close other in their own identity would attempt to protect the close other from the negative implications of an upward comparison: They would rate the comparison dimension as less important following an upward than downward comparison.
Chapter 2
Study 1

In Study 1, participants recalled a time when they compared their partner to another person who was either superior or inferior to the partner in the domain of physical attractiveness. I predicted that participants who were reminded of a time when they noticed that their partner was less attractive than someone else (i.e., an upward comparison) would rate their partner as less attractive, whereas those who noticed that their partner was more attractive than someone else (i.e., a downward comparison) would rate their partner as more attractive. Further, I predicted that individuals who included their partner in their own identities would attempt to protect their partner from the negative implications of an upward comparison: They would rate attractiveness as less important to success in life following an upward than downward comparison.

1 Method
1.1 Participants

Participants were recruited online through Amazon’s Mechanical Turk (MTurk) and paid $0.70 USD for completing the survey. Participants were eligible for the study if they were currently involved in a romantic relationship, and if they passed a standard attention check (as recommended by recent research regarding careless responding in Internet research; Maniaci & Rogge, 2014; Meade & Craig, 2012). I applied these selection criteria to Studies 1-3.

I faced additional challenges when conducting these studies online, including minimal control over the testing environment and the inability to monitor participants. Consequently, some participants may not have read the manipulation instructions carefully or may have misunderstood the instructions. Furthermore, some participants failed to recall a comparison at all. Thus, across all MTurk studies, I examined participants’ open-ended and manipulation check responses before hypothesis testing to ensure that I included only those participants who clearly demonstrated that they had made a comparison between their partner and another person, other than themselves, in the assigned direction in my analyses (see Table 1 for reasons for exclusion based on manipulation responses). Across my studies, between 21.6 – 34.8% of participants were excluded for not following manipulation instructions. This is consistent with recent research
demonstrating that up to 38.8% of MTurk participants (Goodman, Cryder, & Cheema, 2013), and 45% of online participants (Oppenheimer, Meyvis, & Davidenko, 2009) are inattentive and fail to follow instructions, and should be deleted from analyses because they increase noise and reduce statistical power. This exclusion rate is also consistent with published studies using similar samples (e.g., Emery, Muise, Dix, & Le, 2014).

In total, 1,797 U.S. residents who signed up to complete the survey were eligible. Of those, 626 participants completed the comparison manipulation incorrectly. In addition, 23 were outliers on one of my key variables (i.e., more than 3 $SD$s above or below the mean; my analyses remained significant when these outliers were included). Altogether, 1,148 participants were included in the analyses. Participants were 738 female, 403 male, 2 transgendered, and 5 gender-unidentified individuals ($M_{\text{age}} = 30.29, SD = 9.57$) currently in a romantic relationship ($M_{\text{relationship length}} = 71.34$ months, $SD = 79.60$).

Across Studies 1-3, included and excluded participants did not differ on age, relationship length, or self-other overlap (all $ps > .06$). Gender did not moderate results for any of my hypotheses in Studies 1 to 4 ($Fs < 2.56, ps > .07$) and is thus not discussed further.

1.2 Procedure

Participants were invited to take part in a larger study on thoughts and feelings about relationships. First, participants completed a 10-item measure of self-other overlap (e.g., “My identity and my partner’s identity overlap a great deal”; Lockwood, Dolderman, Sadler, & Gerchak, 2004; $\alpha = .85$) using an 11-point scale (-5 = strongly disagree; +5 = strongly agree). I then randomly assigned participants to recall a time when they noticed that their partner was less attractive than (upward comparison condition), more attractive than (downward comparison condition) another person, or make no comparison at all (control condition). Participants in the upward and downward conditions described the comparison in open-ended form. Next, they indicated how attractive their partner was relative to the comparison target on a 7-point scale (-3 = The other person was much more attractive; +3 = My partner was much more attractive) with a midpoint of 0 (They were both equally attractive). They then rated the importance of

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1 Across Studies 1-3, all results, except one, remained significant when I included participants who failed the attention check.
attractiveness for success in life on a 7-point scale (-3 = not at all important; +3 = very important).

Finally, a subset of participants (n = 898) completed a two-item measure of partner attractiveness ("How attractive is your partner?" and "How good-looking is your partner?"; r = .93, p < .001) using a 7-point scale (1 = Not at all; 7 = Very). To confirm that participants were indeed making comparisons that influenced partner perceptions, I asked control participants to rate the attractiveness of their partner on these two items as part of a larger questionnaire.

2 Results

2.1 Comparison Manipulation

In general, participants provided rich accounts of the comparisons that they had made between their partner and such targets as friends, acquaintances, and co-workers. As one participant asked to recall an upward comparison wrote,

I recently met one of N's friends that came to visit. He was extremely attractive...He has a very toned body that is obvious with his shirt on whereas N is a little on the chunky side... [H]e [also] has a clear complexion and perfect teeth. N's teeth are nice but he doesn't have a clear complexion and at times it's overwhelming.

Another participant described in detail her partner’s superior attractiveness,

My partner is very good looking, and my friend’s husband is not as attractive. The last time they came over, I could not help but think about how much better looking my partner is than her husband…. Her husband is overweight and has a bad complexion and teeth. My partner is in great shape physically, has beautiful teeth and an amazing smile, and always looks amazing.

2.2 Analytic Strategy

For most statistical analyses (unless otherwise noted) in Studies 1 to 3, I conducted moderated multiple regressions with self-other overlap entered as a mean-centered continuous variable, comparison condition entered as either one effects-coded variable (upward = 1, downward = -1; for manipulation check and domain importance ratings) or two effects-coded variables (upward = 1, downward = 0, baseline = -1; upward = 0, downward = 1, baseline = -1; for attractiveness or partner/friend perception ratings), and the comparison condition by self-other overlap interaction term(s). I conducted simple effects analyses for interactions by examining the differences between comparison conditions at 1 SD above and below the mean of
self-other overlap (Aiken & West, 1991). In line with a recent recommendation (Cumming, 2013), I reported 95% bootstrapped bias-corrected confidence intervals with 5,000 resamples for the unstandardized regression coefficients and the standardized effect size estimates ($r$) in square brackets with $p$-values.

2.3 Manipulation Check

As expected, participants reported that their partner was less attractive in the upward than downward condition, $b = -2.10$, 95% CI [-2.15, -2.05], $SE = 0.03$, $t(758) = -83.52$, $p < .001$. Furthermore, higher overlap predicted higher relative attractiveness ratings, $b = 0.08$, 95% CI [0.05, 0.11], $SE = 0.02$, $t(758) = 5.04$, $p < .001$. There was no interaction, $b = -0.01$, 95% CI [-0.04, 0.02], $SE = 0.02$, $t(758) = -0.42$, $p = .67$.

2.4 Attractiveness Importance Ratings

There were no main effects, but as predicted, self-other overlap moderated the effect of comparison condition on importance ratings, $b = -0.08$, 95% CI [-0.15, -0.01], $SE = 0.03$, $t(753) = -2.47$, $p = .01$, $r = -.09$, 95% CI [-.17, -.01]. Among low overlap participants, comparison conditions did not differ in attractiveness importance ratings, $b = 0.10$, 95% CI [-0.05, 0.25], $SE = 0.07$, $t(753) = 1.37$, $p = .17$, $r = .05$, 95% CI [-.12, .02]. High overlap participants, however, rated attractiveness to be less important in the upward than downward condition, $b = -0.15$, 95% CI [-0.30, -0.10], $SE = 0.07$, $t(753) = -2.13$, $p = .03$, $r = -.08$, 95% CI [-.15, -.07] (see Figure 1). Control participants did not complete this item.

2.5 Attractiveness Ratings

As predicted, comparison condition did affect attractiveness ratings, $F(2, 892) = 33.27$, $p < .001$, $R^2 = .06$: Participants in the upward condition rated their partner as less attractive than did those who made no comparison, $b = 0.38$, 95% CI [0.22, 0.54], $SE = 0.08$, $t(892) = 4.96$, $p < .001$, $r = .16$, 95% CI [.10, .23], and those who made a downward comparison, $b = 0.62$, 95% CI [0.48, 0.77], $SE = 0.08$, $t(892) = 8.10$, $p < .001$, $r = .26$, 95% CI [.20, .32]. Participants who made a downward comparison rated their partner as more attractive than did those who made no comparison, $b = -0.24$, 95% CI [-0.39, -0.11], $SE = 0.08$, $t(892) = -3.19$, $p = .001$, $r = -.11$, 95% CI [-.17, -.04]. Higher overlap also predicted higher attractiveness ratings, $b = 0.19$, 95% CI
[0.15, 0.23], $SE = 0.02, t(892) = 9.72, p < .001$. There was no interaction, $F(2, 892) = 0.73, p = .48, R^2 = .001$.

3 Discussion

Overall, Study 1 provides support for my hypothesis that only those individuals who included the partner in their own identity would engage strategies aimed at minimizing the threat of upward comparisons and maximizing the benefits of downward comparisons. Furthermore, these comparisons did affect how individuals viewed their partner: Both high and low overlap individuals viewed their partner as less attractive when compared to a more attractive other and more attractive when compared to a less attractive other. Only high overlap participants, however, responded to the threat of the upward comparison by devaluing attractiveness.
Chapter 3
Study 2

Study 1 provides evidence that individuals who view their romantic partner as part of the self use strategies to maintain positive evaluations of the partner following comparisons between their partner and specific other individuals. I argue that this motivation should be present only when individuals include in their self-concept the other whom they are comparing. Indeed, past research has indicated that individuals will enhance their romantic partners but not their friends (Morry, Reich, & Kito, 2010). Thus, in Study 2, I examined whether individuals would use protective strategies only after comparing their romantic partners, or whether they would also use these strategies after comparing other close individuals, such as best friends. Specifically, I tested a mediated moderation model in which different kinds of relationships would be associated with different degrees of self-other overlap, which in turn would predict the degree to which individuals would engage strategies to protect the other following comparisons to another person.

To test this model, I manipulated self-other overlap by assigning participants to compare different targets (e.g., partner, friend, or acquaintance) and measured self-other overlap, my proposed mediator. I hypothesized that individuals would be motivated to protect their partner or best friend following a potentially threatening comparison, but should not be motivated to protect an acquaintance or casual friend in the same way. Because the casual friend is not typically part of one’s self-identity, one should have no need to protect or enhance one’s evaluations of this friend. I also used Study 2 to replicate my findings for comparisons in a different domains: relationship skills.

1 Method

1.1 Participants

Participants were recruited through MTurk and paid $0.70 USD. In total, 997 U.S. residents were eligible for this study. Of those, 695 followed manipulation instructions and were included in the analyses. Participants were 490 female, 202 male, and 3 gender-unidentified individuals ($M_{age} = 33.91, SD = 9.99$) who were married ($M_{marriage length} = 95.59$ months, $SD = 98.95$).
1.2 Procedure

Participants were randomly assigned to one of three relationship conditions: partner, best friend, or casual friend. They were asked to think about their partner, best friend (who could not be their romantic partner), or casual friend – a friend other than their best friend or another close friend – while completing an 8-item measure of self-other overlap similar to the one used in Study 1 ($\alpha = .89$). Participants then completed the same comparison manipulation and manipulation check as in Study 1 except this time they were asked to compare their partner/friend to someone else’s partner/friend in a relationship-relevant domain and to indicate the comparison domain (see Table 2 for list of domains). Using the same scale as in Study 1, participants also rated the specific domain in which they made the comparison in terms of how important it would be for relationship success.

Participants in all conditions also rated their partner or friend on 13 relationship-relevant traits (e.g., understanding, kind and affectionate, responsive); this served as my measure of partner/friend perception (Murray et al., 1996a; $\alpha = .91$). Ratings were made using a 9-point scale ($1 = not at all characteristic; 9 = completely characteristic$). Control participants completed this measure for their partner/friend without first making a comparison; this enabled me to confirm that both upward and downward comparisons were influencing participants’ perceptions of their partner/friend.

2 Results

2.1 Comparison Manipulation

I first examined open-ended responses to confirm that participants were comparing their partner/friend to another individual, rather than their relationship/friendship to another relationship/friendship. Participants whose responses did not meet my criteria were excluded from analyses (see Table 1).

As in Study 1, most participants had no difficulty recalling comparisons. For example, one participant in the best friend condition wrote:

My recent birthday K didn't even call. My wife's best friend had a very thoughtful gift she gave to her on her birthday. I don't expect gifts but it would have been nice if he had at least called. (Upward Comparison)

Another participant in the casual friend condition wrote:
C is always considerate of my time and commitments. She recently offered to switch plans to another day because she could hear in my voice that I was stressed, and she wanted to make my plans convenient for me. By contrast, my husband's friend J is never considerate of my husband's time or commitments. J stops by the house over and over, though he's been told many times to call first. (Downward Comparison)

2.2 Manipulation Check

A 2 (direction: upward, downward) × 3 (relationship: casual friend, best friend, partner) between-subjects analysis of variance (ANOVA) indicated that participants reported that their partner/friend did worse in the upward condition ($M = -2.05, SE = 0.05$) than did participants in the downward condition ($M = 2.69, SE = 0.05$), $b = -2.37, 95\% \text{CI} [-2.44, -2.29], SE = 0.04$, $t(426) = -66.71, p < .001$. There was also a main effect of relationship condition, $F(2, 426) = 11.70, p < .001$. Participants rated their casual friends ($M = 0.10, SE = 0.06$) as performing worse than their best friends ($M = 0.53, SE = 0.06$), $b = 0.43, 95\% \text{CI} [0.23, 0.63], SE = 0.09$, $t(426) = 4.84, p < .001$, and their partners ($M = 0.33, SE = 0.06$), $b = 0.23, 95\% \text{CI} [0.07, 0.39], SE = 0.09, t(426) = 2.66, p = .008$. Unexpectedly, participants also rated their partners as worse than their best friends, $b = 0.20, 95\% \text{CI} [0.02, 0.39], SE = 0.09, t(426) = 2.34, p = .02$.

Importantly, however, there was no relationship condition by comparison condition interaction, $F(2, 426) = 1.49, p = .23, R^2 = .01$.

2.3 Domain Importance Ratings

Two chi-square tests indicated that the comparison domain recalled was contingent upon comparison condition, $\chi^2(8) = 28.94, p < .001$, but not target condition, $\chi^2(16) = 22.44, p = .13$ (see Table 2 for domains).

2.3.1 Mediated Moderation Analysis

I argue that relationship condition should moderate the impact of comparison condition on domain importance ratings because the relationship conditions differ in their degree of self-other overlap. To examine this possibility, I conducted a mediated moderation analysis (Muller, Judd, & Yzerbyt, 2005; see Table 3). Importance rating was predicted by the comparison by relationship interaction, $F(2, 426) = 2.98, p = .05, R^2 = .01$. Consistent with my hypothesis, there was no difference between the comparison conditions in the casual friend condition, $b = -0.17, 95\% \text{CI} [-0.40, 0.06], SE = 0.11, t(426) = -1.57, p = .12, r = -.08, 95\% \text{CI} [-.02, .17]$. There was, however, a difference between the comparison conditions in the best friend, $b = -0.34, 95\% \text{CI} [-
0.53, -0.16], SE = 0.11, t(426) = -3.23, p = .001, r = -.15, 95% CI [-.24, -.06], and partner conditions, b = -0.53, 95% CI [-0.75, -0.33], SE = 0.10, t(426) = -5.32, p < .001, r = -.25, 95% CI [-.33, -.16]. That is, participants rated the domain to be less important following an upward than downward comparison when they were comparing a close other (best friend or romantic partner), but not when they were comparing a less close other (casual friend; Figure 2).

Relationship condition, moreover, did predict self-other overlap, F(2, 426) = 263.15, p < .001, R² = .55: Participants reported lower self-other overlap for casual friends (M = -2.11, SE = 0.13) than for best friends (M = 0.99, SE = 0.13), b = 3.10, 95% CI [2.74, 3.42], SE = 0.18, t(426) = 16.97, p < .001, r = .63, 95% CI [.56, .69], and partners (M = 1.48, SE = 0.12), b = 3.92, 95% CI [3.55, 4.25], SE = 0.18, t(426) = 22.07, p < .001, r = .73, 95% CI [.67, .76]. They also reported less overlap for best friends than partners, b = 0.82, 95% CI [0.46, 1.14], SE = 0.17, t(426) = 4.69, p < .001, r = .22, 95% CI [.12, .31]. Finally, relationship type did not moderate comparison condition in the third model, F(2, 424) = 0.63, p = .54, R² = .003, but self-other overlap did, b = -0.13, 95% CI [-0.22, -0.04], SE = 0.04, t(424) = -3.21, p = .001, r = -.15, 95% CI [-.24, -.06] (see Figure 3).

2.4 Comparison Target Perceptions

To examine the effect of comparison direction on partner/friend perceptions, I performed a 3 (direction: upward, downward, no comparison) × 3 (relationship: partner, best friend, casual friend) ANOVA. As predicted, there was a main effect of comparison condition, F(2, 686) = 12.48, p < .001, R² = .03. Participants in the upward condition (M = 6.03, SE = 0.10) viewed their partner/friend more negatively than did participants in the control (M = 6.44, SE = 0.09), b = 0.40, 95% CI [0.15, 0.67], SE = 0.14, t(686) = 2.99, p = .003, r = .11, 95% CI [.04, .19], and downward conditions (M = 6.72, SE = 0.09), b = 0.68, 95% CI [0.42, 0.94], SE = 0.14, t(686) = 4.99, p < .001, r = .19, 95% CI [.11, .26]. Participants also viewed their partner/friend more positively in the downward than control condition, b = 0.28, 95% CI [0.03, 0.53], SE = 0.13, t(686) = 2.25, p = .03, r = .09, 95% CI [.01, .16]. Thus, across all relationships, individuals evaluated their partner/friend less positively following upward comparisons and more positively following downward comparisons.

There was also a main effect of relationship condition, F(2, 686) = 19.15, p < .001, R² = .05. Participants rated casual friends (M = 5.97, SE = 0.10) less favourably than best friends (M
= 6.80, SE = 0.09), b = 0.83, 95% CI [0.18, 0.72], SE = 0.13, t(686) = 6.18, p < .001, r = .23, 95% CI [.16, .29], and partners (M = 6.42, SE = 0.09), b = 0.45, 95% CI [0.59, 1.08], SE = 0.13, t(686) = 3.42, p = .001, r = .13, 95% CI [.05, .21]. They also rated partners less favourably than best friends, b = -0.38, 95% CI [-0.63, -0.14], SE = 0.13, t(686) = -2.92, p = .004, r = -.11, 95% CI [-.18, -.04].

There was no relationship condition by comparison condition interaction, F(4, 686) = 0.29, p = .89, R² = .002.

3 Discussion

In sum, these results support my hypothesis that individuals are more likely to respond in a protective manner, reporting the domain to be less important following an upward than downward comparison, if comparisons involve individuals who are included in their identity to a greater degree. Furthermore, this effect is limited to comparisons involving individuals with whom one is in a truly close relationship: best friends and romantic partners.
Chapter 4
Study 3

In Studies 1 and 2, self-other overlap did not moderate the impact of the comparison on partner perceptions. If high overlap participants engaged protective strategies following upward comparisons, however, one might also expect that high overlap participants would maintain more positive partner evaluations than would lower overlap participants. I argue that this protective effect may occur at a more global level than in the specific comparison domain. Whereas participants may be constrained in their ability to protect their partner evaluations in a specific domain when unequivocal evidence indicates that the partner is inferior, they may nevertheless continue to view their partner as close to their ideal, particularly if they view the partner’s identity as highly overlapped with their own. I examined this possibility in Study 3.

1 Method

1.1 Participants

Participants were recruited through MTurk and paid $0.60 USD. In total, 356 of the recruited participants were eligible for this study. Of those, 77 did not complete the manipulation task correctly. One participant who was more than 3.44 SDs below the mean on self-other overlap was excluded from analyses; my results remained significant when I included this outlier. Altogether, 278 participants were retained in my analyses. Participants were 186 female, 90 male, one transgendered male, and one gender-undefined individuals (M_age = 30.44, SD = 10.02) currently involved in a romantic relationship (M_relationship_length = 70.35 months, SD = 83.57).

1.2 Procedure

Participants first completed the same measure of self-partner overlap used in Study 1 (α = .87). Participants then completed the same comparison manipulation about relationship-relevant domains, manipulation check, and importance rating used in Study 2. Participants in all conditions then completed a measure of current-ideal partner discrepancy by comparing their partner to their ideal partner on 18 attributes (e.g., understanding, adventurous, good job; Campbell, Simpson, Kashy, & Fletcher, 2001; α = .91) using a 7-point scale (1=My current
partner does not match my ideal at all; 7=My current partner completely matches my ideal). Control participants completed the current-ideal discrepancy measure without first making a comparison; this enabled me to assess whether both the upward and downward comparisons were influencing participants’ global perceptions of their partner.

2 Results

2.1 Manipulation Check

As expected, participants reported that their partner performed worse in the upward ($M = -2.17, SE = 0.07$), and better in the downward condition ($M = 2.68, SE = 0.08$), $b = -2.42$, 95% CI [-2.53, -2.32], $SE = 0.06$, $t(170) = -43.91$, $p < .001$.

2.2 Domain Importance Ratings

A chi-square test indicated that the comparison domain recalled was not contingent upon comparison condition, $\chi^2(7) = 3.31$, $p = .86$ (see Table 2 for domains).

Self-other overlap did not predict importance ratings, $b = -0.08$, 95% CI [-0.21, 0.05], $SE = 0.07$, $t(170) = -1.18$, $p = .24$, but comparison condition did, $b = -0.57$, 95% CI [-0.78, -0.36], $SE = 0.11$, $t(170) = -5.16$, $p < .001$, $r = -.37$, 95% CI [-.49, -.23]. The effect of comparison condition, however, was qualified by the predicted interaction, $b = -0.15$, 95% CI [-0.28, -0.01], $SE = 0.07$, $t(170) = -2.17$, $p = .03$, $r = -.16$, 95% CI [-.30, -.02]. Both low, $b = -0.33$, 95% CI [-.61, -.04], $SE = 0.16$, $t(170) = -2.11$, $p = .04$, $r = -.16$, 95% CI [-.29, -.02], and high, $b = -0.81$, 95% CI [-1.12, -0.49], $SE = 0.16$, $t(170) = -5.20$, $p < .001$, $r = -.37$, 95% CI [-.50, -.21], overlap participants rated the domain to be less important after upward than downward comparisons; consistent with my prediction, this effect was larger among higher overlap participants (see Figure 4).

2.3 Current-Ideal Partner Discrepancy Ratings

Results indicated no main effect of comparison condition, $F(2, 272) = 1.85$, $p = .16$, $R^2 = .01$, but a main effect of self-other overlap, $b = 0.27$, 95% CI [0.20, 0.32], $SE = 0.03$, $t(272) = 8.43$, $p < .001$, $r = .45$, 95% CI [.36, .55], which was qualified by the predicted comparison by self-other overlap interaction, $F(2, 272) = 5.39$, $p = .005$ $R^2 = .04$ (Figure 5). At low levels of
self-other overlap, participants rated their partner as less like their ideal following an upward comparison relative to no comparison, $b = 0.31$, 95% CI [-0.05, 0.68], $SE = 0.17$, $t(272) = 1.79$, $p = .07$, $r = .11$, 95% CI [-.02, .23], and a downward comparison $b = 0.66$, 95% CI [0.28, 1.03], $SE = 0.19$, $t(272) = 3.53$, $p < .001$, $r = .21$, 95% CI [.09, .32]. In contrast, participants rated their partner as more like their ideal following a downward comparison relative to no comparison, $b = -0.35$, 95% CI [-0.76, 0.07], $SE = 0.18$, $t(272) = -1.93$, $p = .06$, $r = -.12$, 95% CI [-.25, .02]. Comparison conditions did not differ at high levels of self-other overlap.

3 Discussion

In sum, low overlap participants viewed their partner as more discrepant from their ideal partner after recalling a time when their partner was inferior to someone else. Conversely, they viewed their partner as less discrepant from their ideal partner after recalling a time when their partner was superior to someone else. In contrast, those high in overlap appear to have protected their evaluations of their partner following an upward comparison: They continued to view the partner as close to their ideal.
Chapter 5
Study 4

Studies 1-3 provide consistent evidence that individuals will engage in protective strategies following social comparisons of their expanded self. These studies, however, relied on recalled comparisons. High overlap individuals may selectively recall comparisons that portray their partner in the best light possible: They may recall upward comparisons in domains that are peripheral to relationship success, or in which the reference was only slightly better. Conversely, they may recall downward comparisons in which their partner was significantly better. Accordingly, in Study 4, I examined comparisons that were set up in the lab rather than recalled by participants themselves.

1 Method
1.1 Participants

Ninety-three introductory psychology students participated in exchange for course credit. Four participants were excluded: One did not complete the pretest questionnaire, one experienced technical problems during the lab session, one reported a high level of suspicion and was also 3.50 SDs below the mean on self-other overlap (results remained significant when I included this outlier), and one was dating more than one person. Seventy-five female and 14 male individuals (Mean age = 19.75, SD = 3.82) currently in a romantic relationship (Mean relationship length = 24.16 months, SD = 19.91) were included in my analyses.

1.2 Procedure

Participants were invited to take part in a larger study on impression formation and romantic relationships. Before the lab session, participants completed an online questionnaire, which included the self-other overlap measure (α = .81). Their partners also completed an online questionnaire in which the partners rated themselves on 24 relationship-related traits (e.g., avoids conflict, is spontaneous). At the lab session, participants were told that the researchers were interested in how people form impressions based on minimal information and whether people form different impressions depending on whether they know the target or not. Thus, they would
receive information – which in reality was bogus – about their partner, based on their partner’s questionnaire, and a past participant’s responses.

Participants were randomly assigned to either the relative feedback or absolute feedback condition. In the relative feedback condition, participants received the scores of both their partner and the past participant on two ambiguously desirable traits (spontaneity and high motivation to avoid conflict; see Appendix A for sample partner feedback). For example, high motivation to avoid conflict can be construed positively as agreeableness or negatively as avoidance. Similarly, spontaneity can be viewed positively as *joie de vivre* or negatively as impulsiveness. I used ambiguous traits so that participants would be able to interpret the feedback favourably for their partner. In the relative feedback condition, participants received information that their partner scored higher on one trait (i.e., a score of 66; higher score trait) but lower on the other (i.e., a score of 57; lower score trait) in comparison to the past participant. For example, a participant might learn that his or her partner scored higher on high motivation to avoid conflict (i.e., 66 vs. 34) but lower on spontaneity (i.e., 57 vs. 83) than the past participant. Thus, the participant would make both a downward comparison for high motivation to avoid conflict and an upward comparison for spontaneity. All participants also received demographic information about the past participant.

To control for the effect of the absolute scores, I included an absolute feedback condition in which participants received the same scores (i.e., 66 and 57) for their partner as they did in the relative feedback condition; however, they received only demographic information about the past participant. Across conditions, I also varied the trait on which their partner scored higher: Some participants were told that their partner scored higher on spontaneity (spontaneity condition), whereas others were told that their partner scored higher on high motivation to avoid conflict (conflict condition).

Participants then rated how important these traits were for relationship success using a 7-point scale (*1* = *not at all important for relationship success*; *7* = *very important for relationship success*).²

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² I did not examine partner perceptions because participants in the relative feedback condition made both an upward comparison and a downward comparison, making it difficult to disentangle the effect of each comparison.
2 Results

2.1 Trait Importance Ratings

A 2 (feedback: relative condition vs. absolute condition; between-subjects) × 2 (higher domain: conflict vs. spontaneity; between-subjects) × 2 (partner score: higher score trait vs. lower score trait; within-subject) mixed ANOVA was conducted.

2.1.1 Between-Subject Effects

I did not expect any between-subject effects because my key factor, partner score, was nested within-subjects. Unexpectedly, the feedback conditions differed from each other, \( b = -0.18, 95\% \text{ CI } [-0.35, -0.02], SE = 0.09, t(85) = -2.06, p = .04 \). Participants in the absolute condition (\( M = 5.03, SE = 0.12 \)) reported higher mean importance ratings than did participants in the relative condition (\( M = 4.67, SE = 0.12 \)). It is possible that participants in the relative condition devalued the trait on which their partner scored lower to a greater extent than did participants in the absolute condition to protect their partner, resulting in a lower average score. Indeed, participants rated the lower score trait as less important in the relative (\( M = 4.34, SD = 1.06 \)) than absolute condition (\( M = 5.00, SD = 1.33 \)), \( b = 0.66, 95\% \text{ CI } [0.15, 1.16], SE = 0.26, t(87) = 2.58, p = .01 \). In contrast, participants did not rate the trait on which their partner scored higher differently in the relative (\( M = 5.05, SD = 1.08 \)) and absolute conditions (\( M = 5.07, SD = 1.23 \)), \( b = 0.02, 95\% \text{ CI } [-0.46, 0.48], SE = 0.25, t(87) = 0.09, p = .93 \).

2.1.2 Within-Subject Effects

There was a main effect of partner score, \( b = -0.40, 95\% \text{ CI } [-0.76, -0.07], SE = 0.18, t(85) = -2.28, p = .02, r = -.24, 95\% \text{ CI } [-.41, -.03] \), which was qualified by the predicted partner score by feedback interaction, \( b = -0.32, 95\% \text{ CI } [-.67, .02], SE = 0.18, t(85) = -1.83, p = .07, r = -.19, 95\% \text{ CI } [-.38, .02] \) (Figure 6). When participants received relative feedback, they rated the higher score trait as more important (\( M = 5.04, SE = 0.17 \)) than the lower score trait (\( M = 4.31, SE = 0.18 \)), \( b = -0.72, 95\% \text{ CI } [-1.13, -0.32], SE = 0.25, t(85) = -2.89, p = .005, r = .30, 95\% \text{ CI } [-.45, -.12] \). This difference was absent in the absolute condition (\( M_{\text{lower score trait}} = 4.99, SE = 0.18; M_{\text{higher score trait}} = 5.07, SE = 0.17 \)), \( b = -0.08, 95\% \text{ CI } [-.65, 0.47], SE = 0.25, t(85) = -0.32, p = .75, r = -.03, 95\% \text{ CI } [-.26, .20] \). Partner score did not interact with higher domain condition, \( b = -0.17, 95\% \text{ CI } [-0.51, 0.16], SE = 0.18, t(85) = -0.94, p = .35 \). Unexpectedly, partner score also
interacted with feedback condition and higher domain condition, $b = 0.39$, 95% CI [0.05, 0.75], $SE = 0.18$, $t(85) = 2.22$, $p = .03$, $r = .23$, 95% CI [.02, .42].

To examine the three-way interaction while maintaining Type I error rate (Cohen, 2007), I conducted two partner score by higher domain mixed ANOVAs for each feedback condition. I expected a main effect of partner score in the relative condition because participants would be motivated to protect their partner following an upward comparison by rating the lower score trait as less important than the higher score trait. In contrast, I did not expect there to be a main effect of partner score in the absolute condition because, in the absence of a social comparison, participants would not be motivated to protect their partner. I did not expect any higher domain effects or interactions.

2.1.2.1 Relative Condition

As predicted, participants rated the trait on which their partner scored lower as less important ($M = 4.31$, $SE = 0.15$) than the trait on which their partner scored higher ($M = 5.04$, $SE = 0.16$) regardless of which trait they were evaluating, $b = -0.72$, 95% CI [-1.16, -0.32], $SE = 0.22$, $t(42) = -3.37$, $p = .002$, $r = -.46$, 95% CI [-.64, -.19]. This finding is consistent with the results of Studies 1-3, in which participants reported that the comparison domain was less important when their partner did worse than the comparison target.

2.1.2.2 Absolute Condition

When no comparison information was provided, there was no difference between importance ratings for the two traits, $b = -0.08$, 95% CI [-.62, 0.46], $SE = 0.28$, $t(43) = -0.28$, $p = .78$; thus, it does not appear that individuals rated the trait on which the partner scored lower as less important simply because this score was lower in absolute terms, suggesting that individuals feel no need to protect their partner in the absence of social comparison information. Unexpectedly, partner score interacted with higher domain, $b = -0.56$, 95% CI [-1.10, -0.03], $SE = 0.28$, $t(43) = -2.01$, $p = .05$: Participants rated motivation to avoid conflict as more important ($M_{\text{conflict rating, spontaneity higher condition}} = 5.26$, $SE = 0.28$; $M_{\text{conflict rating, conflict higher condition}} = 5.36$, $SE = 0.26$) than spontaneity ($M_{\text{spontaneity rating, spontaneity higher condition}} = 4.78$, $SE = 0.25$; $M_{\text{spontaneity rating, conflict higher condition}} = 4.73$, $SE = 0.28$) regardless of the domain in which the partner received the higher score. In the absence of any comparison, participants appeared to view motivation to
avoid conflict as somewhat more important than spontaneity. These differences, however, were not reliable, \( ts < 1.60, p > .11 \).

### 2.1.3 Self-Other Overlap Analysis

The results for the importance ratings revealed that participants in the relative feedback condition reported that the trait on which their partner did worse was less important than the trait on which their partner did better; this effect was absent in the absolute feedback condition, in which the better and worse scores differed in absolute terms but were not associated with a social comparison. I next tested whether self-other overlap would predict the difference in trait importance ratings in the relative feedback condition as in Studies 1-3.

I first calculated a contrast score (i.e., difference in trait importance ratings) for each participant (Judd, McClelland, & Ryan, 2009). Positive difference scores indicate that participants rated the lower score trait as more important, whereas negative difference scores indicate that participants rated the higher score trait as more important. I then regressed this contrast score on higher domain condition, self-other overlap, and their interaction. I focused this analysis on the relative rather than absolute feedback condition because self-other overlap would only be expected to have an impact for conditions involving partner-other comparisons.

As predicted, there was a main effect of self-other overlap, \( b = -0.28, 95\% \text{ CI } [-.47, -.05], SE = 0.14, t(40) = -1.99, p = .05, r = -.29, 95\% \text{ CI } [-.54, -.04] \); this is equivalent to an interaction between self-other overlap and the within-subject factor, partner score. Low overlap participants did not rate the traits differently, \( b_{\text{intercept}} = -0.29, 95\% \text{ CI } [-0.81, 0.15], SE = 0.29, t(40) = -1.00, p = .32, r = -.15, 95\% \text{ CI } [-.38, .08] \). High overlap participants, however, rated the trait on which their partner scored lower as less important than the trait on which their partner scored higher, \( b_{\text{intercept}} = -1.14, 95\% \text{ CI } [-1.64, -.51], SE = 0.30, t(40) = -3.82, p < .001, r = -.51, 95\% \text{ CI } [-.73, -.20] \) (Figure 7). Consistent with the previous analysis, there was a main effect of partner score, \( b_{\text{intercept}} = -0.72, 95\% \text{ CI } [-1.11, -0.29], SE = 0.21, t(40) = -3.49, p = .001, r = -.47, 95\% \text{ CI } [-.67, -.15] \): Participants rated the lower score trait as less important than the higher score trait.

Though Study 4 had a smaller sample than Studies 1-3, it has several advantages that increased effect size and its statistical power. First, I used a more powerful experimental manipulation; providing in-lab feedback based on their partner’s supposed responses created similar comparison experiences across participants. I also minimized careless responding, which
reduces power (Maniaci & Rogge, 2014), by having participants complete measures in the lab. Furthermore, by using a within-subject design, I accounted for greater within-person variance. Finally, my sample of undergraduate dating students is more homogenous than the online samples used in Studies 1-3.

3 Discussion

Overall, Study 4 provides further support that participants do indeed make social comparisons between their partner and another individual. Consistent with Studies 1-3, they responded to these comparisons involving their partner in a protective manner: Regardless of the trait being rated, they reported lower importance ratings following upward than downward comparisons, especially if they included their partner in their identity. In contrast, in the absence of social comparison information, participants showed no evidence of strategically protecting partner perceptions.
Chapter 6
Reliability of Partner-Protection Effect

To determine the reliability of the comparison by overlap interaction on importance ratings across studies, I calculated an incredibility index, IC-index = 0.41 (the probability I would obtain more non-significant effects than reported given the expected number of non-significant results; Schimmack, 2012; Table 4). A high IC-index (i.e., 0.90; Ioannidis & Trikalinos, 2007) indicates publication bias in a set of studies due to chance, the “file-drawer problem,” questionable research practices, an underestimation of the true effect size, or a combination of these factors (Francis, 2012); thus, a high IC-index indicates that the effect may be unreliable and consequently difficult to replicate. My low IC-index suggests that this set of studies is unbiased and that the comparison by overlap interaction effect on importance ratings is reliable and thus replicable.

I also conducted a cross-study meta-analysis of the comparison by overlap interaction on importance ratings to determine whether as a group these studies lend support to my hypotheses. I used a fixed-effects model to make a conditional inference about only the studies included in my analysis rather than a population of studies (Hedges & Vevea, 1998). Overall, the comparison by overlap interaction had a small association with domain importance ratings, $r = -0.12$, 95% CI [-.18, -.07], $p < .001$. The effect size estimates are displayed graphically as a forest plot (Figure 8).
Chapter 7
Study 5

Studies 1 to 4 provide strong evidence that when individuals include their romantic partner in their self-concept, they will experience comparing their partner or friend as if they were comparing themselves directly. In addition, Study 2 suggests that this expanded-self comparison effect may also include best friends: Individuals who recalled a time when their best friend was inferior to someone else were motivated to downplay the importance of the comparison domain. I propose that this protective strategy will extend to any individual who is included in one’s self-concept.

Although some research provides initial evidence that individuals do include their parents (e.g., Aron, Aron, & Smollan, 1992; Aron et al., 1991; Li, 2002; Mashek, Aron, & Boncimino, 2003) and children (e.g., Aron et al., 1992; Brummelman et al., 2013) in the self, this research did not directly examine differences in the extent to which individuals include parents and children in the self relative to close friends or romantic partners. For some of these studies, participants were allowed to choose the person to whom they felt closest, and a small portion of the participants chose their parents or children (i.e., 16% in Study 1 and 3.4% in Study 2; Aron et al., 1992), whereas the majority of participants chose a close friend or romantic partner (80.7% in Study 1 and 96.6% in Study 2; Aron et al., 1992), suggesting that only some individuals feel especially overlapped with immediate family members. For other studies, participants were instructed to complete the task about a family member (i.e., Aron et al., 1991; Brummelman et al., 2013; Li, 2002; Mashek et al., 2003). Although some studies have measured self-other overlap for friends and family members within the same study (i.e., Li, 2002; Mashek et al., 2003), they did not test whether these differences were statistically significant. Thus, individuals may be willing to extend self-protective strategies only to those to whom they feel closest (i.e., best friends and romantic partners). Accordingly, in Study 5, I examined the extent to which individuals would include specific family members – their child, mother, and father – in the expanded self-concept, relative to their romantic partner and best friend.
1 Method

1.1 Participants

Participants were 201 American residents recruited through MTurk who took part in the study in exchange for $0.50 USD. Participants were eligible for the study if they were currently involved in a romantic relationship and had at least one child and two living parents. Of those, eight participants were excluded because they were not currently involved in an exclusive romantic relationship: Four were single, and four were dating more than one person. One additional participant was deleted for providing nonsensical responses for the child’s demographics (i.e., entering the child’s age as 3,791,618 years old), suggesting that the participant did not take the questionnaire seriously. Altogether, 192 participants were retained in our analyses. Participants were 136 female and 56 male ($M_{\text{age}} = 36.08$, $SD = 10.29$) individuals currently involved in a romantic relationship ($M_{\text{relationship length}} = 123.94$ months, $SD = 109.44$). Participants were either married (134), dating (44), or engaged (14). Participants provided responses about one of their children ($M_{\text{child's age}} = 9.56$, $SD = 8.15$, range = 0 to 40 years old; see Table 5 for age breakdown of children reported for all studies). I tested for gender effects and noted any significant effects.

1.2 Procedure

Participants completed the Inclusion of Other in Self scale (IOS; Aron et al., 1992) and a shortened version of the 10-item self-overlap measure (Lockwood et al., 2004) used in Studies 1-4 for five close others: their romantic partner, one of their children (if they had more than one), their best friend, their mother, and their father. Ratings for the overlap measure were made on an 11-point scale ($1 = \text{strongly disagree}; 11 = \text{strongly agree}$). Participants with more than one child were asked to complete the questionnaire for one child only.

Because the original 10-item self-overlap measure used in Studies 1-4 was designed specifically for romantic relationships, some items were more applicable to romantic relationships than for other close relationships (e.g., “I prefer to do some things without my partner”). Thus, for the present study, I selected the five items (e.g., “I feel very interconnected with my child/partner/friend/mother/father”; see Table 6 for all five items) that would generalize to all relationships ($\alpha_{\text{child}} = .87$; $\alpha_{\text{partner}} = .93$; $\alpha_{\text{best friend}} = .88$; $\alpha_{\text{mother}} = .92$; $\alpha_{\text{father}} = .94$). Given
that this is the first study to apply this self-other overlap measure to other close relationships, I conducted an exploratory factor analysis on these five scale items and the IOS for each target individual to determine whether I was reliably measuring self-other overlap for each of these targets. All five factor analyses revealed that all items loaded highly onto one factor (see Table 6 for factor loadings for each target individual).

2 Results

2.1 Inclusion of Other in Self

To test whether different close relationships varied in terms of degree of inclusion of other in self, I conducted a one-way repeated-measures ANOVA. Because Mauchly’s test indicated that the assumption of sphericity had been violated, \( \chi^2(9) = 55.74, p < .001 \), I corrected the degrees of freedom using Greenhouse-Geisser estimates of sphericity (\( \varepsilon = .87 \)). As predicted, there was a significant effect of target on inclusion of other in the self, \( F(3.42, 654.02) = 52.39, p < .001 \).

I then conducted simple effects analyses using the Bonferroni correction for multiple comparisons to examine the differences between the targets (see Figure 9). Participants included their child and romantic partner, \( M_{\text{difference}} = 0.01, 95\% \text{ CI} [-0.25, 0.27], t(191) = 0.08, p = .94 \), in the self to the same degree. They also included their child in the self to a greater degree than they included their best friend, \( M_{\text{difference}} = 1.30, 95\% \text{ CI} [1.03, 1.57], t(191) = 9.44, p < .001 \), their mother, \( M_{\text{difference}} = 1.37, 95\% \text{ CI} [1.04, 1.70], t(191) = 8.12, p < .001 \), and their father, \( M_{\text{difference}} = 1.76, 95\% \text{ CI} [1.42, 2.09], t(191) = 10.26, p < .001 \). Participants also included their partner in the self to a greater degree than they included their best friend, \( M_{\text{difference}} = 1.29, 95\% \text{ CI} [0.99, 1.58], t(191) = 8.51, p < .001 \), their mother, \( M_{\text{difference}} = 1.36, 95\% \text{ CI} [1.00, 1.72], t(191) = 7.52, p < .001 \), and their father, \( M_{\text{difference}} = 1.74, 95\% \text{ CI} [1.39, 2.10], t(191) = 9.66, p < .001 \). They included their best friend and mother to same degree, \( M_{\text{difference}} = 0.07, 95\% \text{ CI} [-0.26, 0.41], t(191) = 0.43, p = 0.67 \); however, they included their best friend, \( M_{\text{difference}} = 0.46, 95\% \text{ CI} [0.14, 0.78], t(191) = 2.85, p = .005 \), and their mother, \( M_{\text{difference}} = 0.39, 95\% \text{ CI} [0.10, 0.67], t(191) = 2.64, p = .009 \), in their self to a greater degree than they included their father.
2.2 Self-Other Overlap Measure

Next, I tested whether I could replicate the effects of the IOS with the shortened version of the self-other overlap measure using a one-way repeated-measures ANOVA. Because the self-other overlap measure was used in Studies 1-4, I tested whether this measure would detect the same pattern of results as the single item IOS. Mauchly’s test indicated that the assumption of sphericity had been violated, $\chi^2 (9) = 94.68, p < .001$; thus, I corrected the degrees of freedom using Greenhouse-Geisser estimates of sphericity ($\varepsilon = .78$). As predicted, there were significant differences in ratings of self-other overlap among the five targets, $F(3.12, 595.06) = 53.57, p < .001$.

I then conducted simple effects analyses using the Bonferroni correction to examine the differences between the targets (see Figure 9). Consistent with the IOS findings, participants included their child and romantic partner, $M_{\text{difference}} = -0.18$, 95% CI [-0.52, 0.16], $t(191) = -1.05$, $p = .29$, in the self to the same degree. They also included their child in the self to a greater degree than they included their best friend, $M_{\text{difference}} = 1.29$, 95% CI [0.98, 1.61], $t(191) = 8.09$, $p < .001$, their mother, $M_{\text{difference}} = 1.79$, 95% CI [1.34, 2.25], $t(191) = 7.78$, $p < .001$, and their father, $M_{\text{difference}} = 2.45$, 95% CI [1.97, 2.93], $t(191) = 10.02$, $p < .001$. Participants also included their partner in the self to a greater degree than they included their best friend, $M_{\text{difference}} = 1.48$, 95% CI [1.11, 1.84], $t(191) = 7.97$, $p < .001$, their mother, $M_{\text{difference}} = 1.98$, 95% CI [1.49, 2.46], $t(191) = 8.05$, $p < .001$, and their father, $M_{\text{difference}} = 2.63$, 95% CI [2.14, 3.12], $t(191) = 10.50$, $p < .001$. They included their best friend in the self to a greater degree than they included their mother, $M_{\text{difference}} = 0.50$, 95% CI [0.02, 0.97], $t(191) = 2.08$, $p = .04$, and father, $M_{\text{difference}} = 1.15$, 95% CI [0.68, 1.63], $t(191) = 4.78$, $p < .001$. Finally, they included their mother in the self to a greater degree than they included their father, $M_{\text{difference}} = 0.66$, 95% CI [0.25, 1.06], $t(191) = 3.19$, $p = .002$.

\[ ^3 \text{There was a main effect of gender, such that male participants} (M_{\text{IOS}} = 4.91, SE_{\text{IOS}} = 0.16; M_{\text{overlap}} = 8.11, SE_{\text{overlap}} = 0.22) \text{ reported higher overlap scores for all target individuals than females} (M_{\text{IOS}} = 4.23, SE_{\text{IOS}} = 0.10; M_{\text{overlap}} = 7.23, SE_{\text{overlap}} = 0.14) \text{ for both the IOS, } F(1, 190) = 13.59, p < .001, \text{ and the self-other overlap measure, } F(1, 190) = 11.83, p < .001. \]

\[ ^4 \text{Unexpectedly, there was a significant gender by friend’s gender by target interaction for both IOS, } F(3.37, 627.30) = 3.12, p = .02, \text{ and self-other overlap, } F(3.07, 570.99) = 3.44, p = .02. \text{ Male participants who reported about a close male friend} (M = 4.46, SE = 0.33), \text{ relative to females who reported about a close male friend} (M = 3.41, SE = 0.50), \]
3 Discussion

Overall, Study 5 provides evidence that individuals do include their children and parents in their expanded self-concept. Moreover, this study indicates that individuals include their child and partner in their self-concept to the greatest degree; they also include their best friend and mother to a somewhat lesser degree; they include their father in their identity the least of those target individuals I examined. Given these findings, I hypothesized that individuals would protect their perceptions of their children and their mothers, but not their fathers, after comparing these close others to another individual. I examined this possibility in Studies 6-8.

reported greater inclusion of other scores for their father, t(782.10) = 2.23, p = .03. Male participants who reported about a close female friend (M = 4.43, SE = 0.35), relative to females who reported about a close female friend (M = 3.68, SE = 0.16), reported greater inclusion of other for their close friend, t(514.51) = 3.19, p = .002.

For self-other overlap, male participants who reported about a close male friend (M_{partner} = 9.50, SE_{partner} = 0.34; M_{father} = 7.55, SE_{father} = 0.49), relative to females who reported about a close male friend (M_{partner} = 8.88, SE_{partner} = 0.52; M_{father} = 6.07; SE_{father} = 0.74), reported greater overlap with their romantic partner, t(860.68) = 2.28, p = .02, and father, t(1745.38) = 2.80, p = .006. Male participants who reported about a close female friend (M = 8.27, SE = 0.43), relative to females who reported about a close female friend (M = 6.87, SE = 0.20), reported greater overlap with their close friend, t(793.81) = 2.24, p = .03.
Chapter 8
Study 6

In Study 6, I examined the comparisons that individuals would make between their parents and other people’s parents. I argue that, just as individuals make social comparisons involving their romantic partners, so too would they make comparisons involving their mothers and fathers. Consistent with Studies 1 and 2, I also predicted that participants would rate their parent less positively following an upward than downward comparison. I also hypothesized that the degree to which individuals would protect the parents following an upward comparison would depend on the degree to which they included the parents in the self. That is, even though individuals report including their mother and father in their self-concept, they may be motivated to protect only their mother following an upward comparison because they include their mother in their self to a greater degree than they include their father.

I also used Study 6 to rule out an alternative explanation for my findings regarding comparisons of the expanded self: To the extent that individuals feel personally responsible for the successes or failures of very close others, they may engage protective mechanisms following threatening comparisons not so much to protect the parent as to protect the self. It is possible that individuals are simply taking responsibility for the successes or failures of very close others. One might be boosted when one’s romantic partner earns a raise because one feels that one has directly contributed to the partner’s success by helping him or her to perform well in his or her job; conversely, one may feel threatened when the partner does poorly because one may feel guilty for not providing sufficient support to the partner. Similarly, one may feel guilty when one’s parent suffers a failure or loss to the extent that one attributes some of the cause of that negative outcome to one’s lack of support for the parent. Thus, one may engage protective mechanisms following threatening comparisons not so much to protect the parent as to protect the self. I tested this possibility directly by examining the attributions that individuals make for their close other’s comparison outcomes. If participants are motivated to protect themselves, direction of comparison should influence the degree to which they make attributions to the self. They would deny responsibility for their parent’s inferior performance (i.e., make fewer self attributions following an upward comparison) and take credit for their parent’s superior performance (i.e., make more self attributions following a downward comparison). In contrast, if
participants were motivated to protect their parents, they should make parent-serving attributions: They should attribute less responsibility to the parent (i.e., make fewer parent attributions) following an upward comparison and enhance their parent by attributing greater responsibility (i.e., make more parent attributions) following a downward comparison.

Moreover, examining these attributions enabled me to determine whether participants would engage in a second protective strategy following an upward comparison, a parent-serving attributional bias (cf. Zuckerman, 1979). When individuals experience a negative outcome, they are motivated to protect themselves by making fewer attributions to the self and more attributions to external factors. Conversely, when they experience a positive outcome, they are motivated to enhance themselves by making more internal attributions and fewer external attributions. Thus, they take credit for positive outcomes by attributing them to themselves and deny responsibility for negative outcomes by attributing them to factors beyond their control. Thus, individuals may be motivated to make similar attributions after comparing a close other because these individuals are included in the expanded self. Indeed, past research has shown that individuals are more likely to make more situational attributions for close others and more dispositional attributions for non-close others (Aron et al., 1991); however, this research has not yet examined whether these attributions are affected by outcome valence. That is, it is unclear whether individuals are motivated to enhance or protect a very close other following a positive or negative outcome by making different attributions than they would if they experienced these outcomes directly.

In sum, Study 6 sought to demonstrate that individuals would make social comparisons involving their parents and another person and that upward comparisons would have negative consequences for perceptions of parents relative to downward comparisons, as they did for romantic partners and best friends. Moreover, I predicted that individuals who included the parent in their self-concept to a greater degree would be more likely to engage protective mechanisms (downplaying the relevance of the comparison dimension and making situational rather than dispositional attributions) following a threatening upward comparison and that the parent’s outcomes would not simply be attributed to the self. That is, participants would not engage protective strategies following an upward comparison simply because they attributed the parent’s failure to themselves (i.e., motivated to protect the self); rather, they would engage
these protective strategies to protect their positive views of the parent because the parent is included in their expanded self-concept (i.e., motivated to protect the expanded-self).

1 Method

1.1 Participants

Participants were recruited from an introductory psychology course in exchange for course credit. As in Studies 1-3, I examined participants’ open-ended responses before hypothesis testing to ensure that I included only those participants who had clearly demonstrated that they had made a comparison between their parent and another person other than themselves. Participants whose responses did not meet my criteria were excluded from analyses. Moreover, because I was interested in evaluative comparisons only (i.e., upward and downward comparisons), I eliminated any participants who reported a lateral (i.e., parent and comparison other performed at the same level) or qualitative (i.e., described the traits or qualities that their parent shared with the comparison other) comparison.

In total, I recruited 243 introductory psychology students. Of those, four participants reported only lateral comparisons for both parents, 25 participants’ ratings of comparison direction did not match their comparison descriptions (e.g., described an upward comparison but rated comparison as downward), and four did not describe a specific comparison (e.g., described how parent is better or worse in general or did not mention the specific individual to whom parent was compared). These participants were not included in the analyses.

Participants were asked to make comparisons involving both their mother and their father. However, some participants chose to complete only one questionnaire due to lack of contact with one parent or because they reported making comparisons involving only one parent. Altogether, 210 participants provided a valid comparison for at least one parent and were retained in my analyses to provide more accurate estimates of the effect sizes (Kenny, Kashy, & Cook, 2006). Participants were 137 females and 72 males (\(M_{\text{age}} = 18.83, SD = 1.64\)). Across all analyses, I tested for gender effects and have noted any significant effects. Participants reported about 182 mothers (\(M_{\text{age}} = 48.92, SD = 4.90, range = 37\) to 64) and 190 fathers (\(M_{\text{age}} = 52.08, SD = 5.49, range = 41\) to 68).
1.2 Procedure

Participants were invited to take part in a larger study investigating parent-child relationships. Participants first completed a questionnaire assessing social comparisons involving one parent (e.g., the mother); they then completed the same questionnaire for comparisons involving the other parent (e.g., the father). The order in which they completed the questionnaires was counterbalanced; there were no order effects for any of my primary analyses, \( ts < 1.46, ps > .14 \).

Participants first completed a 6-item version of the self-other overlap measure (Lockwood et al., 2004) for the target parent \( (\alpha_{\text{mother}} = .89; \alpha_{\text{father}} = .91) \) using a 7-point scale (1 = strongly disagree; 7 = strongly agree). Three of the items were used in Study 5’s shortened measure (“I feel very interconnected with my mother/father,” “My identity and my mother’s/father’s identity overlap a great deal,” and “My mother/father is a major part of who I am.”), and three other items were taken from the original measure (“My mother/father and I are very close,” “It’s hard to imagine what kind of person I would be like without my mother/father,” and “When thinking about the future, I always think about my mother’s/father’s future and my own future together, rather than just my future.”). I included these three additional items from the original scale because these items may capture aspects of self-parent overlap that are particularly relevant to these participants. Most of the participants were currently in late adolescence and were still in the process of forming an identity separate from their parents (Erikson, 1968). Thus, only those higher in overlap may consider the ways in which their parents have influenced who they are. Moreover, past research suggests that individuals typically remember their relationships with their parents as being especially distant in late adolescence (Pipp, Shaver, Jennings, Lamborn, & Fischer, 1985). It is possible that only those high in overlap will report feeling close to their parents and considering their joint future with their parents.

As in Study 5, I conducted an exploratory factor analysis on these six scale items for each parent to determine whether I was reliably measuring self-other overlap for each parent. Both analyses revealed that all items loaded highly onto one factor (see Table 7 for factor loadings for each parent).

Participants were then asked to “take a moment to think about a specific time when you compared your mother/father to another person’s parent. We want to know about the person you compared your mother to, so please tell us about a time when you compared your
mother/father to a specific parent, not other parents in general.” They were then asked to describe the comparison in open-ended form.

After describing the comparison, participants indicated how their parent performed relative to the other person on a 7-point scale (-3 = My mother/father was much worse than the other parent; +3 = My mother/father was much better than the other parent) with a midpoint of 0 (Similar to the other parent). They next indicated the importance of the comparison domain on a 7-point scale (1 = not at all important; 7 = very important). Participants then rated the extent to which the comparison affected how they saw their parent (“This comparison had a positive impact on the way I saw my mother/father” and “This comparison had a negative impact on the way I saw my mother/father”) on a 7-point scale (1 = not at all; 7 = very much). Finally, participants rated the degree to which they attributed the comparison outcome to themselves (“To what extent did you attribute the outcome of this comparison to yourself”) to their parent (“To what extent did you attribute the outcome of this comparison to your mother/father”), and to external events (“To what extent did you attribute the outcome of this comparison to external events outside of the control of you and your mother/father”); ratings were made on a 7-point scale (1 = not at all; 7 = very much).

2 Results

2.1 Analytic Strategy

All outcomes (unless otherwise noted) were modeled as a function of self-other overlap (grand-mean-centered continuous variable), comparison direction (effects-coded variable, upward = 1; downward = -1), parent (effects-coded variable, mother = 1; father = -1), and all their interactions, controlling for order of questionnaire (effects-coded variable, mother questionnaire first = 1; father questionnaire first = -1). Because lateral comparisons are qualitatively different from directional comparisons (Locke, 2003; Locke & Nekich, 2000), I examined only those comparisons that could be categorized as directional (upward or downward). A 2-level multilevel model was used to account for comparisons nested within person by estimating a random intercept for each participant using a compound symmetry
covariance matrix\(^5\) and the Satterthwaite method of estimating degrees of freedom. Effect sizes were estimated using semi-partial \(R^2\) (Edwards, Muller, Wolfinger, Qaqish, & Schabenberger, 2008), which are partial effect sizes for specific model parameters, and pseudo \(R^2\) for the model (Snijders & Bosker, 1994).

I conducted simple effects analyses for interactions by examining the differences between comparison directions at 1 SD above and below the mean of self-other overlap (Aiken & West, 1991) for each parent, which I dummy coded. In line with a recent recommendation (Cumming, 2013), I also report 95% confidence intervals for the unstandardized coefficients with \(p\)-values.

### 2.2 Difference in Self-Parent Overlap

First, I tested whether I would replicate the same pattern of self-other overlap for parents observed in Study 5 (i.e., mothers are included in the self-concept more than fathers) using a paired \(t\)-test. Indeed, as in Study 5, participants included their mother (\(M = 5.22, SD = 1.35\)) in the self to a greater degree than their father (\(M = 4.58, SD = 1.63\)), \(M_{\text{difference}} = 0.65, 95\% \text{ CI} [0.42, 0.88]\), \(t(206) = 5.51, p < .001\).

### 2.3 Comparison Descriptions

In general, participants provided rich accounts of the comparisons that they had made between their parents and such targets as aunts, uncles, and friends’ parents. As one participant who recalled an upward comparison wrote,

> When I was in elementary school, I had a best friend. She was the first friend I made since I moved to Canada. We started to get close… so we spent a lot of time together… I would find myself going over to her house almost every day and staying late. My friend's mom was petite, cute and had a really sweet voice. She always welcomed me with open arms and prepared snacks for us every day after school. I began to compare my mother to my friend's mother. My mother would rarely provide snacks and the way that they talked was different as well. My mother would be much more straightforward and strict while my friend's mom talked in a way that was much more soothing and overall nicer. I was upset and at a young age, I wished that my mom would be like that as well.

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\(^5\) I tested whether a heterogeneous compound symmetry covariance structure, which models separate variances for mother and father comparisons, would fit the model better than a compound symmetry covariance structure, which assumes the degree of unexplained variance is equal for mother and father comparisons (Kenny et al., 2006), using the REML deviance values from the two models. For all outcomes, the two models did not differ significantly, \(\chi^2(1)s < 2.79, ps > .05\). Thus, I chose the compound symmetry models because they are simpler models.
Another participant described in detail her father’s superior supportiveness:

I once compared my father to my friend's father, and realized that I can relate to mine more, of course. My father is kind, warm-hearted and would go to the end of the world to make me happy, we have a special father/daughter bond, I feel like I am comfortable talking to him about anything. So when I compared him to my friend's father, I realized that I wouldn't be this positive or happier if my father did not have the personality that he does. My friend's father is more controlling, and strict and at times just mean.

2.4 Direction of Comparison

For mother comparisons, participants spontaneously recalled 106 downward and 76 upward comparisons involving their mother and another person. For father comparisons, participants spontaneously recalled 109 downward and 81 upward comparisons. Overall, participants were more likely to recall downward than upward comparisons for both their mother, $\chi^2(1) = 4.95, p = .03$, and father, $\chi^2(1) = 4.13, p = .04$.

Next, I tested whether self-parent overlap predicted direction of recalled comparison. Comparison direction was a binary outcome, which violated the normality assumption required for traditional regression. Thus, a logistic multilevel model with a logit link function was used to model comparison direction (0 = upward comparison; 1 = downward comparison). Comparison direction was modeled as a function of self-parent overlap, parent, and the overlap by parent interaction, controlling for questionnaire order. This analysis revealed that greater self-parent overlap significantly predicted making a downward comparison, $b = 0.77$, $SE = 0.10$, $t(334) = 7.39, p < .001$, Odds Ratios = 2.16:1, 95% CI [1.76, 2.66]. This implies that every 1-unit increase in self-parent overlap predicted a 2-fold increase in the likelihood that the participant made a downward comparison instead of an upward comparison. Thus, participants who included their parent in their self-concept to a greater degree were significantly more likely to recall a comparison in which their parent outperformed another parent than were those who

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There was a marginal effect of gender, $b = 0.30$, $SE = 0.15$, $t(328) = 1.95, p = .053$, Odds Ratios = 1.35:1, 95% CI [1.00, 1.83]. This implies that there is a 1.82-fold increase in the likelihood that sons made a downward comparison instead of an upward comparison relative to daughters. Because gender was entered as an effects-coded variable, I doubled the coefficient before exponentiating it to determine the odds ratio for the difference between daughters and sons.
included their parent in their self-concept to a lesser degree. No other effects were significant, $t_s < 1.81, p_s > .07$.

2.5 Domain Importance Ratings

Participants recalled comparisons in a wide range of domains, such as socioeconomic status, health, and physical appearance (see Table 8 for domains); however, the majority of comparisons occurred in domains relevant to the parent-child relationship such as open communication, emotional supportiveness, and strictness/control (61.5% for mother comparisons and 51.2% of father comparisons). A chi-square test indicated that the comparison domain recalled was not contingent upon comparison direction, $\chi^2(10) = 9.15, p = .52$.

Self-other overlap did not predict importance ratings, $b = 0.07, 95\% \text{ CI } [-0.03, 0.18], SE = 0.05, t(323.52) = 1.36, p = .17$, semi-partial $R^2 = .006$. There was also no effect of parent, $b = -0.13, 95\% \text{ CI } [-0.27, 0.01], SE = 0.07, t(217.50) = -1.79, p = .07$, semi-partial $R^2 = .01$, but there was an effect of comparison direction, $b = -0.29, 95\% \text{ CI } [-0.45, -0.14], SE = 0.08, t(324.78) = -3.75, p < .001$, semi-partial $R^2 = .04$. Participants who recalled upward comparisons rated domains as less important than those who recalled downward comparisons. This direction effect, however, was qualified by the predicted direction by overlap interaction, $b = -0.12, 95\% \text{ CI } [-0.22, -0.02], SE = 0.05, t(318.18) = -2.33, p = .02$, semi-partial $R^2 = .02$. Participants higher in overlap were more likely to rate a domain as less important after an upward, relative to a downward, comparison than were those lower in overlap. This predicted two-way interaction was further qualified by a parent by direction by overlap interaction, $b = -0.12, 95\% \text{ CI } [-0.22, -0.02], SE = 0.05, t(293.88) = -2.33, p = .02$, semi-partial $R^2 = .02$, indicating that our predicted interaction differed for mother and father comparisons. No other effects were significant, $t_s < 1.51, p_s > .13$.

2.5.1 Mother Comparisons

Among low overlap participants, upward and downward comparisons did not differ in importance ratings, $b = -0.04, 95\% \text{ CI } [-0.37, 0.29], SE = 0.17, t(311.96) = -0.23, p = .82$, semi-partial $R^2 = .0002$. High overlap participants, however, rated domains to be less important if they recalled an upward comparison rather than a downward comparison, $b = -0.75, 95\% \text{ CI } [-1.03, -0.48], SE = 0.14, t(308.08) = -5.44, p < .001$, semi-partial $R^2 = .09$ (see Figure 10). Thus, consistent with my prediction, high overlap participants who included their mother in their self-
concept were motivated to protect their perceptions of their mother following an upward relative to a downward comparison.

2.5.2 Father Comparisons

In contrast, there was no difference between comparison directions among low overlap, \( b = -0.19, 95\% \text{ CI } [-0.46, 0.09], SE = 0.14, t(308.78) = -1.35, p = .18, \) semi-partial \( R^2 = .006, \) or high overlap participants, \( b = -0.19, 95\% \text{ CI } [-0.53, 0.14], SE = 0.17, t(307.39) = -1.15, p = .25, \) semi-partial \( R^2 = .004 \) (see Figure 10). Thus, unlike comparisons involving mothers, participants who included their father more in their identity were no more likely to protect their perceptions of their father by rating the domain as less important following an upward comparison than those who did not include their father in their identity.

2.5.3 Pseudo-\( R^2 \)

At the lowest level, the model reduced prediction error of importance ratings by a small amount, \( Pseudo-R^2_1 = .10. \) At the second level, the model reduced prediction error of importance ratings by a small amount for any given participant, \( Pseudo-R^2_2 = .09. \) The correlation coefficient for mother and father importance ratings, my measure of nonindependence (Kenny et al., 2006), was significant, \( r = .24, 95\% \text{ CI } [.11, .37], t(201) = 3.55, p < .001, \) suggesting that importance ratings from the same participant were not independent and confirming that a multilevel analysis was necessary for these data.

2.6 Parent Perceptions

The two parent perception items were moderately correlated \( (r_{\text{mother}} = -0.64, p < .001; r_{\text{father}} = -0.59, p < .001); \) accordingly, I reverse coded the negatively framed item and averaged the two items to create a parent perception index. As predicted, comparison direction affected parent perceptions, \( b = -1.27, 95\% \text{ CI } [-1.39, -1.14], SE = 0.06, t(317.03) = -20.42, p < .001, \) semi-partial \( R^2 = .57: \) Participants who recalled an upward comparison \( (M = 3.48, SE = .10) \) rated their parent less positively than those who recalled a downward comparison \( (M = 6.01, SE = 0.09). \) There was also an effect of self-parent overlap, \( b = 0.31, 95\% \text{ CI } [0.23, 0.40], SE = 0.04, t(326.58) = 7.23, p < .001, \) semi-partial \( R^2 = .14: \) Higher overlap predicted more positive parent perceptions. No other effects were significant, \( ts < 1.47, ps > .14. \) These findings are consistent with those regarding best friends and partners from Studies 1 and 2: Individuals view their
parents less positively following an upward relative to a downward comparison, and those who report greater overlap report more positive perceptions.

At the lowest level, the model reduced prediction error of perception ratings by a large amount, Pseudo-$R^2_1 = .70$. At the second level, the model reduced prediction error of perception ratings by a large amount for any given participant, Pseudo-$R^2_2 = .70$. The correlation coefficient for mean mother and father perception ratings was significant, $r = .24$, 95% CI [.10, .36], $t(203) = 3.45, p < .001$, suggesting that mean perception ratings from the same participant were not independent and confirming that a multilevel analysis was necessary for these data.

2.7 Attribution for Parent’s Comparison Outcome

2.7.1 Attribution to Self.

There were no significant effects for self attributions, $ts < 1.81, ps > .07$. Children considered themselves to be only moderately responsible for their parent’s superior ($M = 3.62$, $SE = 0.17$) and inferior ($M = 3.45$, $SE = 0.14$) performance. Thus, participants did not make self-serving attributions following parent comparisons. These findings provide evidence against the alternative explanation that individuals feel personally responsible for the successes or failures of their parents and are motivated to protect themselves, rather than their parents.

At the lowest level, the model reduced prediction error of self-attribution ratings by a negligible amount, Pseudo-$R^2_1 = .003$. At the second level, the model reduced prediction error of self-attribution ratings by a negligible amount for any given participant, Pseudo-$R^2_2 = .006$. The correlation coefficient for self-attribution ratings for mother and father comparisons was significant, $r = .43$, 95% CI [.31, .53], $t(203) = 6.71, p < .001$, suggesting that self-attribution

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7 There was a significant parent by gender interaction for self attributions, $b = -0.26, 95\% CI [-0.47, -0.06], SE = 0.10, t(236.85) = -2.54, p = .01$, semi-partial $R^2 = .03$. Sons made fewer attributions to the self when comparing their mother relative to their father, $b = -0.29, 95\% CI [-0.63, 0.05], SE = 0.17, t(252.30) = -1.69, p = .09$, semi-partial $R^2 = .01$. In contrast, daughters made more attributions to the self when comparing their mother relative to their father, $b = 0.23, 95\% CI [0.01, 0.45], SE = 0.11, t(200.74) = 2.06, p = .04$, semi-partial $R^2 = .02$. These results suggest that children feel more responsible for their same-sex parent’s comparison outcomes. There was also a significant direction by gender interaction for self attributions, $b = 0.26, 95\% CI [0.03, 0.48], SE = 0.11, t(309.27) = 2.27, p = .02$, semi-partial $R^2 = .02$. For daughters, there was no effect of comparison direction, $b = -0.14, 95\% CI [-0.39, 0.11], SE = 0.13, t(297.07) = -1.10, p = .27$, semi-partial $R^2 = .004$, but sons made more attributions to the self following an upward relative to downward parent comparison, $b = 0.38, 95\% CI [0.006, 0.75], SE = 0.19, t(313.48) = 2.00, p = .047$, semi-partial $R^2 = .01$. Thus, sons seem to feel more responsible for their parents’ inferior performance than superior performance.
ratings from the same participant were not independent and confirming that a multilevel analysis was necessary for these data.

2.7.2 Attribution to Parent

Comparison direction predicted the extent to which participants attributed the comparison outcome to their parent, \( b = -0.37, 95\% \text{ CI } [-0.53, -0.21], SE = 0.08, t(263.35) = -4.66, p < .001, \) semi-partial \( R^2 = .08. \) Participants viewed their parents as more responsible for their outcomes when they were superior than inferior. This effect, however, was qualified by a significant overlap by direction interaction, \( b = -0.17, 95\% \text{ CI } [-0.28, -0.07], SE = 0.05, t(245.93) = -3.36, p = .001, \) semi-partial \( R^2 = .04. \) A significant overlap by direction by parent interaction, \( b = -0.11, 95\% \text{ CI } [-0.21, -0.01], SE = 0.05, t(219.29) = -2.19, p = .03, \) semi-partial \( R^2 = .02. \) No other effects were significant, \( ts < 1.42, ps > .15. \)

2.7.2.1 Mother Comparisons

For low overlap participants, there was no effect of comparison direction on attributions to mother, \( b = 0.03, 95\% \text{ CI } [-0.29, 0.36], SE = 0.17, t(244.39) = 0.20, p = .84, \) semi-partial \( R^2 = .0002. \) In contrast, there was an effect of comparison direction on attributions to mother for high overlap participants, \( b = -0.81, 95\% \text{ CI } [-1.08, -0.54], SE = 0.14, t(234.92) = -5.92, p < .001, \) semi-partial \( R^2 = .13. \) High overlap participants were less likely to attribute outcomes to their mother after recalling an upward comparison than those who recalled a downward comparison (see Figure 11).

2.7.2.2 Father Comparisons

For low overlap participants, there was no effect of comparison direction on attributions to father, \( b = -0.25, 95\% \text{ CI } [-0.52, 0.02], SE = 0.14, t(237.06) = -1.86, p = .06, \) semi-partial \( R^2 = .01. \) However, high overlap sons gave higher parent attributions following father comparisons relative to mother comparisons, \( b = -0.43, 95\% \text{ CI } [-0.86, -0.01], SE = 0.22, t(229.03) = -2.00, p = .046, \) semi-partial \( R^2 = .02. \)

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8 There was a significant parent by overlap by gender interaction for parent attributions, \( b = -0.13, 95\% \text{ CI } [-0.24, -0.03], SE = 0.05, t(195.25) = -2.50, p = .01, \) semi-partial \( R^2 = .03. \) The parent by overlap interaction was not significant for daughters, \( b = .06, 95\% \text{ CI } [-0.05, 0.16], SE = 0.05, t(173.38) = 1.03, p = .31, \) semi-partial \( R^2 = .006, \) but was for sons, \( b = -0.21, 95\% \text{ CI } [-0.39, -0.03], SE = 0.09, t(203.36) = -2.30, p = .02, \) semi-partial \( R^2 = .03. \) Among low overlap sons, there was no effect of parent on parent attribution ratings, \( b = 0.20, 95\% \text{ CI } [-0.10, 0.50], SE = 0.15, t(174.23) = 1.30, p = .20, \) semi-partial \( R^2 = .01; \) however, high overlap sons gave higher parent attributions following father comparisons relative to mother comparisons, \( b = -0.43, 95\% \text{ CI } [-0.86, -0.01], SE = 0.22, t(229.03) = -2.00, p = .046, \) semi-partial \( R^2 = .02. \)
.02. In contrast, there was an effect of comparison direction on attributions to father for high overlap participants, $b = -0.45$, 95% CI [-0.78, -0.12], $SE = 0.17$, $t(232.40) = -2.72$, $p = .007$, semi-partial $R^2 = .03$. High overlap participants were less likely to attribute outcomes to their father after recalling an upward comparison than those who recalled a downward comparison (see Figure 11).

Thus, low overlap children do not protect their parents following an upward comparison by attributing less responsibility to them. In contrast, high overlap children demonstrated a parent-serving bias: They protected their parents following an upward comparison by attributing less responsibility to them and enhanced their parents following a downward comparison by attributing greater responsibility to them.

2.7.2.3 Pseudo-$R^2$

At the lowest level, the model reduced prediction error of parent-attribution ratings by a small amount, $Pseudo-R^2_1 = .07$. At the second level, the model reduced prediction error of parent-attribution ratings by a small amount for any given participant, $Pseudo-R^2_2 = .04$. The correlation coefficient for parent-attribution ratings for mother and father comparisons was significant, $r = .51$, 95% CI [.40, .60], $t(203) = 8.42$, $p < .001$, suggesting that parent-attribution ratings from the same participant were not independent and confirming that a multilevel analysis was necessary for these data.

2.7.3 Attribution to External Events

There were no significant effects for attributions to external events, $ts < 1.26$, $ps > .20$.

2.7.4 Differences in Self and Parent Attributions

I then conducted a more stringent test of whether participants took personal responsibility for their parents’ comparison outcomes and whether they engaged in these protective strategies to protect themselves or their parents by examining the difference between self and parent attributions. I first calculated a contrast score (i.e., difference in self and parent attribution ratings) for each participant (Judd et al., 2009). Positive difference scores indicate that participants rated self attributions higher than parent attributions, whereas negative difference scores indicate that participants rated parent attributions higher than self attributions. I then modeled this contrast score as a function of self-parent overlap, comparison direction, parent,
and their interactions, while controlling for questionnaire order. This strategy allowed me to test whether the difference in self and parent attributions depended on self-parent overlap, comparison direction, or their interaction as well as whether this effect differed for mothers and fathers. The correlation coefficient for difference in self-parent attributions for mother and father comparisons was significant, $r = .45$, 95% CI [.34, .56], $t(203) = 7.27$, $p < .001$, suggesting that attribution ratings from the same participant were not independent and confirming that a multilevel analysis was necessary for these data.

There was a main effect of comparison direction, $b = 0.43$, 95% CI [0.16, 0.71], $SE = 0.14$, $t(294.49) = 3.08$, $p = .002$, semi-partial $R^2 = .03$. Participants made more parent than self attributions following both upward, $b_{\text{intercept}} = -1.11$, 95% CI [-1.56, -0.64], $SE = 0.23$, $t(325.43) = -4.76$, $p < .001$, semi-partial $R^2 = .07$, and downward comparisons, $b_{\text{intercept}} = -1.97$, 95% CI [-2.37, -1.57], $SE = 0.20$, $t(301.74) = -9.70$, $p < .001$, semi-partial $R^2 = .24$; however, this difference was greater following a downward comparison. This effect was qualified by the predicted overlap by direction interaction, $b = 0.22$, 95% CI [0.04, 0.40], $SE = 0.09$, $t(279.09) = 2.39$, $p = .02$, semi-partial $R^2 = .02$. No other effects were significant, $t_s < 1.30$, $p_s > .19$. Simple effects will be discussed next.

### 2.7.4.1 Upward Comparisons

Following an upward comparison, low overlap children made more parent than self attributions, $b_{\text{intercept}} = -1.62$, 95% CI [-2.07, -1.16], $SE = 0.23$, $t(317.89) = -6.99$, $p < .001$, semi-partial $R^2 = .13$. Low overlap children demonstrated a self-serving bias instead of a parent-serving bias: They were motivated to protect themselves rather than their parents by denying responsibility and blaming their parents for the parents’ inferior performance.

In contrast there was no difference between self and parent attributions among high overlap children, $b_{\text{intercept}} = -0.60$, 95% CI [-1.29, 0.10], $SE = 0.35$, $t(324.24) = -1.68$, $p = .09$, semi-partial $R^2 = .01$ (see Figure 12). High overlap children attributed an equal amount of responsibility to both themselves and their parent after an upward comparison.

Given that the majority of comparisons occurred in domains relevant to the parent-child relationship (e.g., strictness, open communication, and emotional support, see Table 8), participants may see parent comparison outcomes as a joint outcome between themselves and their parent, rather than the parents’ individual outcome. For example, parents may be less strict
than other parents because participants are more trustworthy and reliable than other children. Indeed, participants did see themselves as at least somewhat responsible for these outcomes. Past research has shown that when individuals experience interdependent outcomes (i.e., when the outcome hinges on the joint rather than individual contributions of dyad members) in close dyads, relative to distant dyads, they are less motivated to protect themselves (Sedikides, Campbell, Reeder, & Elliot, 1998, 2002). Instead, when the dyad experiences failure, individuals attribute an equal amount of responsibility to themselves and their partner because they have more positive impressions of their partner. Thus, this pattern of attributions indicates that high overlap individuals were indeed motivated to protect their perceptions of their parents following an upward comparison.

2.7.4.2 Downward Comparisons

Following a downward comparison, both low overlap, $b_{intercept} = -1.82$, 95% CI [-2.52, -1.12], $SE = 0.35$, $t(326.42) = -5.16$, $p < .001$, semi-partial $R^2 = .08$, and high overlap, $b_{intercept} = -2.12$, 95% CI [-2.57, -1.67], $SE = 0.23$, $t(316.02) = -9.29$, $p < .001$, semi-partial $R^2 = .21$, children made more parent than self attributions; however, this difference was greater for high overlap than low overlap children (see Figure 12). Thus, both low and high overlap children did not take personal responsibility for their parent’s superior performance; instead, they chose to enhance their parents by giving them credit for their superior performance, especially if they were high in self-parent overlap.

2.7.4.3 Summary

In sum, low overlap participants were motivated to protect themselves following an upward parent comparison: They denied personal responsibility and blamed their parents for their inferior performance. However, they did not enhance themselves following a downward comparison; instead they enhanced their parents: They gave their parents, relative to themselves, more credit for their superior performance.

In contrast, high overlap participants demonstrated a parent-serving bias, rather than self-serving bias, regardless of comparison direction. They protected their parents by attributing an equal amount of responsibility to both themselves and their parent following an upward comparison.
comparison, and enhanced their parents by attributing greater responsibility to their parents than themselves following a downward comparison.

3 Discussion

Taken together, these results indicate that individuals who included their parent in their expanded self-concept were more likely to recall comparisons that were associated with more positive perceptions of their parent (i.e., a downward comparison). Furthermore, consistent with Studies 1 and 2, these comparisons did affect how individuals viewed their parents: Both high and low overlap children viewed their parent more positively after recalling a time when their parent outperformed another person than those who recalled a time when their parent was outperformed by another person.

Furthermore, I found evidence that the comparison protection effect also extends to one’s mother: Individuals who included their mother in their identity rated domains to be less important after an upward comparison and more important after a downward comparison. In contrast, this effect did not extend to one’s father: Individuals were not motivated to engage in this protective strategy following an upward comparison regardless of degree of self-father overlap. Instead, both high and low overlap children rated domains to be equally important regardless of the direction of the father comparison. This finding that participants employed a protective strategy (devaluing domains in which the mother was inferior) to benefit mothers but not fathers provides further evidence that mother comparisons are social comparisons of the expanded self. Individuals do not protect any parent whom they find to be inferior to another person; rather, they protect only the mother, who as indicated in both Studies 5 and 6, is a more central part of the expanded self-identity. Further, individuals use this protective strategy in the service of mothers to the greatest degree when the mother’s identity is most overlapped with the self-identity.

I also found that high overlap individuals made parent-serving attributions for their parent’s comparison outcomes: They made fewer parent attributions after an upward relative to a downward comparison. I did not observe a difference in external attributions; however, this may be an artifact of my method: Participants were allowed to freely recall any comparison they wished, and the majority of participants recalled downward comparisons. Moreover, those who would be most likely to make external attributions following an upward parent comparison (i.e.,
those high in self-parent overlap) were also the ones who were less likely to recall an upward comparison. These findings, however, are consistent with a meta-analysis examining the actor-observer asymmetry, which indicates that the most robust effect is for internal attributions following negative events (Malle, 2006). That is, when individuals make attributions to themselves for negative outcomes, they attribute less responsibility to themselves than an observer would. In contrast, there is no difference for external causes. Thus, individuals may simply decrease internal attributions, rather than increase external attributions, following negative outcomes to protect themselves.

In contrast to the importance rating findings, high overlap individuals did make attributions to protect both parents following an upward comparison. They attributed less responsibility to the parent for his or her inferior performance than low overlap individuals. It is possible that children used this strategy as a way to maintain a positive relationship with their father rather than as a way to protect the father. Unlike romantic relationships, parent-child relationships are involuntary; thus, children may be especially motivated to minimize the impact of negative parent perceptions (Limke & Showers, 2010). One strategy may be to make less damaging attributions for their parent’s negative behaviours and outcomes. Indeed, past research has shown that individuals who make fewer dispositional attributions for a close other’s negative behaviours experience more positive relationship outcomes (Fincham, Beach, Arias, & Brody, 1998; Fincham, Harold, & Gano-Phillips, 2000; Martini, Grusec, & Bernardini, 2001). Moreover, past research has shown that adolescents’ attributions have a greater impact on their relationship with their father than their mother: More positive attributions were associated with fathers reporting greater relationship quality and more positive interactions with fathers, but attributions did not predict mothers’ relationship quality reports or behaviour towards mothers (Fincham et al., 1998). Thus, high overlap children may make fewer parent attributions following an upward comparison for their mother because the mother is seen as part of the expanded self and they are motivated to protect their perceptions of her. In contrast, high overlap children may make fewer parent attributions following an upward comparison for their father because they are motivated to maintain a positive relationship with him.

Finally, I was able to rule out a potential alternative explanation for my findings regarding importance ratings: High overlap participants were not simply engaging a protective strategy to protect their views of themselves as a stellar offspring who contributed to their
parents’ outcomes. Rather, the fact that they attributed the parents’ outcomes to the parents rather than to themselves suggests that they were indeed motivated to protect and enhance their parents, rather than themselves, providing further evidence that individuals experience the outcomes of close others as if they were their own. In contrast, low overlap participants were not motivated to protect their parents. Instead, these participants were motivated to protect themselves by denying personal responsibility and blaming the parent for their parent’s inferior performance.

I note that participants in this study were young adults ($M_{age} = 18.83$, $SD = 1.64$) who likely were at least somewhat dependent on their parents but also in the process of forming an identity separate from their parents (Erikson, 1968; Pipp et al., 1985). It is possible that the effects observed would be stronger among younger children, who may be more likely to view their parents’ identities as highly overlapped with their own because they are highly dependent on their parent and are not yet concerned with their own identity. Moreover, if one has older parents who have themselves become dependents, one may view the parents are more highly connected to one’s self-identity. In future research, it will be important to assess how self-parent identity overlap changes across the lifespan; such changes may have a significant impact on the nature and outcomes of the social comparisons that one makes involving one’s parents.
Chapter 9
Study 7

Study 6 provides evidence that individuals make expanded self-comparisons involving a close family member, their mother. In Study 7, I tested whether these effects would extend to comparisons involving one’s child. Study 5 revealed that individuals viewed their child’s identity as overlapping with their own to the same degree as their romantic partner; thus, individuals may be especially likely to engage protective strategies following threatening social comparisons involving the child. In Study 7, I examined whether participants would engage in protective strategies, downplaying the importance of the comparison dimension, when their child was inferior to another child.

Furthermore, as in Study 6, I wanted to rule out the alternative explanation that parents engage in these protective strategies to protect themselves. Accordingly, as in Study 6, I assessed the attributions that parents would make regarding their child’s performance relative to another child. It is possible this effect may be larger for parents than children; parents may be especially prone to attribute their child’s comparison outcomes to themselves because they see these outcomes as a reflection of their abilities as parents. For example, a mother may feel especially threatened that her son cannot read yet but her nephew can because she does not read to her son as much as she would like. Conversely, a father may feel especially proud when his daughter is the best performer in the school play because he helped her practice her lines. Consequently, I examined whether parents engaged in these strategies because they were motivated to protect themselves rather than their child.

3.1 Participants

Participants with children under the age of 18 were recruited from the Greater Toronto Area using the University of Toronto Child Study Centre database. This database includes a list of families recruited through baby shows, the University of Toronto camp, and hospitals. In total, 224 of the recruited participants completed the questionnaire and were compensated with a $10 CAD gift card to Starbucks. Of those, 43 did not report an evaluative comparison (i.e., an upward or downward comparison) and were thus excluded from our analyses. Altogether, 181 parents were retained in our analyses. Participants were 155 females and 17 males ($M_{age} = 42.87,$
with children under the age of 18. Participants reported on 97 male children and 75 female children ($M_{age} = 7.92, SD = 5.34$).

3.2 Procedure

Participants were invited to take part in a larger study on thoughts and feelings about parenting. Participants who agreed to participate were emailed a link to an online questionnaire. In the questionnaire, participants first reported how many children they had in total and under the age of 18. A computer script embedded in the questionnaire then randomly assigned parents to complete the survey about one of their children who was under the age of 18. For example, if a participant reported having three children under the age of 18 and only three children, the computer program could assign them to complete the questionnaire about their second child. This procedure minimized any effect of participants’ selection bias. Participants then completed the same 5-item measure of self-child overlap used in the Study 5 ($\alpha = .79$). Ratings of agreement were made on an 11-point scale (-5 = strongly disagree; +5 = strongly agree). Participants were then asked to recall and write about a time when they compared their child to another child. Because I was interested in examining whether parents make child comparisons at all, I placed no restrictions on who the other child could be; thus, some parents ($n = 30$) compared their target child with one of their other children. After describing the comparison, participants selected the comparison domain from a list and rated how their child performed relative to the other person on a 7-point scale (-3 = My child was much worse than the other child; +3 = My child was much better than the other child) with a midpoint of 0 (Similar to the other child) as well as the importance of the comparison domain (-3 = not at all important; +3 = very important). Parents then completed the same items used in Study 6 to measure their reactions to the comparison.

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9 Given the number of fathers I recruited, I did not test for gender effects because they would not be meaningful.
4 Results

4.1 Analytic Strategy

For the statistical analyses in Studies 7 and 8 (unless otherwise noted), I conducted moderated multiple regressions with self-other overlap entered as a mean-centered continuous variable, comparison direction entered as an effects-coded variable (upward = 1, downward = -1), and the comparison direction by self-other overlap interaction term. I conducted simple effects analyses for interactions by examining the differences between comparison directions at 1 SD above and below the mean of self-other overlap (Aiken & West, 1991). In line with a recent recommendation (Cumming, 2013), I report 95% bootstrapped bias-corrected confidence intervals with 5,000 resamples for the unstandardized regression coefficients and the standardized effect size estimates (r) with p-values.

4.2 Direction of Comparison

Participants spontaneously recalled 111 downward and 70 upward comparisons involving their child and another person. A chi-square test, $\chi^2(1) = 9.29$, $p = .002$, revealed that parents were more likely to recall downward than upward child comparisons. Next, I tested whether self-child overlap predicted direction of recalled comparison. A logistic regression with a logit link function was used to model comparison direction (0 = upward comparison; 1 = downward comparison) as a function of self-child overlap. This analysis revealed that greater self-child overlap significantly predicted making a downward comparison, $b = 0.22$, $SE = 0.08$, $z(179) = 2.81$, $p = .005$, Odds Ratios = 1.25:1. This implies that every 1-unit increase in self-child overlap predicted a 1.25-fold increase in the likelihood that the participant made a downward child comparison instead of an upward child comparison. Thus, parents who included their children in their identities to a greater degree were more likely to recall a comparison in which their child was superior to another child.

4.3 Domain Importance Ratings

Parents recalled comparisons in a wide range of domains regarding their child’s development (e.g., social development, emotional development, cognitive development, and physical development) as well comparisons regarding their academic achievement and performance in extracurricular activities such as sports and music. A chi-square test indicated
that the comparison domain recalled was not contingent upon comparison direction, \( \chi^2(8) = 7.17, p = .52 \) (see Table 9 for domains).

Self-child overlap predicted importance ratings, \( b = -0.13, 95\% \text{ CI } [-0.24, -0.01], SE = 0.05, t(169) = -2.42, p = .02, r = -.18, 95\% \text{ CI } [-.32, -.02] \), such that greater overlap predicted lower importance ratings. Comparison direction also predicted importance ratings, \( b = -0.24, 95\% \text{ CI } [-0.46, -0.03], SE = 0.11, t(169) = -2.14, p = .03, r = -.16, 95\% \text{ CI } [-.31, -.02] \). Parents rated domains as less important following an upward (\( M = 1.37, SE = 0.18 \)) relative to a downward comparison (\( M = 1.85, SE = 0.14 \)). However, there was no significant overlap by direction interaction, \( b = -0.03, 95\% \text{ CI } [-0.13, 0.09], SE = 0.05, t(169) = -0.50, p = .61, r = -.04, 95\% \text{ CI } [-.20, .12] \). Parents reported that the comparison was less important when their child performed worse than another child, regardless of the degree of identity overlap.\(^{10}\) I note, however, that overlap for children in both Studies 5 and 7 (\( M_{\text{Study 5}} = 8.56, SD = 1.99; M_{\text{Study 7}} = 7.20, SD = 2.04 \)) was especially high relative to that even for mothers (\( M_{\text{mother Study 5}} = 6.77, SD = 2.98; M_{\text{mother Study 6}} = 5.22, SD = 1.35 \)). Given that these means come from different samples, these differences should be interpreted with caution. Nevertheless, I would argue that even “low” overlap parents in Study 7 perceived their child to be a key part of their own identity, and so were motivated to protect the child following an upward comparison.

### 4.4 Child Perceptions

The two child perception items were moderately correlated (\( r = -.54, p < .001 \)); accordingly, I reverse coded the negatively framed item and averaged the two items to create a perception index. As predicted, comparison direction predicted child perceptions, \( b = -1.05, 95\% \text{ CI } [-1.24, -0.85], SE = 0.09, t(176) = -11.33, p < .001, r = -.65, 95\% \text{ CI } [-.73, -.55] \): Participants who recalled an upward comparison (\( M = 3.90, SE = 0.15 \)) rated their child less positively than those who recalled a downward comparison (\( M = 6.00, SE = 0.11 \)). Higher overlap also predicted

\(^{10}\) There was an effect of child’s gender on importance ratings, \( b = 0.27, 95\% \text{ CI } [0.02, 0.50], SE = 0.12, t(157) = 2.30, p = .02, r = .18, 95\% \text{ CI } [.02, .33] \). Parents rated domains to be more important for sons than daughter. This effect, however, was qualified by a significant overlap by child’s gender interaction, \( b = 0.14, 95\% \text{ CI } [0.01, 0.27], SE = 0.06, t(157) = 2.36, p = .02, r = .19, 95\% \text{ CI } [.02, .35] \). For low overlap parents, there was no effect of child’s gender, \( b = -0.01, 95\% \text{ CI } [-0.28, 0.24], SE = 0.16, t(157) = -0.08, p = .93, r = -.007, 95\% \text{ CI } [-.14, .12] \). In contrast, there was there was an effect of child’s gender for high overlap parents, \( b = 0.56, 95\% \text{ CI } [0.13, 0.97], SE = 0.18, t(157) = 3.08, p = .002, r = .24, 95\% \text{ CI } [.06, .41] \). High overlap parents rated domains to be more important for sons than daughters.
more positive perceptions, \( b = 0.15, 95\% \text{ CI} [0.05, 0.24], SE = 0.05, t(176) = 3.22, p = .002, r = .24, 95\% \text{ CI} [.07, .38]. \) There was no interaction, \( b = 0.07, 95\% \text{ CI} [-0.03, 0.17], SE = 0.05, t(176) = 1.49, p = .14, r = .11, 95\% \text{ CI} [-.05, .27]. \) These findings are consistent with those of Studies 1, 2, and 6. That is, when individuals make a comparison involving a close other, these comparisons do affect how they see the close other: They see the close other less positively following an upward comparison and more positively following a downward comparison.

4.5 Comparison Outcome Attributions

To account for the correlations between ratings of comparison outcome attributions, I conducted a multivariate regression in which attribution ratings were regressed simultaneously on comparison direction, self-child overlap, and their interaction. The result of the multivariate test revealed that, as a whole, attributions were only predicted by comparison direction, \( F(3, 165) = 3.93, p = .01 \) (see Figure 13). No other effects were significant, \( Fs < 1.87, ps > .13. \)

4.5.1 Attribution to Self

Comparison direction did not predict the extent to which participants attributed the comparison outcome to themselves, \( b = -0.10, 95\% \text{ CI} [-0.40, 0.21], SE = 0.16, t(169) = -0.62, p = .54, r = -.05, 95\% \text{ CI} [-.20, .10]. \) Participants attributed the comparison outcome to themselves to a moderate degree after both upward (\( M = 4.30, SE = 0.24 \)) and downward (\( M = 4.49, SE = 0.19 \)) comparisons. Thus, parents did not take credit for their child’s superior performance or deny responsibility for their child’s inferior performance, suggesting that they were not motivated to protect their positive perceptions of themselves as parents. These findings provide further evidence against the alternative explanation that parents feel personally responsible for the successes or failures of their child and are motivated to protect themselves, rather than their child.

4.5.2 Attribution to Child

Comparison direction predicted the extent to which participants attributed the comparison outcome to their child, \( b = -0.55, 95\% \text{ CI} [-0.85, -0.25], SE = 0.16, t(170) = -3.48, p < .001, r = -.26, 95\% \text{ CI} [-.39, -.11]. \) Participants attributed the comparison outcome to their child to a greater degree if they recalled a downward comparison (\( M = 5.22, SE = 0.20 \)) relative to those who recalled an upward comparison (\( M = 4.12, SE = 0.25 \)). Thus, parents capitalized on the
opportunity to enhance their child following a downward comparison by attributing their child’s superior performance to the child’s efforts and traits.

4.5.3 Attribution to External Events

Comparison direction did not predict the extent to which participants attributed the comparison outcome to external factors, $b = 0.12$, 95% CI $[-0.22, 0.43]$, $SE = 0.16$, $t(168) = 0.71$, $p = .48, r = .05$, 95% CI $[-.10, .20]$. Participants attributed the comparison outcome to external factors to a moderate degree after both upward ($M = 4.28, SE = 0.25$) and downward ($M = 4.05, SE = 0.20$) comparisons. Thus, consistent with Study 6 and meta-analytic findings (Malle, 2006), parents did not make more external attributions following an upward than downward comparison.

4.5.4 Difference in Self and Child Causal Attributions

As in Study 6, I conducted a more stringent test of whether participants took personal responsibility for their child’s comparison outcomes and whether they engaged in these protective strategies to protect themselves or their child by examining the difference between self and child attributions. I first calculated a contrast score (i.e., difference in self and child attribution ratings) for each participant (Judd et al., 2009). Positive difference scores indicate that participants rated self attributions higher than child attributions, whereas negative difference scores indicate that participants rated child attributions higher than self attributions. I then regressed this contrast score on self-child overlap, comparison direction, and their interaction.

There was a main effect of self-child overlap, $b = 0.23$, 95% CI $[0.03, 0.41]$, $SE = 0.10$, $t(169) = 2.27, p = .02, r = .17, 95% CI [.02, .31]$; this is equivalent to an interaction between self-child overlap and the within-subject factor attributions. Low overlap parents made more attributions to their child than to themselves, $b_{intercept} = -0.73$, 95% CI $[-2.01, -0.25]$, $SE = 0.28$, $t(169) = -2.66, p = .009, r = -.20, 95% CI [-.34, -.06]$. In contrast, for high overlap parents, there was no difference between self and child attributions, $b_{intercept} = 0.19$, 95% CI $[-0.84, 0.30]$, $SE = 0.30, t(169) = 0.62, p = .53, r = .05, 95% CI [-.12, .19].$

As predicted, there was also a main effect of comparison direction, $b = 0.45$, 95% CI $[0.03, 0.86]$, $SE = 0.21, t(169) = 2.21, p = .03, r = .17, 95% CI [.03, .31]$. For parents who recalled an upward child comparison, there was no difference between self and child attributions, $b_{intercept} = 0.18$, 95% CI $[-0.48, 0.79]$, $SE = 0.32, t(169) = 0.56, p = .57, r = .04, 95% CI [-.11,
Thus, like high overlap children, parents attributed an equal amount of responsibility to both themselves and their child after an upward comparison. Consequently, this pattern of attributions indicates that they were indeed motivated to protect their positive impressions of their child (Sedikides et al., 1998, 2002). In contrast, parents who recalled a downward child comparison made greater attributions to their child than to themselves, $b_{\text{intercept}} = -0.73$, 95% CI [-1.24, -0.17], $SE = 0.26$, $t(169) = -2.84$, $p = .005$, $r = -.21$, 95% CI [-.37, -.05]. Thus, it is not the case that parents take credit for their child’s success as they would if they were motivated by self-presentational concerns; instead, they enhanced their child by attributing their child’s superior performance to their child’s efforts and traits, indicating that they extended their self-serving attributional bias to their child.

5 Discussion

Overall, these results indicate that parents who included their child in the self were more likely to recall comparisons that placed their child in a more positive light (i.e., downward rather than upward comparison). Consistent with Studies 1, 2, and 6, child comparisons did affect how parents viewed their child: They viewed their child more positively after recalling a time when their child was superior but less positively after recalling a time when their child was inferior.

In contrast to Studies 1-4 and Study 6, I did not find a self-child overlap by comparison direction interaction for domain importance ratings. Instead, I found that parents were motivated to downplay domain importance after an upward child comparison and enhance domain importance after a downward child comparison, regardless of degree of self-child overlap. It is possible that during this life stage, when children are under 18, the child’s high level of dependence on the parent led virtually all parents to view their child as a significant part of their identities. Even those parents with lower overlap scores included their child in their identities to a high degree. Furthermore, parents may feel especially overlapped with their children during this particular age range (i.e., 0 to 18 years old) because of the asymmetrical nature of their relationship: Parents are more responsible for ensuring that the child’s needs and desires are met than children are for parents (Clark & Mills, 2012). Moreover, children in this age range have few, if any, resources to meet their needs and desires; most of, if not all, their resources come from their parents. Thus, to provide care for their children, parents must see their own resources as their child’s resources, a key component inclusion-of-other in the self (Aron & Aron, 1986).
The self-child overlap by direction interaction may emerge once children are no longer dependent on their parents to meet their needs and desires because they have their own resources or can depend on a romantic partner to care for them. Indeed, past research has shown that the amount of support that parents provide their child varies depending on the child’s life stage (Bucx et al., 2012). Parents provided less support to married, adult children who did not have their own children than to single adult children and adult children who had their own children. Consequently, like self-parent overlap, self-child identity overlap may also change across the lifespan, which in turn may have a significant impact on the nature and impact of expanded-self comparisons involving one’s children.

This study also provided further evidence against the alternative explanation that parents engage in the strategy of devaluing comparison domains because they are concerned with seeing themselves as good parents: Parents who made an upward child comparison did not try to protect themselves by denying responsibility and blaming the child for his or her inferior performance. Furthermore, parents who made a downward child comparison did not try to enhance themselves by taking credit for their child’s superior performance. Instead, parents protected their child by downplaying the importance of the domain and making child-serving attributions, regardless of self-child overlap. When their child was inferior, parents protected their child by attributing equal responsibility to both their child and themselves. In contrast, when their child was superior, parents capitalized on the opportunity to enhance their child by attributing greater responsibility to their child than to themselves.

One limitation of this study, however, is that I did not restrict to whom parents could compare their target child. Consequently, some parents did report comparing the target child to another one of their children. This comparison experience is qualitatively different from comparing one’s child to someone else’s child because individuals are comparing two aspects of the expanded-self to each other. Such comparisons may be less threatening because one aspect of the expanded self is still doing well. Indeed, when comparing their target child to his or her sibling, parents were equally likely to make a downward or upward comparison, \( \chi^2(1) = 1.20, p = .27 \). Alternatively, parents may feel particularly conflicted by such comparisons because they are motivated to protect both aspects of the self. However, it is nevertheless possible for parents to engage the protective strategy of changing domain importance ratings when comparing their children to each other in a slightly different way. Instead of devaluing the entire domain, they
may devalue the comparison domain for the target child only. For example, instead of thinking that athletics is not important at all, a parent may think, “Athletics is not that important for my second child, who is uncoordinated, but is important for my first child, who is a star athlete.” To remain consistent with the other comparisons examined in Studies 1-4 and 6, however, I restricted to whom parents could compare their target child in Study 8, focusing on comparisons that parents would make between their own child and someone else’s child.
Chapter 10
Study 8

Study 7 provides strong evidence that parents do compare their children to other individuals; however, because I examined parents’ spontaneously recalled comparisons, the direction of causality is unclear. For example, parents may recall comparisons that support their existing views of their child: Parents with less positive child perceptions may spontaneously recall upward comparisons, and parents with more positive child perceptions may spontaneously recall downward comparisons. Moreover, the results of Study 7 may be biased by parents’ motivation to see their child in a positive light. Indeed, parents who felt more overlapped with their child were more likely to report downward child comparisons rather than upward child comparisons. It is possible that high overlap parents may be especially adept at enhancing their child following positive outcomes but not at protecting their child following negative outcomes. Accordingly, in Study 8, I randomly assigned parents to recall either upward or downward comparisons, rather than allowing them to choose the direction. In addition, I restricted to whom parents could compare their children. That is, parents were required to compare their child to someone else’s child, not another one of their children, so that I could examine expanded-self comparisons involving one’s child that are analogous to the ones involving one’s romantic partner, best friend, and mother examined in Studies 1-4, and 6. After all, most individuals have only one romantic partner, one best friend, and one mother. In sum, I used Study 8 to replicate the findings of Study 7 using a more controlled design by randomly assigning parents to recall a child comparison in a specific direction.

1 Method

1.1 Participants

Participants were recruited through MTurk and paid $0.80 USD. To be eligible for the study, parents had to have at least one child 18 years or younger. In total, 444 of the recruited participants were eligible for this study. Of those, 55 did not pass the manipulation check: 47 failed the manipulation check (e.g., indicated that comparison was downward or lateral when assigned to upward condition), and eight skipped the manipulation check. An additional 68 participants were excluded for not completing the manipulation task correctly: 39 provided
descriptions of only their child’s behavior, performance, or characteristics with no mention of a comparison other, 16 did not make a comparison, four reported comparisons about their own parenting abilities, two did not complete the task, two did not compare their child to someone else’s child (i.e., compared to one of their other children or made a temporal comparison), two reported about a child older than 18, one compared all their children rather than one specific child, one did not make the comparison in the assigned direction, and one described a time when his or her child made a comparison to another person. These participants were not included in my analyses.

Altogether, 301 participants were retained in my analyses. Participants were 222 females and 72 males (\(M_{age} = 35.90, SD = 8.49\)) with children 18 years and younger. Participants reported on 155 male children and 140 female children (\(M_{age} = 7.21, SD = 4.87\)). I tested for gender effects and have noted any significant effects where they occurred.

1.2 Procedure

Participants were invited to take part in a larger study on thoughts and feelings about parenting. Participants first completed the same 5-item measure of self-child overlap used in Studies 5 and 7 (\(\alpha = .81\)). I then randomly assigned participants to recall a time when they noticed that their child was doing worse than (upward comparison condition) or better than (downward comparison condition) someone else’s child. Participants described the comparisons in open-ended form. Next they indicated their child’s performance relative to the comparison target on a 7-point scale (-3 = My child was doing much worse than the other child; +3 = My child was doing much better than the other child) with a midpoint of 0 (Similar to the other child). They then rated the importance of the comparison domain for their child’s overall development (-3 = not at all important; +3 = very important).

Participants then completed the same comparison response measures used in Studies 6 and 7 to assess child perception and attributions for comparison outcome.
2 Results

2.1 Comparison Manipulation

In general, participants provided rich accounts of the comparisons that they had made between their child and such targets as nieces, nephews, and their child’s peers at school and at extracurricular activities. As one participant asked to recall an upward comparison wrote,

We were on a play date and the other child was so calm and well-behaved, she waited patiently and took turns, while my child who is only a few months younger was wild and loud and had a hard time listening. I felt both angry and embarrassed.

Another participant described in detail her child’s superior creativity and effort:

My little plum-plum was in the fourth grade science fair, with all the hard work he put into doing his research on his soil samples and making his colorful cardboard charts and graphs describing the difference between wet and dry soils of various types. He also made an interactive demonstration of how the soil reacts to different liquids. The work he put into this was the most I’ve ever seen out of him, and I felt so proud and warm inside that he’s a capable little guy. He won second prize against a kid who did a simple volcano demonstration, and I felt so proud that he actually put time and effort into something more creative than [the other child]...

2.2 Manipulation Check

As expected, participants reported that their child performed worse in the upward than downward condition, \( b = -2.20, 95\% \text{ CI} [-2.27, -2.12], SE = 0.04, t(297) = -59.19, p < .001, r = -.96, 95\% \text{ CI} [-.97, -.95] \). There was no effect of self-child overlap, \( b = 0.02, 95\% \text{ CI} [-0.02, 0.06], SE = 0.02, t(297) = 1.02, p = .31, r = .06, 95\% \text{ CI} [-.06, .18], \) or overlap by direction interaction, \( b = -0.03, 95\% \text{ CI} [-0.07, 0.01], SE = 0.02, t(297) = -1.42, p = .16, r = -0.08, 95\% \text{ CI} [-.21, .04] \).

2.3 Domain Importance Ratings

A chi-square test indicated that the comparison domain recalled was not contingent upon comparison condition, \( \chi^2(8) = 10.76, p = .22 \) (see Table 9 for domains).

Self-child overlap predicted importance ratings, \( b = 0.08, 95\% \text{ CI} [0.01, 0.17], SE = 0.04, t(297) = 2.09, p = .04, r = .12, 95\% \text{ CI} [.007, .24] \), such that greater overlap predicted higher importance ratings. Comparison direction also predicted importance ratings, \( b = -0.19, 95\% \text{ CI} [-0.34, -0.05], SE = 0.07, t(297) = -2.65, p = .008, r = -.15, 95\% \text{ CI} [-.26, -.04] \).

Participants rated domains as less important following an upward (\( M = 1.86, SE = 0.10 \)) relative...
to a downward comparison ($M = 2.23$, $SE = 0.10$). As in Study 7, there was no significant overlap by direction interaction, $b = 0.00002$, 95% CI [-0.07, 0.09], $SE = 0.04$, $t(297) = -0.001$, $p = 1.00$, $r = -0.0001$, 95% CI [-.12, .13].\(^{11,12}\) Thus, parents downplayed the importance of the comparison domain when their child was inferior rather than superior.

### 2.4 Child Perceptions

Because the two perception items were moderately correlated ($r = -0.64$, $p < .001$), I reverse coded the negatively framed item and averaged the two items to create a perception index. As predicted, comparison direction affected child perceptions, $b = -1.29$, 95% CI [-1.41, -1.15], $SE = 0.06$, $t(296) = -20.20$, $p < .001$, $r = -0.76$, 95% CI [-.81, -.70]: Participants who recalled an upward comparison ($M = 4.00$, $SE = 0.09$) rated their child less positively than those who recalled a downward comparison ($M = 6.58$, $SE = 0.09$). There was no effect of self-child overlap, $b = 0.05$, 95% CI [-0.03, 0.13], $SE = 0.03$, $t(296) = 1.42$, $p = .16$, $r = 0.08$, 95% CI [-.04, .21], and no interaction, $b = -0.03$, 95% CI [-0.11, 0.05], $SE = 0.03$, $t(296) = -0.86$, $p = .39$, $r = -0.05$, 95% CI [-.18, .08].\(^{13}\) Thus, as in Studies 1-2, 6, and 7, participants rated close others less positively following an upward comparison and more positively following a downward comparison, providing further evidence that these comparisons do affect how individuals perceive close others.

\(^{11}\) There was a significant effect of gender, such that mothers rated domains to be more important than fathers, $b = -0.24$, 95% CI [-0.07, 0.09], $SE = 0.08$, $t(286) = -2.93$, $p = .004$, $r = -0.17$, 95% CI [-.31, -.06].

\(^{12}\) There was a significant overlap by child’s gender interaction, $b = -0.09$, 95% CI [-0.18, -0.02], $SE = 0.04$, $t(287) = -2.46$, $p = .01$, $r = -.14$, 95% CI [-.26, -.03], which was qualified by a significant overlap by direction by child’s gender interaction, $b = -0.13$, 95% CI [-0.21, -0.06], $SE = 0.04$, $t(287) = -3.23$, $p = .001$, $r = -0.19$, 95% CI [-.30, -.09]. The overlap by gender interaction was significant for upward comparisons, $b = -0.22$, 95% CI [-0.37, -0.10], $SE = 0.06$, $t(287) = -4.04$, $p < .001$, $r = -.23$, 95% CI [-.36, -.10], but not for downward comparison, $b = 0.03$, 95% CI [-0.04, 0.12], $SE = 0.05$, $t(287) = 0.62$, $p = .54$, $r = .04$, 95% CI [-.04, .13]. For low overlap parents who made an upward comparison, there was an effect of child’s gender, $b = 0.49$, 95% CI [0.16, 0.86], $SE = 0.14$, $t(287) = 3.55$, $p < .001$, $r = 0.20$, 95% CI [.07, .35]: Low overlap parents rated domains to be more important for sons than for daughters following an upward comparison. There was also an effect of child’s gender for high overlap parents who made an upward comparison, $b = -0.33$, 95% CI [-0.64, -0.04], $SE = 0.15$, $t(287) = -2.22$, $p = .03$, $r = -.13$, 95% CI [-.25, -.002]. High overlap parents rated domains to be more important for daughters than sons following an upward comparison.

\(^{13}\) There was an effect of gender such that mothers reported more positive child perceptions than fathers, $b = -0.18$, 95% CI [-0.33, -0.05], $SE = 0.08$, $t(286) = -2.35$, $p = .02$, $r = -0.14$, 95% CI [-.24, -.03].
2.5 Attributions for Child’s Comparison Outcomes

To account for the correlation between ratings of comparison outcome attributions, I conducted a multivariate regression where attribution ratings were regressed simultaneously on comparison direction, self-child overlap, and their interaction. The result of the multivariate test revealed that, as a whole, attributions were predicted only by comparison direction, \( F(3, 294) = 48.20, p < .001 \) (see Figure 14). No other effects were significant, \( Fs < 2.21, ps > .08 \).

2.5.1 Attribution to Self

Comparison direction did not predict the extent to which participants attributed the comparison outcome to themselves, \( b = -0.01, 95\% CI [-0.23, 0.21], SE = 0.11, t(296) = -0.09, p = .93, r = -.005, 95\% CI [-.13, .11] \). Participants attributed the comparison outcome to themselves to a moderate degree after both upward (\( M = 4.17, SE = 0.16 \)) and downward (\( M = 4.19, SE = 0.15 \)) comparisons. Thus, consistent with Study 7, parents were not motivated to protect or enhance their perceptions of themselves as parents.

2.5.2 Attribution to Child

Comparison direction predicted the extent to which participants attributed the comparison outcome to their child, \( b = -1.06, 95\% CI [-1.24, -0.87], SE = 0.09, t(296) = -11.57, p < .001, r = -.56, 95\% CI [-.64, -.46] \). Participants attributed the comparison outcome to their child to a greater degree after a downward comparison (\( M = 6.25, SE = 0.12 \)) relative to an upward comparison (\( M = 4.13, SE = 0.13 \)). Thus, consistent with Study 7, parents capitalized on the opportunity to enhance their child when their child was superior.

2.5.3 Attribution to External Events

Comparison direction predicted the extent to which participants attributed the comparison outcome to external factors, \( b = 0.39, 95\% CI [0.16, 0.60], SE = 0.11, t(296) = 3.38, p < .001, r = .19, 95\% CI [.08, .30] \). Participants attributed the comparison outcome to external factors to a greater degree following an upward comparison (\( M = 4.44, SE = 0.17 \)) relative to a downward comparison (\( M = 3.66, SE = 0.15 \)). Thus, unlike Studies 6 and 7, parents were motivated to protect their child following an upward comparison by making more external attributions.
2.5.4 Difference in Self and Child Causal Attributions

As in Study 7, I performed a more stringent test to determine whether parents were motivated to protect themselves because they felt personal responsibility for their child’s outcome using the same analytic strategy. As predicted, there was a main effect of comparison direction, $b = 1.05$, 95% CI [0.81, 1.30], $SE = 0.12$, $t(296) = 8.45$, $p < .001$, $r = .44$, 95% CI [.34, .52]. Consistent with Study 7, there was no difference between self and child attributions if parents made an upward comparison, $b_{intercept} = 0.04$, 95% CI [-0.34, 0.43], $SE = 0.18$, $t(296) = 0.21$, $p = .83$, $r = .01$, 95% CI [-.11, .13]. This finding provides further evidence against the alternative explanation that parents are motivated to protect themselves in order to protect their views of themselves as stellar parents. Instead, like parents in Study 7 and high overlap children in Study 6, participants viewed child comparison outcomes as joint outcomes and shared responsibility for their child’s inferior performance. This pattern of attributions indicates that they were indeed motivated to protect their positive impressions of their child (Sedikides et al., 1998, 2002). In contrast, parents made greater attributions to their children than to themselves if they made a downward comparison, $b_{intercept} = -2.06$, 95% CI [-2.37, -1.75], $SE = 0.17$, $t(296) = -12.28$, $p < .001$, $r = -.58$, 95% CI [-.64, -.50]. Thus, parents were not motivated to enhance themselves following their child’s superior performance; instead, parents capitalized on the opportunity to enhance their child.

There was also a main effect of self-child overlap, $b = 0.15$, 95% CI [0.01, 0.28], $SE = 0.07$, $t(296) = 2.20$, $p = .03$, $r = .13$, 95% CI [.008, .24]. Both low overlap parents, $b_{intercept} = -1.28$, 95% CI [-2.86, -1.92], $SE = 0.18$, $t(296) = -7.32$, $p < .001$, $r = -.39$, 95% CI [-.48, -.29], and high overlap parents, $b_{intercept} = -0.74$, 95% CI [-1.13, -0.38], $SE = 0.18$, $t(296) = -4.18$, $p < .001$, $r = -.24$, 95% CI [-.34, -.12], made more attributions to their child than to themselves. This difference, however, was smaller for high overlap parents than low overlap parents. The overlap by direction interaction was not significant, $b = -0.04$, 95% CI [-0.17, 0.10], $SE = 0.07$, $t(296) = -0.57$, $p = .57$, $r = -.03$, 95% CI [-.15, .09].

3 Discussion

In sum, these findings replicate the key findings of Study 7, and in addition establish the causal relationship between comparison direction and comparison responses. As in previous studies, parents viewed their child less positively after recalling a time when their child was
doing worse relative to those who recalled a time when their child was doing better. Furthermore, I did not find a significant self-child overlap by comparison direction interaction for importance ratings. Instead, I found that parents were motivated to protect their perceptions of their child when their child was outperformed by another person, regardless of degree of self-child overlap.

Moreover, also consistent with Study 7, I did not find that comparison direction influenced the extent to which parents attributed the outcomes to themselves. Parents did not protect themselves by denying responsibility and blaming their child for his or her inferior performance by attributing greater responsibility to the child than the self. Instead, parents protected their child by attributing equal responsibility to themselves and their child. Furthermore, parents did not capitalize on the opportunity to enhance themselves by taking credit for their child’s superior performance; instead, they chose to enhance their child. Thus, parents appear to engage in these protective strategies to protect their perceptions of their children because they see their child as part of the self, and not merely because they are motivated to protect their perceptions of themselves as parents.

Contrary to Studies 6 and 7, however, I found that comparison direction did affect external attributions. Parents displayed the classic self-serving attributional bias for their child’s outcomes: They made more external attributions for their child’s inferior than superior performance (Zuckerman, 1979). This attributional pattern allows individuals to maintain positive views of themselves because they do not attribute the negative outcome to any stable aspects of themselves (i.e., it is not their fault they experienced the negative event); instead, they attribute it to situational factors beyond their control. Although meta-analytic results suggest that this effect is not robust (Malle, 2006), Malle has argued that external attributions may be warranted when individuals are asked to explain an anomalous event. Thus, this effect may be driven by informational, rather than motivational, processes. That is, parents’ knowledge of their child’s performance relative to others may consist of a higher base rate for successes than failures. Indeed, Study 7 indicates that it may be easier for parents to recall a time when their child was superior, suggesting a higher base rate for the child’s superior performance. Consequently, when asked to recall a time when their child was inferior, parents may see this as an unusual event that is not wholly due to their child’s abilities but is a product of situational factors beyond the child’s control.
Overall, these findings suggest that inclusion of the child in the self may be experienced differently from other forms of inclusion of other in the self. Although individuals report including the romantic partner and child in the self to the same degree, self-other overlap does affect whether individuals will experience their partner’s or mother’s comparison outcomes as their own (Studies 1 to 4 and 6) and consequently whether they will engage protective strategies to protect perceptions of the partner or mother. In contrast, even though parents report different levels of overlap for their children, self-other overlap did not predict whether they experienced their child’s outcome as their own. It may be that inclusion of one’s child in one’s self-concept tends to be exceptionally high, so that my studies did not include any (or at least did not include many) parents who did not include their child in their self-concept to a significant degree. Alternatively, there may be something qualitatively different about the parent-child relationship that leads parents to respond protectively when they compare their children, regardless of parent-child overlap.

It is important to note, however, that I only examined children 18 years and younger in this study. Children belonging to this age range may still be at least somewhat dependent on their parents. Consequently, the relationship may still be asymmetrical. That is, parents feel greater responsibility for caring for the child than the child does for the parent. Thus, parents may still see the child as an integral part of the self even if they report lower overlap. Once children enter adulthood, parents may no longer see their child as an integral part of the self because the child may be completely independent. Instead, they may only be motivated to protect perceptions of children to whom they feel closest. That is, the predicted self-child overlap by direction interaction may emerge when parents compare adult children to others.
Chapter 11
General Discussion

Since Festinger published his original theory of social comparison processes in 1954, researchers have taken for granted that these comparisons involve the self directly: Individuals compare themselves to another person, for a variety of reasons (self-evaluation, self-enhancement, self-improvement; Wood, 1989) with a variety of consequences for affect (e.g., Buunk et al., 1990), self-perceptions (e.g., Lockwood & Kunda, 1997), and motivation (e.g., Lockwood & Kunda, 1999). The present studies provide the first evidence that social comparisons may also involve individuals other than the self. Studies 1-4 and 6-8 demonstrate that these comparisons do affect how individuals see a variety of close others: romantic partners (Studies 1-4), best friends (Study 2), parents (Study 6), and children (Studies 7-8). They see close others less positively after thinking about a time when they were inferior to someone else but more positively after thinking about a time when they were superior to someone else. Moreover, individuals were motivated to protect their positive perceptions of the close other following these comparisons if they saw the close other as part of their identity: They devalued the comparison domain (Studies 1-4 and 6-8) and attributed less responsibility to the close other (Studies 6-8) when the close other was inferior. In contrast, this strategy was absent amongst those who did not include the close other in the self (Studies 1-4 and 6). Furthermore, these studies indicate that whether individuals experience comparisons involving close others as comparisons of the expanded self depends on the degree of self-other overlap (Studies 2, 5, and 6). That is, individuals will protect best friends but not casual acquaintances and mothers but not fathers following threatening upward comparisons because best friends and mothers are included in the self to a greater degree than casual acquaintances and fathers, respectively. In sum, individuals may make comparisons of their expanded selves, comparing romantic partners, immediate family members, and even close friends to other individuals, with consequences similar to those observed for comparisons involving the self more directly.

That individuals compare people other than the self is hardly surprising. One may notice that one friend is more helpful than another, or that one instructor is more effective than another. What is significant in the present research is the motivational consequences of these comparisons. If one notices that one’s instructor is less competent than a friend’s instructor, one
may simply come to view one’s own instructor less positively. If one observes that one’s romantic partner is less competent than a friend’s partner, in contrast, one may go to considerable lengths to protect the partner from the potentially damaging consequences of this comparison. Indeed, I argue that the key predictions of Tesser’s (1988) influential self-evaluation maintenance model should apply to comparisons involving close others. The present studies provide the first evidence that self-other overlap will determine the extent to which protective strategies will be engaged.

These studies have important implications for research on relationship stresses and conflicts. To the extent that one does not include the partner in the self, upward comparisons between the partner and other individuals may be particularly damaging: As Study 3 suggests, individuals may come to view their partner as less similar to their ideal partner, resulting in potentially negative relationship outcomes (e.g., Campbell et al., 2001; Fletcher, Simpson, Thomas, & Giles, 1999). Instead of adjusting relevance to protect the partner, low overlap individuals may use social comparison information as evidence that they are with the wrong partner, which may ultimately bode ill for the relationship itself. Repeated upward comparisons in which one is forced to recognize that one’s own partner is inferior to a friend’s partner may result in reduced relationship satisfaction and even the dissolution of the relationship. These repeated comparisons may also highlight the discrepancy between one’s ideal and current partner, which is likely to elicit partner regulation attempts. Such attempts, especially unsuccessful ones, are also associated with lower relationship quality in both the individual and the partner, and lead one’s partner to infer that he/she is failing to reach expectations (Overall et al., 2006). High overlap individuals appear to be much better equipped to cope with potentially threatening upward comparisons.

Indeed, high overlap individuals’ responses to expanded-self comparisons suggest that the structure of their mental representations of close others is more resilient to negative information about close others. Past research indicates that individuals who have integrated (i.e., tying negative aspects to more positive aspects) rather than compartmentalized (i.e., negative and positive aspects are separated) knowledge structures of others are able to maintain more positive perceptions of others in the face of negativity because reminders of these negative aspects activate more positive aspects about the close other as well (Limke & Showers, 2010; Murray & Holmes, 1999). Consequently, these individuals are readily able to downplay domains in which
their close other is inferior by finding redeeming aspects in the inferior performance (e.g., “It’s okay that he didn’t get me a gift because it means he’s not materialistic”) or constructing “yes, but” refutations (e.g., “Yes, she forgot to plan a birthday celebration for me, but she was busy with an important project at work that got her a raise”; Murray & Holmes, 1999). Moreover, expanded-self comparisons may help individuals construct more resilient representations of close others by informing individuals of their close others’ virtues and faults relative to other people. Murray and Holmes (1999) argue that individuals sustain their relationships, experience greater relationship well-being, and maintain overly positive views of the partner by constructing personal theories about relationship functioning that ascribe greater importance to the virtues and minimize the significance of the faults that a partner happens to possess. Downward partner comparisons may inform individuals of what specific partner virtues they should embellish, whereas upward partner comparisons may inform individuals of what partner faults they should downplay. Indeed, the importance rating results from the present studies suggest that high overlap individuals may automatically update these knowledge structures following expanded-self comparisons by enhancing and devaluing domains based on their close others’ performance relative to others.

In the present studies, I focused on examining how the motivated processes examined in past social comparison research would apply when the comparison involved an individual included in the expanded self. I note that more general motivated reasoning processes may at times apply when comparisons occur involving individuals not included in the expanded self. For example, a piano teacher who compares her pupil to a pupil taught by another teacher might be highly motivated to view her own student as more musically proficient. If, however, her student was more attractive or less mathematically inclined than the other student, I would not expect the teacher to alter her perceptions regarding the importance of attractiveness or math ability to life success. If, in contrast, the pupil described in this example happened to be the teacher’s own child, and thus a part of her expanded self, I would indeed predict that she would engage just such motivated strategies: She would be motivated to view attractiveness as more important and math as less important in order to protect her child. Thus, although individuals may engage in motivated reasoning when making a host of comparisons between people, places, and things, the specific strategies outlined in the self-evaluation maintenance model should apply only when individuals are comparing others included in their self-concept.
I also considered the possibility that individuals engaged more protective strategies following unfavorable comparisons of close others because they like close others more than acquaintances. Indeed, past research indicates that there is a moderate correlation between love/liking and inclusion of other in self (Aron et al., 1992; Aron & Fraley, 1999). This explanation, however, is not incompatible with my assertions regarding the importance of self-other overlap: Aron and Aron (1986) argue that liking and love represent a desire to include the other in the self, which may motivate individuals to actually include the close other in the self. Consequently, individuals will also include the close other’s perspective in the self, leading them to experience these comparisons as if they themselves were directly involved. Thus, I would argue that self-other overlap would likely function as the mechanism through which liking leads to more protective responses following unfavorable comparisons.

Indeed, past research indicates that individuals make more situational attributions (i.e., favorable attributions) for liked others and more dispositional attributions (i.e., unfavorable attributions) for disliked others (e.g., Nisbett, Caputo, Legant, & Marecek, 1973; Sande, Goethals, & Radloff, 1988). This is also true of close and nonclose others (Aron et al., 1991). However, Sande et al. also found that individuals make more situational attributions for liked well-known others (e.g., friends) than liked acquaintances even after controlling for liking. This suggests that closeness (i.e., self-other overlap) mediates the effect of liking on the number of situational attributions because liked well-known others are included in the self to a greater degree than liked acquaintances, as I demonstrated in Study 2.

Furthermore, Studies 6 to 8 demonstrate that individuals do make attributions for the close other’s comparison outcomes as they would for their own. Past research suggests that individuals make attributions for outcomes in a self-serving manner (Malle, 2006; Zuckerman, 1979): They protect themselves by making fewer attributions to the self for negative outcomes and enhance themselves by making more attributions to the self for positive outcomes. Similarly, individuals make fewer parent (Study 6) and child (Studies 7 and 8) attributions following an upward, relative to a downward, comparison. It is unclear, however, whether individuals are protecting the close other following the upward comparison or enhancing the close other following the downward comparison because I did not include a control condition in these studies. Thus, future research should examine these attributions relative to a no-comparison control condition.
By examining the causal attributions for close other’s comparison outcomes, I was able to rule out an alternative explanation for the pattern of results in these studies. It is possible that individuals may see themselves as directly responsible for their close other’s comparison outcomes. For example, a mother may feel guilty that her child is doing worse than his peers at school because she has no time to help him with homework – she takes responsibility for her child’s inferiority in this domain. Similarly, a child may be boosted by the fact that her father is less strict than her friend’s father because she knows that she is a better-behaved child than her friend – she takes credit for his superiority in this domain. Indeed, across Studies 6 to 8, parents and children did attribute some responsibility to themselves for their family member’s outcome, suggesting that they did indeed view these outcomes as the product of their joint efforts.

Consequently, individuals may downplay the importance of a comparison domain when their child or parent is inferior in order to protect their views of themselves as a stellar parent or child rather than to protect their perceptions of the close other. If individuals are indeed motivated primarily by direct concerns for the self, rather than the expanded self, then individuals should make attributions to themselves and their family member in a self-serving manner: They should protect themselves by denying responsibility and blaming the family member after an upward comparison and enhance themselves by taking more credit after a downward comparison.

My results, however, do not support this possibility: Comparison direction did not influence attributions to the self. Across Studies 6 to 8, individuals attributed a moderate level of responsibility to the self regardless of comparison direction; they were not more likely to take credit for the family member’s success than they were to deny responsibility for the family member’s failure. Rather, parents and high overlap children made attributions that protected and enhanced the close other rather than the self. Consistent with past research (Sedikides et al., 1998, 2002), individuals shared responsibility for their close other’s inferior performance by attributing equal responsibility to themselves and their family member. In contrast, individuals capitalized on the opportunity to enhance their family member following a downward comparison: They attributed greater responsibility to the family member than to themselves. Thus, consistent with my argument, individuals engage these protective strategies to protect their perceptions of close others who are included in the self because these close others’ outcomes are experienced as one’s own outcomes, not simply because individuals contributed to their close others’ outcomes.
Although high overlap individuals’ pattern of responses to close other-other comparisons is consistent with those expected for self-other comparisons (cf. Tesser & Paulhus, 1983), the present studies do not directly compare responses to comparisons involving the self and those involving a close other within a single study. Thus, I cannot assess whether close other-other comparison responses are of the same magnitude as self-other comparison responses. Because the self is not directly involved, individuals may feel less threatened by upward comparisons involving a close other and another person, and their response to these comparisons may therefore be attenuated. It is also possible, however, that for some close others, individuals may feel more threatened than if they had compared themselves directly. In particular, I would argue that parents may respond more strongly to comparisons involving their young children and another child than they would to comparisons involving themselves. Many parents place the needs of their children, especially younger ones, above their own (Clark & Mills, 2012) because they are much more dependent on the parent. Thus, parents may experience an especially strong motivation to protect their perceptions of their child following a threatening child comparison. In future research, it will be important to compare the magnitude of responses to these two forms of comparison more directly.

Moreover, expanded-self comparisons that occur in the context of parent-child relationships raise important questions about self-expansion theory more broadly. Self-expansion theory posits that individuals are motivated to increase their potential efficacy to achieve any goal that may arise. Consequently, individuals seek to gain resources, perspectives, and identities to increase their efficacy, and a particularly rewarding way of doing so is including another person in the self. Inclusion of the child in the self suggests that specific goals, such as caregiving, may cause individuals to include specific others in the self. That is, when individuals have the goal of providing care for a specific other, they must include this specific other to achieve this goal. Indeed, to provide good care to another, individuals must be willing to meet the needs of the other by sharing their resources with the other. That is, individuals must see their resources as the other’s resources. Moreover, to determine the other’s needs, individuals must empathize with the other (Bell & Richard, 2000). That is, individuals must see the other’s perspective as their own. Finally, the cognitive reorganization that occurs when individuals see their own resources as the other’s resources may lead individuals to take on the other’s identities
to some extent as well (Aron et al., 2004). In sum, individuals who assume the role of caregiver may readily include the other who is receiving their care into the self.

Such comparisons may also have important implications for the child’s development and the parent-child relationship. Parents who view their child as worse off than someone else may then adjust their expectations for their child’s performance, which in turn may affect the child’s expectations for himself or herself and the child’s performance (Zhang, Haddad, Torres, & Chen, 2010). Indeed, parents who compared their firstborn to their secondborn and reported that one was academically superior to the other had children whose subsequent GPA difference matched these expectations, even after controlling for average grades and prior differences in performance: The superior child had the superior GPA (Jensen & McHale, 2015). Future research should examine the effect of these comparisons on children’s subsequent performance and parents’ beliefs about and expectations for their child. Furthermore, such comparisons may shape how children view their parents. Learning that one’s parent has more negative traits than someone else’s parent may lead to strains in the parent-child relationship. Indeed, when young adults viewed their parents more positively, they reported liking and loving them more than those who viewed their parents more negatively (Limke & Showers, 2010).

In the present research, I focused on the strategies of reducing importance of the comparison domain and attributional bias. Individuals may employ an array of strategies to protect evaluations of close others in the face of threatening comparisons (Tesser, 1988). For example, they might also choose to distance themselves from individuals whom they view to be superior to their close other, and instead surround themselves with individuals similar to or even inferior to the close other (Pleban & Tesser, 1981). To the extent that the comparison is likely to occur on an ongoing basis, as when one compares one’s partner to the partner of a close friend or family member, then individuals may seek to close the gap between the performance of the partner and that of the superior other (Pinkus et al., 2008). For example, a wife might encourage her husband to be more supportive if she is reminded of a friend’s husband who offered support. Finally, individuals may reframe comparisons, construing the close other’s accomplishments to be similar to, or “in the same league as” those of a superior other (Collins, 1996). Thus, future research should examine the degree to which each of these strategies may play a role in protecting perceptions of close others following threatening social comparisons.
Finally, other relationship quality and individual differences variables may also influence how individuals react to partner-other comparisons. For example, individuals in satisfying relationships are likely to be motivated to maintain positive partner perceptions and may be most adept at dealing with negative partner information. Indeed, past research has shown that satisfied individuals enhance their partners at the global level to maintain their relationship while having accurate assessments of their partner’s strengths and weaknesses at the specific level to ensure that the relationship runs smoothly (Neff & Karney, 2002, 2005). Consequently, following partner-other comparisons, satisfied individuals may be motivated to engage strategies to protect their positive global partner perceptions (Study 3), but are still willing to acknowledge their partner’s weaknesses and strengths (Studies 1 and 2). In addition, individuals high in attachment avoidance may be unlikely to experience comparisons involving close others as expanded-self comparisons. These individuals are characterized by a chronic discomfort with closeness, a tendency to be self-reliant, and a negative view of others (for review, see Mikulincer & Shaver, 2007), and are thus unlikely to self-expand by including another person in the self. Indeed, past research has shown that following a closeness induction task, avoidant individuals report including others in the self substantially less than those lower in avoidance (Aron, Melinat, Aron, Vallone, & Bator, 1997). Consequently, following close other-other comparisons, avoidant individuals may not be motivated to engage strategies to protect their perceptions of the close others.

Past research suggests that individuals compare themselves to others on a daily basis (Wheeler & Miyake, 1992), with significant consequences for their affect and self-esteem. The present studies indicate that individuals also compare their close others to other people. Finding that one’s partner is superior or inferior to the partner of one’s friend can have a significant impact on how one sees that partner, and potentially on whether one views that partner as an ideal match. Individuals who find themselves making many upward comparisons involving the partner may try to downplay these comparisons, but over time may become less satisfied with their relationship. In contrast, individuals who seek out or are faced with repeated downward comparisons involving the partner may conclude that they have made an excellent choice, which in turn may buffer the relationship from other stresses. Similarly, finding out that one’s parent or child is superior or inferior to someone else may have significant consequences for the parent-child relationship. Unlike romantic relationships, however, it is often more difficult to sever ties
with one’s child or parent. Thus, individuals may respond differently if they repeatedly find themselves noticing how their child or parent is inferior to someone else. For example, individuals may try to connect their family member’s weaknesses with more positive traits to dampen the effects of these comparisons (Limke & Showers, 2010). In future research, it will be crucial to examine how comparisons involving close others affect the longevity of and satisfaction with the relationships themselves.

Although researchers have examined social comparisons for more than 60 years, they have always assumed that these comparisons must involve the self directly. The self, however, does not exist in isolation; individuals have a strong need to be connected to others (Baumeister & Leary, 1995) and are motivated to include others in the self (Aron & Aron, 1986), experiencing the others’ outcomes as their own. The present research is the first to empirically demonstrate that individuals do experience motivational consequences following comparisons involving a close other and another individual because these individuals are part of the expanded self. Moreover, these studies provide evidence that these comparisons do affect how individuals view close others, which in turn affect the outcome and quality of their relationships (Limke & Showers, 2010; Murray & Holmes, 1999; Murray et al., 1996a, 1996b). Thus, social comparisons do not always involve the self directly. They can also involve those with whom individuals feel closest.
Table 1.
*Reasons For Which Participants Were Excluded Due to Failed Manipulation (Studies 1-3).*

<table>
<thead>
<tr>
<th>Reason for Exclusion</th>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not recall a comparison</td>
<td>239</td>
<td>54</td>
<td>29</td>
</tr>
<tr>
<td>Did not follow instructions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compared on dimension other than physical attractiveness (e.g., personality, ambition)</td>
<td>105</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Wrote about sexual chemistry or physical attraction instead of physical attractiveness</td>
<td>17</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Made comparison in opposite direction</td>
<td>5</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Made a lateral comparison</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Compared self instead of partner/friend</td>
<td>2</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Compared own relationship to another relationship</td>
<td>2</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Compare self to partner/friend</td>
<td>-</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Wrote nonsense response</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Made both an upward and a downward comparison</td>
<td>2</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Compared wrong target (compared partner instead of friend and vice versa)</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Unclear whether comparison was actually made (e.g., did not mention comparison target, provided insufficient details regarding traits/actions of partner and comparison target being compared, not clear that comparing physical attractiveness, no evaluative statement made)</td>
<td>43</td>
<td>84</td>
<td>21</td>
</tr>
<tr>
<td>Made a comparison that was not directly comparable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisexual participants compared male partners to female comparison targets and vice versa</td>
<td>5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Comparison involving friends not analogous to partner comparisons (e.g., compared same friend in two different friendships or two different friends)</td>
<td>-</td>
<td>58</td>
<td>-</td>
</tr>
<tr>
<td>Compared two potential mates</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Failed Manipulation Check</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicated comparison was in opposite direction</td>
<td>91</td>
<td>27</td>
<td>8</td>
</tr>
<tr>
<td>Indicated comparison was lateral</td>
<td>106</td>
<td>26</td>
<td>6</td>
</tr>
<tr>
<td>Did not compare the right target (compared close friend in casual friend condition and vice versa)</td>
<td>-</td>
<td>35</td>
<td>-</td>
</tr>
<tr>
<td>Skipped manipulation check</td>
<td>4</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>626</td>
<td>302</td>
<td>77</td>
</tr>
</tbody>
</table>
Table 2.
Comparison Domains for Each Relationship Type and Comparison Condition (Studies 2 and 3).

<table>
<thead>
<tr>
<th>Comparison Domain</th>
<th>Study 2</th>
<th>Study 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Casual Friend</td>
<td>Best Friend</td>
</tr>
<tr>
<td>Thoughtful/Romantic gestures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Downward</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Communication skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Downward</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Being supportive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Downward</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>Being attentive to your needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Downward</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Being helpful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Downward</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Gift giving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Downward</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Conflict resolution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Downward</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>General responsiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Downward</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Being Affectionate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upward</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Downward</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
### Table 3.
Mediated Moderation Model Estimates for Comparison by Relationship Type Interaction for Domain Importance Ratings (Study 2).

<table>
<thead>
<tr>
<th></th>
<th>Original Model (DV=Importance Ratings)</th>
<th>Mediator Model (DV=Self-Other Overlap)</th>
<th>Mediated Moderation Model (DV=Importance Ratings)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>b</em></td>
<td><em>t</em></td>
<td><em>b</em></td>
</tr>
<tr>
<td>Intercept</td>
<td>1.70</td>
<td>27.86***</td>
<td>0.23</td>
</tr>
<tr>
<td>Comparison</td>
<td>-0.35</td>
<td>-5.75***</td>
<td>-0.05</td>
</tr>
<tr>
<td>Relationship Type 1&lt;sup&gt;a, c, e&lt;/sup&gt;</td>
<td>0.15</td>
<td>1.76†</td>
<td>1.58</td>
</tr>
<tr>
<td>Relationship Type 2</td>
<td>0.13</td>
<td>1.45</td>
<td>0.76</td>
</tr>
<tr>
<td>Self-Other Overlap</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison × Relationship Type 1&lt;sup&gt;b, d, f&lt;/sup&gt;</td>
<td>-0.18</td>
<td>-2.19*</td>
<td>-0.01</td>
</tr>
<tr>
<td>Comparison × Relationship Type 2</td>
<td>0.006</td>
<td>0.07</td>
<td>0.09</td>
</tr>
<tr>
<td>Comparison × Self-Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> F(2, 426) = 4.90, *p* = .01, R<sup>2</sup> = .02
<sup>b</sup> F(2, 426) = 2.98, *p* = .05, R<sup>2</sup> = .01
<sup>c</sup> F(2, 426) = 263.15, *p* < .001, R<sup>2</sup> = .55
<sup>d</sup> F(2, 426) = 0.49, *p* = .61, R<sup>2</sup> = .001
<sup>e</sup> F(2, 424) = 0.31, *p* = .73, R<sup>2</sup> = .001
<sup>f</sup> F(2, 424) = 0.63, *p* = .54, R<sup>2</sup> = .003

*Note.* Comparison condition was effects-coded where upward=1 and downward=-1, Relationship Type 1 was effects-coded where casual friend=-1, best friend=0, and partner = 1, and Relationship Type 2 was coded where casual friend=-1, best friend=1, and partner = 0.

†*p* < .10, *p* < .05, **p* < .01, ***p* < .001
Table 4. Sample Sizes, Effect Sizes, Power, Total Power, and Incredibility Index for Comparison by Self-Other Overlap Interaction

<table>
<thead>
<tr>
<th>Study</th>
<th>N</th>
<th>r</th>
<th>p</th>
<th>Sig</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>757</td>
<td>-.09</td>
<td>.014</td>
<td>1</td>
<td>.694</td>
</tr>
<tr>
<td>2</td>
<td>432</td>
<td>-.15</td>
<td>.001</td>
<td>1</td>
<td>.893</td>
</tr>
<tr>
<td>3</td>
<td>174</td>
<td>-.16</td>
<td>.031</td>
<td>1</td>
<td>.573</td>
</tr>
<tr>
<td>4</td>
<td>44</td>
<td>-.29</td>
<td>.053</td>
<td>0</td>
<td>.488</td>
</tr>
<tr>
<td>Average</td>
<td>351.75</td>
<td>-.17</td>
<td>.75</td>
<td>.663</td>
<td></td>
</tr>
</tbody>
</table>

Total Power

Incredibility Index

Note. Sig = p < .05; Power = calculated using on each study’s effect size
Table 5.  

Child Age Categories for Studies 5, 7, and 8.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Study 5</th>
<th>Study 7</th>
<th>Study 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant (0 – 1 years old)</td>
<td>22</td>
<td>39</td>
<td>44</td>
</tr>
<tr>
<td>Toddlers (2 – 3 years old)</td>
<td>28</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>Preschoolers (3 – 4 years old)</td>
<td>14</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Grade School Children (5 – 12 years old)</td>
<td>67</td>
<td>62</td>
<td>143</td>
</tr>
<tr>
<td>Teenagers (13 – 18 years old)</td>
<td>39</td>
<td>52</td>
<td>49</td>
</tr>
<tr>
<td>Young Adult (19 – 24 years old)</td>
<td>12</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Adult (25 – 40 years old)</td>
<td>10</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note. For Studies 7 and 8, the child’s age is the child’s age at the time of the comparison.*
Table 6. 
Factor Loadings for Exploratory Factor Analysis of Self-Other Overlap Measure for Various Close Others (Study 5).

<table>
<thead>
<tr>
<th>Item</th>
<th>Partner</th>
<th>Child</th>
<th>Close Friend</th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOS</td>
<td>.833</td>
<td>.756</td>
<td>.757</td>
<td>.825</td>
<td>.764</td>
</tr>
<tr>
<td>I feel very interconnected with my partner/child/friend/mother/father.</td>
<td>.897</td>
<td>.778</td>
<td>.820</td>
<td>.865</td>
<td>.947</td>
</tr>
<tr>
<td>My partner/child/friend/mother/father is a major part of who I am.</td>
<td>.836</td>
<td>.772</td>
<td>.758</td>
<td>.906</td>
<td>.926</td>
</tr>
<tr>
<td>My partner/child/friend/mother/father and I are almost always ‘on the same wavelength’.</td>
<td>.892</td>
<td>.856</td>
<td>.862</td>
<td>.937</td>
<td>.926</td>
</tr>
<tr>
<td>My identity and my partner’s/child’s/friend’s/mother’s/father’s identity overlap a great deal.</td>
<td>.825</td>
<td>.818</td>
<td>.745</td>
<td>.764</td>
<td>.784</td>
</tr>
<tr>
<td>I tend to think of my partner/child/friend/mother/father and I as a unit, not as two separate individuals.</td>
<td>.798</td>
<td>.584</td>
<td>.741</td>
<td>.741</td>
<td>.825</td>
</tr>
<tr>
<td>Item</td>
<td>Mother</td>
<td>Father</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>--------</td>
<td>--------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel very interconnected with my mother/father.</td>
<td>.962</td>
<td>.895</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My identity and my mother’s/father’s identity overlap a great deal.</td>
<td>.641</td>
<td>.774</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mother/father and I are very close.</td>
<td>.921</td>
<td>.879</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It’s hard to imagine what kind of person I would be like without my mother/father.</td>
<td>.739</td>
<td>.861</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My mother/father is a major part of who I am.</td>
<td>.664</td>
<td>.903</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When thinking about the future, I always think about my mother’s/father’s future and my own future together, rather than just my future.</td>
<td>.535</td>
<td>.634</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 8.  
*Comparison Domains for Mother and Father Comparisons (Study 6).*

<table>
<thead>
<tr>
<th>Comparison Domain</th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social economic status</td>
<td>Upward 2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Downward 2</td>
<td>8</td>
</tr>
<tr>
<td>Emotional development (e.g. able to feel empathy, able to express own emotions)</td>
<td>Upward 9</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Downward 9</td>
<td>5</td>
</tr>
<tr>
<td>Emotional supportiveness</td>
<td>Upward 21</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Downward 37</td>
<td>24</td>
</tr>
<tr>
<td>Uniqueness (i.e. has interesting perspectives, hobbies)</td>
<td>Upward 3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Downward 2</td>
<td>8</td>
</tr>
<tr>
<td>Financial supportiveness</td>
<td>Upward 0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Downward 3</td>
<td>10</td>
</tr>
<tr>
<td>Physical appearance</td>
<td>Upward 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Downward 3</td>
<td>1</td>
</tr>
<tr>
<td>Open communication</td>
<td>Upward 6</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Downward 10</td>
<td>7</td>
</tr>
<tr>
<td>Health</td>
<td>Upward 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Downward 2</td>
<td>1</td>
</tr>
<tr>
<td>Strictness/Control</td>
<td>Upward 23</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Downward 15</td>
<td>17</td>
</tr>
<tr>
<td>Parents’ relationship quality (e.g., How well your parents get along with one another)</td>
<td>Upward 1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Downward 2</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>Upward 5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Downward 14</td>
<td>6</td>
</tr>
</tbody>
</table>
Table 9.  
Comparison Domains for Child Comparisons (Studies 7 and 8).

<table>
<thead>
<tr>
<th>Comparison Domain</th>
<th>Study 7</th>
<th>Study 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social development (e.g. acts polite, is kind to others, has many friends)</td>
<td>Upward</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Downward</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>Emotional development (e.g. able to feel empathy, able to express own emotions)</td>
<td>Upward</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Downward</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Language development (e.g. first words, saying simple phrases, understanding sentences)</td>
<td>Upward</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Downward</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Movement/physical development (e.g. taking first steps, can hold up own head)</td>
<td>Upward</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Downward</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>Cognitive development (e.g. able to think logically)</td>
<td>Upward</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Downward</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Academic achievement (e.g. good marks in school, positive teacher feedback about intelligence)</td>
<td>Upward</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Downward</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>47</td>
</tr>
<tr>
<td>Sports (e.g. runs fast, is physically fit)</td>
<td>Upward</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Downward</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Music skills (e.g. able to learn an instrument, able to hold a tune)</td>
<td>Upward</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Downward</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>Upward</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Downward</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>
Figure 1. Simple regression lines depicting the relationship between self-other overlap and attractiveness importance ratings among participants in the upward and downward comparison conditions (Study 1). Error bars represent standard errors.
Figure 2. Impact of upward and downward comparisons on comparison domain importance ratings of married participants asked to compare their casual friend, best friend, and partner (Study 2). Error bars represent standard errors.
**Figure 3.** The mediated moderation model that was tested in Study 2. Self-other overlap explains the interaction between relationship condition and comparison condition on importance ratings. Because relationship type was coded as two effects-coded contrast, $b_1$ represents the regression coefficients associated with the first relationship-type effects-coded variable as well as product terms involving the first relationship-type effects-coded variable, and $b_2$ represents the regression coefficient associated with the second relationship-type effects-coded as well as product terms involving the second relationship-type effects-coded variable. The $F$-value tests whether the overall effect of relationship type or the overall relationship type by comparison condition interaction was significant.
Figure 4. Simple regression lines depicting the relationship between self-other overlap and comparison domain importance ratings among participants in the upward and downward comparison conditions (Study 3). Error bars represent standard errors.
Figure 5. Simple regression lines depicting the relationship between self-other overlap and discrepancy ratings among participants in the upward, downward, and no comparison conditions. Higher scores indicate greater match between participant’s current partner and ideal partner (Study 3). Error bars represent standard errors.
Figure 6. Partner score by feedback condition interaction (Study 4). Error bars represent the standard error.
Figure 7. Simple regression lines depicting the relationship between self-other overlap and trait importance ratings among participants in the relative feedback condition (Study 4). Error bars represent the standard error.
Figure 8. Forest plot of the comparison by overlap interaction on domain importance ratings.

<table>
<thead>
<tr>
<th>Study</th>
<th>Effect Size 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
<td>-0.09 [-0.16, -0.02]</td>
</tr>
<tr>
<td>Study 2</td>
<td>-0.15 [-0.25, -0.06]</td>
</tr>
<tr>
<td>Study 3</td>
<td>-0.16 [-0.31, -0.01]</td>
</tr>
<tr>
<td>Study 4</td>
<td>-0.30 [-0.60, 0.01]</td>
</tr>
<tr>
<td>FE Model</td>
<td>-0.12 [-0.18, -0.07]</td>
</tr>
</tbody>
</table>

Fisher's z Transformed Correlation Coefficient
Figure 9. Mean IOS (7-point scale) and self-other overlap scores (11-point scale) for various close others (Study 5). Error bars represent within-subject standard errors.
Figure 10. Simple regression lines depicting the relationship between self-parent overlap and comparison domain importance ratings among participants who recalled upward and downward parent comparisons (Study 6). Error bars represent within-subject standard errors.
Figure 11. Simple regression lines depicting the relationship between self-parent overlap and parent attribution ratings among participants who recalled upward and downward parent comparisons (Study 6). Error bars represent within-subject standard errors.
Figure 12. Simple regression lines depicting the relationship between self-parent overlap and difference in self and parent attribution ratings among participants who recalled upward and downward comparisons (Study 6). Error bars represent within-subject standard errors.
Figure 13. The relationship between spontaneously recalled child comparisons and attributions for comparison outcomes (Study 7). Error bars represent standard errors.
Figure 14. The relationship between recalled child comparisons and attributions for comparison outcomes (Study 8). Error bars represent standard errors.
References


https://doi.org/10.1111/j.1467-6494.1979.tb00202.x
Appendix A: Sample Partner Feedback (Study 4)

**Relative Feedback Condition**
*Table A1.* Sample partner feedback in high motivation to avoid conflict condition.

<table>
<thead>
<tr>
<th></th>
<th>High Motivation to Avoid Conflict</th>
<th>Spontaneity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Partner</td>
<td>66</td>
<td>57</td>
</tr>
<tr>
<td>Participant 561</td>
<td>34</td>
<td>83</td>
</tr>
</tbody>
</table>

Participant 561
Sex: Female/Male (depending on partner's gender)
Age: 20
Major: Psychology and Human Biology
Length of Current Relationship: 15 months
Relationship Status: Steady relationship with one person

**Absolute Feedback Condition**
*Table A2.* Sample partner feedback in high motivation to avoid conflict condition.

<table>
<thead>
<tr>
<th></th>
<th>High Motivation to Avoid Conflict</th>
<th>Spontaneity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Partner</td>
<td>66</td>
<td>57</td>
</tr>
</tbody>
</table>

Participant 561
Sex: Female/Male (depending on partner's gender)
Age: 20
Major: Psychology and Human Biology
Length of Current Relationship: 15 months
Relationship Status: Steady relationship with one person