The Family Ties That Protect: Expanded-Self Comparisons in Parent-Child Relationships

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Abstract

We examine whether individuals react to social comparisons involving their parent or child as they would to comparisons involving the self. Individuals reported high self-other overlap for mother and child, but not father (Pilot Study), suggesting that individuals may experience mother's and child's outcomes as their own. After recalling upward comparisons, high overlap children (undergraduate students; Study 1) protect their perceptions of their mother, but not father, and parents (with children 18 or younger; Studies 2-3), regardless of overlap, protect their perceptions of their child: They changed the meaning of threatening upward comparisons by rating domains as less important and attributing less responsibility to family members. Finally, we examined self-attributions to rule out the alternative explanation that individuals use these strategies to protect themselves because they feel personally responsible for family members' outcomes. These studies suggest that individuals experience mother, but not father, comparisons as if they were directly involved but only if they are high in overlap. In contrast, parents experience child comparisons as if they were comparing themselves directly regardless of overlap.

Keywords: *child comparisons, parent comparisons, parent-child relationships, self-other overlap, social comparisons*

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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 [there]...(Borget, 2014)

As this mother reveals in her blog, parents may make comparisons involving their children whenever the opportunity arises. In some contexts, these comparisons may be beneficial: For example, pediatricians often encourage parents to compare their child to other children to determine whether their child is developing normally (Bellman, Byrne, & Sege, 2013); one pediatrician even admonished parents for thinking that they should never compare their children because such comparisons are inevitable (Bennett, 2013). Yet, numerous blogs and online magazine articles advise parents that such comparisons are harmful to their children (e.g., Thomson, 2013). Are these comparisons actually harmful? The present research is the first to examine the social comparisons that individuals make involving family members – parents and children – and the degree to which individuals protect them following potentially threatening comparisons.

Past research suggests that comparing a close other to another person affects how individuals perceive the close other. For example, husbands perceived their wives to be less sexually attractive after being exposed to *Playboy* centerfolds (Kenrick, Gutierrez, & Goldberg, 1989). Similarly, when individuals compare their romantic partner or best friend to a more relationally-skilled other, they perceive their partner or friend less positively on relationship-relevant traits (Thai & Lockwood, 2015). The effects of these comparisons, however, are not uniformly negative for all individuals. Some individuals may be motivated to protect their

perceptions of close others following such comparisons, just as they would be if they were comparing themselves directly (Thai & Lockwood, 2015).

Social comparison research suggests that when individuals compare themselves to a superior other (i.e., upward comparison), their self-perceptions are threatened (e.g., Morse & Gergen, 1970; Tesser, 1988). Consequently, they protect themselves (Lockwood & Pinkus, 2008) by decreasing the domain's relevance to their self-definition (Tesser & Paulhus, 1983), minimizing the impact of their inferiority on self-evaluations. In contrast, when they are superior to another person (i.e., downward comparison), they enhance their self-perceptions by emphasizing the dimension's importance. Furthermore, individuals who see close others (i.e., partner or best friend) as part of their self-concept (i.e., high in self-other overlap) are also motivated to mitigate and enhance the effects of comparing close others (Thai & Lockwood, 2015): Because they experience close others' outcomes as their own (Aron & Aron, 1986; Aron, Aron, Tudor, & Nelson, 1991), they devalue domains in which close others are worse-off and enhance domains in which close others are better-off.

Although considerable research has investigated the implications of self-other overlap in romantic relationships (see Aron, Lewandowski, Mashek, & Aron, 2013 for review) and even friendships (e.g., Mashek, Aron, & Boncimino, 2003), less is known about overlap in parent-child relationships. Further, despite the wealth of anecdotal evidence and pediatric advice regarding parents comparing their children, the effects of such comparisons remain unclear. Similarly, research has not yet examined children's comparisons of their parents. The present studies are the first to examine the influence of self-other overlap when individuals compare close relatives to other individuals.

Parents may be especially likely to include their children, particularly young ones, in their self-concept. Until children become adults, parents provide more care for children than children provide parents. To care for their children, parents must see their resources as their children's, one of the key components of self-other overlap, because children have fewer resources to meet their needs. Moreover, to determine their children's needs, parents must empathize with their children (Bell & Richard, 2000) and thus see their children's perspective as their own, another component of self-other overlap. Finally, parents may readily see their children's characteristics as their own, the final component of self-other overlap, because they may share unique personality (e.g., "He is stubborn just like me") and physical (e.g., "She has my eyes") traits with their children. Thus, parents are especially likely to view their children as part of their identities; consequently, they should experience comparisons between their child and another person as an expanded-self comparison: When their child is inferior, parents should devalue the domain as they would if they were inferior.

In contrast, children may vary in self-parent overlap. Due to their high dependence on their parents, young children may see themselves as highly overlapped. Indeed, Hoffman (1976) has proposed that infants are unable to differentiate themselves from their caregiver. As children age, however, they become more autonomous and can achieve more of their goals without their parents' resources. Moreover, they may seek self-expansion elsewhere, such as through peer or romantic relationships; indeed, these relationships become more influential during adolescence (Feiring, 1996; Larson & Richards, 1991). Finally, because children have fewer caregiving responsibilities than their parents for most of their lives (Bucx, van Wel, & Knijn, 2012), self-parent overlap may not be as universally strong as self-child overlap. Like romantic relationships and close friendships, children may include the parent in the self only if they are especially close.

Thus, it may be that only high overlap children will experience parent comparisons as expanded-self comparisons: High overlap children may devalue domains in which parents are worse-off.

We examined this possibility directly.

We also used the present studies to examine the importance of self-other overlap in determining the attributions that individuals would make regarding family members' performance following social comparisons. When individuals are inferior to another person, they may not only devalue the domain in which they underperform, they may also make self-protective attributions for their performance; specifically, they may attribute superior performance to the self, but inferior performance to external factors (Zuckerman, 1979). A meta-analysis, however, indicates that internal attribution effects (i.e., self-attributions) are more robust than external effects (Malle, 2006): Individuals may simply decrease internal rather than increase external attributions after negative outcomes. We examined whether a similar pattern of attributions would also come into play for comparisons involving close family members: We predicted that individuals would adjust their parent/child attributions after these comparisons but did not have strong predictions about external attributions.

By examining causal attributions, we were also able to test an alternative explanation for our predictions: It may be that individuals downplay a domain in which a family member is inferior not to protect the family member, but rather to protect the self. For example, a mother who realizes her child is not reading as well as another child may downplay the importance of reading, not so much to protect her child, but rather to protect her perceptions of her parenting skills. Given parents' caregiving responsibilities, it is reasonable to expect that parents feel at least somewhat responsible for their child's outcomes. This seems less likely, but still possible, among children comparing their parents. For example, one might feel that one has not

sufficiently supported a parent who is in inferior health. Accordingly, we examined individuals' self-attributions as well as attributions to the parent/child being compared. If individuals are protecting themselves, self-attributions will be lower after upward than downward comparisons.

Present Research

We first confirmed our predictions that parents would include their children in their self-identities, and that children would at least to some degree include their parents in their identities (Pilot Study). We then conducted three studies to examine the degree to which individuals would experience comparisons involving their parents (Study 1) and children (Studies 2 and 3) as expanded-self comparisons. Across studies, we predicted that participants would rate their family members less positively after upward than downward comparisons. Furthermore, we predicted that high overlap individuals would protect family members from upward comparisons' negative implications: They would rate domains as less important and make fewer causal attributions to the family member following upward than downward comparisons. Finally, we predicted that comparison direction would not influence self-attributions, providing evidence against the alternative explanation that participants are motivated to protect themselves because they feel responsible for their family member's outcome.

Pilot Study

Although some research provides initial evidence that individuals do include their parents and children (e.g., Aron et al., 1991; Brummelman et al., 2013; Li, 2002; Mashek et al., 2003) in the self, this research did not examine differences in the extent to which individuals include parents and children relative to friends or partners. Accordingly, we first examined the degree to which individuals include their child, mother, and father in their self-concept, relative to their partner and best friend.

Method

Participants. We recruited 201 American residents, who were compensated \$0.50 USD, through MTurk. We were interested in self-other overlap across various relationships; therefore, to be eligible, participants had to be involved in a romantic relationship, and have at least one child and two living parents. We excluded eight participants who were not in exclusive relationships and one who provided nonsensical responses. Participants were 136 female and 56 male ($M_{\text{age}}=36.08$, $SD=10.29$) individuals in a romantic relationship ($M_{\text{relationship length}}=123.94$ months, $SD=109.44$) and with at least one child ($M_{\text{child's age}}=9.56$, $SD=8.15$, $\text{range}=0$ to 40)¹.

Procedure. Participants completed the Inclusion of Other in Self scale (IOS; Aron et al., 1992) and a shortened self-other overlap scale (1=*strongly disagree*; 11=*strongly agree*; Lockwood, Dolderman, Sadler, & Gerchak, 2004) for five targets: partner, child, best friend, mother, and father. Participants with more than one child were asked to complete the questionnaire for one child only. Because the original overlap measure was designed for romantic relationships, we selected five items (e.g., “I feel very interconnected with my child/partner/friend/mother/father”) that would generalize to all relationships ($\alpha>.87$).

Results and Discussion

We conducted two one-way repeated-measures ANOVAs, using Greenhouse-Geisser corrections for degrees of freedom. For all targets, IOS and overlap were highly correlated ($rs=.71-.81$; $ps<.001$). There was a target effect for both IOS, $F(3.42, 654.02)=52.39$, $p<.001$, and overlap, $F(3.12, 595.06)=53.57$, $p<.001$. See Figure 1 and Table 1 for results.

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¹ Online supplementary materials (<https://osf.io/8e6xz/>) report gender, cultural, relationship length, and birth order effects, participants' ethnicities, children's ages, and factor analyses for overlap measure.

IOS. Child and partner were included to the same degree. Child and partner were included more than friend, mother, and father. Friend and mother are included to same degree and are included more than father.

Overlap. Like IOS, child and partner were included to the same degree, and included more than friend, mother, and father. Friend was included more than mother and father. Finally, mother was included more than father.

Overall, individuals do include their children and parents in their self-concept. Moreover, individuals include their child and partner the most; they also include their friend and mother, but to a somewhat lesser degree; they include their father the least of those target individuals we examined. Thus, we hypothesized that individuals would protect child and mother perceptions, but not father perceptions, after comparing these family members.

Study 1

In Study 1, we examined the comparisons that individuals make between their parents and other people's parents. Because this is the first study to examine this type of comparison, we allowed participants to freely generate a comparison between their parent and another person, without constraining direction. This methodology allowed us to determine the prevalence of comparison direction as well as responses.

Consistent with past research (Thai & Lockwood, 2015), we predicted that participants would rate parents less positively following upward than downward comparisons. Furthermore, we expected that overlap would predict the degree to which individuals would protect parent perceptions following upward comparisons: Individuals may protect only their mother following upward comparisons because they include their mother in their self-concept more than their father. Moreover, they would protect their perceptions of her by devaluing the domain: Even

though mother perceptions in that domain would be less positive, individuals could reduce the sting of the comparison by construing the domain as unimportant.

We also used Study 1 to test an alternative explanation: Individuals may protect *themselves*, rather than their parents, because they feel personally responsible for their parents' outcomes. If participants are protecting *themselves*, direction should influence self-attributions: Individuals should make fewer self-attributions when parents are inferior and more self-attributions when parents are superior. In contrast, if participants are protecting their *parents*, direction should influence parent attributions: They should make fewer parent attributions after upward than downward comparisons.

Finally, we examined the relational consequences of these comparisons. How individuals view close others has direct implications for their relationships: More positive perceptions are related to more positive outcomes (e.g., Limke & Showers, 2010). Furthermore, individuals who are able to minimize the impact of negative perceptions also experience more positive relationship outcomes (e.g., Murray & Holmes, 1999). Thus, we predicted that individuals who protected their parent (i.e., high overlap individuals) would minimize the impact of upward comparisons on their relationship. In contrast, those who did not (i.e., low overlap individuals) would feel worse about their relationship after such comparisons. It is especially important to examine the impact of parent comparisons on relational outcomes for emerging adults. During this period, the parent-child relationship is undergoing numerous changes as children attempt to establish their independence and more equal relationships with their parents (Arnett, 2000); thus, the parent-child relationship may be particularly vulnerable to threatening parent comparisons.

Method

Participants. Introductory psychology students participated in exchange for course credit. Across Studies 1-3, we examined participants' open-ended responses prior to hypothesis testing to ensure that we included only those participants who had clearly demonstrated that they had made a comparison between their family member and another person. Moreover, because we were interested in evaluative comparisons only (i.e., upward and downward comparisons), we eliminated any participants who reported lateral comparisons (i.e., parent and comparison other performed similarly).

In total, we recruited 267 participants. Of those, 39 participants completed the task incorrectly for both parents (i.e., reported only lateral comparisons, did not report comparison, absent parent, or described how parent is better/worse in general).² Altogether, 228 participants (151 females and 77 males; $M_{\text{age}}=18.92$, $SD=1.66$) provided a valid comparison for at least one parent (194 mothers; 198 fathers) and were retained in our analyses.

Procedure. Participants first completed a questionnaire assessing comparisons involving one parent; they then completed the same questionnaire for comparisons involving the other parent. Order was counterbalanced (no order effects, $t_s<1.41$, $p_s>.16$).

Participants first completed a 6-item version of the overlap measure (Lockwood et al., 2004; $\alpha>.89$; 1=*strongly disagree*; 7=*strongly agree*). They were then asked to recall and describe "a specific time when you compared your mother/father to another person's parent" and describe the comparison. Participants rated their parent's relative performance (-3=*My mother/father was much worse than the other parent*; +3=*My mother/father was much better*

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² Across studies, there was only one significant difference between included and excluded participants ($t_s<1.45$, $p_s>.14$): Included participants reported higher father overlap than excluded participants, $t(261)=2.48$, $p=.01$.

than the other parent), domain importance (1=*not at all important*; 7=*very important*), how the comparison affected their parent perceptions (“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”; 1=*not at all*; 7=*very much*) and feelings about their relationship (“After you made this comparison, how did you feel about your relationship with your mother/father?”; 1=*I felt much worse about my relationship with my mother/father*; 7=*I felt much better about my relationship with my mother/father*).³ Finally, participants rated self (“To what extent did you attribute the outcome of this comparison to yourself”), parent (“To what extent did you attribute the outcome of this comparison to your mother/father”), and external attributions (“To what extent did you attribute the outcome of this comparison to external events outside of the control of you and your mother/father”; 1=*not at all*; 7=*very much*).

Results

Analytic strategy. We used 2-level models with overlap, direction, parent, and their interactions, controlling for order, as predictors to account for comparisons nested within person (random intercept; Satterthwaite method for degrees of freedom). For simple effects, we examined differences between directions at 1 *SD* above and below mean overlap (Aiken & West, 1991).

Self-parent overlap differences. Using a paired *t*-test, we replicated the pilot study results: Mother ($M=5.24$, $SD=1.34$, $range=1-7$) was included more than father ($M=4.59$, $SD=1.61$, $range=1-7$), $t(224)=5.80$, $p<.001$.

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³ To increase participation among parents with young children, we shortened the parent version of the questionnaire used in Studies 2-3. Thus, this relationship item was omitted.

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....I would find myself going over to her house almost every day... 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. (Upward Comparison)

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.... 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. (Downward Comparison)

Comparison direction. Participants spontaneously recalled 115 downward and 79 upward mother comparisons, and 118 downward and 80 upward father comparisons. Next, we tested whether overlap predicted comparison direction. We modelled direction as a function of overlap, parent, and their interaction, controlling for order, using a logistic multilevel model. Greater overlap predicted greater likelihood of making a downward comparison, $b=0.74$, $SE=0.10$, $t(387)=7.74$, $p<.001$, $Odds\ Ratios=2.10$: Every 1-unit increase in overlap predicted a 2.10-fold increase in the likelihood that the participant made a downward rather than upward comparison. No other effects were significant, $ts<1.89$, $ps>.06$.

Parent perceptions. We reverse coded the negative item and averaged the two items ($r_{\text{mother}}=-0.63$, $r_{\text{father}}=-0.57$, $ps<.001$). As predicted, upward participants ($M=3.54$, $SE=0.10$) rated their parent less positively than downward participants ($M=5.93$, $SE=0.08$). Higher overlap also

predicted more positive perceptions. No other effects were significant, $ts < 1.73$, $ps > .08$. Results for all multilevel analyses for all measures are reported in Table 2.

Domain importance. Upward participants rated domains as less important than downward participants. The predicted direction by overlap and parent by direction by overlap interactions qualified this effect (see Figure 2). No other effects were significant, $ts < 1.94$, $ps > .05$.⁴

Mother comparisons. Among low overlap participants, directions did not differ in importance. In contrast, high overlap participants rated domains as less important if they recalled upward rather than downward comparisons. Thus, as predicted, high overlap participants protected their mother perceptions following upward than downward comparisons.

Father comparisons. Directions did not differ in importance ratings among low or high overlap participants. Unlike mother comparisons, high overlap participants were no more likely to protect their father perceptions by devaluing domains following upward comparisons than low overlap participants.

Attributions. No effects were significant for self-attributions, $ts < 1.38$, $ps > .16$. Children did not make self-serving attributions following parent comparisons; they considered themselves to be only moderately responsible for their parent's superiority ($M = 3.61$, $SE = 0.15$) and inferiority ($M = 3.58$, $SE = 0.13$). It is therefore unlikely that individuals are protecting themselves by devaluing upward comparison domains for mothers simply because they feel responsible for their mother's failures.

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⁴ Across studies, domains did not differ between directions. See supplementary materials.

Downward participants made more parent attributions than upward participants. The overlap by direction interaction qualified this effect. For low overlap participants, directions did not differ. Thus, they did not protect their parents following upward comparisons by making fewer parent attributions. In contrast, high overlap participants made more parent attributions after downward than upward comparisons (see Figure 3): When the parent is superior, they see the parent as responsible for his or her success, which results in more positive parent perceptions. When the parent is inferior, they see the parent as less responsible for his or her failure, which serves to protect their perceptions of the parent. No other effects were significant, $ts < 1.76$, $ps > .08$.

No effects were significant for external attributions, $ts < 1.96$, $ps > .05$.

Feelings About Relationship. Upward participants felt worse about their relationship than downward participants. Higher overlap was associated with more positive feelings. The overlap by direction interaction qualified these effects. Both low and high overlap participants felt better about their relationships after downward than upward comparisons; however, high overlap participants experienced a greater boost than low overlap participants. Moreover, high overlap participants reported no change in their feelings following upward comparisons ($M = 4.05$, $SE = 0.16$). In contrast, low overlap participants felt worse ($M = 3.40$, $SE = 0.11$; see Figure 4). No other effects were significant $ts < 1.48$, $ps > .14$.

Discussion

Consistent with past research (Thai & Lockwood, 2015), parent comparisons affected how individuals viewed their parents: Both high and low overlap children viewed their parent less positively after upward than downward comparisons. Furthermore, we found evidence that individuals engaged in strategies aimed at protecting their mother when the mother was inferior

to another parent: Individuals high in self-mother overlap devalued domains after upward relative to downward comparisons. In contrast, this effect did not extend to fathers: Both high and low overlap children rated domains as equally important regardless of father comparison direction. This finding provides further evidence that mother comparisons are social comparisons of the expanded self but father comparisons are not. Individuals do not protect any parent whom they find to be inferior; rather, they protect only the mother, who is a more central part of the expanded self. Further, individuals use this protective strategy in the service of mothers to the greatest degree when mother and self identities are most overlapped.

Unlike the importance findings, high overlap individuals made attributions to protect *both* parents following upward comparisons. They attributed less responsibility to parents who were inferior than did low overlap individuals. Children may have used this strategy 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 make less damaging attributions for their parent's negative behaviors and outcomes to protect the relationship. Indeed, individuals who make fewer dispositional attributions for family members' negative behaviors experience more positive relationship outcomes (e.g., Martini, Grusec, & Bernardini, 2001). Consistent with this possibility, high overlap children made fewer parent attributions and reported no change in their feelings about their relationship following upward comparisons. In contrast, low overlap children did not adjust their parent attributions and felt worse about their relationship.

We have argued that high overlap individuals devalue domains following threatening upward comparisons as a means of protecting the close other, and not simply because they are attempting to protect their self-perceptions. The attribution results in Study 1 provided evidence

consistent with our argument: High overlap participants were not simply engaging this strategy to protect their self-perceptions as stellar offspring who contributed to their parents' outcomes. Although these participants did feel somewhat responsible for their parents' outcomes, they did not adjust their self-attributions depending on their parents' performance; instead, they adjusted their *parent* attributions depending on outcome valence, suggesting that they were indeed protecting their parents, rather than themselves. This finding is consistent with our argument that individuals experience close others' outcomes as their own because close others are part of their self-concept, not because individuals feel responsible for close others' outcomes.

Study 2

Study 1 provides evidence that individuals make expanded-self comparisons involving a close family member: their mother. In Study 2, we examined comparisons involving another close family member: a child.

Although the pilot study results suggest that we should find similar results for child and partner comparisons, given the similarity in degree of overlap, it is possible that differences in the nature of romantic and parent-child relationships, especially those with young children, will result in different responses. For example, because most individuals place their children's needs, but not their partner's, above their own (Clark & Mills, 2012), they may be especially likely to experience their child's outcomes as their own and thus protect their positive child evaluations regardless of overlap. Furthermore, because parent-child relationships are more difficult to end than romantic relationships, parents may also be motivated to maintain positive child perceptions to foster more positive parent-child relationships (Limke & Showers, 2010).

The special nature of parent-child relationships makes it crucial to understand how parents make and respond to child comparisons. From the child's earliest days, parents are

encouraged to compare their child to other children as a means of assessing developmental milestones (Bellman et al., 2013). Social comparisons can provide a useful means of assessing progress and potential future outcomes (Lockwood, Shaughnessy, Fortune, & Tong, 2012; Wheeler, Martin, & Suls, 1997). Unfavorable comparisons, however, may have significant implications for how parents see the child and subsequently for their relationship with the child. If a child seems consistently inferior in a domain, parents may distance themselves from that child, with potentially damaging consequences for their relationship. Accordingly, it is important to investigate whether a protective mechanism exists for parents and when this mechanism is most likely to be activated.

As in Study 1, we were interested in determining the prevalence of comparison directions. Thus, we allowed parents to freely recall any comparison between their child and someone else. We predicted that high overlap parents would be more likely to recall downward comparisons, replicating Study 1. Furthermore, we again examined whether direction influenced self-attributions to rule out the alternative explanation that parents use these strategies to protect themselves because they feel responsible for their child's outcomes.

Method

Participants. In total, 224 participants with children 18 or younger were recruited from the child study center database for the Department of Psychology at the University of Toronto. This database includes a list of families recruited through baby shows, the university-affiliated summer camp, and hospitals. Participants were contacted by phone, were sent the online questionnaire by email, and received a \$10 gift card. Of those, 43 did not report an evaluative comparison and were thus excluded from our analyses. Altogether, 181 parents (155 females and

17 males; $M_{\text{age}}=42.87$, $SD=7.92$) who reported about 97 sons and 75 daughters ($M_{\text{child age}}=7.29$, $SD=5.34$)⁵ were included in our analyses.

Procedure. Participants indicated how many children they had. We then randomly selected the child about whom participants should complete the questionnaire. Participants then completed the same overlap measure used in the pilot study ($\alpha=.79$; $-5=\textit{strongly disagree}$; $+5=\textit{strongly agree}$; $M_{\text{overlap}}=1.20$, $SD_{\text{overlap}}=2.04$, $\text{range}=-5$ to $+5$). Next, they recalled and wrote about a time when they compared their child to another child. Participants then completed the same relative performance, perception, domain importance, and attribution items used in Study 1.

Results

Analytic strategy. For Studies 2-3, we conducted moderated regressions with overlap and direction. For significant interactions, we examined the differences between directions at 1 SD above and below mean overlap.

Comparison direction. Participants spontaneously recalled 111 downward and 70 upward child comparisons. Next, we tested whether overlap predicted comparison direction using logistic regression. Consistent with Study 1, higher overlap parents were more likely to recall a downward comparison, $b=0.22$, $SE=0.08$, $z(179)=2.81$, $p=.005$, $\text{Odds Ratios}=1.25:1$.

Child perceptions. We reverse coded the negative item and averaged the two perception items ($r=-.54$, $p<.001$). As predicted, upward participants ($M=3.90$, $SE=0.15$) viewed their child less positively than downward participants ($M=6.00$, $SE=0.11$). Higher overlap also predicted

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⁵ For Studies 2-3, child's age did not moderate any effects, $ts<1.92$, $ps>.05$

more positive perceptions. There was no interaction. See Table 3 for results for all Study 2 analyses.

Domain importance. Unexpectedly, greater overlap predicted lower importance ratings regardless of comparison direction; however, this effect was not replicated in either Studies 1 or 3 and is not relevant to our central hypotheses. Upward participants rated domains as less important ($M=1.37$, $SE=0.18$) than downward participants ($M=1.85$, $SE=0.14$). Contrary to our predictions, there was no overlap by direction interaction. Parents devalued domains when their child performed worse than another child, regardless of overlap. It may be that even “low” overlap parents perceived their child as central to their own identity, and so were motivated to protect the child following an upward comparison.

Attributions. To account for the correlations between attributions, we conducted a multivariate regression in which attributions were regressed simultaneously on direction, overlap, and their interaction. Only direction predicted attributions, $F(3, 165)=3.93$, $p=.01$ (see Figure 5); we report these effects for each attribution below. No other effects were significant, $F_s < 1.87$, $p_s > .13$.

Self-attributions. Direction did not predict self-attributions: Participants attributed the 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, suggesting that parents were *not* protecting their parenting self-perceptions. These findings provide further evidence against the alternative explanation that parents feel responsible for their child’s outcomes and are motivated to protect themselves, rather than their child.

Child attributions. In contrast, upward participants made fewer child attributions ($M=4.12$, $SE=0.25$) than downward participants ($M=5.22$, $SE=0.20$). Thus, as predicted, parents

protected their child following upward comparisons by attributing less responsibility to their child.

External attributions. Participants attributed the 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 meta-analytic results indicating that external attributions are less likely to be affected by outcome valence (Malle, 2006), parents did not adjust external attributions to protect their children following upward comparisons.

Discussion

Consistent with Study 1, child comparisons affected child perceptions: Parents viewed their child less positively after upward than downward comparisons. Unexpectedly, the predicted overlap by direction interaction for importance ratings was nonsignificant. Instead, parents devalued domains after upward child comparisons, regardless of overlap. It is possible that because our sample included only parents with children 18 or younger, the child's high dependency on the parent led virtually all parents to view their child as a significant part of their identities. Indeed, parents reported including their child in their identity considerably more than children in Study 1 and the pilot study reported including their parents.

Although parents reported feeling somewhat responsible for their child's outcomes, they did not adjust their self-attributions in a self-serving manner: They did not protect themselves by denying responsibility for their child's inferiority. Thus, this study also provided further evidence against the alternative explanation that parents devalue domains simply because they want to see themselves as good parents. Instead, parents protected their child by downplaying domains and making child-serving attributions, regardless of overlap.

One limitation of this study, however, is that we did not restrict *to whom* parents could compare their target child. Consequently, some parents ($n=30$) reported comparing the target child to another one of their children.⁶ 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. Such comparisons may be less threatening because one part of the self is still doing well. Indeed, when comparing their children to each other, 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 want to protect both aspects of the self. It is also possible that parents may take a somewhat different approach in adjusting domain importance when comparing their children to each other. Instead of devaluing the entire domain, they may devalue the domain for the target child only. For example, instead of thinking that athletics is not important at all, a parent may think that athletics is not that important for the second child, who is uncoordinated, but is important for the first child, who is a star athlete. To remain consistent with comparisons examined in past research and in Study 1, we asked parents in Study 3 to recall comparisons involving their target child and *someone else's child*, instead of comparisons between their own children.

In Studies 1 and 2, we asked participants to describe a comparison without constraining the direction. We found that high overlap participants were most likely to recall downward comparisons. Thus, high overlap individuals may also protect family members through selective recall of downward rather than upward comparisons. Indeed, one experience-sampling study suggests that individuals are more likely to make downward than upward comparisons involving

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⁶ We report results excluding these participants in our supplementary materials.

the self (Wood, Michela, & Giordano, 2000), presumably because such comparisons are helpful in maintaining positive self-perceptions. This method, however, also poses some limitations. It is possible that high overlap individuals made upward comparisons but simply chose not to report these because they found them to be more painful. Alternatively, high overlap individuals may have recalled comparisons consistent with their pre-existing positive views of their family members (i.e., downward comparisons); thus, the direction of causality between comparison direction and perception is unclear.

Study 3

Study 2 provides strong evidence that parents do compare their children to other individuals; however, because we examined parents' spontaneously recalled comparisons, the causal direction is unclear. Accordingly, in Study 3, we randomly assigned parents to recall either upward or downward comparisons. We also restricted to whom parents could compare their children: Parents were asked to compare their child to someone else's child. In sum, we used Study 3 to replicate Study 2's findings using a more controlled design by randomly assigning parents to recall a comparison in a specific direction.

Method

Participants. Participants were recruited through MTurk and paid \$0.80 USD. In total, 444 of the recruited participants had at least one child 18 or younger and were thus eligible for this study. Of those, 55 failed (e.g., rated comparison as downward when assigned to upward condition) or skipped the manipulation check. An additional 66 participants were excluded for not completing the manipulation correctly (i.e., did not mention a comparison other, did not report comparison, completed task incorrectly, compared all their children). Altogether, 303 participants (223 females, 73 males, 7 unidentified; $M_{\text{age}}=35.88$, $SD=8.11$) who reported about

155 sons and 140 daughters (6 parents did not report child gender; $M_{\text{child age}}=7.18$, $SD=4.87$) were included in the analyses.

Procedure. Participants first completed the same overlap measure used in Study 2 ($\alpha=.81$; $M_{\text{overlap}}=2.33$, $SD_{\text{overlap}}=1.83$, $range=-3.4$ to $+5$). Participants were then randomly assigned to recall and describe in open-ended form a time when their child was doing better (downward condition) or worse (upward condition) than someone else's child. Participants then completed the same measures used in Study 2.

Results

Comparison descriptions. As in Study 1, 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,

I was seeing a child who was younger than my child who already knew the whole alphabet. My child was only a few months older than the other child. My child is very articulate, but after being in preschool for more than two years, she still doesn't know most of her alphabet and seems to have no desire to learn. I try not to compare my child to others, but I felt bad that my child didn't know as much.

Another participant described a time when their child was superior:

My child had a toy taken out of their hands and she did not react in a mean way, instead she came to me and asked if she could have the toy back. At the same play date, another child had a toy taken from them and instead of reacting nicely, they went after the child and hit the child and took the toy. My child's reaction showed independence, strength, rationale, logic, and compassion.

Manipulation check. Upward participants reported that their child performed worse than downward participants, $b=-2.20$, $SE=0.04$, $t(299)=-59.54$, $p<.001$. No other effects were significant, $ts<1.46$, $ps>.15$.

Child perceptions. We reverse coded the negative item and averaged the items ($r=-.64$, $p<.001$). As predicted, upward participants rated their child less positively ($M=4.00$, $SE=0.09$),

than downward participants ($M=6.58$, $SE=0.09$). No other effects were significant, $ts < 1.45$, $ps > .15$. See Table 3 for results for all Study 3 analyses.

Importance ratings. Greater overlap predicted higher importance ratings. Upward participants rated domains as less important ($M=1.86$, $SE=0.10$) than downward participants ($M=2.24$, $SE=0.09$). As in Study 2, there was no interaction.

Attributions. We conducted the same multivariate analysis used in Study 2. Only direction predicted attributions, $F(3, 298)=48.20$, $p < .001$ (see Figure 5), replicating Study 2. No other effects were significant, $F_s < 2.21$, $ps > .08$.

Self-attributions. Self-attributions did not differ between directions. Participants attributed the outcome to themselves to a moderate degree after both upward ($M=4.17$, $SE=0.16$) and downward ($M=4.18$, $SE=0.15$) comparisons. Thus, consistent with Study 2, parents were *not* protecting their self-perceptions.

Child attributions. Downward participants made more child attributions ($M=6.25$, $SE=0.12$), than upward participants ($M=4.13$, $SE=0.13$). Thus, parents protected their child by attributing less responsibility to their child after an upward relative to downward comparison, replicating Study 2.

External attributions. Upward participants made more external attributions ($M=4.43$, $SE=0.17$) than downward participants ($M=3.66$, $SE=0.15$). Unlike Studies 1-2, parents made more external attributions after upward comparisons.

Discussion

In sum, we replicated Study 2's key findings and also established the causal relationship between comparison direction and responses. Parents who recalled upward comparisons viewed children less positively than those who recalled downward comparisons. Furthermore, there was

no significant overlap by direction interaction for importance ratings. Instead, parents protected their child after upward comparisons, regardless of overlap. Moreover, direction did not influence parents' self-attributions. Although parents felt partially responsible for their child's outcomes, they did *not* adjust their self-attributions to protect themselves after upward comparisons. Parents also did not enhance themselves by taking credit for their child's superior performance; instead, they enhanced their child. Thus, parents use these strategies to protect their child perceptions because their child is part of their self-concept and not merely because they are motivated to protect their self-perceptions.

In contrast to the results of Studies 1 and 2, direction affected external attributions. Parents made more external attributions for their child's inferior than superior performance. Although meta-analytic results indicate that the external attribution effect is not robust (Malle, 2006), individuals do use external attributions to explain anomalous events because of informational, rather than motivational, processes. Indeed, Study 2 indicates that it may be easier for parents to recall downward comparisons, suggesting a higher base rate for recall of children's superior than inferior performance. Consequently, when asked to recall upward comparisons, parents may see this as an unusual event caused in part by situational factors. Overall, however, the pattern of child attributions is consistent with that of Studies 1 and 2, and indicates that parents were motivated to adjust causal attributions for comparison outcomes in order to protect their child perceptions.

General Discussion

These studies provide strong evidence that comparisons between family members (i.e., parents and children) and other individuals affect perceptions of family members (i.e., parents and children). Participants perceived family members less positively following upward than

downward comparisons. However, individuals protect their perceptions of family members who are highly overlapped with the self – mother and child. That is, high overlap children and parents devalued domains in which their mother or child was inferior. This protection, however, was not extended to fathers, who are included in the self-concept to a lesser degree.

Devaluing domains, however, did not erase the impact of upward comparisons: Individuals viewed close others less positively after upward than downward comparisons regardless of overlap. Instead, high overlap individuals changed the meaning of those comparisons by reducing domain importance; they viewed their mother or child less positively in that domain, but came to view the domain, and thus the inferiority, as less important.

Furthermore, Studies 1 to 3 demonstrate that individuals make attributions for the close other's outcomes as they would for their own. Individuals protect themselves by making fewer self-attributions for negative outcomes and enhance themselves by making more self-attributions for positive outcomes (Malle, 2006). Similarly, participants in Studies 1-3 made fewer parent/child attributions following upward than downward comparisons.

These studies are the first to examine social comparisons that individuals make with close family members. For many parents, child comparisons are an inevitable part of daily life; thus, it is crucial to understand the impact of such comparisons. Although anecdotal evidence suggests that such comparisons are harmful, the present research demonstrates that parents readily engage several strategies to minimize the impact of threatening comparisons and maximize the impact of flattering comparisons. This research also indicates that many children compare their parents to the parents of others, and those who feel closest to their parents are motivated to use these strategies to protect their parents and relationships.

Consistent with recent research investigating partner and best friend comparisons (Thai & Lockwood, 2015), the present research provides further evidence that social comparisons can occur when individuals compare close others who are included in the expanded self and another individual. Taken together, these findings challenge the long-held assumption that the motivational consequences observed following social comparisons occur only when comparisons involve the self directly. We demonstrate that many of the motivational biases applied to individuals' own comparison outcomes are also applied to a variety of close others' (i.e., parents', children's, partner's, and close friends') comparison outcomes, suggesting that comparisons involving close others are also social comparisons.

These comparisons have important implications for children's development. Parents who view their children as worse-off may adjust their expectations for their children, which in turn may affect children's expectations for themselves (Zhang, Haddad, Torres, & Chen, 2010). Thus, parents whose children are consistently worse-off may need to examine the types of comparisons they are making to determine whether they have lowered their expectations for their children.

Furthermore, such comparisons shape how children view their parents, which in turn affects their relationships. Past research has shown that more positive perceptions of close others are associated with more positive relationships (e.g., Limke & Showers, 2010). Indeed, children in Study 1 saw their parents more positively and felt more positively about their relationship following downward comparisons. Moreover, learning that one's parent is worse-off may lead to strains in the relationship, especially among low overlap individuals: These individuals reported feeling worse about their relationship after upward comparisons. Indeed, low overlap children may experience a particularly negative cycle in which they are prone to making upward parent comparisons, which result in even more negative parent perceptions and feelings about the

parent-child relationship, and possibly further declines in overlap, because they do not use these protective strategies. It will be important for future research to examine whether parents experience similar relational consequences after comparing their children.

These findings also suggest that self-child overlap, especially for young children, may be experienced differently from other forms of overlap, an important theoretical implication for self-expansion theory. Although individuals report including the partner and child to the same degree, overlap affects whether individuals will experience their partner's outcomes as their own (Thai & Lockwood, 2015) and consequently whether they will engage protective strategies. In contrast, even though parents report different levels of self-child overlap, overlap did not interact with comparison direction to affect comparison outcomes. Self-child overlap may tend to be exceptionally high; thus, our studies did not include many parents who were truly low in self-child overlap. There may also be something qualitatively different about the parent-child relationship that leads parents to respond protectively when they compare their children.

The predicted overlap by direction interaction, however, may emerge for child comparisons if we used implicit measures instead. Implicit measures (e.g., me-not me task; Aron & Fraley, 1999) directly assess the degree of overlap between cognitive representations of the self and close others, and thus may capture more nuanced differences in self-child overlap. We also note that overlap may be both a consequence and predictor of comparisons. Because overlap was not manipulated, comparison direction may have also affected self-other overlap (i.e., feel more overlapped following downward than upward). Indeed, past research has shown that social comparisons do influence feelings of closeness (Tesser, 1988; Thai, Lockwood, Pinkus, & Chen, 2016). These changes in overlap may then influence the types of comparisons that individuals make, a point that should be considered in future studies.

Moreover, inclusion-of-parent and inclusion-of-child in Western samples may change over time. Parent-child relationships change over the lifespan as children grow more autonomous and parents grow more dependent; consequently, the needs being met in the relationship change, which in turn may decrease inclusion-of-child and increase inclusion-of-parent. Early in life, children may respond to parent comparisons in the same way that parents respond to child comparisons: They experience each other's outcomes as their own because they include each other in the self to a very high degree. As children enter adulthood, however, they rely more on their partner than their parents to care for them. Indeed, parents provide differing levels of support for their adult children depending on children's relationship status (Bucx et al., 2012), providing more care for single than married adult children. Thus, parents may no longer see adult children, especially married ones, as integral parts of the self because their children may be completely independent. Instead, they may only protect perceptions of children to whom they feel closest. Similarly, children who take on greater caregiving responsibilities as their parents age may feel highly overlapped with their parents and thus highly motivated to protect their parents following threatening comparisons. Additional research is needed to better understand how self-parent overlap changes across the lifespan and the influence of these changes on expanded-self comparisons.

In these studies, we focused on only two protective strategies: devaluing domains and making parent/child-serving attributions. We would argue that parents and high overlap children employ a variety of strategies to protect their positive evaluations of family members when faced with threatening comparisons. For example, parents may arrange fewer playdates with children who consistently outperform their own child to distance themselves from superior others (Pleban & Tesser, 1981). Alternatively, individuals may help their family members improve, especially if

comparisons in a particular domain are likely to occur (Pinkus, Lockwood, Schimmack, & Fournier, 2008). Thus, individuals may use different protective strategies depending on the comparison situation.

We note that our samples consisted primarily of Caucasians. In future research, it will be useful to examine whether cultural differences exist in how individuals respond to these comparisons. For example, Caucasians view themselves and others more positively than Asians and Asian Americans (Kim, Schimmack, & Oishi, 2012); thus, downward effects may be larger for Caucasians. In contrast, East Asians have stronger self-protective motives than Westerners (Sedikides, Gaertner, & Cai, 2015); thus, protection effects may be larger for East Asians.

Moreover, these studies examined comparisons between relatives and another person rather than relatives and the self. Comparisons between oneself and one's parents or child may have complicated outcomes, given the tension between desire to protect the self and desire to protect the close other. Past research suggests that when comparisons involve themselves and their partner, individuals respond positively to upward comparisons and negatively to downward comparisons because they empathize and share resources with their partner (Lockwood & Pinkus, 2014; Pinkus, Lockwood, Marshall, & Yoon, 2012). Similarly, individuals may respond positively to being outperformed by family members: A young adult living at home may be happy that his father earns more money than him because his life will be more comfortable. Future research can explore the full range of comparisons involving relatives.

Individuals interact with their parents and children on numerous occasions, resulting in countless opportunities to compare them to others. Relative to romantic relationships, severing ties with one's child or parent is often more difficult. Individuals cannot simply break up with family members if they repeatedly find themselves noticing family members' inferiority. The

present studies are the first to show that individuals will protect family members who are central to their identities, just as they would protect themselves. Indeed, social comparison processes may play a crucial role not only in how individuals maintain positive self-perception, but also in how they maintain positive views of family members. Ultimately, individuals' responses to expanded-self comparisons may be a significant factor in maintaining positive parent-child relationships across the lifespan.

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Table 1. Differences between targets on IOS and self-other overlap.

Paired Comparisons	IOS		Overlap	
	$M_{\text{difference}}$	t	$M_{\text{difference}}$	t
Partner-Child	-0.01	0.08	0.18	1.05
Partner-Friend	1.29	8.51***	1.48	7.97*
Partner-Mother	1.36	7.52***	1.98	8.05***
Partner-Father	1.74	9.66***	2.63	10.50***
Child-Friend	1.30	9.44***	1.29	8.09***
Child-Mother	1.37	8.12***	1.79	7.78***
Child-Father	1.76	10.26***	2.45	10.02***
Friend-Mother	0.07	0.43	0.50	2.08†
Friend-Father	0.46	2.85*	1.15	4.78***
Mother-Father	0.39	2.64*	0.66	3.19*

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 2. *Results for Study 1.*

Analysis	<i>b</i>	<i>t(df)</i>
Parent Perceptions		
Direction	-1.20	-19.19(370.03)***
Overlap	0.30	6.81(373.58)***
Importance		
Direction	-0.25	-3.51(362.67)***
Direction×Overlap	-0.12	-2.37(369.08)*
Direction×Overlap×Parent	-0.11	-2.37(315.68)*
Mother Effects		
Low Overlap	-0.02	-0.10(348.74)
High Overlap	-0.69	-5.20(347.07)***
Father Effects		
Low Overlap	-0.15	-1.22(348.48)
High Overlap	-0.16	-1.07(347.82)
Parent Attributions		
Direction	-0.33	-4.53(291.18)***
Direction×Overlap	-0.17	-3.52(297.33)***
Simple Effects		
Low Overlap	-0.07	-0.69(305.75)
High Overlap	-0.58	-5.74(282.31)***
Feelings About Relationship		
Direction	-0.78	-11.95(350.71)***
Overlap	0.32	6.85 (381.99)***
Direction×Overlap	-0.09	-2.13(358.38)*
Simple Effects		
Low Overlap	-0.64	-6.93(364.49)***
High Overlap	-0.91	-9.98 (343.12)***

Note: For direction, upward=1 and downward=-1. Overlap was grand mean-centered. For parent, mother=1 and father=-1. We report relevant results only.

Table 3. *Results for Studies 2-3.*

Analysis	Study 2		Study 3	
	<i>b</i>	<i>t</i>	<i>b</i>	<i>t</i>
Importance				
Direction	-0.24	-2.14*	-0.19	-2.68**
Overlap	-0.13	-2.42*	0.08	2.12*
Direction×Overlap	-0.03	-0.50	-0.001	-0.02
Child Perceptions				
Direction	-1.05	-11.33***	-1.29	-20.35***
Overlap	0.15	3.22**	0.05	1.45
Direction×Overlap	0.07	1.49	-0.03	-0.88
Self-Attributions				
Direction	-0.10	-0.62	-0.01	-0.08
Child Attributions				
Direction	-0.55	-3.48***	-1.06	-11.69***
External Attributions				
Direction	0.12	-0.71	0.39	3.41***

Note: For direction, upward=1 and downward=-1. Overlap was mean-centered.

Figure 1. IOS (7-point scale) and overlap (11-point scale) for close others (Pilot Study). Error bars represent within-subject standard errors.

Figure 2. Overlap and importance for upward and downward comparisons (Study 1). Error bars represent standard errors.

Figure 3. Overlap and parent attributions for upward and downward comparisons (Study 1).

Figure 4. Overlap and feelings about relationship for upward and downward comparisons (Study 1). On this scale, 4 means no change.

Figure 5. Attributions for child comparisons (Studies 2-3).