The Looking-Glass Self in Family Context: A Social Relations Analysis

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Family relationships provide the most valid context for studying a key hypothesis of Symbolic Interaction Theory (SIT), that how one is perceived by significant others determines one's view of the self (C.H. Cooley, 1902). Implicit in this hypothesis is another hypothesis, that people are accurate in perceiving how they are perceived by others. This study investigated the accuracy of young people's perceptions of how they are viewed by their parents (i.e., metaperception accuracy). Social relations analysis (D.A. Kenny & L. La Voie, 1984) was applied to data from 51 2-parent, 2-child families. College students were accurate in their metaperceptions of father but only for perceived assertiveness. Adolescents demonstrated generalized accuracy in their metaperceptions of cooperation. The results partially support a modified version of SIT.

Scholars have studied the concept of self for decades. Theories of the self have been derived from varying disciplines, such as personality and developmental psychology, social and clinical psychology, and sociology (Kenny & DePaulo, 1993). Perhaps one of the most influential of these has been symbolic interaction theory (SIT), or more specifically, Cooley's (1902) theory of the looking-glass self. The looking-glass self refers to a person's beliefs about how he or she is perceived by significant others. Such beliefs have been called "metaperceptions" because they involve "perceptions of perceptions." As we discuss below, the viability of Cooley's theory depends on the accuracy of people's metaperceptions. This study tests the accuracy of young people's metaperceptions within the context of their family relationships.

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The notion of the looking-glass self is key to an SIT of the development of self-concept. Symbolic interactionists believe that how people view themselves is determined by how significant others view them, that is, people observe how they are viewed by significant others and construct their self-image from these observations. People see themselves through the eyes of others. There are three key elements in the process. The first element is the other person's actual view or evaluation of them. The second element is their perception of how the other person views them, their metaperspective. And the third element is their self-perception or how they view themselves. According to SIT, people pick up signals about how the other person views them, and by internalizing this view, it becomes their self-view. For example, if one grows up receiving the message from a parent that one is very intelligent, it may influence one's opinion of oneself. To the extent that one internalizes this appraisal, one's self-image has been influenced. The reverse process could also occur wherein negative evaluations become internalized, creating a negative self-image. Regardless, whether one's parents' actual perceptions of one have influenced one's self-view depends on whether one has accurately interpreted the signals (i.e., verbal and nonverbal communications) representing one's parents'

evaluation. The theory of the looking-glass self assumes a relatively high degree of accuracy in these interpretations (or metaperceptions), or more specifically, that one's metaperceptions will be positively correlated with significant others' actual perceptions of oneself (Felson, 1980).

Most of the research concerning accuracy of metaperceptions has been based on nonfamilial relationships. Kenny and DePaulo (1993) reviewed and reanalyzed eight such studies. Although they found substantial accuracy in interpersonal perceptions, they concluded that the weight of evidence did not favor SIT. For instance, they found a strong tendency for individuals to be highly consistent in how they think they are viewed by others, suggesting that people do not use much unique information from particular others in making judgments about how they are viewed. The looking-glass self hypothesis presumes that people are attuned to signals about how specific others view them (Felson, 1989), suggesting that metaperceptions should be somewhat unique to a particular partner (unless, of course, the views of multiple others are in agreement).

Kenny and DePaulo (1993) also explored the notion that when accuracy is attained, it may be an artifact of assumed reciprocity: "If Jack sees Jill as kind, he may just assume that Jill will also see him as kind. . . . If Jack's theory is right—if perceptions of traits really are reciprocated— then his belief that Jill will see him as kind will also be right" (p. 154). The level of reciprocity of perceptions in these studies, at least with regard to affective or evaluative variables, was sufficient to support this explanation of accuracy. In addition to these results, they found correlations between self-perceptions and metaperceptions that were consistently larger in absolute size than the accuracy correlations. People think they are viewed by others in a manner very similar to how they view themselves and to an extent greater than accuracy can explain, suggesting a process of projection. If people assume that others' perceptions of them are informed by the same observations as their own self-perceptions, it follows that self-perceptions and metaperceptions will be more highly correlated than other-perceptions and metaperceptions (i.e., the components of accuracy). Moreover, if one's self-perceptions, one's metaperceptions, and another's perceptions of

one are all informed by the same observations, then one's metaperceptions will necessarily be accurate (Felson, 1989). Note that this latter hypothesis provides an alternative mechanism for accuracy compared with the process proposed in SIT. Although there may be other mechanisms by which accuracy of metaperceptions may develop, the point remains that SIT requires accuracy of metaperceptions, and the absence thereof is evidence against SIT.

Accuracy of Metaperceptions in Family Relationships

Kenny and DePaulo (1993) acknowledged that it may be unfair to judge SIT on the basis of social psychology experiments involving participants who are relatively new acquaintances and who have met each other at later stages of development (e.g., college roommates). The level of accuracy of metaperceptions among family members provides a better test of the looking-glass self hypothesis. However, on the basis of their analyses of nonfamilial data, they propose a hypothesis that has important implications for family theory. Specifically, they suggested that long-term familiarity, such as that found in family relationships, may have the opposite effect on the development of accuracy. They speculate that when two people first meet each other, they may pay close attention to how they are viewed by the other, and they may be accurate in their perceptions. As they grow more accustomed to each other (i.e., take each other for granted), they may become less attuned to the other's signals or evaluations. Thus, over time, people may become increasingly inaccurate in their metaperceptions. The implication of this view is that family members will be less accurate in their metaperceptions than groups of relative strangers. A tendency for family members to adapt and respond to outdated and mistaken assumptions about each other may be an important source of marital and family conflict (Kobak & Hazan, 1991), or at the very least may serve as an important qualifier of our notion of close relationships. It is important, consequently, to encourage research on the accuracy of family members' metaperceptions.

Although no studies directly compare the relative accuracy of family members versus strangers, accuracy of metaperceptions has been studied in family context. In a test of SIT, Felson (1989) assessed children's metaperceptions of

their mothers', fathers', and teachers' beliefs about the children's academic, athletic, and social standings. Zero-order correlations between parents' and teachers' actual appraisals and the children's metaperceptions were generally significant and indicated generalized accuracy. By generalized accuracy, it is meant that the child knew how he or she was viewed in general, whereas he or she may not be particularly more accurate in judging one parent's appraisal compared with the other's or compared with that of the teacher. Little evidence of relationship-specific accuracy was found. Felson (1989) viewed this as indicating that there is not a specific significant other that influences our self-concept. Instead, the self-concept is influenced by perceptions of the *generalized other,* a concept introduced into SIT by Mead (1934). The generalized other represents one's view of how one is viewed by others in general.

It has been realized for some time, however, that one should not infer accuracy on the basis of zero-order correlations (Cronbach, 1955; Kenny & Albright, 1987). In order to determine whether metaperceptions might be accurate at the relationship level of analysis, variance in perceptions that is unique to the relationship must be separated or partitioned from variance in perceptions that reflects a general, individual difference or trait. The social relations model (SRM; Kenny, 1995; Kenny & La Voie, 1984) takes these complexities into account. Separation of accuracy correlations into individual and relationship levels of analysis also makes it possible to evaluate whether Mead's notion of the generalized other fits the data better than Cooley's relationship-specific version of SIT.

Interpersonal Perceptions and the Social Relations Model

Children from different families will certainly differ in their perceptions of how their parents view them, and parents will undoubtably differ in how they view their children. According to the SRM (Kenny, 1995), these differences (i.e., variances) in people's interpersonal perceptions are a function of three components: perceiver effects, target effects, and relationship effects. A perceiver effect reflects a generalized tendency to see others in a particular way. For example, a child who views his mother positively (or negatively) will also perceive his father and

sibling positively (or negatively). Consistency in perceptions across multiple relationships reflects a perceiver effect. A target (or partner) effect reflects the tendency to be seen by others in a generally similar fashion. For example, a teenager may consistently elicit negative evaluations from all other family members. A relationship effect reflects the extent to which a perception is unique to a particular relationship (i.e., independent of the perceiver and target effects). Perceiver and target effects, because they reflect cross-situational consistencies (viz., cross-relationship consistencies) in perceptions, indicate processes operating at the individual level of analysis (i.e., individual differences). Relationship effects, however, reflect processes operating at the dyadic level of analysis. When applied to certain data structures, the SRM may also test for a group-level effect (Cook, 1993, 1994). The SRM is the only structural equation model developed so far that integrates data on all relationships in the nuclear family and provides information on systematic sources of variance at each of the levels of analysis generally proposed as components of the family system (i.e., the family, the individual, and the relationship).[1]

According to the SRM, accuracy can (and should) be measured at both the individual and dyadic (i.e., relationship) levels of analysis (Kenny & Albright, 1987). Importantly, the sign on the accuracy correlation (i.e., a positive or negative correlation) at the individual and relationship levels may differ. Thus, zero-order correlations, which essentially sum over the two different levels of analysis, may be nonsignificant because the effect at one level of analysis has canceled out the effect at the other level of analysis (see Kenny & Nasby, 1980). In this case, the presence of true accuracy will not be detected, resulting in a Type II error. SRM analysis, because it partitions the variance in interpersonal perceptions into the individual and relationship components, enables one to test for

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[1] The family–group effect is tested only when all family members are reporting on the same variable (e.g., self-reported cooperativeness). A family effect was not included in the models reported below because the models included different variables for parental reports (e.g., other-perceptions) and child reports (e.g., metaperceptions). Thus, to specify that the variables reflected a single source (i.e., a family–group effect) was not warranted.

accuracy at each level independently, thus overcoming the potential for effects at one level of analysis to confound and cancel effects at the other.

In this study, the SRM was used to test two hypotheses relevant to theories about the development of a self-image. Hypothesis 1 was that self-perceptions and metaperceptions would be positively correlated. From the viewpoint of SIT, self-perceptions would be correlated with metaperceptions because they were caused by metaperceptions. Hypothesis 2 was that the metaperceptions of children in relation to their parents would be accurate. Without the stipulation that metaperceptions would be accurate, the looking-glass self hypothesis would be, at best, half empty.

Method

Participants

Four family members (mother, father, college student, and adolescent) from 51 families returned complete survey data for this study. The families were primarily Caucasian and middle class. Of the college students, 12 were males and 39 were females, whereas 26 of the adolescents were males and 25 were females. The mean age for the male participants was 22 for the college students and 17 for the adolescents. The mean age for the female participants was 21 for the college students and 18 for the adolescents. The mean age for mothers was 46, and for fathers it was 48. With one exception, neither the college students' nor the adolescents' age or sex correlated significantly with the interpersonal perception variables in this study. The one exception was that mothers viewed older college students as more cooperative ($r = .24$, $p < .05$) than younger college students. Given the number of correlations tested (eight total), this one could have occurred by chance. Consequently, it was not necessary to control for it in subsequent statistical tests.

Procedure

As part of a study of perceived control in family relationships (Cook, 1993), 122 college students from a large southwestern university completed questionnaires on three different family relationships: (a) relationship with mother, (b) relationship with father, and (c) relationship with a younger sibling. All college students who had a younger sibling at least 12 years old and still living at home were asked for permission to contact and recruit their families into the broader study. If the family agreed to participate, they were sent questionnaires by mail with postage-paid self-addressed return envelopes. The college student and the younger sibling were each given $10 if all 4 family members returned complete questionnaires on their relationships with the other 3 relatives.

Measures

While separately referencing their relationship with each of three other family members, participants reported on (a) their self-perceptions (i.e., how they behave toward the target), (b) their other-perceptions (i.e., their view of how the target behaves toward them), and (c) their metaperceptions (i.e., how they think they are viewed by the target). Three domains or content areas were investigated: assertiveness, firmness, and cooperation. Participants first read a definition of the term (e.g., *assertiveness*) then responded to three perception items (self-perceptions, other-perceptions, and metaperceptions) using 5-point Likert scales with response options ranging from 1 to 5. Each of the three content areas were defined for participants. The following was the definition for *assertiveness:* "You are Assertive when you ask someone in a clear, nonhostile way to do something or stop doing something because it would be best for you." *Firmness* was defined as follows: "Being Firm is a kind of assertiveness that involves being able to say No when someone makes a request or demand of you." *Cooperativeness* was defined as follows: "You are Cooperative when you help or encourage another person to achieve their goals or goals that you have in common." Given these definitions, participants then answered questions about their self-perceptions, their other-perceptions, and their metaperceptions. For example, the following three questions were addressed with respect to cooperativeness:

1. When _____ needs or wants something from you, how often are you COOPERATIVE with his or her effort to get it? (self-perception)

2. When you need or want something from _____, how often is he or she COOPERATIVE with you? (other-perception)

3. How often does _____ think you are COOPERATIVE? (metaperception)

Participants were instructed to "mentally insert the name" of the specified target (i.e., family member) in the blank that appeared in each question so that responses would be specific to that person.

Analysis

Family versions of the SRM have been presented in detail elsewhere (Cook, 1993; Cook, 1994; Cook, Kenny, & Goldstein, 1991; Kashy & Kenny, 1990). In the present study, the models are different in that only

cross-generational data are used (interparental and sibling relationships data are excluded). Thus, the input data for the structural equation model consists of an 8×8 covariance matrix of data from the following relationships: (a) mother–college student, (b) mother–adolescent, (c) father–college student, (d) father–adolescent, (e) college student–mother, (f) college student–father, (g) adolescent–mother, and (h) adolescent–father. In the family version of the SRM, each relationship measure is specified to be a function of the following components: (a) a family effect, (b) an actor effect, (c) a partner effect, (d) a relationship effect, and (e) error variance. Thus, adolescents' perceptions of their cooperation with their mothers may be affected by interfamilial differences in cooperation (i.e., some families are more cooperative than others as groups), individual differences in adolescents' tendency to cooperate with others in general (i.e., actor effects), differences in mothers' tendency to elicit cooperation from others in general (i.e., partner effects), adolescents' cooperation with their mothers that is unique to that relationship (i.e., relationship effects), and random noise in the data. When the data reference interpersonal perceptions (i.e., other-perceptions and metaperceptions), the term *perceiver effect* was used in place of *actor effect*, and *target effect* was used in place of *partner effect*. In the present analyses, relationship effects are not partitioned from error variance and therefore may have attenuated correlations with other variables. Note that in the family version of the SRM, a family–group effect is estimated. In the original (nonfamily) version of the SRM (Kenny & La Voie, 1984), group effects are not expected and are therefore not estimated.

Actor and partner effects represent individual differences insofar as they are based on cross-situational (or cross-relationship) consistencies in behavior or perceptions. Relationship effects, however, are at the dyadic level of analysis (i.e., they cannot be generalized to the individual because they are specific to particular relationships, e.g., differences in the way a mother views her two children). It follows that reciprocity and accuracy might occur at either the individual or the dyadic level of analysis, or both. Reciprocity at the individual level of analysis is based on the correlation of actor and partner effects for individuals within a particular role. For example, to the extent that adolescents are cooperative with all other family members, they may elicit cooperation from all other family members. The actor–partner correlation measures generalized reciprocity (i.e., reciprocity at the individual level of analysis). Dyadic reciprocity is measured by the correlation of the appropriate relationship effects. For example, adolescents who are uniquely cooperative with their mothers may elicit an uncharacteristic degree of cooperation from their mothers. As mentioned earlier, the sign on a correlation based on effects at one level

of analysis may be positive, whereas the sign of the correlation at the other level of analysis may be negative. In such cases the zero-order (i.e., nonpartitioned, raw-score) correlations may be canceled out. It is for this reason that testing accuracy correlations separately for each level of analysis is important (see Kenny & Albright, 1987).

Reciprocity, by definition (Cairns, 1979), involves the exchange of the same kind of behavior (e.g., the exchange of cooperation between mothers and their adolescent children). Accuracy, on the other hand, involves the correlation of two different variables: the perceptual variable and the criterion variable (Kenny & Albright, 1987). In the present case, the criterion variables are based on perceptions of the target's cooperation (i.e., other-perceptions), and the perceptual variables are family members' beliefs about how they are perceived by the target (i.e., metaperceptions). For example, adolescent accuracy at the individual level is measured by the correlation of the adolescent target effect (or partner effect) from the analysis of their parents' other-perceptions, representing the extent to which they are generally seen as cooperative, and by their perceiver effects (or actor effects) from the analysis of their metaperceptions, which represent the extent to which there is consistency in their beliefs about how cooperative others think they are. This correlation addresses the question, Do adolescents who are seen by others as cooperative believe that others see them as cooperative? Accuracy at the dyadic level is measured by the correlation between the appropriate relationship effects. For example, adolescents' accurate perceptions of their mothers' perceptions of them is measured by the correlation of the relationship effect for adolescent metaperceptions of mother with the relationship effects of mothers' perceptions of their adolescent. This correlation addresses the question of whether adolescents who believe they are viewed as cooperative by their mothers actually are viewed that way by their mothers (controlling for factors at the individual level of analysis).

The SRM analysis for accuracy requires the estimation of two partial SRM models or submodels within the same analysis. Specifically, one submodel is specified for the four variables representing parental perceptions of their children's cooperativeness (i.e., other-perceptions), and another submodel is specified for the four variables representing the college students and adolescents metaperceptions of cooperation (i.e., how cooperative they think they are in their parents' eyes). Note that the submodels are not complete SRM models but rather use only the specific data needed to test for accuracy. Because parents and children are not rating the same variables (parents report on other-perceptions and children report on metaperceptions), the family effect is not included in the model. Because this is the first time the family version of the SRM has been used to test

accuracy, the EQS (Bentler, 1989) specifications of the model are presented in the Appendix. EQS is one of many structural equation modeling programs that can be used for these analyses.

A slightly different structural model is used to test the relationship between metaperceptions and self-perceptions (Hypothesis 1). The question is whether children who believe they are seen as cooperative actually see themselves as cooperative. Specifically, the four measures of children's metaperceptions of cooperation form one submodel, and the four measures of children's self-perceptions form the other submodel. The correlation of the two perceiver effects within a role (e.g., adolescent self-perceived coopera-tion and adolescent metaperceptions of cooperation) and the correlation of the appropriate relationship effects (e.g., adolescent–mother cooperation and adolescent–mother metaperception of cooperation) test the hypothesis. Because all the data are obtained from the children, the family effect is not estimated.

Results

SRM analyses of the three variables (assertive-ness, firmness, and cooperativeness) from the three perspectives (self-perceptions, other-perceptions, and metaperceptions) are not pre-sented so that the focus on the central theoretical issue (metaperception accuracy) is maintained.[2] However, two aspects of these analyses are important to the interpretation of the results, so we briefly discuss them. First, reciprocity of other-perceptions, if significant, provides an alternative mechanism for the development of accuracy. As mentioned in the text, if there is reciprocity of other-perceptions, then assumed reciprocity can be an artifactual source of metaperception accuracy (see Kenny & DeP-aulo, 1993). For the variables analyzed in the present study, there was no evidence of reciproc-ity of other perceptions. Thus, the interpretation of metaperception accuracy as a consequence of assumed reciprocity is not viable.

Second, to the extent that variances in metaperception are explained by perceiver (i.e., actor) effects, the role of relationship-specific metaperceptions in the development of self-perceptions is diminished. Large perceiver effects for metaperceptions (i.e., thinking that other people generally see one in a similar fashion) operationalize Mead's (1934) notion of the generalized other. Consequently, to the extent that perceiver effects explain metapercep-tions, support for Cooley's (1902) position that people attend to how they are viewed by specific

others is diminished. The SRM analysis of metaperceptions of assertiveness, firmness, and cooperation yielded relationship effects that were generally larger in absolute size than the perceiver effects. Unfortunately, the relationship effects contain variance due to errors of measurement, which has the effect of inflating their size. Consequently, comparisons between the absolute size of perceiver effects and relationship effects cannot be justified. It is important to note that the perceiver effects were generally significant and possibly the primary source of systematic variance in these mea-sures.[3] Thus, an important role for perceptions of the generalized other in the development of self-concept cannot be ruled out.

Correlations of Self-Perceptions and Metaperceptions

SIT predicts a correlation between self-perceptions and metaperceptions. According to SIT, other people's perceptions of one determine one's metaperceptions (i.e., how one thinks one is viewed), which in turn affects how one views oneself (self-perceptions). If metaperceptions cause self-perceptions, they will necessarily be correlated (Hypothesis 1). A modified SRM (described in the Method section) was con-structed to test this hypothesis at both the individual and relationship levels of analysis.[4] The correlational results are presented in Table 1. Because parents' self-views are not hypoth-esized to be affected by how they are perceived by their children, only the correlations for the college student and adolescent were estimated.

At the individual level of analysis, the

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[2] The results of these analyses are available from the authors.

[3] Only one perceiver effect for metaperceptions failed to be statistically significant. There was no consistency across relationships (perceiver variance) in college student's metaperceptions of firmness.

[4] The modified SRM made an excellent fit to the data in all three cases (assertiveness, firmness, and cooperativeness) and without post hoc adjustments. The chi-square for goodness of fit was invariably nonsignificant and the comparative fit index was never less than .90. The chi-square for goodness of fit is significant if there are important relationships in the data that are not accounted for by the model. A value of .90 or better on the comparative fit index indicates that the model does a satisfactory job of accounting for the relationships in the data.

association between self-perceptions and meta-perceptions of assertiveness was significant for adolescents ($r = .76$, $p < .05$). For cooperation the association was significant for both the college students ($r = .79$, $p < .05$) and the adolescents ($r = .81$, $p < .01$). At the dyadic level of analysis, the association between self-perceptions and metaperceptions was significant in the college student–mother relationship for assertiveness ($r = .77$, $p < .05$) and in the adolescent–mother relationship for firmness ($r = -.64$, $p < .05$). The correlation was marginally significant in the college student–mother relationship for cooperation ($r = .48$, $p < .10$). Thus, Hypothesis 1 (i.e., the tendency to see oneself in a fashion similar to how one thinks one is seen by significant others) is strongly supported at the individual level of analysis for cooperation and is partially supported for assertiveness (i.e., for college students but not their adolescent siblings). It is also supported at the dyadic level for college students' relationships with their mothers for the variable assertiveness. The negative correlation for firmness in the adolescent–mother relationship indicates that the more adolescents think they are viewed as firm by their mothers, the less firm they think they are in the relationship, an anomalous finding.

Table 1

Correlations of Self-Perception Variables With Metaperception Variables at the Individual and Relationship Levels of Analysis

Level and participant	Variable		
	Assert	Firm	Coop
Individual level			
Student	—	.10	.79**
Adolescent	.76**	.16	.81**
Relationship level			
Student–mother	.77**	-.16	.48*
Student–father	.23	-.51	.51
Adolescent–mother	.55	-.64**	.29
Adolescent–father	-.07	-.49	.46

Note. The dash indicates that the correlation could not be computed because of insufficient variance in one of the components. For the column headings, Assert stands for perceptions of assertiveness, Firm stands for perceptions of firmness, and Coop stands for perceptions of cooperativeness.
*$p < .10$, two-tailed test that covariance differs from zero; $Z > 1.65$. **$p < .05$, two-tailed test that covariance differs from zero; $Z > 1.96$.

Table 2

Accuracy Correlations at the Individual and Relationship Levels of Analysis

Level and participant	Variable		
	Assert	Firm	Coop
Individual level			
Student	—	—	.43
Adolescent	-.01	.24	.76**
Relationship level			
Student–mother	-.03	.17	.24
Student–father	.63**	-.01	-.56
Adolescent–mother	—	.05	-.38
Adolescent–father	.39	.34	.56*

Note. Dashes indicate that correlations could not be computed because of insufficient variance in one of the components. For the column headings, Assert stands for perceptions of assertiveness, Firm stands for perceptions of firmness, and Coop stands for perceptions of cooperativeness.
*$p < .10$, two-tailed test that covariance differs from zero; $Z > 1.65$. **$p < .05$, two-tailed test that covariance differs from zero; $Z > 1.96$.

Accuracy of Metaperceptions in Family Relationships

According to Hypothesis 2, children should be accurate in their metaperceptions of their parents. This hypothesis was tested in an SRM analysis (see Method section) that measured the relationship between the children's metaperceptions (at the individual and dyadic levels of analysis) and their parents' other-perceptions (e.g., how assertive, firm, and cooperative the parents actually reported their children to be).[5] The correlations that measure accuracy at the individual and dyadic levels of analysis are presented in Table 2. At the individual level of analysis, there is significant accuracy in adolescents' metaperceptions of cooperation ($r = .76$, $p < .05$). Adolescents know whether their parents view them as cooperative. There are no

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[5] The modified SRM made an excellent fit to the data for the variables assertiveness and cooperativeness. In both cases, the chi-square for goodness of fit was nonsignificant, and the comparative fit index was above .90. For firmness, the chi-square for goodness of fit was nonsignificant, but the comparative fit index was only .83, suggesting that some improvement could be made to the model. No post hoc adjustments were made to this model, however, to preserve its comparability to the models for assertiveness and cooperativeness.

other significant correlations for generalized (i.e., individual level) accuracy. At the dyadic level, college students know how assertive they are in the eyes of their fathers ($r = .63, p < .05$), and there is marginally reliable accuracy in the adolescent–father relationship for metaperceptions of cooperation ($r = .56, p < .10$). Thus, there is partial support for Hypothesis 2.

Discussion

The accuracy with which people perceive others has been studied primarily by social and clinical psychologists, and few of these researchers have considered the developmental implications of accurate or inaccurate interpersonal perceptions. Most studies of accuracy do not involve perceptions among family members and may not have ecological validity in testing an inherently developmental issue such as the looking-glass self hypothesis. Although Felson (1989) investigated metaperceptions within a family context, his measures were not relationship specific, and his design did not enable direct tests of metaperception accuracy at both the individual and dyadic levels of analysis.

The present study focused on children's metaperceptions of their parents (i.e., how they think they are viewed by their parents). Insofar as the study involved the metaperceptions of both adolescents and their older, college-aged siblings, it could be characterized as a cross-sectional study of development. Because all the measures were relationship specific, it was possible to use the SRM. This, in turn, allowed us to test hypotheses relevant to SIT at both the individual and dyadic levels of analysis.

The first hypothesis stated that metaperceptions would be correlated with self-perceptions. According to SIT, people's self-perceptions are caused by their own beliefs of how they are perceived by others (i.e., their metaperceptions), and therefore they should be correlated. At the dyadic level of analysis, the hypothesis was only weakly supported. Only 1 of 12 correlations between self-perceptions in particular relationships and metaperceptions in those relationships reached significance. These findings suggests that relationship-specific metaperceptions do not cause relationship-specific self-perceptions. At the individual level of analysis, the hypothesis received greater support. Three of six correlations were significant, and these tended to be large. Moreover, the correlations between

self-perceptions and metaperceptions of cooperation were significant for both adolescents and their older siblings. Thus, at the individual level of analysis, how young people think of themselves does tend to be related to how they think they are perceived by their parents, especially with respect to cooperation.

Our second hypothesis was that children's metaperceptions would be accurate. For generalized accuracy, the hypothesis was supported only for adolescents' metaperceptions of cooperation. For relationship-specific accuracy, the hypothesis was only supported for college students' metaperceptions of their fathers and only for the variable assertiveness. There is also marginally significant accuracy in adolescents' metaperceptions of cooperation in relationship to their fathers. Overall, young people do not know much about how they are perceived by their parents.

Why are children so unaware of how they are perceived by their parents? It could be that over time, family members just stop attending to cues about how other family members perceive them, as suggested by Kenny and DePaulo (1993). Although this may be the case for metaperceptions of assertiveness and firmness, it may be more difficult to ignore parental cues about cooperation. The frequency of parent-to-child communications about cooperation is likely greater than communications about assertiveness and firmness, especially if parents perceive a shortage of cooperation. In that case, communications about cooperation may also be affectively charged, thus adding salience to the cue. College students, by virtue of being away at school, may not be equally exposed to these communications. Moreover, their relative independence from parents may reduce the salience of even affectively charged admonitions. Adolescents, on the other hand, might be more attuned to cues about their parents' perceptions because their privileges depend more on parental evaluations of their behavior. It therefore makes sense that adolescents, but not their older siblings, demonstrate generalized accuracy in metaperceptions of cooperation. The opportunity to regularly observe cues regarding parental perceptions and the salience of parental perceptions might be two determinants of accuracy of metaperceptions. Felson (1980, 1981) has proposed similar factors to explain the relatively low levels of accuracy in children' peer relationships.

Our findings and conclusions differ from those of Kenny and DePaulo (1993) in important ways. First, we did not find any evidence of reciprocity in family members' perceptions of cooperation, whereas they found significant levels of reciprocity of perceptions in the nonfamily samples they analyzed. Reciprocity of perceptions is of key importance because it can lead to an artifactual finding of accuracy if coupled with assumed reciprocity. The absence of reciprocity of perceived cooperation in our sample precludes this artifact and confound. Also, because of the presence of this confound in their analysis, Kenny and DePaulo discount their findings of accuracy, concluding there is little support for SIT. Because we lack this potential confound, we conclude that SIT is supported, at least for adolescents' metaperceptions of cooperation.

Even though there was one instance of dyadic accuracy, we view our findings as primarily supporting Felson's (1989) conclusion that children are accurate about how they are perceived in general. Generalized accuracy can exist only if there is agreement among the perceivers about the characteristics of the target. Felson (1989) was unable to assess the degree of agreement in other-perceptions (as indicated by target effects), and Kenny and DePaulo (1993) did not fully consider the importance of perceiver agreement in determining self-perceptions. Clearly, if multiple family members see one as cooperative, or uncooperative, one is likely to receive more signals to that effect, and one is less able to dismiss these signals as the biased view of an individual. Thus, agreement from multiple informants, especially knowledgeable informants from one's own family, should have a relatively robust effect on the self-view.

This study suggests three considerations for future studies of accuracy in family relationships. First, the object of perception or judgment should have some adaptive value or salience for the perceiver. If the perceiver has no reason to attend to the cues, there is little reason to expect him or her to be accurate. Second, the object or cues for the perception must be perceivable. For example, perceptions of how other family members feel will not be perceived accurately unless the emotions result in clearly visible or audible signals or are otherwise communicated (perhaps verbally) to the perceiver. Finally, it seems likely that cues will be salient and

perceivable when the goals of the perceiver and the target are interdependent and potentially in conflict. In contrast to assertiveness and firmness in relationships, cooperation, which inherently involves interdependence of goals, provides an excellent exemplar for these criteria.

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Appendix

EQS Program for the Social Relations Model Test of Accuracy

Following is the EQS program for the social relations model test of accuracy. Statements enclosed in brackets are comments, not part of the program. Relationship effects are not partitioned from error variance in this example.

```
/TITLE
SOCIAL RELATIONS MODEL - METAPERCEPTION ACCURACY IN TWO
PARENT TWO CHILD FAMILIES
/SPECIFICATIONS
    CAS = 51; [N = 51 families.]
    VAR = 8; [There are eight variables.]
    MA = COR; [Input matrix is correlations.]
    ME = ML; [Method is maximum likelihood.]
/LABELS
    V1 = MC; [Mother–College student (other-perception)]
    V2 = MA; [Mother–Adolescent (other-perception)]
    V3 = FC; [Father–College student (other-perception)]
    V4 = FA; [Father–Adolescent (other-perception)]
    V5 = CM; [College student–Mother (metaperception)]
    V6 = CF; [College student–Father (metaperception)]
    V7 = AM; [Adolescent–Mother (metaperception)]
    V8 = AF; [Adolescent–Father (metaperception)]
/EQUATIONS
    V1 = F1 + F3 + E1;
    V2 = F1 + F4 + E2;
    V3 = F2 + F3 + E3;
    V4 = F2 + F4 + E4;
    V5 = F5 + F7 + E5;
    V6 = F5 + F8 + E6;
    V7 = F6 + F7 + E7;
    V8 = F6 + F8 + E8;
/VARIANCES
    F1 TO F8 = *; [Variances of factors are free to vary.]
    E1 to E8 = *; [Variances of residuals are free to vary.]
/COVARIANCES
    F1, F7 = *; [Mother perceiver–target correlation]
    F2, F8 = *; [Father perceiver–target correlation]
    F3, F5 = *; [Student accuracy at individual level of analysis]
    F4, F6 = *; [Adolescent accuracy at individual level of analysis]
    E1, E5 = *; [Student dyadic accuracy with mother]
    E2, E7 = *; [Adolescent dyadic accuracy with mother]
    E3, E6 = *; [Student dyadic accuracy with father]
    E4, E8 = *; [Adolescent dyadic accuracy with father]
/Matrix
    [Insert correlation matrix here.]
/Standard Deviations
    [List standard deviations in the order in which variables enter the correlation matrix.]
/END
```

Note. V1–V8 = Variables 1–8; F1 = mother perceiver effect (other-perceptions); F2 = father perceiver effect (other-perceptions); F3 = student target effect (other-perceptions); F4 = adolescent target effect (other-perceptions); F5 = student perceiver effect (metaperceptions); F6 = adolescent perceiver effect (metaperceptions); F7 = mother target effect (metaperceptions); F8 = father target effect (metaperceptions); Factor loadings are fixed at 1.0 by default. E1 to E8 are the residual variances for the respective variables (V1–V8). They contain the systematic variance due to the respective relationship effects plus random variance due to errors of measurement. Asterisks indicate that the parameter will be estimated by the program.

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