Meta-Accuracy Among Acquainted Individuals: A Social Relations Analysis of Interpersonal Perception and Metaperception

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Meta-accuracy, knowing how others view the self, was examined using the Social Relations Model. Fifteen groups of 4–6 acquainted individuals gave self-ratings, perceptions of other group members, and estimated others' perceptions of self (metaperceptions) on the Big Five and Interesting. Individuals also rated liking and metaperceptions of liking. Trait perceptions were consensual, and self–other agreement emerged for most traits. Affect judgments were entirely relational; individuals differentiated among targets. Trait metaperceptions were dominated by perceiver variance. Individuals differed in the impression they believed others generally held about them. Affect metaperceptions, however, were relational in nature. Correlations between perceptions and metaperceptions assessed 2 types of meta-accuracy. Generalized meta-accuracy was obtained for some trait ratings. Affect judgments revealed significant dyadic meta-accuracy.

Several prominent social psychological theories are premised on the idea that individuals seek to understand and make controllable their social environments by ascribing others' behavior to underlying dispositional qualities (Heider, 1958; Jones, 1990; Kelley, 1967). The process of understanding, predicting, and controlling our social environments entails more than simply understanding others' qualities; it also requires that individuals be invested in and able to discern how others view the self. Individuals' perceptions of how they are viewed by others, referred to as *metaperceptions,* have been of interest to various subdisciplines within psychology (Kenny & DePaulo, 1993; Laing, Phillipson, & Lee, 1966). The importance of metaperceptions is underscored by their centrality to theories of impression management (Schlenker, 1980) and self-verification (Swann, 1990). For example, deciding whether to increase the frequency or clarity of behaviors that display an aspect of the self to correct another's mistaken view requires that individuals at least estimate what view others actually hold.

Establishing the degree of accuracy in metaperceptions, then, is central to a comprehensive understanding of social behavior. However, relatively little is known about metaperceptions or meta-accuracy among acquainted individuals. Research on the accuracy of metaperceptions of liking is especially limited. The present research represents an effort to begin addressing these deficiencies.

This study uses the Social Relations Model (SRM; Kenny & La Voie, 1984), which is an elegant model for the study of perceptions, metaperceptions, and meta-accuracy that corrects for problems in estimating accuracy raised by Cronbach (1955). After an overview of the SRM, the relevant findings regarding interpersonal perception among acquainted individuals are reviewed because perceptions represent the criterion for meta-accuracy. Recent research on metaperceptions is then reviewed. These reviews emphasize studies analyzed using the SRM that establish the existence of phenomena pertinent to meta-accuracy. Although a focus on SRM studies is somewhat restrictive, the findings are generally consistent with the results obtained in other research traditions (e.g., Borkenau & Liebler, 1992; Funder & Colvin, 1988).

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Social Relations Model Analysis

Before reviewing the relevant literature, it is necessary to briefly overview the fundamentals of a Social Relations analysis (see Albright, Kenny, & Malloy, 1988; Kenny, 1994a; or Kenny & La Voie, 1984, for more extensive reviews). To perform an SRM analysis, round robin data are required such that each individual in a group rates each other group member. The analysis provides estimates of variance in ratings attributable to three important effects: perceiver, target, and relationship.

As an example, suppose in a three-person group composed

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This research was supported in part by a Faculty Research Grant from Amherst College. I thank Sean Kelly, Charlie Ledley, and Yael Reinhold for their assistance with data collection and preliminary data analysis. Thanks are also due to Andrea Chapdelaine, Amy Demorest, David Kenny, and Charles Lowe, who provided valuable comments on an earlier version of this article. Portions of this research were presented at the 1994 Midwestern Psychological Society Annual Meeting and in collaboration with Sean Kelly and Yael Reinhold at the 1995 Eastern Psychological Association Meeting.

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Journal of Personality and Social Psychology, 1997, Vol. 72, No. 1, 66–74
 0022-3514/97/$3.00

of Brett, Carl, and Derek, each person rates each other person on extraversion. *Perceiver variance* assesses differences among perceivers' general view of all targets. So, does Brett rate both Carl and Derek as quite extraverted, whereas Carl rates both Derek and Brett as quite introverted? Significant perceiver variance may be symptomatic of a response set.

Target variance, referred to as *consensus,* measures the degree to which multiple perceivers agree about a target. Significant consensus would indicate that Carl and Derek agree about how extraverted Brett is, controlling for each of their perceiver effects.

Finally, a perceiver's unique view of a particular target is assessed by the degree of *relationship variance.* For example, Brett may rate Carl as much more extraverted than he rates Derek. Computation of relationship variance controls for Brett's perceiver effect and Carl's target effect. Significant relationship variance, then, indicates that individuals have unique or idiosyncratic views of each other. It is important to note that unless multiple indicators are used (e.g., using ratings of both sociable and talkative to indicate extraversion), relationship variance is confounded with error. One goal of this study is to provide a better estimate than those of related studies (e.g., Malloy & Albright, 1990) for the degree of variance due to each effect, by using multiple indicators.

Within an SRM analysis, self–other agreement is calculated by correlating the target effect with self-ratings. If Derek and Carl agree that Brett is extraverted, does Brett rate himself as extraverted? Also of importance to affect judgments is dyadic reciprocity, which is measured by correlating relationship variances. If Brett especially likes Carl, does Carl especially like Brett?

Trait Perceptions

The study of interpersonal perception from a Social Relations perspective has been based largely on minimally acquainted or unacquainted individuals judging targets on traits tapping the Big Five (i.e., Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Culture). However, there are sufficient studies on acquainted individuals to establish some general patterns.

Intuitively, perceptions among acquainted individuals should be characterized by target and relationship variance and less by perceiver variance. For example, acquainted individuals should share sufficient information regarding a target on which to base their judgments, thereby avoiding reliance on tendencies to perceive all others in a particular way. On the basis of his review, Kenny (1994a) concluded that there is less perceiver variance among acquainted individuals. With respect to target variance, consensus among acquainted individuals accounts for approximately 25% to 30% of the variance for all of the Big Five (Kenny, Albright, Malloy, & Kashy, 1994). Moreover, moderate-to-large levels of self–other agreement are obtained for ratings of all Big Five traits (Malloy & Albright, 1990). Thus, in this study, small amounts of perceiver variance, significant consensus, and substantial self–other agreement were expected.

With respect to relationship variance, Malloy and Albright (1990) and Kenny (1994a) have suggested that perceptions among highly acquainted individuals may be strongly relational because individuals have unique dyadic relationships with particular targets. In fact, the evidence reviewed by Kenny (1994a) revealed substantial relationship variance. However, these estimates of relationship variance are problematic because most studies do not use multiple indicators, resulting in a confounding of relationship and error. Thus, although significant relationship variance is expected to emerge, the present results should provide more accurate estimates of the relative contribution of perceiver, target, and relationship effects to interpersonal perception among acquainted individuals.

Affect

Although trait perceptions have been the focus of most SRM studies, affect judgments (e.g., liking) may be more essential to understanding interpersonal relationships than trait judgments. Among acquainted individuals it might be expected that liking judgments would be highly relational; that is, acquainted perceivers would differentiate among targets. It is also possible that within groups of acquainted individuals, certain individuals would be liked by all members to a similar degree (i.e., popularity). Thus, liking judgments may be modestly consensual. Given strong tendencies for perceivers to differentiate among targets, relatively little perceiver variance was expected.

There is relatively little data available with which to evaluate the aforementioned possibilities. It does appear that perceiver effects are rather weak among acquainted individuals (Kenny, 1994a). However, the extant data has yielded inconsistent evidence regarding consensus among acquainted individuals (Kenny, 1994b). SRM analysis of Curry and Emerson's (1970, reported in Kenny & DePaulo, 1993) and Newcomb's (1966, reported in Kenny, 1994b) studies suggests that affect judgments are consensual. However, Malloy and Albright (1990) and other studies cited by Kenny (1994b) found little or no evidence for consensus. Most of these studies do suggest that relationship effects are the most important determinant of affect judgments. As was the case for trait judgments, however, few studies of affect have used multiple indicators, making the assessment of dyadic affective phenomena limited.

Metaperceptions

In contrast to interpersonal perception, relatively few studies have focused on metaperceptions. Recently, Kenny and DePaulo (1993) reviewed eight SRM studies of trait and affect metaperceptions and meta-accuracy, and although most of the studies involved unacquainted participants, their review provides an important point of reference for this study. Before reviewing that research, a brief overview of SRM analyses applied to metaperceptions is provided.

Social Relations Model Analysis of Metaperceptions

As with perceptions, SRM analysis partitions the variance for metaperceptions into perceiver, target, and relationship effects. Perceiver variance assesses whether perceivers differ in their beliefs about the general impression they make on all others. Returning to the example of Brett, Carl, and Derek, significant perceiver variance for metaperceptions would mean that Brett believes that Carl and Derek generally view him as extraverted, but Carl believes that Brett and Derek see him as introverted.

Target variance in metaperceptions indicates that all perceivers agree that a particular target views all others as similar (e.g., Carl and Derek agree that Brett perceives both of them as extraverted). Relationship variance assesses the degree to which individuals differentiate between the impressions they believe others hold about them. Significant relationship variance would indicate that Brett believes Carl thinks he is especially extraverted, controlling for Brett's perceiver effect and Carl's target effect.

Studies of unacquainted individuals that use SRM analyses clearly reveal that metaperceptions are dominated by perceiver; individuals differ in the general impression they believe that they make on all others. Kenny and DePaulo (1993) found that, on average, 55% of the variability in trait metaperceptions and 55% of the variability in affect metaperceptions is attributable to the perceiver. In contrast to perceptions, metaperceptions were not consensual; only 4% of variability in trait and affect ratings reflected perceivers' agreement that a target perceived them in a similar way. However, studies consistently reveal a tendency for perceivers to believe that different targets hold somewhat idiosyncratic views of them. This pattern of variance partitioning appears to be consistent across different trait judgments (DePaulo, Kenny, Hoover, Webb, & Oliver, 1987; Malloy & Janowski, 1992; Shechtman & Kenny, 1994).

Only a few studies of metaperceptions have been conducted using acquainted individuals. With respect to trait judgments, Kenny and DePaulo (1993) suggested that the tendency to assume that others hold similar impressions of the self should be particularly strong among acquainted individuals, perhaps because individuals assume that they know what their friends think of them. As a result, feedback from friends may be interpreted in light of individuals' preconceived views about what their friends think of them. By contrast, increasing exposure to others may allow individuals to differentiate among the views of particular others (Malloy & Albright, 1990). The results of two metaperception studies involving acquainted individuals provide little evidence in favor of either possibility. Malloy and Albright (1990) obtained greater perceiver variance than the average reported by Kenny and DePaulo (1993), but Anderson (1985) found less perceiver variance and substantially more relationship variance. Because neither study used multiple indicators, further examination using multiple indicators is necessary to adequately assess the relative contribution of the relationship effect.

With respect to affective judgments, it would seem that affect metaperceptions among acquainted individuals would be largely relational in nature. In fact, effective dyadic functioning likely requires greater efforts to discern which others especially like or dislike the self. Only a reanalysis of Curry and Emerson's (1970, reported by Kenny & DePaulo, 1993) study that assessed liking after 8 weeks of acquaintance has addressed this issue. Their results revealed that less of the variance was accounted for by perceiver and only somewhat more was accounted for by relationship relative to studies of unacquainted individuals. However, because only a single indicator was used, the relationship variance is difficult to interpret.

On the basis of the available evidence concerning trait or affect metaperceptions among acquainted individuals, significant perceiver and relationship variance are expected to emerge. Again, the use of multiple indicators allows for an improved examination of the importance of the unique dyadic view (relationship effect).

Meta-Accuracy

SRM analysis assesses two important types of meta-accuracy. First, there is the ability to know how one is generally seen by others. This is referred to as *generalized accuracy,* and it is assessed by the correlation between a person's perceiver effect for metaperceptions and target effect for perceptions. Returning to the example, if Brett thinks everyone believes that he is extraverted, do others agree that he is extraverted? Second, the ability to know how one is seen differently by particular others is referred to as *dyadic accuracy,* and it is assessed by correlating one person's relationship effect for metaperceptions with another person's relationship effect for perceptions. If Brett thinks that Carl believes he is especially extraverted, does Carl, in fact, believe that Brett is especially extraverted?

Kenny and DePaulo's (1993) review suggests a number of general conclusions regarding the two types of accuracy. First, for both traits and affect, individuals are better at discerning how they are generally viewed by others (average generalized meta-accuracy correlations: traits = .51 and affect = .47) than how they are differentially viewed by particular others (average dyadic meta-accuracy correlations: traits = .13 and affect = .18). Second, individuals appear to be more accurate at the dyadic level for judgments of affect than for traits. In fact, the results for Kenny and DePaulo's reanalysis of Curry and Emerson (1970) revealed greater dyadic than generalized meta-accuracy for liking judgments. Third, the two trait judgment studies with acquainted participants (Anderson, 1985; Malloy & Albright, 1990) reveal essentially the same results as studies with unacquainted participants. Thus, it appears that for traits, acquainted participants are only able to discern how they are generally viewed; however, they may be able to estimate how much they are liked by particular others.

The Present Study

This study examines perceptions and metaperceptions among acquainted individuals. Given that the formation of relationships may depend more on dyadic than individual level effects and that much of the previous research on acquainted individuals does not allow for a clear examination of dyadic phenomena, this study used multiple indicators to better assess relationship effects that may be especially important among acquainted individuals. With respect to meta-accuracy, this study assesses whether acquainted individuals have insight into how they are generally viewed by others and how they are differentially viewed by particular others.

Method

Participants

Sixty-five undergraduates (31 women and 34 men) composing 15 roommate groups ranging from 4 to 6 persons (11 four-person groups, 3 five-person groups, and 1 six-person group) participated in the study.[1]

[1] Three groups (1 all-female and 2 all-male) were excluded from the analysis because it is not possible to assess dyadic reciprocity or dyadic meta-accuracy in groups with only three individuals.

There were 6 all-male groups; 7 all-female groups; and 2 mixed-sex groups, both having 1 woman and 3 men. Individuals in each room group had their own bedrooms and shared a living area. Roommates were well-acquainted with each other. The average length of acquaintance before living together was 17.30 months. Participants reported having felt relatively close to their roommates prior to living together (M = 4.05 on a scale from 1 = *not at all close* to 7 = *very close*) and reported spending an average of 16.42 hr with various roommates in an average week.

Procedure

Participants were recruited through individual contacts by three experimental assistants who offered each person $10 for participating in the study. After securing agreement to participate from at least 4 roommates, participants received an initial questionnaire that instructed them to complete the questions in private and to avoid discussing their responses with their roommates. Completed forms could be mailed to the experimenter or retained in an envelope until the second part of the experiment.

The initial questionnaire asked about demographic information (e.g., gender) and participants' level of acquaintance with each roommate (e.g., time known prior to living together this year). Also included in this questionnaire were a number of scales (e.g., self-esteem) that will not be discussed. Additionally, participants rated themselves on 7-point bipolar trait scales tapping the Big Five and Interesting. The factors and individual scales used to assess each factor were as follows: Extraversion (sociable–reclusive and talkative–quiet); Agreeableness (likeable–unlikable, friendly–unfriendly, and agreeable–disagreeable); Conscientious (dependable–undependable and reliable–unreliable); Emotional Stability (relaxed–uptight and nervous–calm); Culture (intelligent–unintelligent and deep–shallow); and Interesting (fun–dull and interesting–boring).

Approximately 1 week after completing the first questionnaire, participants reported to a classroom to complete the second questionnaire, which consisted of the dyadic measures. Individuals rated each other roommate (perceptions) and estimated how each other roommate viewed them (metaperceptions) on the same measures of the Big Five and Interesting.

To assess affect, participants indicated on 7-point scales how they felt about each other roommate. The affect measures were developed to assess the following two constructs, each consisting of two individual scales: Liking (liking and intimacy) and Desired Future Relationship (remain roommates and maintain relationship in the future). Metaperceptions of liking and intimacy were also assessed.

Analysis

The round robin interpersonal perception and metaperception ratings were analyzed using *SOREMO* (Kenny, 1992), a program designed for the analysis of multivariate data obtained from round robin designs. The analysis estimates the percentage of variance attributable to perceiver, target, and relationship effects and provides correlations among the effects. Group is used as the unit of analysis; thus, the degrees of freedom for significance tests of the variance attributable to each effect and correlations among effects equals G (number of groups) − 1.[2] The degrees of freedom for significance tests involving self-ratings is N (number of participants) − G (number of groups) − 1. The correlations provided by the analysis are disattenuated; that is, they are estimates of what the correlation would be if there were a large number of perceivers and targets. As a result, large but nonsignificant correlations are possible. Kenny (1994a) and Kenny and La Voie (1984) have provided more detailed information regarding the statistical model.

Results

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Variance partitioning. The variance partitioning results for trait ratings presented in Table 1 generally revealed the expected pattern. As can be seen, significant perceiver variance was obtained for ratings of Conscientious, Culture, and Interesting, and marginally significant perceiver variance emerged for Agreeable. However, the perceiver effects were relatively weak in comparison to target and relationship effects for all of the traits except Culture, accounting for an average of only 12% of the variance.

Table 1
Relative Variance Partitioning for Trait Ratings

Trait	Perceiver	Target	Relationship	Error
Extraversion	.03	.51***	.10***	.35
Agreeable	.07*	.25***	.18***	.50
Conscientious	.11**	.25**	.46***	.18
Emotional Stability	.03	.34***	.28***	.35
Culture	.31**	.10**	.00	.59
Interesting	.17***	.25***	.21**	.36

Note. df = 14.
* $p < .10$. ** $p < .05$. *** $p < .01$.

Significant target variance was obtained for all perceptions, accounting for an average of 28% of the variance, with a particularly strong target effect obtained for Extraversion. Clearly trait perceptions among acquainted individuals exhibit considerable consensus.

Significant relationship variance emerged for all of the traits except Culture. On average, the unique component of impressions appeared to account for slightly less variance (20%) than the target component. The only exception to this pattern seemed to occur for ratings of Conscientiousness.

Given that the variance partitioning for Culture revealed a pattern quite different from that obtained for the other traits (strong perceiver variance, weak target variance, and no relationship variance), a closer examination of that variable seems warranted. As seen in Table 1, ratings of Culture were characterized by more error variance than were ratings of the other traits. This high degree of error variance is the result of relatively poor overlap, especially at the relationship level, between the traits chosen to tap the Culture factor. Of course, it is not surprising that ratings of Culture might exhibit strong perceiver variance given that the individuals in this study attend an institution that emphasizes similarity in ability and where individuals tend to avoid differentiating, at least openly, others in terms of intelligence. Thus, individuals may have assumed that their roommates possessed relatively equivalent levels of intellectual ability but registered that similarity at different levels according to their own response set tendencies.

Self–other agreement. To assess self–other agreement, self-ratings were correlated with target effects in perceptions. Significant ($p < .01$) self–other agreement emerged for ratings of Extraversion, $r(49) = .74$; Agreeable, $r(49) = .79$; and Emotional Stability, $r(49) = .68$; marginally significant agreement was obtained for Conscientious, $r(49) = .59$, $p < .10$, and Interesting, $r(49) = .35$, $p < .10$. Self–other agreement was not obtained for Culture perhaps because of substantial variability between groups. Consistent with other studies, acquainted indi-

[2] One-sample t tests are used to test whether variance attributable to an effect is greater than zero.

viduals' consensual perceptions are strongly related to the target's self-view (e.g., Malloy & Albright, 1990).

Metaperceptions

Variance partitioning. A variance partitioning revealed that, as expected, metaperceptions are characterized exclusively by perceiver and relationship variance. As can be seen in Table 2, significant perceiver variance emerged for five factors, with marginally significant perceiver variance emerging for ratings of Culture. Overall, an average of 40% of the variance can be attributed to perceiver. Thus, individuals differed in their beliefs about the impressions they generally made on others.

Consistent with previous research, no evidence of target variance in metaperceptions was obtained; that is, individuals did not agree about how specific others viewed them. The significant relationship variance (average = 22%) obtained for all constructs indicates that individuals believed that particular others held unique views of them.

Meta-accuracy. Recall that assessment of generalized meta-accuracy involves correlating target effects in perceptions with perceiver effects in metaperceptions, and that dyadic meta-accuracy is assessed by the correlation between relationship effects for perceptions and relationship effects for metaperceptions. Given the variance partitioning for perceptions and metaperceptions, both types of accuracy were assessed for all factors except Culture, for which the lack of relationship variance precludes assessing dyadic meta-accuracy.

The results for both generalized and dyadic meta-accuracy are presented in Table 3. Consistent with expectations, there was evidence for generalized meta-accuracy but not dyadic meta-accuracy. Specifically, significant correlations were obtained for Extraversion, Agreeable, and Emotional Stability, and a marginally significant correlation was obtained for Conscientious. Although not significant, the correlation for Interesting was moderate in size. The average generalized meta-accuracy correlation was an impressive .63. It is likely that the failure to obtain significance for some correlations was the result of large between-group variability in accuracy and the limited number of groups. However, the present results indicate that individuals tended to be quite accurate in judging how they were generally viewed by others.

By contrast, the results for dyadic meta-accuracy reveal that individuals were relatively inaccurate in determining the unique views of self held by particular others (average r = .25). Although there was significant dyadic meta-accuracy for Interesting and the correlation for Agreeable was quite large, generally, acquainted individuals seem unable to accurately discern particular others' unique views about them.

Table 2
Relative Variance Partitioning for Trait Metaperceptions

Trait	Perceiver	Target	Relationship	Error
Extraversion	.43***	.01	.12**	.45
Agreeable	.38***	.00	.29**	.34
Conscientious	.62***	.00	.22***	.17
Emotional Stability	.53***	.03	.09***	.35
Culture	.11*	.00	.18***	.72
Interesting	.31***	.00	.39**	.29

Note. df = 14.
* $p < .10$. ** $p < .05$. *** $p < .01$.

Table 3
Generalized and Dyadic Meta-Accuracy Correlations for Traits

Trait	Generalized	Dyadic
Extraversion	.87***	.11
Agreeable	.72***	.52
Conscientious	.62*	.25
Emotional Stability	.86***	−.09
Culture	.27	—
Interesting	.45	.45**

Note. df = 14. The dash indicates insufficient variance to compute correlation.
* $p < .10$. ** $p < .05$. *** $p < .01$.

Assumed self–other agreement. The role of self-view in the emergence of generalized meta-accuracy can be assessed by correlating self-ratings with perceiver effects in metaperceptions. These correlations index the degree to which individuals assume that the consensual aspect of others' perceptions corresponds to self-view. With the exception of the correlation for Conscientious, $r(49)$ = .50, $p < .10$, these correlations were all quite large and significant—$r(49)$ = .91 for Interesting and Emotional Stability and $r(49)$ = 1.0 for Extraversion, Agreeable, and Culture—and generally appear to be greater than those obtained for self–other agreement. Thus, individuals may assume more self–other agreement than actually exists. Ratings of Conscientious did not reveal this tendency; rather, individuals assumed approximately the same level of self–other agreement as actually existed.

Reciprocity. The failure to obtain dyadic meta-accuracy for most factors may be explained in part by the general absence of actual and assumed reciprocity. Reciprocity is assessed by the correlation between different individuals' relationship variances; thus, if Person A believes that Person B is especially extraverted, does Person B believe that Person A is especially extraverted? No significant dyadic reciprocity correlations were obtained.

It is interesting that there was some limited evidence of assumed reciprocity, assessed by the correlation between an individual's relationship effect for perception and his or her relationship effect for metaperception: for Agreeable, $r(14)$ = .56, $p < .10$, and Interesting, $r(14)$ = .50, $p < .05$. Thus, if Person A believes that Person B is especially interesting, Person A also believes that Person B thinks he or she is also especially interesting. The very limited actual reciprocity and some assumed reciprocity for Agreeable and Interesting likely produced the significant dyadic meta-accuracy for Interesting and the relatively large, though nonsignificant, dyadic meta-accuracy correlation for Agreeable.

Affect

Variance partitioning. Affect was assessed by two highly intercorrelated constructs (Liking and Desired Future Relationship) that were retained partly because metaperceptions were

Table 4
Relative Variance Partitioning for Affect Ratings

Measure	Perceiver	Target	Relationship	Error
Liking	.00	.05	.43**	.52
Desired Future Relationship	.00	.11	.54**	.35
Liking Metaperception	.00	.00	.52***	.48

Note. $df = 14$.
** $p < .05$. *** $p < .01$.

only assessed for liking. An examination of the variance partitioning for these measures presented in Table 4 reveals a pattern quite different from that obtained for trait ratings. Specifically, no evidence of perceiver or target effects emerged. The only significant variance component for all of the affect measures was relationship variance. Acquainted individuals appear to base affective responses on unique relationships, differentiating among targets.

Meta-accuracy of affect. The lack of target variance for perceptions and perceiver variance for metaperceptions makes assessment of generalized meta-accuracy impossible; however, the relational nature of affect judgments allowed for an assessment of dyadic meta-accuracy. The dyadic meta-accuracy correlation for Liking was significant, $r(14) = .85$, $p < .05$. Thus, Person A is aware of how much Person B likes him or her. (The dyadic meta-accuracy correlation was also significant when Desired Future Relationship was substituted for Liking.)

As discussed previously, dyadic meta-accuracy exists when there is actual and assumed reciprocity. The reciprocity correlations for Liking, $r(14) = .82$, and Desired Future Relationship, $r(14) = .69$, were quite large but obtained only marginal significance, $p < .10$. Although there is only a tendency for liking to be reciprocated, individuals strongly assumed dyadic reciprocity. The correlation within individuals between liking and metaperceptions of liking was .91, $p < .01$. (The correlation was significant when Desired Future Relationship was substituted for Liking.) Thus, individuals assume more reciprocity than actually exists.

Discussion

These results address a number of issues concerning interpersonal perception, metaperception, and meta-accuracy among acquainted individuals. To integrate the various findings, the following discussion is organized by the two types of measures—traits and affect.

Traits

Perceptions. The variance partitioning of trait perceptions suggests that target and relationship effects are more important determinants of interpersonal perception among acquainted individuals than are perceiver effects. The significant consensus indicates that acquainted individuals are capable of reaching considerable agreement about targets' relative standing on all of the assessed traits except Culture. The average level of consensus (28%) is the same as the average reported by Kenny et al. (1994) for other SRM studies with acquainted individuals and appears to be greater than the levels reported for unacquainted individuals (Funder & Colvin, 1988; Kenny et al., 1994; Kenny, Horner, Kashy, & Chu, 1992; Paunonen, 1989). This finding likely reflects the fact that acquainted individuals communicate with one another regarding their impressions of others and have the opportunity to observe similar target behaviors (Kenny & Kashy, 1994) and that individuals tend to act consistently across partners in ways that reflect their self-perceptions (e.g., Levesque & Kenny, 1993; Swann, 1990).

It is important that the consensual component of judgments was quite strongly related to targets' self-perceptions. This result is reasonably consistent with Kenny's (1994a) summary of other studies of acquainted individuals, and it adds to the literature showing that self–other agreement may be somewhat stronger among, and applies to more traits for, acquainted as opposed to unacquainted individuals (e.g., Funder & Dobroth, 1987; Funder, Kolar, & Blackman, 1995; Kenny, 1994a). Additionally, recent evidence suggests that self–other agreement may indicate generalized accuracy. Studies using behavioral criteria have shown that perceptions, even those based on minimal information, can be remarkably accurate (Ambady & Rosenthal, 1992). Evidence based on unacquainted (Levesque & Kenny, 1993) and acquainted (Kenny, Kieffer, Smith, Ceplenski, & Kulo, 1996) individuals has revealed that an individual's consistent extraverted behavior across different interaction partners was related both to others' consensual judgments of the individual and to the individual's self-perceptions. Given that consensual judgments are relatively stable over time (Kenny, 1994a), it is likely that the obtained self–other agreement indicates generalized accuracy.

Although significant relationship variance emerged for all of the traits except Culture, Kenny et al.'s (1996) recent study did not obtain dyadic accuracy for acquainted individuals' judgments of competitive or extraverted behaviors, which suggests that these relational judgments may not be very accurate. However, it remains for future research to determine whether individuals can attain dyadic accuracy on other traits that might be more important to dyadic functioning (e.g., agreeableness).

Metaperceptions and meta-accuracy. Consistent with evidence from studies of acquainted and unacquainted individuals (Kenny & DePaulo, 1993), individuals' estimates about how others perceived them were dominated by perceiver and relationship effects. Thus, individuals differed in how they thought they were generally viewed by others, but continued to differentiate between the somewhat different images of self held by particular others. The lack of agreement among perceivers (target) as to whether targets were harsh or lenient in their evaluations of others is also congruous with results from previous research (Kenny & DePaulo, 1993; DePaulo et al., 1987). As expected, perceiver effects in metaperceptions were strongly associated with self-perceptions; that is, individuals assumed that the general view of others about self was essentially the same as how they view themselves (Kenny & DePaulo, 1993; Shrauger & Schoeneman, 1979).

With respect to meta-accuracy, the present results revealed rather impressive levels of generalized meta-accuracy, indicating that individuals are aware of the way in which they are generally perceived by others. Even for traits (except Culture) for which the accuracy coefficient was not significant, the correlations were of reasonable magnitude. However, the present results yielded very limited evidence of dyadic meta-accuracy. This

pattern is consistent with results from previous research (Kenny & DePaulo, 1993; Malloy & Albright, 1990).

Kenny and DePaulo (1993) argued that the pattern of perceiver variance in metaperceptions correlated with self-perceptions and meta-accuracy may be best explained by a theory based on self-perception (Bem, 1967) rather than a theory that relies on individuals using feedback from others. Specifically, individuals estimate their self-perception and how others perceive them by observing their own behavior. Meta-accuracy emerges when perceivers and targets arrive at similar judgments of behavior.

There is considerable data to support a theory based on self-perception rather than feedback. First, Kenny and DePaulo (1993) argued that if individuals use feedback they should be adept at differentiating between the impressions they make on different individuals. Thus, the relative lack of relationship variance in metaperceptions and the failure to obtain dyadic meta-accuracy suggests that metaperceptions tend not to reflect feedback from others.

Second, the strong perceiver variance and impressive correlations with self-perceptions suggest that individuals tend to focus on their own consistent behavior. Thus, the obtained pattern of findings results from behavioral consistency. Because individuals in this study were well-acquainted, it seems unlikely that they would attempt to self-present a dramatically different image to different individuals or alter a self-presentation over time, because such efforts would likely be discovered (Tice, Butler, Muraven, & Stillwell, 1995). In fact, SRM studies of behavior across interaction partners have found that behavior is largely perceiver-based; individuals act relatively consistently across targets (Kenny & Malloy, 1988). Moreover, that behavioral consistency is correlated with self-perceptions (Kenny et al., 1996; Levesque & Kenny, 1993). Generalized meta-accuracy emerges because behavioral consistency also leads others to develop relatively consensual views of the individual that match his or her self-perceptions and metaperceptions. Thus, given that the present results concerning metaperceptions are generally consistent with data on unacquainted individuals, acquaintance may result in somewhat more generalized meta-accuracy on a wider variety of traits because acquainted perceivers are better able to gauge the consistency in a target's behavior.

Although the pattern of results obtained in this study generally is consistent with Kenny and DePaulo's (1993) position, there are a number of reasons why it may be premature to deemphasize the role of feedback, at least among acquainted individuals. First, because understanding the unique trait perceptions of others may be relatively unimportant given that the general impression provides considerable insight into how others view the self, individuals may focus on feedback that is consistent across individuals rather than feedback that differs from individual to individual. For example, knowing that a particular person views the self as somewhat more extraverted than another person may not be necessary.

Second, the link between self-perception and perceiver variance in metaperceptions does not necessarily suggest that individuals fail to use feedback. From a self-verification perspective (Swann, 1990), individuals may monitor others' feedback and take corrective actions when that feedback is inconsistent with their self-perception. Thus, individuals may effectively ensure self–other agreement, which is registered by perceiver variance in metaperceptions. Of course, individuals' strong desires to achieve self–other agreement may lead to a tendency to see or assume more agreement than actually exists (Fiske & Taylor, 1991; Swann, 1990). However, an appropriate examination of this possibility would require monitoring feedback and reactions to that feedback.

Finally, there was significant dyadic meta-accuracy for Interesting and a moderate size but nonsignificant correlation for Agreeable. According to Kenny and DePaulo (1993), these findings may reflect an individual's awareness of differences in their behavior with different targets. However, taken together with the results for affect discussed next, these results may indicate that individuals attend to dyadic-level feedback when it is necessary to ensure smooth dyadic-level functioning. It seems reasonable to assume that Agreeable and Interesting would be important to relationship development because such characteristics are more closely associated with affect than are the others of the Big Five. Determining with whom one should develop a close intimate relationship may depend on judgments about how that individual "feels" toward the self. In fact, at the relational level, perceptions of Agreeable (which it should be noted included a trait-based assessment of liking, namely, likeable) and Interesting, but not the other traits, were significantly correlated with liking.

In sum, these results suggest that trait perception is largely an individual rather than a dyadic-level phenomenon. Trait perceptions among acquainted individuals are strongly consensual and exhibit substantial self–other agreement, and metaperceptions of traits are quite accurate at the generalized level. Clearly additional research is necessary to determine the relative contributions of self-perception and feedback to the emergence of meta-accuracy and to establish the parameters that bound the operation of those processes.

Although this study provides a good estimate of relationship effects for perceptions and metaperceptions, for most traits, the role of dyadic-level judgments is unclear, requiring further research to understand the importance and determinants of relationship variance for trait judgments. Of course, the results also suggest that traits such as Agreeable and Interesting may exhibit important dyadic-level effects.

Affect

Perceptions and metaperceptions. In contrast to the findings for traits, variance in affect judgments was clearly dyadic in nature; individuals differentiated among others in terms of liking with no agreement among them in terms of those differentiations. Although more pronounced, this result is reasonably consistent with results from other studies of acquainted individuals that have found relatively high levels of relationship variance (Kenny, 1994b). However, these results suggest considerable change in affect judgments with greater acquaintance. Specifically, unlike the present results, studies of unacquainted individuals generally obtain perceiver variance and sometimes reveal significant target variance for affect (e.g., Chapdelaine, Kenny, & LaFontana, 1994; Kenny, 1994b).

Similarly, variance in metaperceptions of liking was exclusively relational; that is, individuals believed that others liked them at unique levels. There was no tendency for individuals to assume that they were generally liked or disliked by others or

to agree that particular others were likers or dislikers. The lack of perceiver variance, at least, is in sharp contrast to the results of previous research (Kenny & DePaulo, 1993). Taken together with the findings for affect perceptions, the relational nature of affect metaperceptions suggests the formation of dyadic relationships within the group, with those dyadic relationships varying in affective strength (Malloy & Albright, 1990).

Meta-accuracy. In contrast to the general results for traits, affect judgments revealed significant dyadic meta-accuracy. Individuals were able to accurately differentiate how much particular others liked them. Although previous studies have obtained greater dyadic meta-accuracy for affect than traits, they have not revealed the level of dyadic meta-accuracy that emerged in the present study (Kenny & DePaulo, 1993). As Malloy and Albright (1990) suggested, the relational nature of affect and the emergence of dyadic meta-accuracy likely result from the formation of unique, intimate relationships between individuals within a group. That is, differentiating among others' liking of self is important for the development and maintenance of close relationships. For example, we need to know who likes us more to determine who can be trusted with intimate information about the self.

Although dyadic meta-accuracy seems adaptive, the process by which it develops remains unclear. From a self-perception perspective, dyadic meta-accuracy occurs because individuals are aware that they behave differently with different others. However, the differences between traits and affect might suggest a somewhat different possibility; that is, dyadic meta-accuracy emerges because individuals are accurate in assuming that liking is reciprocal. Previous research has found both actual and assumed reciprocity (Kenny, 1994a). In the present study, the reciprocity and assumed reciprocity correlations were as large as the accuracy correlation.

A reciprocity-based explanation requires that one establish why reciprocity emerges. One possibility is that individuals monitor others' behavior toward the self, accurately discern how much different individuals like them, and like others who like them (Backman & Secord, 1959). Alternately, reciprocity may develop on the basis of the relationship between similarity and liking. To differentiate among others at the relational level, individuals simply need to judge relative similarity. Consistent with work by Insko et al. (1973), liking leads to the assumption of reciprocity, which then reinforces liking. If individuals accurately judge similarity, dyadic meta-accuracy emerges. These reciprocity-based explanations suggest that individuals must attend to some type of behavior from the other, either their behavior toward self or expression of various attitudes that can be used to judge similarity. Explanations that avoid some reference to the self attending to behavior or feedback seem less likely to produce the degree of dyadic reciprocity and meta-accuracy observed for affect or the differences between trait and affect judgments. Of course, further research is needed to evaluate the adequacy of the various explanations for dyadic meta-accuracy.

Conclusion

Generally, trait perceptions among acquainted individuals are characterized by consensual judgments that correspond to the target's self-view. That is, acquainted individuals appear to be remarkably good at inferring each others' personalities. Acquainted individuals also are able to discern how they are generally seen by others.

By contrast, affect judgments among acquainted individuals are entirely dyadic in nature. Individuals discriminate among others in terms of liking, and others tend to reciprocate the unique levels of liking. Additionally, the level of dyadic meta-accuracy is impressive; individuals know how they are uniquely liked by different persons. The dyadic nature of affect judgments suggests that individuals in this study formed unique dyadic bonds with others. These results, which do not appear in the current SRM literature, require further study.

Because the differences between the results obtained for trait judgments and affect do not emerge as dramatically among unacquainted individuals, an understanding of the distinction between trait and affect judgments, and their importance for group and dyad functioning, requires further research using acquainted individuals. This work could also examine the hypothesized distinction among the traits regarding those most relevant to the formation of dyadic relationships. Such research, especially long-term longitudinal studies, would also prove useful in understanding the changes in consensus, self–other agreement, and reciprocity that occur over time.

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Received January 31, 1996
Revision received July 1, 1996
Accepted July 1, 1996 ■