# THE RELATION BETWEEN DYADIC MIND-MINDEDNESS AND EMPATHIC ACCURACY IN CLOSE SOCIAL AND STRANGER DYADS

by

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## Abstract

Successful social interaction requires attending to and accurately processing others' thoughts and feelings. Two important components of such social-cognitive processes are mind-mindedness (MM), which is the propensity to spontaneously think about others' mental states, and empathic accuracy (EA), which is the accurate inference of others' thoughts and feelings. No studies, however, have examined the relations between these social cognitive constructs. This study examined empathic accuracy and mind-mindedness in close social dyads (e.g., best friends or romantic pairs; n=50 pairs) and stranger dyads (n=50 pairs) aged 18 to 24 who engaged in a semi-structured dyadic interaction. For both close dyads and stranger dyads, the empathic accuracy of one partner significantly predicated the empathic accuracy of the other partner. In contrast, across both pair types, one partner's level of mind-mindedness did not predict their partner's mind-mindedness. Additional findings also suggested a dissociation between the two constructs. On an individual level, empathic accuracy and mind-mindedness were not related, and mind-mindedness, but not empathic accuracy, was correlated with relationship outcomes. Overall, these results suggest that different components of social cognition show varied concordance across dyads, with implications for assessing relationships. Future research should include additional outcome measures and assess physiological data during the interaction task in order to better understand predictors of relationship success.



**Keywords:** mind-mindedness; empathic accuracy; social cognition; relationship satisfaction; dyadic interaction

Social interaction is a key component of the human experience. Successful navigation of social interactions requires mind-mindedness—or a propensity to consider other people's mental states (i.e. thoughts, feelings, desires, and emotions; Meins et al., 2014)—and empathic accuracy, which is the accurate identification of thoughts, feelings and other inner mental states of another person (Ickes et al.,1990).

Adults vary, however, in how much they spontaneously attend to others' internal states and are accurately able to identify those states. Although both mind-mindedness and empathic accuracy have been extensively studied, no study to date has examined these social-cognitive constructs within a single sample, leaving open questions about how these capacities support social functioning and predict relationship outcomes.

The first of these two capacities, mind-mindedness, has primarily been investigated in the contexts of parent-child relationships (Fishburn et al., 2017). Such studies have examined maternal mind-mindedness, or a mother's tendency to use mental state attributes to describe their infant or young child (Meins, Fernyhough, Johnson, & Lidstone, 2006). There is compelling evidence that parents who are more mind-minded towards their children have children who not only show better social cognition but are also more securely attached (McMahon & Bernier, 2017). Mind-mindedness thus appears to be an important construct in the study of parent-child relationships. However, much less is known about correlates and consequences of mind-mindedness in adult social relationships.

One of the few studies that have investigated adult mind-mindedness towards friends and romantic partners found that participants who are mind-minded in one close relationship were often mind-minded in their other close relationships, but this tendency

did not generalize to thinking about and describing famous people (Meins et al., 2014). The authors concluded that mind-mindedness is a quality of close relationships rather than a trait. This study, however, only examined one-way mind-mindedness i.e. how Partner A thinks about Partner B. No study has examined reciprocal mind-mindedness, or how, in turn, Partner B thinks about Partner A.

In line with this notion that mind-mindedness is a relational construct (i.e., one that applies specifically to individuals with whom one has a close relationship), one would expect that in adult relationships, unlike in the frequently studied context of parent-child relationships, both social partners' sophisticated social cognitive skills, including mind-mindedness, would influence the trajectory of the relationship. However, since no previous study has investigated reciprocal mind-mindedness, this question is unanswered.

While reciprocal levels of mind-mindedness across both individuals in a close adult relationship could influence relationship outcomes, they may also be linked to other important social cognitive constructs that influence social relationships. One such construct that falls within the broad framework of social cognition is empathic accuracy—the extent to which one accurately perceives the thoughts, feelings, and other inner mental states of another person (Ickes et al.,1990).

Empathic accuracy is most commonly assessed in close relationships; however, these studies have been mixed in their findings regarding the role plays in relationship outcomes. For example, some studies suggest that empathic accuracy in everyday interactions enhances relationship quality and has positive relational outcomes like emotional support (e.g., Sened, et al., 2017; Simpson et al., 2003), and better

communication (Ickes, Stinson, Bissonnette, & Garcia, 1990). In contrast, other studies have suggested that such positive outcomes are evident in interaction contexts that are mundane and non-threatening to the relationship (Simpson, Ickes, & Blackstone, 1995).

Although reciprocal empathic accuracy has been examined in previous research (i.e., the empathic accuracy of two partners toward each other), it has never been examined concurrently with mind-mindedness, leaving open questions as to how these two components of social cognition are related to each other and to relationship outcomes. In addition, mind-mindedness and empathic accuracy have both been studied most frequently in close relationships. There is some evidence that male friends displayed higher empathic accuracy than male strangers (Stinson & Ickes, 1992). This may be due to the fact that, in close social dyads, both individuals have shared numerous interactions and may start to understand the general tenor of each other's mental states and may perhaps even accurately infer them as oppose to strangers where acquaintanceship is limited. To our knowledge, no studies have investigated mind-mindedness in stranger pairs. Thus, many open questions remain about the manifestation of mind-mindedness and empathic accuracy in close versus stranger dyads.

Our current study is an effort to close these knowledge gaps by examining empathic accuracy and mind-mindedness in both close social dyads (i.e., close friends and romantic partners) and stranger dyads (i.e., individuals who met at the start of the study session) while simultaneously examining the link between the two. We had three specific hypotheses: (1) levels of mind-mindedness and levels of empathic accuracy will be positively correlated on an individual level; (2) mind-mindedness and empathic accuracy will show dyadic concordance, such that one partner's scores would predict the

other partner's scores on each measure; and (3) relationships where both partners are high in empathic accuracy and mind-mindedness will show the highest levels of closeness. Additional analysis also aimed to explore whether our findings differ between close and stranger dyads.

## Method

### Participants

The sample consisted of 50 close dyads and 50 stranger dyads (n=200 total participants) between the ages of 18 and 24 years with an average age of 19.89 (SD =1.8). Close social dyads (24 close friend pairs and 26 romantic pairs) consisted of 2 male-male, 29 female-female, 16 male-female, and 3 gender-fluid pairs with an average relationship length of 2.72y (SD = 3.07y). Stranger dyads consisted of 11 male-male, 17 female-female, and 22 male-female pairs. There was no significant difference between close and stranger dyads in average age, although there were more male-male pairs in the stranger sample. Close dyads were recruited via email, web postings, and flyers posted on campus, and participants received monetary compensation. Participants for the stranger dyads were recruited via flyers and via the online psychology subject pool. Those recruited via flyers received monetary compensation and those recruited via the online psychology subject pool received course credit. We ensured that the dyads corresponded to their selected category (i.e., they self-identified as close friends or romantic partners or were actually strangers) and that all participants were native English speakers with normal or corrected-to-normal hearing and vision. All participants provided consent and all procedures were approved by the local Institutional Review Board.

### Procedure

In the current study, social and stranger dyads attended a two-hour session during which they participated in a semi-structured videotaped interaction followed by the empathic accuracy task, mind-mindedness assessment, relationship/interaction quality assessment, and a battery of other questionnaires beyond the scope of the current report.

**Assessing Empathic Accuracy/Videotape interaction.** We assessed empathic accuracy using a standard paradigm (Ickes et al.,1990). Immediately upon dyad arrival at the testing space, the experimenter escorted them into the observation room, where they sat side-by-side. Dyads were informed that their interaction would be recorded, but the camera was set up unobtrusively behind a screen, and participants were encouraged to have a natural conversation. We then instructed dyads to discuss a neutral question: "How is your semester going so far?" At this point, the experimenter left the dyad in the room and let the interaction go on for six minutes. After the interaction, the experimenter terminated the videotaping.

**Collection of Self Thought-Feeling Reporting data.** Once the participants had completed the videotape interaction, they were seated in separate rooms. Once they were seated, each participant was asked to independently view the videotape and accurately and candidly report all of the thoughts and feelings they experienced during the six-minute interaction. The participants were explicitly encouraged to report all of the thoughts and feelings they distinctly recalled. The experimenter particularly emphasized that these were thoughts and feelings that they had *while* the interaction was taking place and not the thoughts and feelings which occurred to them for the first time while viewing the videotape.

In addition, the experimenter also informed them the thoughts and feelings they wrote down would not be seen by their interaction partner. The participants were instructed to view the interaction videotape and stop the recording when they recalled having had a specific thought or feeling during the interaction (referred to as a 'tape-stop'). They recorded each thought or feeling on a 'Self-Reporting Thought/Feeling' coding form by entering: (a) the time the specific thought/feeling occurred based on the digital readout (e.g.: 04min & 3 sec.), (b) whether the entry was a thought or a feeling (coded as " I was thinking" or "I was feeling"), (c) the specific content of the thought/feeling entry expressed in a sentence form (e.g., "I was feeling happy about doing well on my chemistry test"), and (d) valence of the content of the thoughts and/or feelings (the participant circled a positive sign, negative sign, or a zero).

**Collection of Other Thought-Feeling Inference Data.** After each partner had provided their thoughts and feelings, the experimenter noted the time stamps of the tape-stops on the 'Other Thought-Feeling Inference' form (i.e., Partner A's time stamps were written on Partner B's Other Thought-Feeling Inference form and vice versa). Then, each partner in the dyad was given this list of the specific times when their partner reported having had a specific thought or a feeling. The experimenter instructed their study partner to watch the videotape interaction again, this time, however pausing the video at each of the given tape-stops. At each tape-stop, the partner inferred their study partner's thoughts and feeling by (a) specifying whether the inferred entry was a thought or a feeling (coded as "They were thinking" or "They were feeling"), (b) the specific inference of their partner's thought/feeling expressed in a sentence form (e.g., "They were feeling happy

about doing well on their chemistry test"), (c) valence of the content inferred thoughts and/or feelings (the participant circled a positive sign, negative sign, or a zero).

**Scoring of Empathic Accuracy Task.** We employed the empathic accuracy coding system developed by Ickes and colleagues (1990). Two trained coders rated the similarity between Partner's A's self-reported thoughts and feelings and Partner B's inference of Partner A's thoughts and feelings. A 3-point coding scale ranging from 0 (essentially different in content i.e. none of the interaction partner's thoughts were correctly inferred) through 1 (somewhat the same content i.e. some of the interaction partner's thoughts were correctly inferred) to 2 (essentially similar in content i.e., most, if not all of the interaction partner's thoughts were correctly inferred) was employed. We then summed these values and divided by the maximum number of accuracy points that could be obtained for that interaction. That is, if Partner A reported six internal states, the maximum score than Partner B could earn was 12. If Partner B correctly guessed three states, partially guessed two states, and missed the last state, they would earn 9 total points, or an empathic accuracy of 75%.

**Mind-Mindedness Assessment.** After completing the empathic accuracy assessment, participants completed an assessment of how mind-minded they were towards their partner. We followed the procedure of Meins et al. (2014). Specifically, participants were asked to provide written descriptions of each other measuring roughly 7 to 10 typed lines of the following question: "Think about the person who came in with you to the study today. Please use the box below to tell us about this person."

**Scoring of Mind-Mindedness Assessment.** These written mind-mindedness responses were coded per the coding manual provided by Meins and colleagues (2006)

which allowed us to determine the percentage of mentalistic statements used (mentioning their partner's thoughts, feelings, beliefs, and desires) versus non-mentalistic statements (e.g., physical traits). Specifically, each response was split into clauses and then coded into categories: (1) mentalistic, (2) behavioral, (3) physical, and (4) general. Mentalistic statements referred to interests, beliefs, desires, knowledge, or metacognition (Meins et al., 2006). Behavioral statements referred to behaviors that were behaviorally observable personality traits. Physical statements included statements that referred to physical attributes such as appearance, age, or gender. General statements were comments referred to the partner but did not fit into any of the above categories. Statements were coded into categories by two independent coders. Disagreements between coders were resolved by the senior author.

**Relationship quality measures.** Our relationship quality measures were only assessed in close dyads. These dyads completed three measures: (1) Inclusion of the Other in the Self (IOS) scale, in which participants chose which set of increasingly overlapping circles best represented them and their partner (Aron, Aron, & Smollan, 1992; Gächter, Starmer, & Tufano, 2015); (2) the emotional and intellectual subscale sof the Personal Assessment of Intimacy in Relationships (PAIR) questionnaire (Schaefer & Olson, 1981); and (3) a measure of overall relationship satisfaction from The Perceived Relationship Quality Component (PRQC; Fletcher, Simpson, & Thomas, 2000).

The PAIR questionnaire assesses recreational, social, intellectual, emotional, and sexual categories. For this study, however, we only included the emotional and intellectual subscales. The emotional subscale is a six-item measure that asks participants to report the extent to which a particular statement describes their relationship (e.g., "my

partner listens to me when I need someone to talk to,' "I sometimes feel lonely when we're together.") using a five-point scale (1=*does not describe me/my relationship* at all to 5=*describes me/my relationship very well*). The PAIR intellectual subscale is also a six-item measure that asks participants to report the extent to which particular statements describes their relationship (e.g., "I feel it is useless to discuss somethings with my social partner," "We have endless number of things to talk about"). Composite scales were calculated by averaging the scores across both subscales. The PRQC inventory consists of questions across multiple categories, but for this study, we only used the relationship satisfaction subscale, which are three questions designed to assess overall relationship satisfaction (e.g., "How content are you with your relationship?"). Each question was on a 7-point Likert-type scale (ranging from 1 = *not at all* to 7 = *extremely*) and we averaged across these questions.

**Interaction quality measures:** Stranger and partner dyads completed a questionnaire that included items about the six-minute interaction that they engaged in at the beginning of the testing session. For strangers, we specifically assessed each participant's perceptions of the quality of the overall interaction using six questions (e.g., "How did you feel about the length of time you had to talk today?"; "How would you rate the conversation you had today?"). These measures showed high relations with each other. For example, participant judgements of how much they liked the person they were talking to were correlated with how much they felt like the person they were talking to liked them ($r$=.31, $p$=.002). Ratings of conversational quality were correlated with how much they would want to talk again ($r$=.52, $p$<.001). We, therefore, created a composite score, summing across all six items to generate a measure of overall conversation quality.

For both close and strangers dyads, we also asked how accurate they felt they were in inferring their partner's thoughts and feelings (i.e., asking Partner A how accurately they felt they guessed Partner B's internal states) and how accurate they felt that their partner was in inferring their thoughts and feelings (i.e., asking Partner A how accurately they felt that Partner B inferred Partner A's thoughts and feelings).

After completing the mind-mindedness item, participants then completed a final battery of social cognitive tasks and other assessments. We do not report on these here, as they are outside the scope of this research.

## Results

### Empathic Accuracy in Close Social and Stranger Dyads

Overall, there was great variability in levels of empathic accuracy in both stranger and close dyads (Table 1). In general, stranger dyads had higher levels of empathic accuracy than close dyads, although this difference was not significant ($t(198)=1.65$, $p=.10$). We examined concordance between dyadic levels of empathic accuracy (e.g., whether Partner A's empathic accuracy was correlated with Partner B's empathic accuracy) and found a strong correlation between the empathic accuracy of the two dyad members. This correlation was similar in magnitude whether they were a stranger dyad or partner dyad (Figure 1).

Table 1. Descriptive statistics.

| | **Close Dyads** | **Stranger Dyads** |
|---|---|---|
| **Empathic Accuracy (%)** | 34.02 (18.66)<br>0-85.71 | 29.83 (17.22)<br>0-80 |
| **Mind-mindedness (%)** | 30.50 (19.58)<br>0-91.67 | 20.89 (17.60)<br>0-71.43 |

| | | |
|---|---|---|
| **# Mental** | 4.28 (3.17)<br>0-12 | 1.76 (1.83)<br>0-10 |
| **# Behavioral** | 3.95 (2.90)<br>0-19 | 3.48 (2.06)<br>0-9 |
| **# Physical** | 0.98 (1.71)<br>0-8 | 1.34 (1.87)<br>0-9 |
| **# General** | 4.03 (2.89)<br>0-15 | 1.51 (1.66)<br>0-7 |
| **# Total** | 13.22 (5.67)<br>3-33 | 8.09 (4.20)<br>1-21 |

*Note:* Values are mean (standard deviation), followed by range of minimum-maximum.

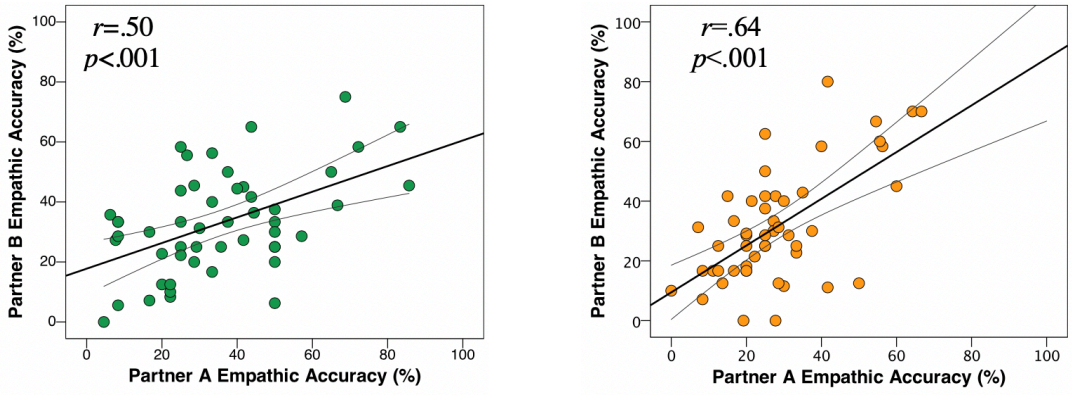


*Figure 1.* Concordance between dyadic levels of empathic accuracy. There was a strong correlation between empathic accuracy of the two dyad members.

**Mind-mindedness in Close Social and Stranger Dyads**

As with empathic accuracy, our mind-mindedness measure produced large individual differences in performance (Table 1). Mind-mindedness was significantly higher in close than stranger dyads ($t(198)=3.65$, $p<.001$). Unlike empathic accuracy, however, there was no concordance between levels of mind-mindedness within a dyad (Figure 2).

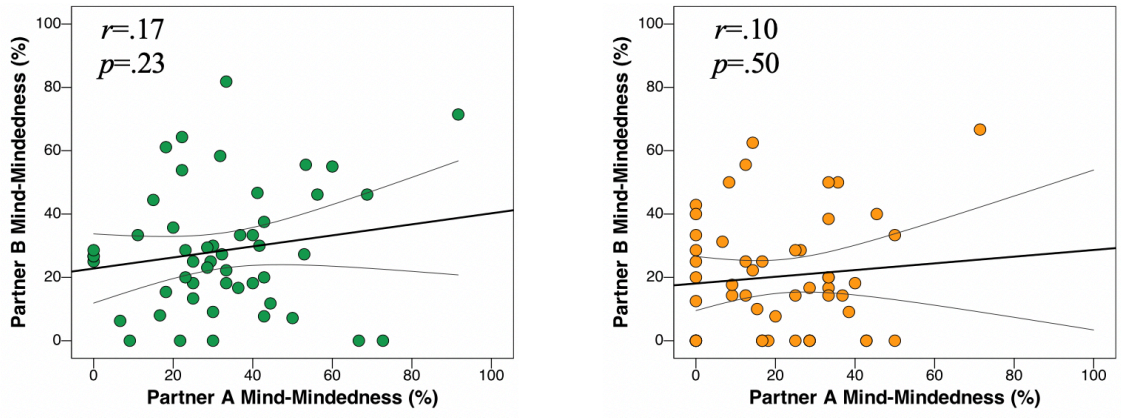


*Figure 2*. Concordance between dyadic levels of mind-mindedness. There was no concordance between levels of mind-mindedness within a dyad.

**Correlations between empathic accuracy, mind-mindedness, and relationship satisfaction**

For participants in the stranger condition, a participant's degree of mind-mindedness was unrelated to their degree of empathic accuracy ($r$=-.133, $p$=.19). The magnitude of the correlation between one's own empathic accuracy and one's own mind-mindedness was almost exactly the same for participants who came in with a close other ($r$=-.106, $p$=.29). Although members of stranger dyads did not complete measures of relationship satisfaction, they did answer questions about how much they liked their dyad member and how they felt about how the interaction went. The composite score of conversation quality score showed high concordance among partners, such that Partner A's ratings of conversational quality were correlated with Partner B's ratings of the conversational quality (r=.39, p<.01).

We next examined whether the conversational quality was related to empathic accuracy and mind-mindedness. We found that one's own rating of conversational quality

was unrelated to one's own empathic accuracy and mind-mindedness (rs<.1). One possibility, however, is that one's partners' perceptions of conversational quality are driven by the other partner's empathic accuracy and mind-mindedness (e.g., that conversations go better with those who are more empathic). Thus, we again repeated our analysis to see if one partner's ratings of the conversation were correlated with their partner's empathic accuracy and mind-mindedness, but these correlations were not significant (*p*s>.05).

We had much more detailed measures of relationship satisfaction in close dyads. Our main analyses focused on the PAIR-emotional subscale and the PAIR-intellectual subscale. We found that one's own mind-mindedness was correlated with ratings of relationship satisfaction on both the PAIR emotional ($r$=.218, $p$=.030) and the intellectual subscale ($r$=.221, $p$=.027). We next examined whether one's partner's mind-mindedness and empathic accuracy predicted your own relationship satisfaction (e.g., whether Partner A was more satisfied with the relationship if Partner B had high mind-mindedness or empathic accuracy towards Partner A). We found that partners who rated their partner as more emotionally connected on the PAIR with them had partners with higher levels of mind-mindedness ($r$=.319, $p$=.001). In contrast, high ratings on the emotional subscale of the PAIR were not related to one's partner's empathic accuracy ($r$=.106, $p$=.29). Relations between Partner A's ratings of the relationship on the PAIR intellectual subscale and Partner B's mind-mindedness when describing Partner A were marginally realted ($r$=.19, $p$=.051).

## Discussion

In the current study, we examined the interrelations between two components of social cognition—mind-mindedness and empathic accuracy in close social and stranger dyads. Our results indicate mixed support for our hypotheses. First, we did not find evidence that mind-mindedness and empathic accuracy were correlated on an individual level. Second, we found that empathic accuracy, but not mind-mindedness, showed concordance such that Partner A's empathic accuracy was a significant predictor of Partner B's empathic accuracy in both close and stranger dyads. Finally, we found tentative evidence linking mind-mindedness, but not empathic accuracy, to relationship satisfaction in close dyads.

Our first finding was that that empathic accuracy and mind-mindedness were not related on an individual level. That is, Partner A may describe Partner B with many mental state terms (in the mind-mindedness assessment task) but fail when it comes to accurately identifying Partner B's thoughts and feelings in real-time (in empathic accuracy task). One potential explanation for the lack of relation between these two social cognitive constructs is that these constructs are dissociable skills. Although mind-mindedness and empathic accuracy share some conceptual links, empathic accuracy is assessed via the ability to infer their partner's thoughts and feelings from real-time recorded video of a natural interaction, mind-mindedness, in contrast, involves the propensity to *spontaneously* discuss a partner's mental states in socially-decontextualized, free-response format. Our findings are congruent with previous research showing that different components of social cognition tap into different adult competences (Barreto et al., 2016). Previous research has also found that theory of mind

and mind-mindedness are dissociated (Davis, Meins & Fernyhough, 2014). Taken together, this suggests that these social cognitive tasks assess different capacities.

Our second main finding was that both stranger and close dyads showed high levels of concordance in empathic accuracy (i.e., if Partner A displayed high levels of empathic accuracy towards Partner B, so did Partner B towards Partner A). Past findings regarding empathic accuracy concordance have been limited. Ickes and colleagues (1990) found minimal concordance in opposite-sex stranger dyads. In another study, empathic accuracy scores were found to be concordant in friend dyads, but not related in stranger dyads (Stinson & Ickes, 1992). In contrast, we found that stranger and close dyads had similar levels of concordance. This may indicate that empathic accuracy is an emergent property of an interaction, such that some interactions result in easier-to-infer mental states than others, potentially due to conversational ease or even topic selection. Future work could examine which topics were discussed in the conversations with higher empathic accuracy in order to address this question.

Unlike empathic accuracy, mind-mindedness showed no concordance in either set of dyads. That is, Partner A's mind-mindedness about Partner B had no predictive value for Partner B's mind-mindedness toward Partner A. Previous research has indicated that mind-mindedness is a quality of close relationships, such that adults used more mental state terms when describing individuals with whom they had a close relationship than when describing famous people or inanimate objects (Meins et al., 2014). One difference between our mind-mindedness and empathic accuracy measures is that we did not have dyads evaluate the accuracy of each mind-minded statements written by their interaction partner. In the empathic accuracy task, however, we compare the reported thoughts and

feelings with inferred mental states. Future research should share Partner A's mind-mindedness response with Partner B in order to get feedback on accuracy. One possibility is that accuracy, as opposed to the percentage of mental statements, would show higher levels of concordance.

For both empathic accuracy and mind-mindedness, overall levels were higher in partner than stranger dyads. The difference, however, between partner types only reached significance for mind-mindedness. This suggests that the six-minute conversation that stranger dyads engaged in was adequate to attain some degree of accuracy when inferring each other's thoughts and feelings (i.e., empathic accuracy). The increased level of mind-mindedness for close dyads may be due to close dyads having extensive knowledge and insight regarding various details of each other's lives through relationship length and frequency of shared experiences.

For our final hypothesis, we examined the links between social cognition and relationship satisfaction. We did not find any relations between relationship outcomes and empathic accuracy in our close dyads. This finding fits into a complicated literature examining correlations between empathic accuracy and varied measures of relationship satisfaction. Some studies have shown a positive link between empathic accuracy and relational outcomes. Other studies examining empathic accuracy have shown no connection between empathic accuracy and relationship quality (Simpson et al., 1995, 2003), while others have shown that greater empathic accuracy can even lead to negative outcomes (Simpson, Ickes, & Blackstone, 1995). There may also be factors that moderate the relation between empathic accuracy and relationship satisfaction that we did not

measure in our current study. For example, empathic accuracy could be more beneficial when the interaction partner is reluctant in sharing their thoughts and feelings.

Another possible explanation for our lack of a relation between empathic accuracy and relationship satisfaction in close social dyads is that we intentionally selected a neutral conversation topic in order to use the same topic for both close and stranger dyads. In contrast, most past research on empathic accuracy in close dyads had them discuss a controversial topic in their relationship. Thus, it may not be empathic accuracy per se that predicts relationship outcomes, but empathic accuracy in specific situations. Future research should systematically vary the content of the conversation to test this hypothesis.

In contrast to our findings that empathic accuracy is not related to relationship satisfaction, we found some suggestions that mind-mindedness was positively related to our relationship outcome measures. Although to our knowledge, mind-mindedness, and relationship satisfaction has not been directly studied in any previous research, there is significant evidence for positive relations between parental mind-mindedness and child outcomes. There is compelling evidence that children with more mind-minded parents show advanced reasoning about the mental states of others (Apperly, 2012) and that children with more mind-minded parents show higher developmental competence in a variety of other social and cognitive domains (e.g. language development, executive functioning, child behavioral adjustment; see McMahon & Bernier, 2017 for review). Thus, our findings suggest that the positive influence of mind-mindedness may extend beyond the parent-child relationship. An important caveat, however, is that these correlations represented small effect sizes and thus more research should be done.

We also examined whether our social cognitive measures predicted satisfaction with the specific conversation in both stranger dyads. In the sample of our stranger dyads, Partner A's ratings of conversational quality were correlated with Partner B's ratings of the conversational quality, but these ratings were not related to any measures of empathic accuracy or mind-mindedness. Furthermore, neither empathic accuracy nor mind-mindedness was related to any perceptions of conversational quality. One explanation is that our measures of conversational quality failed to capture anything meaningful, but countering that is the fact that if Partner A thought the conversation went well, so did Partner B. Another explanation is that these brief first encounters are affected much more by perceived similarity, enjoyment of the interaction, and/or reciprocal vs. non-reciprocal disclosures (Sprecher, Susan, et al. 2013) than the more in-depth measures of social cognition. Taken together, our results attest to the importance of measuring multiple facets of social cognition across the development of relationship stages when attempting to understand the mechanism of positive relational outcomes.

While this study contributes in our understanding of important social cognitive constructs such as mind-mindedness and empathic accuracy in social and stranger dyads, there are several limitations. First, our sample was cross-sectional in design. Longitudinal designs are needed to better elucidate how mind-mindedness and empathic accuracy levels and concordance develops over the trajectory in close relationships. Further, future research should include additional outcome measures and assess physiological data during the interaction task to better understand predictors of relationship success. Previous studies on relationships have obtained physiological and affective data during conversational interactions and have been successful in predicting relationship

satisfaction (Levenson & Gottman, 1983). Furthermore, our age sample only included dyads between the ages of 18 and 24 years old. Future research is necessary to compare performances in mind-mindedness and empathic accuracy in different age groups and dyads in longer relationships.

In summary, this research breaks new ground in the study of social cognition and attests to the importance of measuring multiple facets of social cognition when attempting to understand the mechanism of relational outcomes. Our findings underscore the complex nature of social cognitive constructs in relation to social interactions and adult relationships.

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