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## ABSTRACT

This study examined bias in children's perceptions of the similarities between themselves and others. Participants included 346 fourth and fifth graders, and their teachers, from 5 schools. Students rated same-sex classmates on a 4-point scale that assessed how similar or different the subjects felt their classmates were. Several days later, students rated themselves and same-sex classmates on a variety of social and nonsocial dimensions. Teachers rated all participants on the same dimensions. Results revealed that children perceived their friends to be similar to themselves and their nonfriends to be different. These findings serve to replicate previous research supporting the similarity-attraction hypothesis, which holds that individuals are attracted to others who are similar to themselves. Students rated friends more positively and nonfriends more negatively than themselves. It is argued that these results reflect differences in perceptions, or biases, rather than actual differences in the children's characteristics. Although these biases serve an adaptive function in the maintenance of interpersonal relationships, they may also work against the development of other relationships. Appended are nine references and related materials. (GLR)

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**Friends Versus Nonfriends:  
Perceptions of Similarity Across Self, Teachers, and Peers**

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## **Friends Versus Nonfriends: Perceptions of Similarity Across Self, Teachers and Peers**

The attraction-similarity hypothesis holds that individuals are attracted to others who are similar to themselves. There is ample evidence to support this hypothesis among adults and adolescents (e.g., Byrne, 1971; Kandel, 1978), although fewer studies have examined whether similarity serves as an important basis for children's interpersonal relations. Those studies which do exist (including those presented in the present symposium) would appear to support the notion that children, too, are more similar to their friends than nonfriends (see Epstein, 1989 for a review), both in terms of behaviors (e.g., Gottman, 1983) and attitudes (e.g., Erwin, 1985).

In extending this literature, the present study examined whether perceptions of similarity vary as a function of perceivers, relationships, and the domains being assessed. Of primary interest was whether perceptions of similarity reside in the mind of the beholder. Although it has been argued (e.g., Byrne, 1971) that similarity provides a basis for interpersonal attraction, in the present research we suggest that attraction might also provide a basis for perceptions of similarity. Consistent with such an argument are results of previous studies indicating that adults at least are likely to assume similarity to themselves when judging others (Ross, 1981), and that children, adolescents and adults will perceive greater similarity between themselves and their friends than is in fact true (see Epstein, 1989 for a review). Of interest, then, was whether children (as compared with teachers and peers) are biased in their perceptions of the similarity which exists between themselves and others as a function of the nature of the relationship (mutual versus nonmutual friends versus nonfriends). Moreover, we assessed the generality of such biases by evaluating perceptions of similarity across a variety of social and nonsocial domains.

### Method

Participants included a total of 346 fourth and fifth grade children (181 females, 165 males) and their teachers in 15 classrooms from 5 schools (3 public, 2 private) in Southwestern Ontario. The children ranged in age from 8 to 11 years, with a mean age of 9.58 years ( $SD = 0.65$  years).

The sample was predominantly caucasian (94%), although a variety of minorities were represented (1% Black, 2% Oriental, 2% East Indian, 1% Spanish or Latin American, 1% Other).

As part of a larger study, the children participated in two group testing sessions, approximately one week apart. During the first testing session, children were asked to rate each pair of same-sex classmates on a 4-point scale according to how similar or different they were (Response format: SAME same different DIFFERENT). No criteria for these similarity judgements were provided (and none were requested by the children), leaving the children to use any dimension or dimensions they chose for making their judgements. During the second testing session, children were asked to rate themselves and each same-sex classmate on a variety of social and nonsocial dimensions, as presented in Table 1. Teachers rated all participants on the same dimensions, using the same scales.

Ratings of same-sex classmates on the friendship dimension were subsequently used to identify, as much as was possible, 5 different relational dyads for each subject (see Table 2). A *Mutual Friend* was identified by mutual ratings of 4 or 5, indicating that both children considered each other as a friend. Similarly, a *Mutual Nonfriend* was identified by mutual ratings of 1 or 2, indicating that neither child considered the other a friend. *Unilateral Friends* were classmates whom the subject rated as a friend (i.e., rating of 4 or 5), although the identified friend did not rate the subject as a friend (i.e., rating of 3, 2, or 1). *Unilateral Nonfriends* were classmates whom the subject rated as a nonfriend (i.e., rating of 1 or 2), although the identified nonfriend rated the subject more positively (i.e., ratings of 3, 4, or 5) on the friendship dimension. Finally, a *Neutral-Rated Peer* was a classmate whom the subject rated neutrally (rating of 3) with regard to friendship, even if the neutral rating was not reciprocated. One same-sex classmate in each category was identified for each subject, as much as was possible. When more than one peer was identified for a given relational category, a single dyad was selected at random from among those available, with the constraint that more extremely rated friends (i.e., rating of 5) or nonfriends (i.e., rating of 1) were selected whenever possible.

## Results

The first analysis conducted examined variations in children's overall perceptions of similarity (no criteria specified) across the 5 different relational dyads. Paired (dependent) t-tests were used to test differences between means, with alpha level set at .001. Results, as presented in Table 3, indicated that, on average, children rated mutual friends as most similar to themselves, followed by unilateral friends, who were rated at the middle of the scale (that is, on average, somewhat the same but also somewhat different). Neutral-rated peers were rated as somewhat different from self, while nonfriends, whether unilateral or mutual, were rated as quite different from the self. All five cells differed significantly from one another, with the exception of the two nonfriend categories (unilateral and mutual). Basically, these findings replicate previous research indicating that children, like adults, perceive friends, especially mutual friends, as more similar to the self than nonfriends.

Subsequent analyses were conducted to examine particular domains in which children and their peers might be considered similar. For these analyses, similarity in each of 8 domains (see Table 1) was assessed in terms of the difference in ratings given to self versus other on each dimension. These self-minus-other difference scores were computed in each of three ways: (1) based on the child's own perceptions (self-rating minus individual rating to friend/nonfriend), (2) based on the perceptions of the teacher (teacher rating for subject minus teacher rating for friend/nonfriend), and (3) based on perceptions of the child's same-sex classmates (average rating of subject by peers minus average rating of friend/nonfriend by peers). In each case, scores of zero would reflect the greatest perceived similarity (i.e., least difference), while negative scores would reflect perceptions of the other being better than the self (subject), and positive scores would reflect perceptions of the self (subject) being better than the other.

These self-minus-other difference scores were then compared across the five relational dyads using paired (dependent) t-tests in each of the 8 domains. Given the number of contrasts performed experiment-wide, alpha level was set at less than or equal to .001.

Results for children's own (self) ratings are presented in Table 4. As can be seen in the table, few significant differences were observed between the mutual and unilateral categories at either end, friends or nonfriends. Thus, friends, whether mutual or unilateral, were perceived similarly, as were nonfriends, whether mutual or unilateral. Of particular interest, however, is the valence of the difference scores obtained across the relational dyads. Generally, across domains, friends, whether mutual or unilateral, were rated more positively than the self. In contrast, nonfriends, whether mutual or unilateral, were rated somewhat similarly to the self in some domains (academic and athletic competence, style, relations with adults and behavior at school), but as worse than the self in domains particularly relevant to interpersonal relations with classmates (appearance, humor, relations with peers). In these latter domains (where nonfriends viewed as worse than self), it was neutral-rated peers who were rated as most similar to (least different from) the self. These findings suggest that across a variety of domains, children view their friends, not as similar to the self, but as better than the self. In contrast, nonfriends tend to be viewed as similar to the self in several domains, but as worse than the self in a few areas, particularly those which would appear critical to social relations with other children.

When we conducted similar analyses on teacher and classmate ratings, however, we found a similar although less marked pattern of differences (see Tables 5 and 6). These findings suggest some systematic bias in the selection of dyads. Indeed, one might expect that less competent peers would be more likely to be selected as a nonfriend, while more competent peers would be more likely to be selected as a friend. Thus, in part, the observed "biases" in subject perceptions may in fact reflect, in part, real differences between subjects and their friends/nonfriends. The focus of the present research, however, is on perceptual biases rather than actual differences in the "objective" (that is, consensual) characteristics of the children. Given that the pattern of differences observed across relational dyads were similar although much weaker in the case of peer and teacher perceptions, we reexamined subject perceptions after partialling out the differences reported by teachers and peers. Specifically, to obtain adjusted scores, regression analyses were conducted in each domain, predicting self minus other scores of the subjects from those provided

by teachers and peers. Using the residual or partialled scores derived from these analyses as the dependent variables, we again compared subject perceptions, adjusted for teacher and peer perceptions across the 5 relational dyads using a series of paired (dependent) *t*-tests (alpha level set at  $p \leq .001$ ). With these partialled scores, then, significant differences represent differences in perceptions alone, with actual differences, as perceived by peers and teachers, held constant.

Results, presented in Table 7, indicated that in fact the differences observed were not simply attributable to real (or consensual) variations across relational dyads. Even when actual differences between self and others, as judged by teachers and classmates, were partialled out, biases in children's perceptions of similarity remained. Across all eight domains, children perceived mutual friends, not as similar to themselves, but as better than themselves. Unilateral friends, across domains, were also often viewed as better than self (6 out of 8 domains), but to a lesser extent than were mutual friends. As well, in at least two domains (school behavior and stylishness), unilateral friends were viewed as similar to (i.e., not different from) the self. Neutral rated peers, across virtually all domains, were rated similarly to self. And nonfriends, regardless of whether they were unilateral or mutual nonfriends, were rated more negatively than the self.

### Summary and Conclusion

Results of the present study indicate that when you ask generally about similarity, children do perceive their friends to be similar to themselves, especially their mutual friends, and perceive their nonfriends to be different from themselves. These findings serve to replicate previous research supporting the similarity-attraction hypothesis (e.g., Byrne, 1971; Epstein, 1989; Kandel, 1978). However, when perceptions of similarity are evaluated more indirectly by comparing ratings of self versus friends/nonfriends in various domains, a somewhat different pattern of variation across relational dyads is observed.

Our initial results indicated that children rated their friends more positively than themselves and rated their nonfriends more negatively than themselves across several domains. We wanted to argue that these results reflected differences in perceptions -- or biases -- rather than actual differences in the characteristics of the children. However, we found a similar, albeit weaker,

pattern of results when teacher and peer perceptions were evaluated, suggesting that some systematic variation across relational dyads may be attributable to "objective" or at least consensual characteristics of the children included in the various dyadic conditions. These variations were in part due to the nature of the selection process employed in the present study, in that less competent children would be more likely to be represented in the "nonfriend" categories while more competent children would be more likely to be represented in the "friend" categories. Nevertheless, true biases in children's similarity perceptions could only be evaluated once these differences were controlled for. Accordingly, in subsequent analyses, teacher and peer perceptions of differences were partialled out of children's evaluations and t-tests were computed on these partialled scores. Results indicated significant difference across relational dyads remained even after actual differences, as perceived by peers and teachers, were held constant. These differences, then, represent differences in perceptions, or biases in how children view friends versus nonfriends. Across 8 different domains, mutual friends were always rated better than the self. Unilateral friends were also typically rated as better than the self (6 out of 8 domains), although not as extremely so. In contrast, nonfriends were rated as worse than the self across both social and nonsocial domains, and there were no significant differences between mutual and unilateral nonfriends in this regard. Interestingly, it was neutral-rated peers who were rated as most similar to the self across domains.

With regard to the similarity-attraction hypotheses, the present results might best be interpreted as supportive of a more recent reconceptualization of the process offered by Wetzel and Insko (1982). Wetzel and Insko suggest that individuals are attracted, not to those who are similar to the self, but to those who embody their personal ideals. In their review of research with adults, Wetzel and Insko point out that the similarity-attraction relationship is strongest in studies of attitude similarity and less strong in studies of trait or aptitude similarity, as in the case of the present research. The results of their studies suggest that, as hypothesized, individuals are attracted to "similar" others if they assume that the other is similar to their ideal self. The extremely

positive ratings across domains of friends (especially mutual friends), as compared to self on the present study, may well reflect an idealization of friends on the part of the child perceiver.

That children tend to view their friends in a positive light and their nonfriends or enemies in a more negative light is consistent with other findings within the literature on children's peer relations. For example, Hymel (1986; see also Hymel, Wagner, & Butler, 1990) has demonstrated that children's interpretations of peer behavior varies as a function of liking for the actor, with liked peers being given the "benefit of the doubt," especially when negative behaviors are interpreted. Such biases, like the ones demonstrated in the present study, would appear to serve an adaptive function with regard to the maintenance of interpersonal relationships. Friends' behavior and competencies appear to be viewed in the most positive light, despite evidence to the contrary. Although such biases may serve to maintain positive dyadic relationships or friendship, unfortunately, they might also work against the development of relationships with other, nonfriend or disliked others. The processes by which such biased perceptions are developed or maintained, as well as their implications for future interactions and relationships, remains a question for future research.

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**TABLE 1**  
**Child and Teacher Ratings: Domains Assessed**  
**(Hymel & Woody 1991)**

<u>Domain</u>	<u>Item Description</u>
Friendship	This person is a good friend of mine.
Academic Competence	This person does well in their schoolwork.
Athletic Competence	This person does well in sports or other outdoor activities.
Appearance	This person is good-looking or attractive.
Stylishness	This person really cares about being in style.
Relations with Adults	This person gets along well with teachers and other adults.
Behavior at School	This person is polite and well behaved at school and doesn't get into trouble.
Sense of Humor	This person has a sense of humor and can make people laugh.
Relations with Peers	This person is popular and gets along well with other children.

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Response Format Across Items:	NO	no	Sometimes	yes	YES
Numerical Values Assigned:	1	2	3	4	5

**TABLE 2**  
**Relational Dyads Identified For Each Subject**  
**(Hymel & Woody, 1991)**

MUTUAL FRIEND:	Mutual ratings of 4 (yes) or 5 (YES)
UNILATERAL FRIEND:	Unreciprocated rating of 4 (yes) or 5 (YES)
NEUTRAL-RATED PEER:	Rating of 3 (sometimes)
UNILATERAL NONFRIEND:	Unreciprocated rating of 2 (no) or 1 (NO)
MUTUAL NONFRIEND	Mutual rating of 2 (no) or 1 (NO)

NOTE: One of each type of dyad was identified for each subject whenever possible.

**TABLE 3**  
**Average Similarity Ratings Across**  
**Relational Dyads**  
**(Hymel & Woody, 1991)**

	Mutual Friend (n=313)	Unilateral Friend (n=251)	Neutral Rated Peer (n=261)	Unilateral Nonfriend (n=237)	Mutual Nonfriend (n=217)
<u>M</u>	2.04	2.49	2.89	3.46	3.56
(SD)	(0.98)	(0.99)	(0.91)	(0.78)	(0.68)
Response Format:	SAME	same	different	DIFFERENT	
Numerical Value Assigned:	1	2	3	4	

NOTE: All cells differ significantly from one another ( $p < .001$ ) with the exception of unilateral mutual nonfriends.

**TABLE 4**  
**Self Perceptions:**  
**Self Minus Other Ratings in Eight Domains**  
**Across Relational Dyads**  
**(Hymel & Woody, 1991)**

<u>Domain</u>	Mutual Friend (n=305-315)	Unilateral Friend (n=246-253)	Neutral- Rated Peer (n=259-266)	Unilateral Nonfriend (n=230-237)	Mutual Nonfriend (n=211-215)
Academic	- 1.31Ab	- 1.23Ab	- 0.80aB	0.16ab	0.02ab
Athletic	- 1.44Abc	- 1.08aB	- 0.62abC	0.14abc	0.05abc
Appearance	- 0.93Abc	- 0.60aB	- 0.06abC	0.90abc	0.84abc
Stylishness	- 0.54A	- 0.21B	- 0.02a	0.39ab	0.15a
Adult Relations	- 1.43Abc	- 1.19aBc	- 0.77abC	- 0.16abc	0.04abc
School Behavior	- 0.62Ac	- 0.31Bc	- 0.40C	0.21abc	0.24ac
Humor	- 1.10Abc	- 0.59aBc	- 0.04abC	0.70abc	0.86abc
Peer Relations	- 1.15Atc	- 0.82aBc	- 0.26abC	0.58abc	0.56abc

NOTE: Significant differences across groups are denoted by upper versus lower case superscripts. Means presented here are based on all available subjects in each domain. Significance levels ( $p \leq .001$ ) are based on results of paired (dependent) t-tests for which cell size and means varied slightly across pairwise comparisons.

**TABLE 5**  
**Teacher Perceptions:**  
**Subject Minus Other Ratings in Eight Domains**  
**Across Relational Dyads**  
**(Hymel & Woody, 1991)**

<u>Domain</u>	Mutual Friend (n=273-317)	Unilateral Friend (n=217-255)	Neutral- Rated Peer (n=227-268)	Unilateral Nonfriend (n=203-240)	Mutual Nonfriend (n=178-218)
Academic	- 0.90A	- 0.33B	0.07bC	0.50abc	0.11b
Athletic	- 0.02	- 0.17	0.02	0.28A	0.09a
Appearance	- 0.04A	- 0.17A	0.00A	0.30a	0.05
Stylishness	- 0.05	- 0.14	- 0.00	0.20	0.02
Adult Relations	- 0.10A	- 0.20B	- 0.00C	0.43abc	0.16ac
School Behavior	- 0.12A	- 0.24B	0.04C	0.45abc	0.28abc
Humor	0.03	- 0.19A	0.06	0.23a	0.01
Peer Relations	- 0.14A	- 0.33B	0.06aC	0.54abc	0.24abc

NOTE: Significant differences across groups are denoted by upper versus lower case superscripts. Means presented here are based on all available subjects in each domain. Significance levels ( $p \leq .001$ ) are based on results of paired (dependent) t-tests for which cell size and means varied slightly across pairwise comparisons.

**TABLE 6**  
**Classmate Perceptions:**  
**Subject Minus Other Ratings in Eight Domains**  
**Across Relational Dyads**  
**(Hymel & Woody, 1991)**

	Mutual Friend (n=317)	Unilateral Friend (n=255)	Neutral- Rated Peer (n=268)	Unilateral Nonfriend (n=240)	Mutual Nonfriend (n=218)
<u>Domain</u>					
Academic	- 0.17Ab	- 0.35Ab	0.04aB	0.65ab	0.25ab
Athletic	- 0.15Ab	- 0.23Ab	0.02aB	0.53ab	0.28ab
Appearance	- 0.24Ab	- 0.42Ab	0.11aB	0.70ab	0.33ab
Stylishness	- 0.08A	- 0.18B	0.05C	0.35abc	0.09b
Adult Relations	- 0.19Ab	- 0.31Ab	- 0.01aB	0.48ab	0.32ab
School Behavior	- 0.10A	- 0.23B	0.19bC	0.28abc	0.15abc
Humor	- 0.17Ab	- 0.32Ab	0.03aB	0.56ab	0.27ab
Peer Relations	- 0.20Ab	- 0.42Ab	0.06aB	0.67ab	0.33ab

NOTE: Significant differences across groups are denoted by upper versus lower case superscripts. Means presented here are based on all available subjects in each domain. Significance levels ( $p \leq .001$ ) are based on results of paired (dependent) t-tests for which cell size and means varied slightly across pairwise comparisons.

**TABLE 7**  
**Residualized\* Subject Perceptions:**  
**in Eight Domains Across Relational Dyads**  
**(Hymel & Woody, 1991)**

<u>Domain</u>	Mutual Friend (n=268-315)	Unilateral Friend (n=211-253)	Neutral- Rated Peer (n=221-266)	Unilateral Nonfriend (n=199-237)	Mutual Nonfriend (n=175-215)
Academic	- .47Ab	- .27Ab	- .09aB	.47ab	0.60ab
Athletic	- .64Abc	- .22aBc	0.07abC	0.50abc	0.56abc
Appearance	- .70Abc	- .22aB	0.02aC	0.55abc	0.71abc
Stylishness	- .42A	0.05a	0.04a	0.30a	0.20a
Adult Relations	- .54Ac	- .23Bc	0.01abC	0.31abc	0.65abc
School Behavior	- .34A	0.04	- .17B	0.28ab	0.37ab
Humor	- .84Abc	- .21aBc	0.09abC	0.48abc	0.84abc
Peer Relations	- .69Abc	- .23aB	0.03aC	0.50abc	0.69abc

**NOTE:** Significant differences across groups are denoted by upper versus lower case superscripts. Means presented here are based on all available subjects in each domain. Significance levels ( $p \leq .001$ ) are based on results of paired (dependent) t-tests for which cell size and means varied slightly across pairwise comparisons.

\* Adjusted means, controlling for teacher and peer (classmate) perceptions

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