

University of Memphis

University of Memphis Digital Commons

---

Electronic Theses and Dissertations

---

7-31-2012

## Profiles of Children's Classroom Relationships and Their Association to Peer Social Competence

Tara K. Cossel

Follow this and additional works at: <https://digitalcommons.memphis.edu/etd>

---

### Recommended Citation

Cossel, Tara K., "Profiles of Children's Classroom Relationships and Their Association to Peer Social Competence" (2012). *Electronic Theses and Dissertations*. 572.

<https://digitalcommons.memphis.edu/etd/572>

This Thesis is brought to you for free and open access by University of Memphis Digital Commons. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of University of Memphis Digital Commons. For more information, please contact [khgerty@memphis.edu](mailto:khgerty@memphis.edu).

PROFILES OF CHILDREN'S CLASSROOM RELATIONSHIPS  
AND THEIR ASSOCIATION TO PEER SOCIAL COMPETENCE

by

Tara K. Cossel

A Thesis

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Science

Major: Psychology

The University of Memphis

August 2012

## **Abstract**

Cossel, Tara K. M.S. The University of Memphis. August/2012. Profiles of Children's Classroom Relationships and Their Association to Peer Social Competence. Major Professor: Robert Cohen, Ph.D.

The nature of children's peer relationships, usually investigated in terms of mutual friends and/or mutual antipathies, is critical to their social functioning and adjustment. Recently, Olsen, Parra, Cohen, Schoffstall, and Egli (2012) offered a comprehensive framework for studying children's peer relationships as all possible dyads within classrooms, using both friendship and antipathy nominations. This present research extended this work by systematically considering a more complete profile of all the classroom relationships of each third-sixth grade child and comparing these profiles to social functioning, including: children's self-ratings of social competence and peer optimism, and peer nominations of sociability, showing respect, overt and relational aggression, and passive withdrawal. Results indicated that a 4-cluster solution best fit the data, (Befriending, Disregarding but Liked, Disliked, and Disliking), and these groups differed on social functioning measures. These findings help establish links between the configuration of a child's relationship types and other levels of social functioning.

## Table of Contents

Chapter		Page
1	Introduction	3
	Children's Friendships	5
	Children's Antipathies	8
	Olsen's Multidimensional Framework for Children's Relationships	8
	The Present Research	11
2	Method	12
	Participants	12
	Measures	12
	Procedure	15
3	Results	16
	Cluster Analyses	16
	Multivariate Analyses of Covariance	17
	Post-hoc Analyses	18
4	Discussion	21
	Limitations and Future Directions	26

## Profiles of Children's Classroom Relationships and Their Association to Peer Social Competence

How children relate to peers is unquestionably a critical social developmental task. An important component of children's peer relations is children's dyadic relationships, defined as "the meanings, expectations, and emotions that derive from a succession of interactions between two individuals known to each other" (Rubin, Bukowski, & Parker, 2006, p. 577). Good peer relationships have been shown to help with problem solving, gaining competence in communication, impulse regulation, social skills, acquiring knowledge about the world, and buffering stress (Hartup & Abecassis, 2002). Children develop a variety of relationships with their peers, with friendships traditionally receiving the greatest attention in the research literature, and antipathies recently becoming of interest.

Research on children's peer relationships requires each member of the peer group to indicate whom they believe their friends/antipathies to be using nominations on a group roster. The vast majority of this research has considered only reciprocated (mutual) friendships and/or reciprocated (mutual) antipathies. Recently, Olsen, Parra, Cohen, Schoffstall, and Egli (2012) offered a comprehensive framework for studying children's peer relationships, using both friendship and antipathy nominations, and hat assumed explicitly assumed that all possible dyads within classrooms of acquainted children exist in a relationship. This approach documented the impact of certain, previously not examined, forms of relationships as described later. The present research extended the work of Olsen et al. (2012) by systematically considering a more complete profile of all the classroom relationships of each child. By way of introduction, research on children's

friendships is presented, followed by a review of research on children's antipathies and a detailed presentation of Olsen's comprehensive framework. The final section provides an overview of the present research.

### **Children's Friendships**

Historically, children's relationships primarily have been studied in terms of friendships using self-nomination procedures. Friendships conceptually have been defined as dyadic relationships with reciprocated liking, similarity, coordination, and responsivity (Bukowski et al., 2009). Unlike other types of relationships that define children's lives, for example the parent-child or sibling relationships, friendships are by choice. Thus, the voluntary nature of friendships is a unique hallmark of this type of relationship. Friendships offer distinct and important experiences for children and function to provide specific social and emotional developmental opportunities (Hartup, 1996). Friendships validate emotions, provide protection from risk factors, promote moral development, and aid in social adjustment (Bukowski et al., 2009). Friendships also serve to provide companionship, intimacy, and mutual affection (Howes, 1996).

The extant research on mutual friendships has demonstrated that these types of relationships are predictive of children's relations at the peer group level and at the individual behavior level. For example, Newcomb, Bukowski, and Bagwell (1999) documented that mutual friendships often serve as a gateway to the group. Specifically, children who had mutual friends were more likely to access social experiences with their peer group than children without mutual friends. That is, friends extend a child's peer group by providing access to more individuals. Sebanc (2003) found that children with mutual friendships entered groups more easily and were more sociable, more prosocial,

less aggressive, and had fewer conflicts than children who did not have mutual friendships. Number of mutual friendships has also been associated with positive peer experiences. For example, children who had a friend were less likely to be victimized by peers than children who did not have friends (Hodges, Boivin, Vitaro, & Bukowski, 1999; Hodges, Malone, & Perry, 1997). Children who had many mutual friends were more likely to be perceived as popular and socially attractive by their peers than children who had few or no mutual friends (Hartup 1996; Utz, 2010).

The number of mutual friends children have is associated with social competence and feelings of loneliness. Children who had more than one mutual friend had higher scores on social competence and lower scores on loneliness than children who had only one or two mutual friends (Liu & Chen, 2003). Research has also shown that friendship mediates the association between liking by peers and loneliness. Specifically, children who had at least one mutual friend were more liked by their peers and were less likely to report feelings of loneliness (Nangle, Erdley, Newman, Mason, & Carpenter, 2003). Further, research has shown mutual friendships buffer against internalizing and externalizing problems, including poor academic performance, antisocial behaviors, delinquency, aggression, depression, anxiety, and substance abuse (Hoza, Molina, Bukowski, & Sippola, 1995; Sebanc, 2003; Witvliet, van Lier, Cuijpers, & Koot, 2009). In sum, the presence of mutual friendships has been consistently linked to positive intrapersonal and interpersonal psychosocial correlates.

Children are not always concordant on the status of their relationships. That is, not all friendship nominations are reciprocated. These friendships are referred to as “unilateral” friendships and exist when only one member of the dyad believes that a

friendship exists. It is reasonable to assume that unreciprocated friendships constitute a different form of friendship relationship from mutual friendships. Indeed, Hundley and Cohen (1999) found that children actually liked peers who were mutual friends more than those peers to whom they had given an unreciprocated friendship nomination, who in turn they liked more than those peers who nominated them as friends but they did not reciprocate. Hayes, Gershman, and Bolin (1980) reported that children identified common activities as reasons for liking mutual friends more than for liking unilateral friends. Further, Gershman and Hayes (1983) found significant differences between reciprocal relationships and unilateral relationships in terms of the reasons children identified for liking. Children were more likely to cite general play and common activities as reasons for liking mutual friends than for unreciprocated friends. Gershman and Hayes (1983) also found mutual friendships were more stable across six months than unilateral friendships, and they suggested early mutual friendships may predict helping, sharing, and general play behaviors six months later.

In sum, research clearly documents the importance of distinctive types of friendships for concurrent and subsequent social and emotional development, including possible ways in which unilateral friendships may be related to social competence outcomes differently than they are related to mutual friendships. The current literature makes a substantial case demonstrating the importance of having at least one mutual friend as well as the benefits of having many mutual friends. Recently, attention has been directed to other forms of children's relationships; relationships in which members of the dyad do not like each other.



## **Children's Antipathies**

In recent years, researchers have begun to study children antipathies, or relationships based on mutual disliking. Parallel to the study of mutual friendship relationships, if both members of the dyad agree that they dislike each other, they are considered to have a mutually antipathetic relationship.

Although antipathetic relationships have not been as extensively studied as friendships, there is a clear relation of number of antipathies to a variety of social competence measures, such that children with higher numbers of antipathetic relationships were more likely to demonstrate increased antisocial behavior, increased social withdrawal and a lack of friendship support than children with fewer antipathetic relationships (Abecassis, Hartup, Haselager, Scholte, & Van Lieshout, 2002). Rodkin and Hodges (2003) found that mutual antipathies were most common among children who were rejected by the peer group. Further, research investigating mutual antipathies and mutual friendships demonstrated that children with both mutual friendships and mutual antipathies were more aggressive than average, and children who had mutual antipathies and no mutual friendships were found to be less aggressive than average, suggesting the importance of considering both friendships and antipathies (Lemerise, Waford, & Blanton, 2007).

## **Olsen's Multidimensional Framework for Children's Relationships**

As noted, nearly all research that focuses on friendships use friendship nominations, and nearly all research that focuses on antipathetic relationships use disliking (i.e., "like least") nominations. Although this research on friendships and antipathies has been undeniably fruitful, other possible relationships largely have been

ignored. As noted above, friendship nominations are not always reciprocated; likewise antipathy nominations are not always reciprocated. Thus, limiting research to only reciprocated relationship nominations precludes the study of other forms of relationships. Further, it should not be assumed that friendship nominations and disliking nominations are mutually exclusive considerations.

Olsen et al. (2012) extended consideration of relationships beyond the narrow definitions of mutual friendships and mutual antipathies. With this model, all dyads of acquainted children are *assumed* to be in some type of relationship; some may be mutually acknowledged, others may be unilateral in nature. Also within this framework, friendships and antipathies are considered together. Thus for each member of a dyad in a classroom, the absence or presence of a friendship nomination and the absence or presence of a disliking nomination are considered. Table 1 provides a comparison of Olsen's (2012) model with previous methodologies.

Olsen and colleagues (2012) empirically documented the existence of these various types of classroom relationships. Mutual relationships were considered those where both children agreed about the nature of the relationship. Mutual friendships are relationships in which both children in a dyad nominated each other as a friend, and neither child gave the other a dislike nomination. Mutual antipathies are relationships in which both children in a dyad nominated each other as someone they "like least" and neither child nominated the other as a friend. In mutual disregarding relationships, neither child in a dyad nominated the other for friendship or for disliking.

Unilateral friendships (i.e., "Unilaterally Befriended" and "Unilaterally Befriending") are relationships where one child in a dyad nominated the other as a friend

but the other child did not reciprocate the friendship nomination. For example, if Child A nominated Child B as a friend and Child B did not nominate Child A as a friend, Child A is “Unilaterally Befriending” and Child B is “Unilaterally Befriended.” Furthermore, neither child nominated the other as disliked. Similarly, unilateral disliking (i.e., “Unilaterally Disliked” and “Unilaterally Disliking”) are relationships where one child nominated the other as someone they “like least” but did not receive a “like least” nomination from that child. For example, if Child C nominated Child D as “likes least” and Child D did not nominate Child C as “likes least,” Child C is “Unilaterally Disliking” and Child D is “Unilaterally Disliked.” Furthermore, neither child nominated the other as a friend.

The simultaneous consideration of friendship nominations and disliking nominations provides a more rigorous conceptualization of mutual and unilateral relationships. First, the percentage of types of relationships changed across the methodological approaches. For example, when considerations were made for both friendship and disliking nominations, the percentage of mutual friendships dropped from 27.4% to 25.6% (see Table 2). In addition, Olsen et al. (2012) identified two new types of relationships that accounted for 12.1% of all types of relationships (see Table 2) termed “unbalanced relationships”. One type of unbalanced relationship was “Befriending but Disliked” whereby Child A nominated Child B as a friend and Child B nominated Child A as disliked. This type of relationship was found to be associated with poor social competence outcomes for Child A. Children with higher numbers of Befriending but Disliked relationships had scores that were lower in social acceptance and sociability and respect behaviors and were higher in aggression and social withdrawal. “Disliking but

Befriended”, whereby Child C nominated Child D as disliked and Child D nominated Child C as a friend, was the other type of unbalanced relationship highlighted by Olsen and colleagues (2012). This type of relationship was found to be associated with higher scores on social competence for Child C. Specifically, children with higher numbers of “Disliking but Befriended” relationships had scores that were higher for sociometric ratings, sociability, and showing respect and lower for overt aggression, relational aggression, and passive withdrawal.

In summary, Olsen et al. (2012) demonstrated the relevance of a multidimensional relationship scheme, which assumes all dyads of acquainted children to be in relationships and jointly considers friendship and antipathy nominations. Further, they demonstrated that the number of unbalanced relationships that children had was associated with the child’s social competence. These unbalanced relationships were previously overlooked by researchers. The present research extends this initial work by asking a broad question: Does a consideration of the configuration of types of relationships across all of an individual’s classmates relate to that child’s social functioning?

### **The Present Research**

The present research empirically expands upon Olsen’s model in two ways. First, the current research investigated whether profiles of children could be detected based on the frequencies of children’s classroom relationship types as identified by Olsen et al. (2012). This was done by examining combinations of nine relationship types: mutual friends, unilaterally befriending, unilaterally befriended, mutual disregard, mutual like least (antipathy), unilaterally disliking, unilaterally disliked, befriending but disliked, and

disliking but befriended. Second, this research considered these relationships together to empirically create profiles of children with various percentages of relationship types and to evaluate the peer social functioning associated with these profiles. Specifically, the present study examined profiles of children's relationships as they related to domains of social functioning, including: children's self-ratings of social competence and peer optimism, and peer nominations of sociability, showing respect, overt aggression, relational aggression, and passive withdrawal behaviors.

## **Method**

### **Participants**

Participants included all 219 children (females,  $n = 109$ ) from 10 classrooms spanning grades 3 ( $n = 60$ ), 4 ( $n = 44$ ), 5 ( $n = 49$ ), and 6 ( $n = 66$ ) at a university-affiliated public elementary school. Data were collected as part of an ongoing longitudinal project on children's peer relations. Fewer than 20% of the children received any lunch subsidy, indicating the children were primarily from middle-income families. The children represented multiple ethnic backgrounds (African American = 46.6%, Caucasian = 48.9%, other ethnicities = 4.5%). Permission for data collection was obtained from the University Institution Review Board (IRB) and all data collection procedures were compliant with IRB provisions and standards.

### **Measures**

A variety of self-report measures were administered to assess participants' classroom relationships and social competence. Classroom relationships were derived from friendship and antipathy (like least) nominations. Social Competence was determined from questionnaires assessing self reports of social competence and peer

optimism, and from peer nominations for social behaviors (Sociability, Showing Respect, Overt Aggression, Relational Aggression, and Passive Withdrawal).

**Relationship nominations: Friendships.** Friendships were assessed using classroom rosters. Children were asked to circle the names of their friends. An unlimited number of nominations were allowed and cross-sex nominations were permitted. Nominations for friends were coded into multidimensional dyadic relationships as described below.

**Relationship nominations: Disliking (i.e., Antipathies).** As is most commonly the case with other research, antipathies were determined from classroom like-least nominations. Children were given a classroom roster and asked to circle the names of all classmates they “like the least.” An unlimited number of nominations were allowed and cross-sex nominations were permitted. Antipathy nominations were coded into multidimensional dyadic relationships as described below.

**Self report of social competence: Self-perceptions.** The social competence subscale of the Self-Perception Profile for Children (SPPC; Harter, 1985) was used to assess children’s evaluations of their own social competence. For each of six items, children were asked to choose from a pair of descriptions, the one they think better describes them and then to indicate whether the description is *somewhat true* or *very true*, creating a 4-point Likert scale. Higher scores corresponded to a more positive perception of a social competence, and scale scores were calculated by mean across the six items. The SPPC has demonstrated good reliability and validity. Specifically, the social competence subscale has demonstrated good internal consistency validity ( $\alpha = .75 - .80$ ; Harter, 1985).

**Self report of social competence: Peer optimism.** To assess peer optimism, children were given Deptula, Cohen, Phillipsen, and Ey's (2006) Peer Life Orientation Test (PLOT), a measure adapted from the Life Orientation Test-Revised (Scheier & Carver, 1985; Scheier et al., 1994). The 10-item self-report questionnaire was used to assess expectations for peer interactions and relations. Children responded to items with choices of *Really Agree*, *Agree*, *Disagree*, and *Really Disagree*. Scores were calculated by averaging responses to the optimism items (e.g., "When I see a group of kids doing something fun, it is usually easy for me to join them") and the reverse scoring of the pessimism items (e.g., "I don't usually expect good things to happen to me when I am with other kids"). The scale has demonstrated good content validity ( $\alpha = .86$ ; Schoffstall, 2011).

**Peer behavior nominations.** Peer evaluations of classmates' sociability, showing respect, overt aggression, relational aggression, and passive withdrawal were assessed with behavior nominations using the Revised Class Play procedure (Master, Morison, & Pelligrini, 1985). Children were given classroom rosters and instructed to circle the names (unlimited) of students who best fit each behavior description. The current study used ten sociability items from Masten et al. (1985), one item pertaining to showing respect, five overt aggression items from Dodge and Coie (1987), five relational aggression items from Crick and Grotpeter (1995), and four passive withdrawal items from Masten et al. (1985). Total nominations for items within each behavior domain were summed for each child and then standardized by classroom (to control for class size). The factors (behaviors) showed good reliability in this sample: Sociability,  $\alpha = .97$ , Overt

Aggression,  $\alpha = .97$ , and Relational Aggression,  $\alpha = .95$ , and Passive Withdrawal,  $\alpha = .88$ .

### **Procedure**

Data were collected in the classroom with two group assessments in the fall. Each session lasted approximately 45 minutes, and students were given a packet of measures to complete. To avoid the possibility of a methodological confound in classifying relationships that may have otherwise resulted from children's perceptions of relationships changing over time, friend and like-least nominations were collected during the same session. During Session A, children completed relationship nominations, including friendship and dislike nominations, and the Self-Perception Profile for Children; during Session B, children completed the Peer Life Orientation Test and the Revised Class Play measure. The order of presentation of sessions was counterbalanced across classrooms. Graduate psychology students conducted these sessions and were not previously known by any of the children. At least three researchers were present during each session to assist individual children. Confidentiality was explained and assured to all of the children at the beginning of each session and an emphasis was placed on respecting the privacy and confidentiality of the other students in the class. Participants were monitored to assure compliance with the protocol and any student who experienced difficulty was given individual assistance. At any point, the children could choose not to continue; all the children chose to complete the measures.



## Results

### Cluster Analyses

Correlations, means, standard deviations, skewness, and kurtosis among the 12 manifest variables are presented in Table 3. Mutual friendships were positively associated with peer's reports of showing respect and negatively associated with peer-reported overt aggression. There was not a statistically significant relation between mutual friendships and peer-reported relational aggression. Mutual antipathies were negatively associated with showing respect and positively associated with relational aggression. For unbalanced relationships, Befriending but Disliked relationships were negatively associated with showing respect and positively associated with overt and relational aggression. Disliking but Befriended relationships were positively associated with showing respect and negatively associated with overt and relational aggression.

Cluster analyses were used to investigate whether clusters of children with characteristic percentages of each type of relationship could be formed empirically. Frequencies of each of the nine relationship types (i.e., mutual friends, unilaterally befriending, unilaterally befriended, mutual disregard, mutual like least, unilaterally disliking, unilaterally disliked, befriending but disliked, and disliking but befriended) for each child were analyzed to create the clusters. Based on the recommendations described Steinley and Brusco (2011), it was determined that a 4-cluster solution best fit the data (termed Befriending, Disregarding but Liked, Disliked, and Disliking profile types), with 27.9% of cases in the Befriending cluster, 33.3% in the Disregarding but Liked cluster, 18.3% in the Disliked cluster, and 20.5% in the Disliking cluster (see Table 4).

Examining the profile types to the prevalent types of relationships that formed them, two of these profile types appeared to be based on types of friendships, and two of these profile types appeared to be based on disliking relationships. Using a cutoff criterion of .5, Befriending profile type reflected high numbers of mutual friends, unilateral befriending, and befriending but disliked relationships and low numbers of all categories of disliking and all categories of disregarding relationships. In short, children with this profile gave relatively more friendship nominations to classmates than their peers. Children in the Disregarding but Liked profile type had high numbers of mutual disregard and unilaterally befriended relationships. These children did not give out many friendship nominations. Both of these profiles of children were low in assigning dislike nominations.

Children in the Disliked profile type had high numbers of unilaterally disliked relationships and low numbers of all categories of befriended relationships. Children in the Disliking profile type had high numbers of mutual antipathies, unilateral disliking, and disliking but befriended relationships. They were also low in assigning friendship nominations.

### **Multivariate Analyses of Covariance**

A multivariate analysis of covariance was performed to determine whether there were statistically significant differences among relationship profile types (i.e., the resulting clusters) for social competence, peer optimism, and social behaviors (Sociability, Showing Respect, Overt Aggression, Relational Aggression, and Passive Withdrawal). Grade and gender were specified as covariates in order to control for potential effects on the seven dependent variables.

Overall, results indicated that there were statistically significant differences among the clusters for self perceived social competence ( $F [3,213] = 2.72, p < .05$ ), self perceived peer optimism ( $F [3,213] = 3.47, p < .05$ ), sociability ( $F [3,213] = 12.55, p < .001$ ), showing respect ( $F [3,213] = 23.90, p < .001$ ), overt aggression ( $F [3,213] = 17.42, p < .001$ ), and relational aggression ( $F [3,213] = 18.08, p < .001$ ). Cluster means for peer withdrawal did not significantly differ ( $F [3,213] = 1.61$ ). Post-hoc analyses are described below and presented in Table 5.

### **Post-hoc Analyses**

**Social competence: Self-perceptions.** LSD follow-up analyses revealed that children with the Befriending profile type had higher self perceived social competence scores ( $M = 3.15, SD = .66$ ) than children with the Disliked profile type ( $M = 2.81, SD = .73$ ). Children with the Disliking profile type ( $M = 3.20, SD = .56$ ) also had significantly higher self perceived social competence scores than children with the Disliked profile type.

**Social competence: Peer optimism.** LSD follow-up analyses revealed that children with the Disliked profile type ( $M = 2.96, SD = .63$ ) had significantly lower self perceived peer optimism scores than children in the Befriending ( $M = 3.33, SD = .58$ ), Disregarding but Liked ( $M = 3.26, SD = .58$ ), and Disliking ( $M = 3.20, SD = .56$ ) profile types.

### **Peer behavior nominations.**

**Sociability.** LSD follow-up analyses revealed that children with the Disregarding but Liked profile type received significantly higher sociability scores ( $M = .40, SD = 1.01$ ) than children in the Befriending ( $M = -.07, SD = .89$ ), Disliked ( $M = -.75, SD =$

.42), and Disliking ( $M = .05$ ,  $SD = .94$ ) profile types. Children in the Befriending and Disliking profile types received significantly higher sociability scores than children in the Disliked profile type.

**Showing Respect.** LSD follow-up analyses revealed that children with the Disliked profile type had significantly lower scores for showing respect ( $M = -.82$ ,  $SD = .72$ ) than children in the Befriending ( $M = -.23$ ,  $SD = .84$ ), Disregarding but Liked ( $M = .54$ ,  $SD = .85$ ), and Disliking ( $M = .17$ ,  $SD = .84$ ) profile types. Children in the Disregarding but Liked and Disliking profile types had significantly higher scores for showing respect than children in the Befriending profile type. Children in the Disregarding but Liked profile type had significantly higher scores for showing respect than children in the Disliking profile type.

**Overt Aggression.** LSD follow-up analyses revealed that children with the Disliked profile type had significantly higher overt aggression scores ( $M = .69$ ,  $SD = .13$ ) than children in the Befriending ( $M = .29$ ,  $SD = 1.14$ ), Disregarding but Liked ( $M = -.46$ ,  $SD = .37$ ), and Disliking ( $M = -.25$ ,  $SD = .61$ ) profile types. Children in the Befriending profile type had significantly higher overt aggression scores than children in the Disregarding but Liked and Disliking profile types. Children in the Disliking profile type had significantly higher overt aggression scores than children in the Disregarding but Liked profile type.

**Relational Aggression.** LSD follow-up analyses revealed that children with the Disliked profile type had significantly higher relational aggression scores ( $M = .63$ ,  $SD = 1.21$ ) than children in the Befriending ( $M = .31$ ,  $SD = 1.21$ ), Disregarding but Liked ( $M = -.46$ ,  $SD = .39$ ), and Disliking ( $M = -.26$ ,  $SD = .56$ ) profile types. Children in the

Befriending profile type had significantly higher relational aggression scores than children in the Disregarding but Liked and Disliking profile types. Children in the Disliking profile type had significantly higher relational aggression scores than children in the Disregarding but Liked profile type.

**Summary.** Overall, the Befriending profile type had the highest scores for self perceived social competence and peer optimism compared to children in the other profile types. However, this group also received some of the lowest scores for sociability and showing respect. Further, they received the highest scores for overt aggression and relational aggression. In a sense, children in the Befriending profile type appeared to see themselves as socially competent and to see most of their classmates as friends, but their peers saw them as aggressive and not respectful.

Children in the Disregarding but Liked profile type had somewhat moderate scores for self perceived social competence compared to children with the other profile types and moderate scores for peer optimism. This group received the highest scores for sociability and showing respect and the lowest scores for overt and relational aggression. Thus, children in the Disregarding but Liked profile type appeared to see themselves as socially competent and, though they did not nominate many of their classmates as friends, their peers saw them as sociable and respectful.

The Disliked profile type had the lowest scores for self perceived social competence and peer optimism. They received the lowest scores for sociability and showing respect and the highest scores for overt aggression and relational aggression. Children in the Disliked profile type appeared to be seen as aggressive and not respectful by their peers. Children in this profile type gave few friendship nominations and received

many dislike nominations, and they seemed to be aware of their peer's opinions of them, as they did not self-report high scores of social competence or peer optimism.

Children in the Disliking profile type had the highest scores for perceived social competence and peer optimism compared to other profile types. They also received moderate scores for sociability and showing respect and moderately low scores for overt aggression and relational aggression. Children in the Disliking profile type were nominated as friends by many of their peers, but they gave these peers (and many other peers) dislike nominations. Though their peers appeared to see them as friends and as somewhat sociable and respectful, children in this profile type did not like their peers and did not see them as friends.

### **Discussion**

Peer relationships provide unique opportunities contributing to children's adjustment and development (Hartup, 1989). Historically, little research had been done to investigate specific types of relationships other than mutual friendships or mutual antipathies. Recently, Olsen and colleagues (2011) investigated the prevalence and social competence correlates of balanced and unbalanced relationship types by using a new framework that considered friendship nominations and disliking nominations simultaneously. The present study extended this research by empirically creating profiles of children's relationship types and considering these individual characteristics based on relationship information. Further, the present study compared comparing these profiles to children's ratings of their own social competence and peer optimism and their peers' ratings for social behaviors (sociability, showing respect, overt aggression, relational aggression, and passive withdrawal).

The present study found four empirically determined clusters, which, for the purpose of this paper, we refer to as: Befriending, Disregarding but Liked, Disliked, and Disliking. Two of these profile types were based on types of friendships. Children in the Befriending profile type appeared to see themselves as socially competent and to see most of their classmates as friends, but their peers saw them as aggressive and not respectful. Children in the Disregarding but Liked profile type appeared to see themselves as socially competent and, though they did not nominate many of their classmates as friends, their peers saw them as sociable and respectful.

The remaining two profile types were based on disliking relationships. Children in the Disliked profile type appeared to be seen as aggressive and not respectful by their peers. They gave few friendship nominations and received many dislike nominations, and they seemed to be aware of their peer's opinions of them, as they did not self-report high scores of social competence or peer optimism. Children in the Disliking profile type were nominated as friends by many of their peers, but they gave these peers (and many other peers) dislike nominations. Though their peers appeared to see them as friends and as somewhat sociable and respectful, children in this profile type did not like their peers and did not see them as friends.

It appeared that children with the profile types based on disliking had a better understanding of whether their peers perceived them as friends than children in the profile types based on friendships. Children in the Disliked profile type were generally disliked by their peers, and they did not nominate many children as friends who did not give them a friendship nomination. Children in the Disliking profile type had the highest number of mutual antipathies and the lowest number of befriending but disliked

relationships. Thus, they did not give friendship nominations to peers who did not nominate them as friends. Because these children had a generally good understanding of how their peers perceived them, they may be better prepared than children with other profile types to improve their social standing and to make and maintain mutual friendships.

Children in the Befriending profile type seemed to have a particularly poor understanding of who their friends were. They nominated most of their peers as friends and reported high perceived social competence scores. However, their peers' ratings suggested children in the Befriending profile type were overtly and relationally aggressive and did not show respect to their peers. This suggests children in the Befriending profile type assume they are socially competent and have many friends, but they were not perceived so well by the peer group. Without intervention, these children may continue to believe they are doing well and have difficulty making and maintaining mutual friendships and acceptance by the peer group.

Children in the Disregarding but Liked profile type had the highest number of unilaterally received friendship nominations. Their particular configuration of relationship types suggests they may be unaware that many of their peers see them as friends, or they may disagree about the type of relationship they have with these children. It is possible that children in the Disregarding but Liked profile type are "missing out" on friendships by disregarding many peers who want to be – and think they are – mutual friends.

The four groups of children derived from the prevalence of relationships types in their classroom were found to have significant differences on measures of social



functioning. Not surprisingly, the disliked group showed the lowest levels of self-perceptions of social competence. This category of children was low on mutual friendships and high on nominations of unilateral dislike received from peers. Interestingly, the Befriending and Disliking groups had the most positive perceived social competence scores. This is perhaps surprising because the Disliking group had the highest number of mutual antipathies, and research has demonstrated negative social competence outcomes are associated with high numbers of mutual antipathies (Abecassis et al., 2002). Although this group of children disliked many peers, this category of children was also simultaneously receiving friendship nominations from those children they disliked. This may be a likely reason these children displayed the highest levels of self-perceptions of social competence. This finding highlights the necessity of considering multiple dimensions of children's relationships.

Differential patterns also emerged for perceptions of peer optimism. The children in the befriending group and the disliked group displayed the highest levels of peer optimism. Children in the Befriending profile type believed many children in their class were their friends, so it is not surprising they reported optimistic relations with their peers. Again, it is somewhat surprising that children in the disliking group felt optimistic about their peer relations. Although this group of children had a higher than average number of mutual antipathies, they also had a higher than average number of friendship nominations from classmates they do not like. This may act as a buffer between poor peer relations and the high number mutual antipathies. Peer optimism scores were significantly lowest in the Disliked group of children. These children were higher than average on being disliked by their peers and lower than average on mutual friendships.

Differences among the profile types as they relate to measures of social functioning may help to explain possible implications of membership in each of the four profile types. The Disregarding but Liked group received the highest sociability scores, suggesting that, although they did not give opinions about most of their peers, they do interact with their peers. This may explain why these children who disregard their peers in terms of friendship and dislike nominations are liked by so many of their peers. Both the Disliked group and the Befriending groups received high overt aggression and relational aggression scores and the lowest scores for showing respect compared to children in the other profile types. These children's displays of overt and relational aggression and lack of showing respect to peers may explain why children in the Disliked profile type are disliked by so many of their peers and why children in the Befriending profile type receive so few friendship nominations relative to the number of friendship nominations they give to peers as well as the high number of befriending but disliked relationships children in the Befriending profile type have. Consistent with previous research highlighting the importance of mutual friendships (i.e., Sebanc, 2003), the Disliked group, which was the lowest of the four groups in prevalence of Mutual Friends, was negative on all social competence scores.

In sum, this research provided evidence that a consideration of the configuration of types of relationships across all of an individual's classmates related to that child's social functioning. Specifically, membership in the four distinctive relationship profile types was related to self perceived social competence and peer optimism, sociability, showing respect, overt aggression, and relational aggression.

These findings fit well with Rubin, Bukowski and Parker's (2006) conceptualization for understanding children's peer relations. Rubin et al. proposed a hierarchy of social complexity including levels such as individual, relationship, and group with each level influencing adjacent levels but no level being simply reducible to levels below it. The present research shows ways in which knowing the configuration of a child's relationship types helps us predict information about other levels. For example, in this study, children in the Disliked profile type had the highest number of unilateral dislike nominations (group level). They also received the highest peer group scores for overt and relational aggression and the lowest scores for showing respect, suggesting that their aggressive behavior and lack of showing respect when interacting with their peers is related to their configuration of relationship types. Based on the high number of dislike nominations these children received and the low number of friendships they and their peers reported, we could infer that they are likely to be rejected from the peer group. Unlike previous research linking relationships and group functioning, the present research relied on a comprehensive consideration of all dyadic relationships within the classroom and simultaneously considered disliking along with the friendship nominations.

### **Limitations and Future Directions**

A limitation of this study is the cross-sectional design. We do not know the stability of these relationship types across time. A logical next step would be to conduct a longitudinal study that investigates configurations of relationship types and the stability of different types of relationships and related social competence variables across time. Further, a longitudinal study could provide more information about how children come to acquire these different relationship prevalences. For example, research could explore

whether having a high number of unilaterally received friendship nominations could facilitate a child establishing and maintaining a higher number of mutual friendships than children with few received friendship nominations.

In conclusion, this study provided evidence that children's relationship types can be empirically profiled in a meaningful way and demonstrated ways in which the particular configurations of a child's relationship types were related to social competence and social functioning. With this additional knowledge of the nature of children's peer relationships and the prevalences of their relationship types, we can more reliably predict and better understand critical aspects of children's social adjustment.

## References

- Abecassis, M., Hartup, W. W., Haselager, G. T., Scholte, R. J., & Van Lieshout, C. M. (2002). Mutual antipathies and their significance in middle childhood and adolescence. *Child Development, 73*, 1543-1556.
- Bukowski, W. M., Motzoi, C., & Meyer, F. (2009). Friendship as process, function, and outcome. In K. H. Rubin, W. M. Bukowski, B. Laursen, K. H. Rubin, W. M. Bukowski, & B. Laursen (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 217-231). New York, NY US: Guilford Press.
- Deptula, D. P., Cohen, R., Phillipson, L. C., & Ey, S. (2006). Expecting the best: The relation between peer optimism and social competence. *Journal of Positive Psychology, 1*, 130-141.
- Gershman, E. S., & Hayes, D. S. (1983). Differential stability of reciprocal friendships and unilateral relationships among preschool children. *Merrill-Palmer Quarterly: Journal Of Developmental Psychology, 29*, 169-177.
- Hartup, W.W. (1996). The company they keep: Friendships and their developmental significance. *Child Development, 67*, 1-13.
- Hartup, W. W., & Abecassis, M. (2002). Friends and enemies. In P. K. Smith & C. H. Hart (Eds.), *Blackwell handbook of childhood social development* (pp. 286-306). Malden, MA: Blackwell.
- Hartup, W. W., Laursen, B., Stewart, M. I., & Eastenson, A. (1988). Conflict and the friendship relations of young children. *Child Development, 59*(6), 1590-1600.

- Hayes, D. S., Gershman, E., & Bolin, L. J. (1980). Friends and enemies: Cognitive bases for preschool children's unilateral and reciprocal relationships. *Child Development, 51*, 1276-1279.
- Hodges, E., Boivin, M., Vitaro, F., & Bukowski, W. M. (1999). The power of friendship: Protection against an escalating cycle of peer victimization. *Developmental Psychology, 35*, 94–101.
- Hodges, E., Malone, M. J., & Perry, D. G. (1997). Individual risk and social risk as interacting determinants of victimization in the peer group. *Developmental Psychology, 33*, 1032–1039.
- Howes, C. (1996). The earliest friendships. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendships in childhood and adolescence* (pp. 66-86). New York, NY: Cambridge University Press.
- Hoza, B., Molina, B. G., Bukowski, W. M., & Sippola, L. K. (1995). Peer variables as predictors of later childhood adjustment. *Development And Psychopathology, 7*, 787-802.
- Hundley, R.J., & Cohen, R. (1999). Children's relationships with classmates: A comprehensive analysis of friendship nominations and liking. *Child Study Journal, 29*, 233-246.
- Lemerise, E. A., Waford, R., & Blanton, E. (2007, March). *The impact of friendships and mutual antipathies on children's school adjustment*. Poster session presented at the biennial meeting of the Society for Research on Child Development, Boston, MA.

- Liu, M., & Chen, X. (2003). Friendship networks and social, school and psychological adjustment in Chinese junior high school students. *Psychology in the Schools, 40*, 5-17.
- Masten, A. S., Morison, P., & Pellegrini, D. S. (1985). A Revised Class Play method of peer assessment. *Developmental Psychology, 21*, 523-533.
- Nangle, D. W., Erdley, C. A., Newman, J. E., Mason, C. A., & Carpenter, E. M. (2003). Popularity, friendship quantity, and friendship quality: Interactive influences on children's loneliness, and depression. *Journal of Clinical Child and Adolescent Psychology, 32*, 546-555.
- Newcomb, A. F., Bukowski, W. M., & Bagwell, C. L. (1999). Knowing the sounds: Friendship as a developmental context. In W. Collins, B. Laursen, W. Collins, & B. Laursen (Eds.), *Relationships as developmental contexts* (pp. 63-84). Mahwah, NJ US: Lawrence Erlbaum Associates Publishers.
- Olsen, J., Parra, G. R., Cohen, R., Schoffstall, C. L., & Egli, C. J. (2012). Beyond relationship reciprocity: A consideration of varied forms of children's relationships. *Personal Relationships, 19*, 17-88.
- Rodkin, P.C. & Hodges, E.V.E. (2003). Bullies and victims in the peer ecology: four questions for psychologists and school professionals. *School Psychology Review, 32*, 384-400.
- Rubin, K. H., Bukowski, W. M., & Parker, J. G. (2006). Peer Interactions, Relationships, and Groups. In N. Eisenberg, W. Damon, R. M. Lerner, N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 3, Social, emotional, and personality development (6th ed.)* (pp. 571-645).

- Sebanc, A. M. (2003). Friendship experiences among preschool children: Links with prosocial behavior and aggression. *Social Development, 12*, 249-268.
- Steinley, D., & Brusco, M. J. (2011). Testing for validity and choosing the number of clusters in K-means clustering. *Psychological Methods, 16*, 285-297.
- Utz, S. (2010). Show me your friends and I will tell you what type of person you are: How one's profile, number of friends, and type of friends influence impression formation on social network sites. *Journal Of Computer-Mediated Communication, 15*(2), 314-335.
- Witvliet, M., van Lier, P. C., Cuijpers, P., & Koot, H. M. (2009). Testing links between childhood positive peer relations and externalizing outcomes through a randomized controlled intervention study. *Journal of Consulting and Clinical Psychology, 77*, 905-915.



Table 1

## Comparison of Coding Methods

	Gave Friend Nomination	Received Friend Nomination	Gave Like Least Nomination	Received Like Least Nomination		Gave Friend Nomination	Received Friend Nomination	Gave Like Least Nomination	Received Like Least Nomination
<u>Unidimensional</u>					<u>Multidimensional</u>				
<u>Friend Relationships</u>					<u>Mutual Relationships</u>				
Mutual Friend	X	X	?	?	Mutual Friends	X	X	-	-
Unilateral Given Friend	X	-	?	?	Mutual Antipathy	-	-	X	X
Unilateral Received Friend	-	X	?	?	Mutual Disregard	-	-	-	-
Not Friends	-	-	?	?	<u>Unilateral Relationships</u>				
<u>Antipathy Relationships</u>					Unilateral Befriended				
Mutual Antipathy	?	?	X	X	Unilateral Befriending	X	-	-	-
Unilateral Given Antipathy	?	?	X	-	Unilateral Disliked	-	-	-	X
Unilateral Received Antipathy	?	?	-	X	Unilateral Disliking	-	-	X	-
Not Antipathies	?	?	-	-	<u>Unbalanced Relationships</u>				
					Disliking but Befriended				
					Befriending but Disliked				
					<u>Mixed Relationships</u>				
					Mutual Friend & Antipathy				
					Mutual Friend Disliking				
					Mutual Friend Disliked				
					Mutual Antipathy Befriending				
					Mutual Antipathy Befriended				
					Befriended and Disliked				
					Befriending and Disliking				

*Note.* X indicates a positive endorsement, - indicates a non-endorsement, and ? indicates that an endorsement is unknown Table reprinted from Olsen et al. (2012).

Table 2

## Comparison of Relationship Frequencies

Unidimensional			Multidimensional		
Relationship Type	# of Dyads	% of Total	% of Total	# of Dyads	Relationship Type
Mutual Friends	633	27.4%	25.6%	597	Mutual Friends
Mutual Antipathies	255	11.0%	9.8%	228	Mutual Antipathies
Unilateral Given Friend	758	32.8%	17.9%	414	Unilateral Befriending (Toward)
Unilateral Received Friend					Unilateral Befriended (From)
Unilateral Given Antipathy	746	32.3%	17.1%	394	Unilateral Disliking (Toward)
Unilateral Received Antipathy					Unilateral Disliked (From)
			12.1%	281	Befriending but Disliked
					Disliking but Befriended
Not Friends	922	39.9%	13.1%	301	Mutual Disregard
Not Antipathies	1312	56.7%	4.3%	98	Mixed Relationships
Total	4626	200%	100%	2313	Total

*Note.*  $n=219$ . For every Disliking but Befriended, there is a Befriended but Disliked. The combination of these creates one dyad, and thus the reason these relationship types share number of dyads. This same rule holds true for Unilateral Befriending and Unilateral Disliking. Mutual Friends, Mutual Antipathies, and Mutual Disregard are all matched with themselves in a dyad.

Table reprinted from Olsen et al. (2012).

Table 3

## Correlations, Means, Standard Deviations, Skewness, and Kurtosis Among the 12 Manifest Variables

	1	2	3	4	5	6	7	8	9	10	11	12
<u>Dyadic Relationships</u>												
1. Mutual Friends	--											
2. Mutual Antipathies	-0.30	--										
3. Befriending but Disliked	-0.08	0.14	--									
4. Disliking but Befriended	-0.05	-0.12	-0.33	--								
<u>Aggression</u>												
5. Overt Aggression	-0.16	0.34	0.38	-0.25	--							
6. Relational Aggression	-0.11	0.36	0.38	-0.21	0.90	--						
<u>Social Standing</u>												
7. Social Preference	0.60	-0.52	-0.52	0.41	-0.49	-0.45	--					
8. Victimization	-0.29	0.23	0.35	-0.31	0.35	0.29	-0.60	--				
9. Sociometric Ratings	0.53	-0.47	-0.48	0.44	-0.43	-0.39	0.89	-0.57	--			
10. Others Respect	0.29	-0.29	-0.30	0.30	-0.19	-0.14	0.57	-0.37	0.59	--		
<u>Befriending &amp; Disliking Behavior</u>												
11. Given Friend Nominations	0.62	-0.17	0.58	-0.30	0.09	0.11	0.06	0.03	0.03	-0.07	--	
12. Given Like-Least Nominations	-0.26	0.51	-0.21	0.48	-0.03	-0.01	-0.02	-0.12	0.04	0.00	-0.31	--
Mean	0.00	0.00	0.00	0.00	0.00	-0.01	0.01	-0.03	3.70	0.00	0.00	0.00
SD	0.98	0.98	0.98	0.98	0.99	0.98	1.76	0.89	0.76	0.98	0.98	0.98
Skew	0.71	0.64	1.78	1.08	2.08	2.02	-0.49	2.93	-0.47	0.93	0.70	0.81
Kurtosis	0.43	-0.31	3.29	1.00	3.84	3.85	0.23	9.55	-0.03	0.99	-0.02	0.10

Note. N=219. \*p<.05, \*\*p<.01, \*\*\*p<.001; table reprinted from Olsen et al. (2012).

Table 4

Characteristics of Clusters

---

	Befriending	Disregarding but Liked	Disliked	Disliking
<u>Mutual Relationships</u>				
Mutual Friends	H	-	L	-
Mutual Antipathy	-	L	-	H
Mutual Disregard	L	H	-	-
<u>Unilateral Relationships</u>				
Unilateral Befriended	L	H	L	-
Unilateral Befriending	H	L	-	-
Unilateral Disliked	L	-	H	-
Unilateral Disliking	L	-	L	H
<u>Unbalanced Relationships</u>				
Disliking but Befriended	L	-	L	H
Befriending but Disliked	H	L	-	L

---

Note. L = below one-half standard deviation, H = above one-half standard deviation.

Table 5

Means, Standard Deviations, and Post-hoc Analyses

	<i>Mean (SD)</i> Befriending	<i>Mean (SD)</i> Disregarding but Liked	<i>Mean (SD)</i> Disliked	<i>Mean (SD)</i> Disliking
Social Competence	3.15 (.66) <sup>a</sup>	3.03 (.68) <sup>ab</sup>	2.81 (.73) <sup>b</sup>	3.20 (.56) <sup>a</sup>
Peer Optimism	3.33 (.58) <sup>a</sup>	3.26 (.58) <sup>a</sup>	2.96 (.63) <sup>b</sup>	3.33 (.51) <sup>a</sup>
Sociability	-.07 (.89) <sup>a</sup>	.40 (1.01) <sup>b</sup>	-.75 (.42) <sup>c</sup>	.05 (.94) <sup>a</sup>
Showing Respect	-.23 (.84) <sup>a</sup>	.54 (.85) <sup>b</sup>	-.82 (.72) <sup>c</sup>	.17 (.84) <sup>d</sup>
Overt Aggression	.29 (1.14) <sup>a</sup>	-.46 (.37) <sup>b</sup>	.69 (1.30) <sup>c</sup>	-.25 (.61) <sup>d</sup>
Relational Aggression	.31 (1.21) <sup>a</sup>	-.46 (.38) <sup>b</sup>	.63 (1.21) <sup>c</sup>	-.26 (.56) <sup>d</sup>
Peer Withdrawal	.02 (1.12) <sup>a</sup>	-.08 (.81) <sup>a</sup>	.19 (1.22) <sup>a</sup>	-.19 (.39) <sup>a</sup>