Methods

Participants

- A community sample from western New York consisting of 45 7-year-olds (21 females, 24 males), plus one sibling and one same-sex, same-age friend for each target child.

- Approximately half of the siblings were two years older than the target children and half were two years younger.

- Exclusion of these target children (8 females, 9 males), with their siblings and friends, had been revisited so far at age 17.

Procedures

- At age 7 the target children were videotaped at home in separate semi-structured minute sessions with the sibling and the friend.

- At age 17 the target adolescents were videotaped at home in separate baking/cooking sessions with the sibling and the friend.

- The videotapes were transcribed, and transcripts were coded for the presence of aggression and prosocial behavior.

- Aggression was defined as any behavior that is clear intent to hurt or damage the partner, and prosocial behavior was defined in any voluntary behavior intended to benefit another party.

- Episodes of aggression were classified as relational (damaging or threatening to damage a relationship), physical (physical acts or physical damage of time), or verbal (non-relational aggressive utterances).

- Social engagement was coded at 10-second intervals, and rates of aggression and prosocial behavior were adjusted to account for variation in session length and the extent to which members of dyads were engaged (entirely attending to each other) or semi-engaged (only one partner attending to the other).

Analyses

Two sets of data analyses were performed:

- Correlational analyses were used to examine relationships among the target children's use of various forms of aggression and prosocial behavior at age 7. To investigate the presence of sex differences, linear relationships may be gender-specific; these analyses were performed separately for boys and girls.

- Preliminary longitudinal analyses were used to examine changes in aggression and prosocial behavior and the connections between them over time. The longitudinal analyses are limited by the small sample size, but coding is rigorous and more participants will be available for future analyses. Because of the limited data and time, we cannot rule out the possibility that other factors, such as boy’s age, gender, and friends’ ages, also made a contribution to the results.

Results

Aggression and prosocial behavior at age 7

- For girls, prosocial behavior and the various forms of aggression were connected in the following ways: (1) physical aggression was positively correlated with relational aggression and verbal aggression, (2) relational aggression and sibling verbal aggression were also positively correlated, (3) relational and physical aggression at age 7 was negatively correlated with sibling verbal aggression, and (4) relational and physical aggression at age 7 were both positively correlated with prosocial behavior toward friends (r = 0.43, p = 0.003; r = 0.003, respectively). For boys, prosocial behavior and the various forms of aggression were connected in the following ways: (1) physical aggression and sibling relational aggression were both positively correlated with sibling verbal aggression and sibling relational behavior (r = 0.43, p = 0.04; r = 0.44, p = 0.05, respectively).

Significant within-relationships correlations were: (1) rates of verbal and relational aggression toward friends, verbal and physical aggression toward siblings, and verbal and physical aggression toward friends (r = 0.36, p = 0.08; r = 0.04; r = 0.49, p = 0.003, respectively).

Across relationships, rates of friend verbal aggression were positively correlated with sibling verbal aggression and sibling relational behavior (r = 0.41, p = 0.004; r = 0.44, p = 0.05, respectively).

Preliminary longitudinal analyses

As shown in Figures 1-4, aggression and prosocial behavior changed in the following ways over time:

- Relational, physical, and verbal aggression all decreased from age 7 to age 17 (p < 0.01, p < 0.02, p < 0.07, respectively). For verbal aggression, there were also a time x partner interaction; at age 7, siblings had a higher rate of verbal aggression than friends did, but this difference had disappeared by age 17 (p = 0.003).

- The overall rate of prosocial behavior also decreased from age 7 to age 17 (p = 0.003).

The following connections over time among the various forms of aggression and prosocial behavior emerged in our preliminary correlational analyses:

- Sibling verbal aggression at age 7 was negatively correlated with sibling physical aggression at age 17 (r = -0.44, p = 0.06).

- Peers verbal aggression at age 7 was positively correlated with both sibling and friend prosocial behavior at age 17 (r = 0.47, p = 0.06; r = 0.54, p = 0.05, respectively).

- Peer physical aggression at age 7 was positively correlated with sibling verbal aggression at age 17 (r = 0.10, p = 0.18).

Discussion

These findings suggest the importance of social context when analyzing aggressive and prosocial behavior in children and adolescents. Both partner and partner played a role in rates of aggression and prosocial behavior and in the connections among them. Not surprisingly, rates of physical, verbal, and relational aggression were related both within and across relationships, contemporaneously and over time. However, the exact nature of the relationships differed for boys and girls.

Connections among the various forms of aggression and prosocial behavior were complex, perhaps due to relationship- and gender-specific meanings of the various forms of prosocial behavior and aggression. In any case, aggression and prosocial behavior behavior are clearly not opposite ends of the same dimension. Instead, they seem to be connected in subtle ways, perhaps through joint dependence on social cognitive skills that make possible sophisticated forms of both prosocial behavior and verbal relational aggression.