Journal of Child & Adolescent Behavior

Field, et al., J Child Adolesc Behav 2014, 2:3
DOI: 10.4172/2375-4494.1000134

Research Article Open Access

Face-to-face Interaction Behaviors of Preadolescent Same-Sex and Opposite-Sex Friends and Acquaintances

Tiffany Field[*1,2], **Ashlee Orozco**[2], **Jennifer Corbin**[2], **Gabriel Dominguez**[2] **and Patricia Frost**[3]

[1]*Mailman Center for Child Development, University of Miami Medical School, Miami, Florida, USA*

[2]*Fielding Graduate University, USA*

[3]*West Laboratory School, USA*

[*]**Corresponding author:** Tiffany Field, Mailman Center for Child Development, University of Miami Medical School, P.O. Box: 016820, Miami, Florida 33101, USA, Tel: 305-975-5029; E-mail: tfield@med.miami.edu

Received date: April 15, 2014, **Accepted date:** May 12, 2014, **Published date:** May 19, 2014

Copyright: © 2014 Field T, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

ABSTRACT

The purpose of this study was to determine whether pre-adolescents interacted more similarly and more positively in best friend pairs than those in acquaintance pairs and whether same-sex dyads interacted more similarly and more positively than opposite-sex dyads. Archival videotapes were coded for the face-to-face interaction behaviors of preadolescent best friend and acquaintance dyads and same-sex and opposite-sex dyads. The dyads had been identified by sociograms completed by 56 sixth grade children. The dyads were then videotaped in face-to-face interactions. The videotapes were coded in the current study for: 1) similar behaviors (vocalizations, body movements); 2) affect (smiling, laughing, animated); 3) communication signals (latent responding, interrupting, talking at the same time); and for 4) accord (agreeing, disagreeing). The best friend versus acquaintance pairs had more similar vocalizations, they laughed more, they interrupted and talked at the same time less often and they expressed agreement more often. The best friend same-sex versus opposite-sex pairs showed more similar vocalizations and body movements, they laughed more often, they showed less latent responding and expressed more agreement. These data suggest that more positive interactions occur within best friend than acquaintance dyads and within same-sex versus opposite-sex pairs at this pre-adolescent stage.

Keywords: Interaction; Friends; Acquaintances

Introduction

Having close friends in grade school has been associated with better social skills[1], and in at least one study, sixth graders who had close friends achieved higher academic levels by eighth grade [2], highlighting the importance of grade school friendships. Children attending the same school have the opportunity to develop and maintain friendships. In one study, for example, 76% of friendships were maintained across second to sixth grade [3]. Although most of the friendship studies have involved same-sex pairs, occasionally even in early grade school, children select opposite gender best friends. For example, in a study on third and fourth graders, 14% of the sample had cross-sex friendships that were their primary or only friendships [4].

Very little is known about the face-to-face interaction behaviors of Preadolescent friends and acquaintances, either in their same-sex or opposite-sex friendships, although face-to-•face interaction researchers have suggested that people who frequently interact with each other come to behave in similar ways [5,6]. Face-to-face interactions of 56 sixth grade friend and acquaintance pairs were videotaped in an earlier study by our group [7]. During those interactions the best friend dyads versus the acquaintance dyads were rated as being more attentive, affectively positive, vocal, active, involved, relaxed, and playful, and their lower cortisol levels suggested less stress. They also spent more time together in mutually interested and animated states, and they assigned higher ratings to liking their interactions and interaction partners. Greater coherence in the friend pairs' behavior states and in the acquaintance pairs' vocal activity suggested that the friend pairs more often shared the same behavior state (e.g., playful), and the acquaintance pairs more often paid attention to each others' turn•taking signals, so that when one person talked, the other was silent. These data suggest that conversation rules are followed and interactions are animated especially among best friend pairs by the preadolescent period.

The rationale for selecting preadolescents (sixth graders) for the original study was that they had been together for most of their grade school years and they had formed close friendships. They were also expected to have acquaintances who knew each other for similar periods of time. In that way, familiarity was not expected to be a confounding variable, as it frequently has been in previous studies. In addition, the reason for choosing this age group was that face-to-face interactions seemed to be a popular way of interacting among same-sex peers at this age, perhaps because peers seem to like gossiping at this stage [8].

For the [7] study the preadolescents first specified their best friend and acquaintance. To check the consistency of their selection, we asked them to specify the student they knew "the best" and the student they knew "the least" so that we could form close friend and acquaintance pairs, The children were then paired with their best friend and with an acquaintance for separate interactions (as in a repeated measures design). These pairs were then videotaped during a 10-minute face-to-face interaction. D

The purpose of the current study was to recode the archival videotapes of the [7] study to address questions raised by the ratings from that study including: 1) did preadolescent best friend pairs behave more similarly and did they have more positive interactions than acquaintance pairs; and 2) did preadolescent same-sex best friend dyads behave more similarly and did they have more positive interactions than opposite-sex dyads.

Method

Sample

The sample had been recruited in the Field et al study from the two sixth-grade classes at the West Labora1ory Elementary School. Following parental informed consent and child Informed assent, 56 children (26 boys and 30 girls) were enrolled in the study. The children represented a fairly heterogeneous ethnic sample (Caucasian, Black, and Hispanic) and were middle socioeconomic status (SES). The children averaged 11.S years of age, and they had known each other for 4.4 years on average.

Procedures

Sociograms for selection of close friend and acquaintance pairs. The children were first asked to orally name their "best" friend and their acquaintance. More specific questions were then asked to confirm the children's choices. These questions appeared on a xeroxed drawing of a happy face with several cartoonlike message clouds emanating from the happy face with the messages "I know--the best,""I know--the least,""I play with --the most,""I play with -- the least," "I study with -- the most (least},"and at lunch I sit next to -- the most (least). The children's teachers were also given a class roster and asked to list, for each child, two of the child's closest friends in their rank order. For the pairing of children, we then did the following. For the selection of the acquaintances, we simply matched children who said that they knew, played with, or sat next to each other the least. This appeared to be a more difficult task than selecting a best friend. (More questions were left blank) The best friend selections were based on three criteria: (a) naming the child as best friend;(b) listing the child as knowing, studying with, or sitting at lunch with the most; and (c) teacher ranking of I or 2 as best friend.

Close friend and acquaintance interactions. Friend and acquaintance pairs were taken to a school room in a counterbalanced order for a session of approximately JO minutes. There they were seated in a face-to face position across from each other at a small table for a lO-minute interaction. The children were asked to have a conversation about anything they desired. Some ideas were given to them, such as talking about their day at school, their summer plans, and so forth. The conversations were videotaped by a camera mounted on a tripod approximately 6 feet away from the children so as to be unobtrusive to them. A mirror propped on the table and inclined against a wall enabled the camera to film the face of one child and the mirror image of the face of the second child.

Coding

For the first study the videotapes were rated for several interaction behaviors including attentiveness, affect, vocalizations, activity level, involvement, relaxation and playfulness [7]. The tapes were also coded for behavior states including disengaged, neutral, interested, animated and playful states and for what percent time the members of the dyad were jointly in these states.

For the current archival data study, the same DVDs were coded by research associates for the following face-to-face interaction behaviors: 1) similar behaviors shown by the individuals of the dayd (vocalizations and body movements); 2) affect (smiling, laughing, animated); 3)attention to conversation signals (latent responding, interrupting, talking at the same time); and 4) accord (agreeing, disagreeing). A 10-second time sample unit system was used for coding (behaviors coded every ten seconds) and the percent of the interaction time that the behavior occurred was the measure used for each behavior. The sessions of 10 dyads were coded twice for reliability. These were calculated by Cohen's Kappa and ranged from .77 to .86 (M=.81).

Data analyses

Multivariate analyses of variance (MANOVAs) were first performed on the cluster of variables followed by ANOVAs on the individual variables first for the best friends versus acquaintance pairs (N=26 same-sex friends and 18 same-sex acquaintances) and then for the same-sex versus opposite-sex friend pairs (N=26 same-sex friends versus N=12 opposite-sex friends).

Results

As can be seen in Table 1 on the ANOVA comparisons between best friend and acquaintance groups, the best friend as compared to the acquaintance dyads had significantly: 1)more similar vocalizations; 2)more time laughing; 3)less time talking at the same time; and 4)more time agreeing (see Table 1).

Groups			
Behaviors	**Best Friends**	**Acquaintances**	**F**
Similar behaviors			
Vocalizations	84.8 (13.4)	39.6 (19.0)	88.243
Body movements	72.1 (21.8)	79.2 (16.6)	1.37
Affect			
Smiling	86.0 (18.4)	78.8 (21.1)	1.48
Laughing	59.3 (27.5)	47.8 (26.4)	4.91[1]
Animated	65.2 (28.0)	66.4 (23.1)	.02
Communication signals			
Latent Responding	32.9 (22.9)	26.0 (17.4)	1.16
Interrupting	11.1 (15.1)	20.9 (16.1)	4.44[1]
Talking at the same time	16.3 (19.0)	38.0 (15.1)	16.51[2]
Accord			
Agreeing	33.0 (20.2)	19.9 (20.2)	12.82[2]
Disagreeing	15.6 (16.5)	11.7 (14.7)	2.19
(1p<.05, 2p<.01, 3p<.001)			

Table 1: Means (and standard deviations in parentheses) percent time behavior occurred and F values and p levels for ANOVA comparisons between best friend and acquaintance groups.

Table 2 shows the group means for the same-sex best friends versus the opposite-sex best friends. The ANOVAs for these comparisons suggested the following for the same-sex versus opposite-sex best friends: 1)more similar vocalizations; 2)more similar body movements; 3)more time spent laughing;4) more time agreeing; and 5)less time disagreeing.

Group

Behavior	Same- sex	Opposite-sex	F
Similar behaviors			
Vocalizations	84.8 (13.4)	16.0 (9.7)	69.21[3]
Body movements	72.1 (21.8)	27.0 (14.1)	39.04[3]
Affect			
Smiling	86.0 (18.4)	83.9 (21.6)	.52
Laughing	59.3 (27.5)	33.7 (16.5)	11.28[2]
Animated	65.2 (28.0)	54.2 (11.9)	1.19
Communication signals			
Latent responding	32.9 (22.9)	42.4 (26.2)	1.39
Interrupting	11.0 (15.1)	17.3 (14.6)	2.10
Talking at same time	16.3 (19.0)	21.2 (16.4)	1.89
Accord			
Agreeing	33.0 (20.2)	18.7 (11.3)	4.89[1]
Disagreeing	15.6 (16.5)	22.9 (19.3)	4.13[1]
(1p<.05, 2p<.01,3p<.001)			

Table 2: Means (and standard deviations in parentheses) for percent time behaviors occurred for same-sex and opposite-sex best friend groups and ANOVA group comparison F values and p levels.

Discussion

The greater similarity at least for vocalizations within the best friend dyads is consistent with the observation made by several researchers that people who frequently interact with each other come to behave in similar ways [5,6]. That the best friends engaged in more laughing is consistent with the more affectively positive ratings the best friend dyads received in our earlier study [7], although percent time laughing coded in real time in this study is a more precise measure than the rating used in the earlier study. These data along with less time spent interrupting and talking at the same time and the greater time agreeing suggests that the best friend dyads had more positive interactions than the acquaintance dyads. This could relate to spending more time with each other and thereby learning to read each other's conversation cues, as in showing less interrupting and talking at the same time behavior. Best friend pairs have been noted to have more coordinated timing of speaking turns and switching pauses and fewer and shorter segments of simultaneous speech based on computer analysis of their conversations [9]. The more positive interactions of best friend dyads could also relate to their having an initially greater attraction to each other's personalities. Although global personality ratings were not more similar among friends in the [7] study, the children could have been more attracted to similar children and clearly to similar gender at this pre-adolescent stage. In that study, best friends' versus acquaintances' ratings of their interactions were more positive including liking their interactions more and liking their interaction partners more [7]. Others have noted that as early as second grade children in maintained friendships evaluated their relationships more positively [3]. Because, however, the children in this study were very familiar to each other after 4-5 years in the same class, these comparisons are a very conservative test of friend-acquaintance pair differences. As was noted by [7] regarding the same sample, the familiarity factor may have attenuated some of the expected differences, suggesting a weak test of differences.

That 30% of the children chose opposite sex children as their best friends was not surprising in light of data showing that 14% of a sample of third and fourth graders had selected opposite-sex friends [4]. And studies on early adolescents similarly show same-sex preference for friends [10]. Of some concern is that children with primarily opposite-sex friends in those classrooms had poorer social skills than those with same-sex friends [4]. The interactions of the opposite-sex friends were less positive than same-sex friends in the current study including that they had more similar vocalizations and body movements, they laughed more, they showed less latent responding, and they spent more time agreeing and less time disagreeing. Others have noted more agreeableness in same-sex pairs but at the adult stage [11]. These authors interpreted the same-sex, opposite-sex friend differences as having evolutionary origins, with men and women facing distinct adaptive problems as in hunting and childcare [11]. Evolutionary origins are further elaborated by [12]. Who document evidence from many species that reveal the evolutionary origins of human, noting that in horses, elephants, hyenas, dolphins, monkeys and chimpanzees, some individuals form friendships that last for years. They further note that in species where males disperse, friendships are more likely among females and vice versa, and that females with the strongest, most enduring friendships experience less stress and live longer [12].

The origins of the best friendships and their similarity and their appearing to have more fun in this study are unclear. Because these children had known each other for many years, it cannot be determined whether their close friendships resulted from similar behaviors, for example, or whether their similar behaviors led to their close friendship. More prospective research is needed to determine how these friends are attracted to each other, how their friendships are formed and sustained, and what effects close friendships have on their lives.

References

1. Engle JM, McElwain NL, Lasky N (2011) Presence and Quality of Kindergarten Children's Friendships: Concurrent and Longitudinal Associations with Child Adjustment in the Early School Years. Infant Child Dev 20: 365-386.
2. Véronneau MH, Dishion TJ (2011) Middle School Friendships and Academic Achievement in Early Adolescence: A Longitudinal Analysis. J Early Adolesc 31: 99-124.
3. McChristian CL, Ray GE, Tidwell PS, LoBello SG (2012) Classroom friends and very best friends: a short-term longitudinal analysis of relationship quality. J Genet Psychol 173: 463-469.
4. Kovacs DM, Parker JG, Hoffman LW (1996) Behavioral, affective, and social correlates of involvement in cross-sex friendship in elementary school. Child Dev 67: 2269-2286.
5. Chapple ED (1970) Experimental production of transients in human interaction. Nature 228: 630-633.
6. Field T (1985) Attachment as psychobiological attunement: Being on the same wavelength. In Reite M, Field T (Eds.) Psychobiology of Attachment and Separation, 415-450, New York: Academic Press.
7. Field T, Greenwald P, Morrow C, Healy B, Foster T et al., (1992) Behavior state matching during interactions of preadolescent friends versus acquaintances. Developmental Psychology 28:242-250.

8. Parker JG, Gottman J M (1989) Social and emotional development in a relational context. In T J Berndt, G W Ladd (Edn.,) Peer relationships in child development, pp:95-131. New York: Wiley.
9. Feldstein S, Field T (2002) Vocal behavior in the dyadic interactions of preadolescent and early adolescent friends and acquaintances. Adolescence 37: 495-513.
10. Clark ML, Ayers M (1992) Friendship similarity during early adolescence: gender and racial patterns. J Psychol 126: 393-405.
11. Lewis DM1, Conroy-Beam D, Al-Shawaf L, Raja A, DeKay T, et al. (2011) Friends with benefits: the evolved psychology of same- and opposite-sex friendship. Evol Psychol 9: 543-563.
12. Seyfarth RM, Cheney DL (2012) The evolutionary origins of friendship. Annu Rev Psychol 63: 153-177.