

Similarity of Intelligence among Friends with Similar Sociometric Status

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Abstract

The current study aims to find out whether similarity of intelligence is associated with forming friendship among adolescents with similar sociometric status (mutual relationship between Popular-Popular; Rejected-Rejected; Controversial-Controversial). For this purpose a sample of 209 male adolescents and 225 female adolescents of class VII, IX and XI was selected from Sr. Sec. Schools of Sonapat District. Culture Fair Intelligence Scale 2, Form B and Sociometric Status Measure: Partial Rank Order Scale was administered. The Findings revealed that the theory of similarity holds good in formation of friendship between two popular adolescents, regardless of gender. It also showed that the adolescents male and female forming friendship do not differ significantly on intelligence.

KEYWORDS: Theory of similarity; friendship; sociometric status; intelligence

Introduction

Friendship and peer acceptance generally have been recognized as distinct types of peer relationships (Howes, 1996; Ladd, Kochenderfer, & Coleman, 1996; Bukowski&Hoza, 1989; Parker &Gottman, 1989). However, it is in late childhood and adolescence that intimacy and emotional support become key components in the connection between friends (Buhrmester&Prager, 1995). Friendship refers to a mutual, affectionate relationship between two individuals, whereas peer acceptance refers to the degree to which an individual is liked (or disliked) by a group of peers (Bukowski&Hoza, 1989). Friendships can provide companionship, support, self-affirmation, and a context for the development of intimacy, mutual understanding, and perspective taking (Hartup, 1993; Berndt, 1989). Adolescents have reported that spending time with friends is their most enjoyable activity and that they consult with friends regularly on significant issues as well as on daily events (Savins-Williams & Berndt, 1990).

Researchers have examined friendship at several levels, including whether an individual has a friend, the number of friends he or she has, and the quality of those friendships (Bukowski & Hoza, 1989). Friendship quality is of particular interest because it provides more information about the nature of friendships than does knowing simply whether an individual has friends or how many friends an individual has. Understanding the degree to which friendship quality and peer acceptance are related may be important for several reasons. First, identifying common elements of friendship quality and peer acceptance may be useful in helping adolescents who have general problems with relationships to improve both types of relationships. Second, understanding distinctions between friendship quality and peer acceptance may be useful to identify adolescents who are at risk specifically for problematic friendships or peer group relationships and, thus, the outcomes associated with that type of peer relationships.

Peers can provide companionship, support, nurturance, validation of self-worth, and a sense of belonging (Zarbatany, Hartmann, & Rankin, 1990; Furman & Robbins, 1985). In this way, a failure to form satisfying ties to peers may leave children more vulnerable to emotional and behavioral problems in childhood. The reverse causal ordering, suggesting that psychological problems increase the risk of developing difficulties with peers, has also been proposed (Ladd, 2006; Brendgen, Vitaro, Turgeon, & Poulin, 2002; Hodges, Boivin, Vitaro, & Bukowski, 1999; Rubin, Bukowski, & Parker, 1998).

The literature has clearly demonstrated that friendships are formed on the basis of similarities. For example, the similarity-attraction hypothesis suggests that individuals are more likely to make friends with others who are similar to themselves with respect to demographic, behavioral and psychological attributes than with dissimilar ones (Aboud & Mendelson, 1998). The similarity-attraction hypothesis suggests that people who are similar to one another in personal attitudes and attributes will be attracted to each other and, thus, are more likely to become friends (Byrne & Nelson, 1965). Support for the similarity-attraction hypothesis has been found for adolescents and adults (e.g. Kandel, 1978 a,b) . Although the tendency for people to choose friends who are similar to themselves can be found across a wide age range, few studies have examined whether similarity serves as an important determinant for children's friendships (Epstein, 1989; Erwin, 1985; Gottman, 1983).

Behavioral and attitudinal similarities become increasingly associated with friendship formation from childhood through adolescence (Hartup, 1983). Children do not appear to recognize psychological characteristics of peers until preadolescence and their descriptions of peers typically focus upon physical and behavioral characteristics during this age period (Coie & Pennington, 1976; Livesley & Bromley, 1973).

Objectives

- 1) To identify the pairs of friends among male and female adolescents forming friendship with similar sociometric status and differential sociometric status.
- 2) To compare the intelligence of male and female adolescents forming friendship with similar sociometric status.

Hypotheses

- 1) There is no significant difference in the intelligence of male adolescents forming friendship with similar sociometric status.
- 2) There is no significant difference in the intelligence of female adolescents forming friendship with similar sociometric status.

Sample

The sample was divided into two independent groups i.e. males and females. The data were obtained from 209 male and 225 female adolescents of class IX and XI, which were further classified into 8 groups respectively. The sample was limited to the participants who were available to participate in this study, thus limiting the assumption of randomization. The age range of adolescents was 14 to 17 years

Measure

- **Measure of Intelligence:** Culture Fair Intelligence Test Scale 2, Form B (Cattell&Cattell, 1960). This test consists of four subtests: series, classifications, matrices and topology. All four of these subtests have about equal intercorrelations and substantial 'g' saturation.
- **Sociometric Status Measure:** Partial-Rank-Order Scale was used the subjects were asked to nominate 3 children in their class with whom they "like most to sit in the class room" and "with whom they like least to sit in the class room". In order to avoid spelling mistakes a list of names of their classmates was provided to each child.

Identification of different sociometric status

As suggested by Coie, Dodge, &Coppotelli (1982) social preference was calculated by the formula LM-LL and the social impact was calculated by the formula LM+LL. These scores were then used to identify children for the three distinct social status groups according to the following criteria:-

- (a) The popular group consisted of all of those children who received a social preference standard score of greater than 1, a like most standard score of greater than 0, and a like least standardized score of less than 0.
- (b) The rejected group consisted of all of those children who received social preference standard score of less than -1, a like least standard score of greater than 0, and a like most standardized score of less than 0.
- (c) The controversial group consisted of all of those children who received a standardized social impact score of greater than 1 and who received like most and like least standardized scores that were each greater than 0. Thus members of this controversial group were all above their class means for both negative and positive sociometric nominations.

Procedure

The data required for the present study was collected in two sessions in each class. In the first session the sociometric partial rank order scale pertaining to social interactional situation sitting together in the classroom was completed. In the second session the culture fair intelligence scale was completed. The doubts of the subject were removed before permitting them to take test. To win their confidence the subjects were given assurance that the information was being collected purely for research purpose and would be kept confidential.

Statistical technique: Mann-Whitney U Test for comparing two independent groups.

Results and Discussion

For both boys and girls, as well as for the sociometric criterion (sitting together in the class room) the results are shown in Table 1. The information provided in Table 1 reveals the number of pairs of friends involving males and females of similar as well as dissimilar sociometric status and for the sociometric criterion of sitting together in the class room. It also shows that there were 18 pairs of friends of popular – popular male adolescents, 3 pairs of

friends of rejectee-rejectee and 1 pair of friends of controversial-controversial male adolescents.

Table 1
Number of Reciprocal Friends of Adolescents with Similar and Dissimilar Sociometric Status

Pairs of Friends	No. of Reciprocal Friends and Sociometric Network	
	Sitting together in the classroom	
	Boys	Girls
Popular- Popular	18	15
Popular- Rejectee	8	6
Popular-Controversial	1	2
Popular - Average	15	16
Rejectee-Rejectee	3	2
Rejectee- Controversial	1	0
Rejectee-Average	6	8
Controversial-Controversial	1	1
Controversial-Average	7	6
Average-Average	52	65

Similarly, for female adolescents and for the sociometric criterion of sitting together in the class room the trend of pairs of friends forming friendship is similar to that of male adolescents. There were 15 pairs of friends of popular-popular status, 2 pairs of friends with rejectee-rejectee sociometric status and 1 pairs of friends with controversial –controversial status. The trend reveals that the dyadic formation between popular-popular is more dominant than the dyadic formation between rejectee- rejectee, and controversial- controversial for both male and female adolescents. The evidence for the dyadic formation between both male and female adolescents is far from satisfactory.

The information in Table 1 clearly depicts that for the sociometric criterion sitting together in the class room the friendship between popular-popular sociometric status is more extensive when compared with the friendship of rejectee-rejectee sociometric status and controversial- controversial sociometric status. One plausible explanation could be the rejected status of the members of the dyad. The rejected status of the two persons would force them to feel apart than close.

Further, the results shown in Table 2 reveals the comparison of scores of pairs of friends of popular- popular sociometric status (similar sociometric status) on intelligence.

Table 2

Comparison of Scores of Pairs of Popular – Popular (Male) on Intelligence and for Social Interactional Situation (Sitting Together in the classroom)

Group	Pairs of friends (Roll No.)	Intelligence
1	3-7	32-28
2	7-19	24-21
2	19-20	21-22
3	2-22	26-21
3	6-22	34-21
3	6-24	34-22
4	2-3	37-34
4	9-3	27-34
5	16-24	31-34
5	1-24	24-34
5	20-16	30-31
6	2-3	25-23
6	3-9	23-23
7	7-8	31-26
7	7-27	31-25
8	33-32	18-28
8	33-30	18-22
8	30-32	22-28
Mean		27.1-26.5
U		140.500
Level of sig.		.494

The information in the Table 2 shows that there is no significant difference in the intelligence of male adolescents with popular – popular sociometric status. It concludes that the pairs of friends referring to popular- popular dyad for male adolescent were found to operate in their choice of friends for sitting together in the class room, in accordance with the theory of similarity. Thus the hypothesis-1 is accepted.

Table 3

Comparison of Scores of Pairs of Popular – Popular (Female) on Intelligence and for Social Interactional Situation (Sitting Together in the classroom)

Group	Pairs of friends (Roll No.)	Intelligence
1	7-22	30-30
2	11-16	26-18
2	16-21	18-25
2	21-48	25-27
3	5-7	31-30
4	10-21	23-30
5	9-13	24-33
5	13-27	33-22
6	2-10	27-27
6	2-14	27-20
7	5-6	20-16
8	10-24	28-29
8	14-26	26-33
8	24-26	29-33
8	6-7	28-26
Mean		26.3-26.6
U		102.000
Level of sig.		.662

Further, the results shown in Table 3 reveals the comparison of scores of female friends of popular- popular sociometric status (similar sociometric status) on intelligence. The information as per U Test that there is no significant difference in the intelligence of female friends with popular –popular sociometric status. Thus, the friendship of females also is in accordance to the theory of similarity.

The analysis of data revealed very few pairs of rejectee-rejectee and controversial –controversial male as well as female adolescents. In view of less number of pairs of friends the data were not subjected to statistical analysis.

Buhrmester& Furman (1986) contends that children achieve a sense of empathy, loyalty and compassion and develop skills in perspective taking by participating in a collaborative friendship relation. Similarity theory states that people like characteristics in other that are similar to their own (Byrne, 1971). Simpson & Harris (1994) pointed out that no matter the gender is same or different these determinants will remain same for predicting interpersonal attractions across different cultures.

Conclusion

Although peer relationships provide on essential context for adolescent social development, adolescents' conformity to negative peer norms appears as a major risk factor linked to negative outcomes ranging from delinquency and substance abuse to risky sexual behavior (DiIorio et al., 2001;Hops,Andrews, Duncan, Duncan, &Tildesley, 2000; Urberg,Degirmencioglu,& Pilgrim, 1997).Beyond adolescence, problems in relating to peers have been linked to a range of outcomes including depression, conflictual marital relationships and even an increased likelihood of early death (Miller, Smith, Turner, Guijaroo, &Hallet, 1996)It is equally possible that experiences at the level of the dyad (mutual friendship) may serve as a buffer to protect some children, especially rejectees from the negative effects of rejection.

Thus, a developmental benefit of a friendship might accrue for the rejected child who forms mutual friendship with a popular child, as revealed in the current study. That is, a rejected child's friendship with someone outside his or her status group might help to promote a greater long-term centrality in the peer group and school settings. It is of great significance in the development of skills for achieving educational goals.

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