

Adolescents: Differences in friendship patterns related to gender

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Based on a survey of 123 Norwegian students aged 14-15 (grade 10) this article will discuss possible gender differences in peer relations, social position and friendship criteria. The students filled in a questionnaire that included sociometry and questions on friendship criteria, self-esteem and social support. We found significant gender differences. However, boys and girls frequently have the same preferences in peer relationships, but to a different degree. The variance within the gender groups may exceed the variance between them.

Introduction

Social interaction with peers is of great importance to children as it is the basis for developing relationships with other children (Schaffer, 1996). Research has shown over and over again that the vast majority of these interactions occur within same gender groups: boys are members of boys' groups and girls of girls' groups (Underwood, 2004). These separated gender groups exist from middle childhood and into early adolescence. Studies of peer groups show that children are attracted by others who share similar characteristics. Similarity among individuals create relationships that are in sync versus discordant (Campell, Holderness & Riggs, 2015). This is often described by the term 'homophily' (McPherson, Smith-Lovin & Cook, 2001; Pijl, Frostad & Mjaavatn, 2011) and is also known as 'the similarity hypothesis' (Male, 2007). At least two processes cater for the similarity of peers in peers' groups: influence and selection (Ennet & Bauman, 1994). Children's behaviour may be influenced by their peers in the group and this contributes to peer group homogeneity (Zosuls et al., 2011). Selection refers to how certain interests or certain behaviours can be used as selection criteria in forming peer groups. A very obvious selection criterion is of course gender. The similarity hypothesis gives an explanation for the fact that boys usually select boys and girls select girls as members of their peer groups.

Next to gender many other characteristics can be of relevance in group formation. Children with specific features such as prosociality or attractive looks can be regarded as potentially interesting members of specific peer groups (Dijkstra et al., 2007).

Much of the research on children's peer relations has tried to explain relationships within the same gender group (Underwood, 2004). Same-gender studies were more favoured, as resources for research are often limited, and because the interpretation of the data from same gender studies was less complex. The majority of studies focusing on one gender group has had boys as the study subject. Psychologists especially tend to study only boys. The main reason for studying boys is that antisocial behaviour and delinquency were

mostly found among boys and research tried to describe and understand the peer culture among them (Kholberg, La Crosse & Ricks, 1972; Putallaz, 1983; Coie & Dodge, 1998).

Some of the studies addressing both gender categories that have focused on exploring differences between boys and girls claim that boys and girls develop different cultures within their same-gender peer relationships. Maccoby (1990, 1998) especially has argued for what she describes as the Two Cultures Theory. This theory states that boys and girls grow up in two distinctly separated cultures (Maccoby & Jacklin, 1987; Thorne, 1993). Maccoby (1990; 1998) found that boys and girls in middle school can be contrasted by play styles, leisure-time activities, group strength and power, and friendships. Boys focus more than girls on issues of dominance and maintenance of social status, rough play and physical aggression and have more integrated social networks than girls (Mathieson & Banerjee, 2011). Boys' friends and playmates tend to be friends and playmates with one another (Benenson, 1993; Parker & Seal, 1996; Fabes et al., 2003), while girls emphasise relationships based on dyadic friendships rather than on larger more structured groups (Lubbers, Snijders & Van Der Werf, 2011). Gillespie, Lever, Frederick and Royce (2015) summarised this gender difference: female friendships are conducted 'face to face' focusing emotional self-disclosure, while male friendships are conducted 'side by side', focusing activities centred on common interests. Lever (1978) suggested that the larger size of boys' groups may be due to the fact that boys more than girls are involved in organised sports. In Scandinavia, however, this is hardly the case anymore, but team sports, like soccer, still is more popular among boys. Urberg, Degirmencioglu, Tolson and Halliday-Scher (1995) found more clique members among female students than among boys. They also found African American students less connected to peer networks than white students. They suggest an ethnic effect on adolescent's social networks. Salmivalli et al. (1997) argued that aggression and bullying in peer groups may take different forms among boys and girls – boys fight but girls manipulate. Also, the offended boys leave the group while the girls victimise themselves by staying in the group. Factors like ethnicity and aggressiveness add complexity to the studies of possible gender differences in adolescents.

After describing the gender differences in children's play, Thorne (1993) questioned these differences by saying (p 96) "...the different-cultures approach exaggerates gender difference and neglects within-gender variation, including crosscutting sources of division and commonality like social class and ethnicity". She argued that it may be that boys and girls on average seem to represent different cultures, but that within-gender variation often is greater than the difference between boys and girls as groups.

In more recent literature reviews, Underwood (2004) and Rose and Rudolph (2006) among others questioned the Two Cultures Theory. They suggest that although there may be gender-related differences, there are more similarities. Gest, Davidson, Rulison, Moody and Welsh (2007) compiled a review of literature on Two Cultures Theory within four different research traditions of studies of boys' and girls' network structures: Observational studies of peer interactions in naturalistic settings, studies of peer interaction in experimenter-controlled settings, ethnographic studies of peer networks and groups and sociometric studies of friendship. The authors concluded by saying that the

results of these studies are mixed. Some support is given for boys having larger and more tightly knit group structures. On the other hand, some experimental studies found stronger status hierarchies among girls and some sociometric studies did not find gender differences in group structure. In their own study Gest et al. (2007) found girls' and boys' networks and social groups more similar than different in structural features, and that "within-sex variability was more pronounced than between-sex differences" (p 55). Research on peer relations and peer groups has shown that peer status and networks of boys and girls may have similar structures and characteristics, but that these apply to different degrees (Zarbatany et al., 2000). This means that boys and girls can differ on the same dimension, e.g. participate in smaller versus larger groups, but that does not directly support the notion of different cultures. The authors give some support to the Two Cultures Theory, but indicated that other interpretations of their data are possible and that more research and theoretical elaboration is necessary.

Most research addressing the Two Cultures Theory so far has compared various characteristics of boys and girls in general. It seems plausible that in order to be able to develop two distinct cultures boys and girls need to be active members of peer groups comprising only of or mainly of girls or boys. As stated before, similarity is based on processes such as selection and influence which are supposed to contribute to developing a specific group culture. In a study of exclusion in girls' peer groups Goodwin (2002) showed that if you leave the laboratory methods and self-reported studies and go into direct and indirect observations you will find a competitive culture with aggression and social exclusions in girls' groups that are not very different from what is reported about boys' groups. However, the girls' culture is more based on verbal means.

Describing the characteristics of existing same-gender friendship groups is a first step, but there is a need to link existing same-gender friendship groups to the expectations based on the Two Cultures Theory (Underwood, 2004).

In a meta-analysis Hall (2011) mentioned a number of dimensions of friendship expectations. One is symmetrical reciprocity linked to factors like trust, loyalty and commitment. He indicated that females may have higher expectations of symmetrical reciprocity. Another dimension was intimacy, self-disclosure and empathic understanding. He also indicated that females may have higher friendship expectations of communion than males.

A third point is the sharing of mutual activities and the companionship with friends. He did not find any gender differences on this dimension. The last dimension of friendship expectations analysed by Hall (2011) is linked to status, personal and financial resources. He indicated that males may have higher expectations than females on wealth, status and attractiveness. The overall findings of the meta-analysis showed medium size (Cohen's *d*, (Cohen, 1988)) gender differences in friendship expectations.

An early study by Medrich, Roizen, Rubin and Buckley (1982) based on interviews of 764 children, showed the important contribution of ethnicity to leisure-time activities and preferences of boys and girls. This is an important fact that is omitted when reporting on

average scores of different variables regardless of ethnical background. Bagwell, Coie, Terry and Lochman (2000) added the factor aggressiveness to the study of peer clique participation in pre-adolescence. They found that aggressive behaviour and peer rejection were strongly associated. They also found an association between aggression and membership in deviant peer cliques. The study was supported among others by Adams, Bukowski and Bagwell (2005) in a study of aggression and reciprocated friendship, and also by Rodkin and Ahn (2009) in their study that included unpopular and aggressive children.

In a recent review article Leaper (2011) pointed to the development of research on gender differences and similarities. From the starting point in earlier research reporting a number of gender differences, Leaper refer to more elaborated later studies that give us a reason to rethink our opinions on gender differences. She pointed to the need to study the interrelation between biological, cognitive, interpersonal and social processes.

The present study

This study addresses some of the expectations based on the Two Cultures Theory in both a sample of boys and girls and within this, a set of smaller subsamples of same-gender friendship groups. Inspired by Thorne (1993) and later Underwood (2004) and Rose and Rudolph (2006) we aim to re-evaluate the Two Culture Theory through a survey of adolescents. The study will investigate the social position, the selection criteria favoured, and the characteristics of boys and girls on the individual level in the larger sample and on group level in the set of subsamples. It is expected that both boys and girls differ in characteristics, prefer same-gender groups and apply different selection criteria for friends. In line with the Two Cultures Theory (TCT) we assumed that girls would prefer small groups or dyadic friendships and boys would be more concerned with the relationships with larger male groups.

In line with TCT, we further assumed that boys more than girls would tend to form groups with a hierarchical structure, as they are more concerned with dominance, social status and competition. Also in accordance with TCT we expected that boys and girls would value different qualities in a friend and that they would experience different levels of support from their friends. The average score on the criteria and support scales was calculated and compared cross gender.

According to the similarity theory both boys and girls choose friends that are similar to themselves, but the importance of different dimensions regarding homophily will vary cross gender. We assumed that similarity on relation dimensions would be more important for girls, whereas similarity on activity dimensions would be more important for boys. The similarity between criteria for choice of friends and the students' self-description was analysed cross dimensions and gender. TCT predicts that boys and girls are culturally different; the variance between the gender groups should thus exceed the variance within the different groups of boys and girls.

To summarise, our analysis is built on the following hypotheses.

- Boys and girls prefer same-gender relations, but girls prefer small friendship groups/dyads, while boys prefer larger friendship groups. Boys more than girls form groups with a hierarchic structure.
- Boys and girls value different personal characteristics in friends like peers' performances, peers' social skills, peers' looks and peers' popularity.
- Boys and girls experience different levels of support from their friends and value having joint interests with their friends to a different degree.
- Both boys and girls prefer friends with personal characteristics similar to their own (homophily).

Methods

Sample

The sample consisted of students in their last year of a regular lower secondary school in Trondheim (Norway). The last year (grade 10) was chosen because the students then had spent two and a half years together at this school, and learned to know each other well. (In Norway students normally change schools before grade 8). This can be described as a convenience sample (McQueen & Knussen, 2006). The school we studied has very few students of non-Norwegian ethnic background. 64 girls and 59 boys, in total 123 students aged 14 - 15 participated in the study. In the school there were 148 students in grade 10, recruited from 3 different elementary schools. 26 students were either not present or did not participate in the study for other reasons. During a normal day many lower secondary schools in Norway organise the students in groups of varying size, ranging from groups of 15 up to 150 dependant of the discipline taught. In some lessons there could be as few as 15 students in a group, in another lesson there could be 45. The students in our study were most of the time in groups of 15 or 30 students. In some subjects the students may be divided into even smaller groups. In grade 10 traditional teaching in front of a blackboard is still common in Norway, combined with small group work. The groups change depending on the lesson taught in order to promote collaborative skills.

The school asked parents' consent prior to the participation of their child in this study.

Design of the study

Data was collected during the autumn term in 2007. The main purpose of the project was to study criteria for friendship with focus on children with special educational needs. (Pijl, Frostad & Mjaavatn, 2010; Frostad, Mjaavatn & Pijl, 2011). Later we re-analysed our data with focus on gender, partly inspired by the discussions on the Two Cultures Theory.

A questionnaire was filled in by the students during ordinary lessons. Researchers and teachers were present and available for clarifying questions. Sociometry was used to study peer relations and friendship among the students. The students were also asked about their criteria for selecting friends. Descriptive data on self-esteem and social support were

collected through this survey. In addition, data on school performance were collected based on marks.

Instruments

Friendship was identified by using sociometric techniques based on peer nomination. The students were asked which students in class were their best friends. They were required to write down the names of their friends limited it to a maximum of five. The names were immediately re-identified as a list of numbers and the code to this list kept by the school authorities. The nomination procedure was based on free recall from all students in the same grade (n=123). Only reciprocated choices were counted as friendships. Coming from different primary schools, some of the students may have been friends before they entered lower secondary school, but we did not collect information about this.

As well as the sociometric data we collected data about the criteria students applied in selecting friends in class. Scales were constructed for this study to measure the preferences of peers' looks, peers' performances, joint interests, peers' social skills, peers' care and loyalty and peers' popularity as selection criteria. A factor analysis (principle component analysis with oblimin rotation) of all scales regarding the criteria students have for selecting friends addressed the amount of overlap/differences between the scales. The students were invited to indicate on a six-point scale ranging from 'absolutely not true' to 'absolutely true' if each of these statements applied to them.

Six statements comprised the criteria *peers' looks*. These were statements such as: "It is important for me that my friends are good looking", "It is important for me to have friends who are dressed nicely." The reliability of the scale was .89 (Cronbach's alpha). Seven statements comprised the criteria *peers' performance*. Four of these referred to performance at school, three referred to performance in sport. These included statements like "I would like to have friends with good school marks", and "I would like to have friends who are good in sports". The reliability of the scale was .89. Four statements comprised the criteria *joint interests*. An example of these statements is: "I want friends who share my interests". The reliability of the scale was .68. 5 statements comprised the criteria *peers' social skills*. These included statements like, "It is important to have friends who understand me when I have problems" and "It is important for me to have friends who do not let me down". The reliability of the scale was .85. Eleven statements comprised the criteria *peers' loyalty and care*. Here were statements like: "It is important for me to have friends who do not let you down" and "It is important for me to have friends who listen to me". Scale reliability was .90. Finally, two statements comprised the criteria *peers' popularity*, such as "It is important for me to have friends that are popular". The reliability of the scale was .77.

A general guideline is that alpha should be at least .90 for decisions about individuals (Nunally, 1978), but for research purposes an alpha of $\geq .70$ can be regarded as sufficient (Guilford & Fruchter, 1978; Murphy & Davidshofer, 2005). Johnson and Christensen (2004, p. 138) suggested taking this rule with 'a grain of salt' and also accept slightly lower alphas.

After the scales for selection criteria, we collected descriptive data about each of the participating students. These comprised gender, self-esteem regarding physical attractiveness, social self-esteem, peers' support, popularity, school performance and performance in sports. The data on school performance were based on school marks, and the data on popularity on sociometric peer nomination (the number of received nominations, in degrees).

The scale for physical self-esteem regarding attractiveness (eleven items) was constructed for the present project, and included items such as "I am happy with the way I look". The scale for social self-esteem was originally based on the Self Description Questionnaire developed by Marsh (1990). The scale for peers' support is based on The Social Support Appraisals Scale (Vaux et al., 1986). The original seven item scale of subjective appraisals of friend support is reported to have reliability (Cronbach's alpha) of .84 (Vaux et al., 1986).

As for the selection criteria, the students were asked to answer on a six-point scale ranging from 'absolutely not true' to 'absolutely true' on the items included in the descriptive scales. A factor analysis on the scales addressing students' characteristics in terms of self description ('self-esteem' regarding physical attractiveness, 'social self-esteem' and 'peers' support') resulted in a three factor solution. Some items were deleted on the basis of weak factor loadings and unexpected loadings. For the factor 'self-esteem' regarding physical attractiveness two items were lost, the remaining nine items have a reliability of .87. The factor 'social self-esteem' has eight items with a reliability of .89, and the factor 'peers' support' consists of six items with a reliability of .85. The variables measuring school performances (based on school marks) and popularity (based on sociometric peer nominations) are regarded to be well tested and therefore were left out of the factor analyses.

The analyses of the sociometric data were based on NEGOPY software (Richards, 1995) and on UCINET software (Borgatti, Everett & Freeman, 2002). The analyses described the existing students' networks in school and to what extent we find same-gender groups and mixed-gender groups. Every individual student may be described as either belonging to a group or as being outside all groups. A group was defined as a set of at least three individuals, who have more links with members of the group than with non-members. These individuals were connected by a path to most of the group members and remain connected when removing up to 10 per cent of the group (Richards, 1995). The analysis was based on reciprocated ties, the identified groups may be considered to be friendship groups.

The average number of students in each group was calculated and compared cross gender. Also the roles boys and girls have in the social network as a whole were analysed.

Methodological concerns

When we used sociometry in this study, the nominations were limited to a semi-fixed choice (a maximum of five nominations). It is quite usual in peer research to work with a

fixed number of nominations (often three). However, this may introduce error because it is highly unlikely that all students have exactly three best friends (Wasserman & Faust, 1994). The alternative could be to allow a free choice, but this could provoke students to produce endless lists including weak relations with peers (Pearson & Michell, 2000). Following Pijl and Frostad (2008) we decided to work with a maximum of five nominations. This seemed a more stable option that minimally restricted the freedom of choice for the respondents.

It is not unusual in sociometry to ask students not only to nominate best friends, but also peers whom they like to perform school tasks with, and peers with whom they like to spend the breaks. Research indicates there will be a high degree of overlap between these three sets of choices. Here, Pijl, Frostad and Flem (2008) developed an index for overlap using a variant of Cohen's Kappa (Popping, 1983) They found a considerable overlap between pupils' choice of peers on the three questions. Based on this we ended up by asking only for nomination of best friends.

Results

Social network

The participation of students in the in-class network was based on sociometric data analysed with NEGOPY software (Richards, 1995).

Figure 1 illustrates the total sample of students. The shaded circles represent girls, the blank circles represent boys. The analysis describes the connections between each of the students and identifies the role of each individual in the network. Students who are well connected to other students are group members; in this network 12 existing friendship groups were identified (see the circles in Figure 1). Groups 1, 4, 5, 7, 10 and 11 were exclusive girl groups, while groups 2, 6, 8, 9 and 12 consisted only of boys. Only group 3 comprised both girls and boys. Some students did not belong to any group, but functioned as intermediaries between groups (liaisons) (for example students 8 and 49). Group members and liaisons are regarded as participants by Richards (1995). There were a few student groups that had some sort of a network structure (for example students 131, 137 and 124), but they did not meet the network criteria (see analyses). Students connected to one friend, but with no links to other students, are called dyads. The students in the upper-left corner (for example 7 and 103) had no reciprocated links to any of the other students. Students other than group members or liaisons, are regarded as isolates by Richards (1995).

As can be seen from Figure 1 the size of the friendship groups did not vary much across gender. Group 3, the only mixed gender group, was clearly larger than the others. The same-gender groups vary between three and seven members. The average size for boys' groups was 5.0; and the average size for the girls' groups was 4.5. The small number of groups do not permit a significance test ($d = 0.38$).

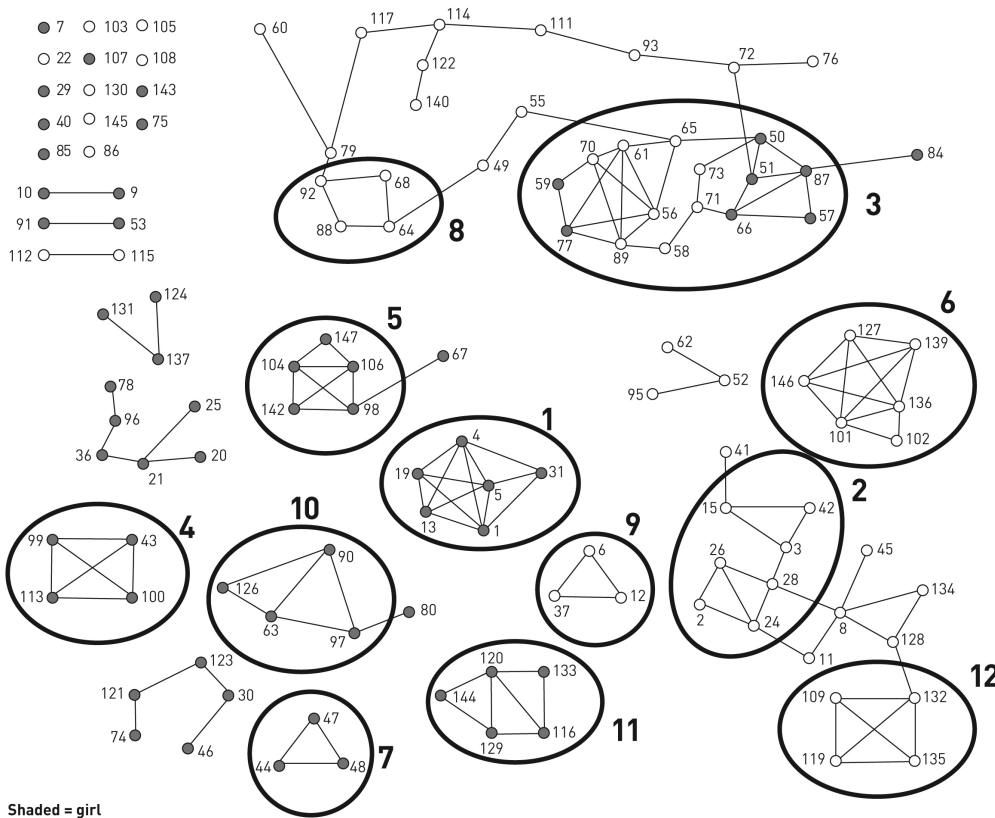


Figure 1: Network map

Roles and structure in the social network

Table 1 lists the percentage of boys and girls who were isolates or participants. In the total sample, 62.9% of the students were identified as participants (group members or liaisons). The table shows that more girls than boys were isolates, and more boys than girls were participants in a network. However, the relation between gender and type of role is not significant (Chi square= 2.51, n.s.). Studying the role pattern in more detail, we found that 11 of the boys were identified as liaisons, compared to none of the girls. We also found two dyads among the girls compared to only one dyad among the boys.

Table 1: Gender vs. role

Role	Gender		Total
	Girls	Boys	
Isolate	43.8% (28)	30.0% (18)	37.1% (46)
Participant	56.2% (36)	70.0% (42)	62.9% (78)
Total	100.0% (64)	100.0% (60)	100.0% (124)

Friendship criteria

Table 2 comprises the different characteristics the boys and the girls value among their peers as a basis for friendship. Table 3 shows how the students value support from peers and having joint interests. We found significant differences between the gender groups on two of the four criteria in question in the present study (Table 2). In addition we found significant differences between the boys and the girls in support from peers (Table 3).

Table 2: Criteria for friendship vs. gender (range of scores 5-30)

Gender	Peers' performances	Peers' social skills	Peers' looks	Peers' popularity
Girls (n=64)	10.11	28.11	8.97	12.93
Boys (n=59)	14.39	26.31	10.32	14.49
Sig.	0.00	0.01	0.14	0.21
Cohen's d	0.85	0.52	0.27	0.23

Although the scales used to measure the importance of the different friendship criteria varied in the number of items, the sum score for all scales was computed by the mean score of the items multiplied by 5, resulting in all sum scores to have a range from 5 to 30. The numbers in Table 2 thus give information about how the students valued one criterion compared to the other one, as well as differences between the gender groups. As we can see from this table neither the boys nor the girls found it important that their friends were high performers, but the boys found this criterion to be more important than the girls ($t=4.69$, $df=121$, $sig.<.001$). The effect size of the difference is 0.85, which according to Cohen (1988) should be considered a large difference. Regarding the criterion peers' social skills the difference between the gender groups is significant ($t=2.79$, $df=121$, $sig.<.05$), but the difference is moderate (Cohen, 1988). As we can see, both the boys and the girls highly valued this quality in their friends.

Table 2 indicates that peers' looks seems to be the least important quality in a friend for both the boys and the girls. Also peers' popularity seems to be of little importance. On both these scales the groups' averages were below the midpoint in the scale. The differences between the groups on peers' looks and peers' popularity were small.

Table 3 shows to what degree the students experienced support from peers. The present study found significant gender differences on the peers' support scale in favour of the girls ($t = 4.15$, $df = 121$, $sig. <.001$). Both the boys (mean = 24.39) and the girls (mean = 27.17) experienced high levels of support from their friends. The difference between the gender groups is moderate (Cohen, 1988).

Table 3: Support from peers and joint interests vs. gender (range of scores 5-30)

Group	Support from peers	Joint interests
Girls (n=64)	27.17	17.19
Boys (n=59)	24.39	16.62
Sig.	0.00	0.57
Cohen's d	0.76	0.10

We observed no difference (according to Cohen, 1988) between the groups regarding joint interests. The criterion joint interests (Table 3) seems to be of some importance as the averages for both gender groups were slightly lower than the midpoint in the scale.

Homophily

Table 4: Correlation between the students' criteria for choosing friends and the students' perceptions of their own characteristics based on the same criteria

Criteria for friendship	Characteristics	Girls (N=64)	Boys (N=59)
Peers' looks	vs. Self-esteem regarding physical attractiveness	.00	-.01
Peers' performance	vs. School performance	-.15	.31*
Peers' social skills	vs. Social self-esteem	.42*	.19
Peers' popularity	vs. Popularity	.03	.06

* $p < .05$

Table 4 presents the correlation coefficients for the comparable dimensions for the boys and the girls in separate analyses. There is a significant correlation between the performance dimensions for the boys. High performing boys seemed to seek high performing friends. We also found a significant correlation between the social skills dimensions for the girls, meaning that girls with high social self-esteem seemed to seek friends who are regarded socially competent. No significant correlations were found for the other dimensions. Homophily has a modest explanatory effect on choosing friends in the present study.

Gender differences vs differences between groups within both genders

Finally in our analysis we address the question to what degree the various boy groups and girl groups were different from each other regarding the criteria for friendship. In this analysis we will identify groups with mean scores that are either high or low compared to the distribution of the scores for the whole study sample. Groups with a mean score equal to or above the 67th percentile for the whole sample are considered high score groups (+). Likewise groups with mean scores equal to or under the 33rd percentile are considered low score groups (-). Figures 2 and 3 show the result for this analysis.

Figures 2 and 3 show that girl groups tended to be low on activity dimensions and high on relation dimensions. This was the opposite of the boy groups that tended to be high on appearance dimensions and low on relation dimensions. However one boy group valued criteria that are supposed to be female preferences (+ social skills/- joint interests) and one girl group valued a criterion that is supposed to be a male preference (+ joint interests).

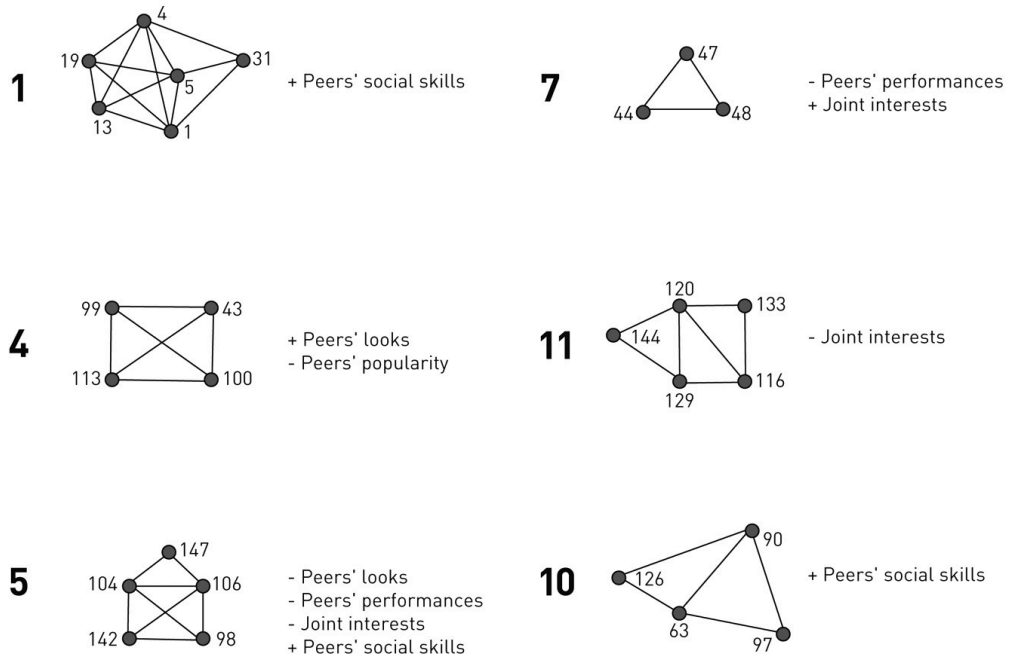


Figure 2: High and low scores – girls

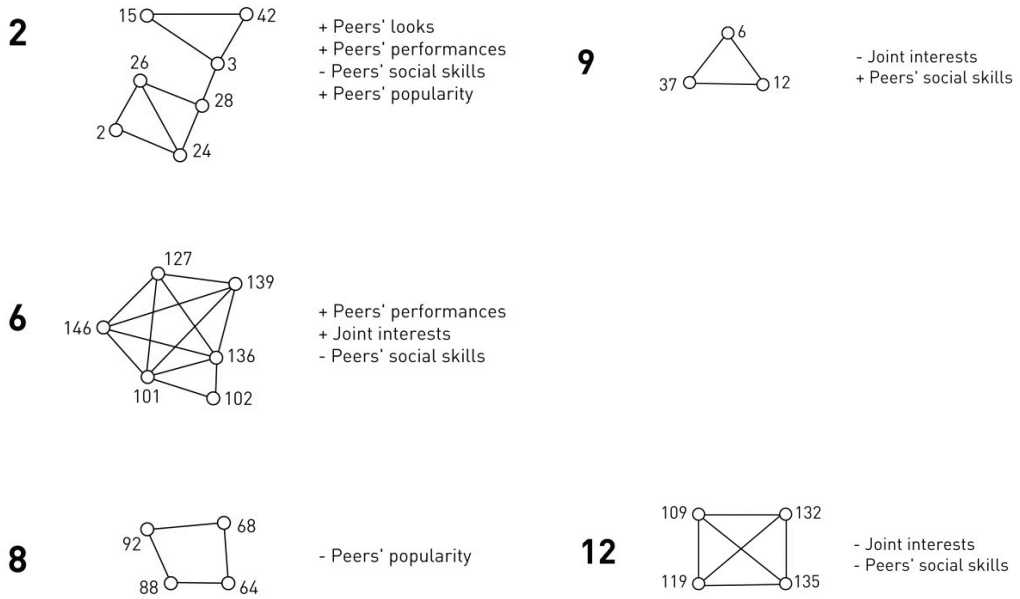


Figure 3: High and low scores – boys

Table 5 shows how the boys' groups (5) and the girls' groups (6) scored on a number of criteria compared to the mean score of the whole study sample. On one of the dimensions some the groups had scores identical to the mean score of the whole sample. These are in brackets in the table. The mixed group (nr 3) is not included in the table.

There was notable variance especially between the boys' groups on the importance of the different criteria. We found the same pattern for a number of variables studied. While on the average individual level we found significant differences between the boys and the girls, we found some friendship groups with boys who shared the girls' preferences and some friendship groups with girls who shared the preferences of the boys. As an example 4 groups of girls and 3 groups of boys had high scores on their preferences on peers' care and loyalty. 1 group of girls and 2 groups of boys had low scores on these criteria.

Table 5: Below (low) vs. above (high) average scores for the girls' and the boys' groups (in brackets – number of groups with average scores)

Group	Peers' school performance	Peers' perform. in sport	Peers' care and loyalty	Peers' social skills
Girls N=6	6 - 0	5 - 0 (1)	1 - 4 (1)	1 - 4 (1)
Boys N=5	2 - 3	1 - 4	2 - 3	3 - 2

Discussion

Comments on the results

According to Richards (1995) liaisons provide direct communication between different social groups. This is a role we would expect to find more among girls than boys given their possible different preferences for social connections (Hall, 2011). In our study we have found a difference in social position between boys and girls, but in a different direction than that indicated by the Two Cultures Theory: 11 of the boys were liaisons, according to NEGOPY compared to none of the girls.

In line with the similarity hypothesis students tend to choose friends that are similar to themselves. According to TCT, girls focus more on the relational aspects of friendship, whereas boys on the other hand are more concerned with activity aspects. Related to homophily, we would assume different dimensions to be important for boys and girls.

As expected according to the homophily theory (McPherson et al., 2001) we found that girls tend to make networks with other girls, boys with other boys. In our study we only have one mixed gender group. Advocates of the Two Cultures Theory (e.g. Maccoby, 1998) point to several studies indicating that girls tend to enter dyads or small groups whereas boys join larger groups. We found only small differences between boys and girls related to size of cliques and type of role in the peer group as defined by NEGOPY (Richards, 1995). There is, however, a tendency in our data to have more isolates and

dyads among the girls, and more boys than girls as group participants. This observation supports the Two Cultures Theory.

Based on the Two Cultures Theory and on the theory of homophily we would expect boys and girls to have different criteria behind their choice of friends. Hall (2011) expected differences in several criteria, like symmetrical reciprocity, communion, solidarity and agency. We found significant differences between the boys and the girls in three out of six of our criteria (Table 2 and 3). The boys valued peers' performance more than the girls. This result could be linked to studies showing that boys engage more in competitive activities than girls do, (Crombie & Des Jardins, 1993, cited in Underwood, 2004; Hall, 2011). Also having good marks in school subjects may be included in the boys' competitive behaviour. It is common understanding that girls value peers' social skills, especially intimacy and closeness, more than boys (Mc Dougall & Hymal, 2007; Hall 2011) We found in our study that the girls gave peers' social skills a significantly higher score than the boys, but both the boys and the girls scored peers' social skills as by far the most important criteria for choosing peers as friends. Both findings question the idea that boys and girls are socialised into different cultures when it comes to horizontal relationships. Further we found no significant gender differences regarding peers' looks, joint interests and peers' popularity as friendship criteria.

Based on the theory on homophily, Male (2007) suggests that students tend to associate with peers who have characteristics similar to their own and thus contribute to peer group homogeneity. A correlation between the students' criteria for choosing friends and the students' perceptions of their own characteristics based on the same criteria could be linked to this similarity hypothesis. We found a significant correlation among the boys on peers' performance versus own academic performance ($p < 0.05$, $r = .31$). We also found a significant correlation among the girls on the importance of peers' social skills versus their own social self concept ($p < 0.05$, $r = .42$). These results give some support to the theory of boys and girls belonging to two separate peer cultures.

Concluding remarks

Based on a literature review, Underwood (2004) argues against TCT by saying that possible gender differences in peer relationships are very complex and that many girls may support what are frequently described as male values, while many boys support female values. Farmer, Xie, Cairns and Hutchins (2007) found that peer groups may contain members who are in many ways similar, but who are different considering key characteristics, in that they may serve different but complementary social roles within a peer group. Hall (2011) found some differences in friendship expectations between boys and girls, but also that they share similar expectations regarding important components of friendship like loyalty and trust. In our study we looked into the variance within the gender groups. Does the variance within the friendship groups exceed the variance between the gender groups? We find the same pattern in a number of variables studied: while as a whole we find some significant differences between boys and girls average score

as gender groups, we find some cliques with boys who share the girls' preferences and some cliques with girls who share the boys' preferences. Boys and girls may have preferences towards the same values and characteristics, but to a different degree. As an example: Both boys and girls highly value peers' social skills, but girls to an even higher degree than boys. There are probably cliques of girls and boys in most classes in lower secondary school. To lower these gender barriers teachers of adolescents should encourage activities that stimulate cooperation across gender. In our study boys seemed to appreciate peers' performances to a higher degree than girls. Goodwin (2002) referred to studies showing that girls and boys may be equally oriented towards a competitive culture. We have in our study found differences related to gender, but teachers should have in mind that these differences probably are smaller than commonly assumed.

Future studies should include younger as well as older students, and also groups of young people of different ethnic origin. Supported by Urberg, Degirmencioglu, Tolson and Halliday-Scher (1995) and Hall (2011) among others, we would expect that there is an ethnic effect on adolescents, social networks and peer groups' preferences of friendship criteria. Children and young people today are very much influenced by means of electronic communication. Social networks tend to build as much on social media as on face to face interaction. Future research on peer culture and gender should include this element.

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