Sociometric Popularity and Leadership Qualities in Classroom

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Abstract:
In this article we investigate relationship between sociometric popularity and interpersonal traits connected with leadership qualities in schoolchildren. Many studies focus on development of sociometric popularity among children. Results suggest that sociometric popularity is relatively stable and that sociometric popularity of highly popular and highly unpopular children are the most stable. However, although stable, there is still a substantial variability in sociometric popularity that is not explained. In this study we try to look at why some children that are highly popular remain so and some loose this status. Also we look at why some highly unpopular children remain unpopular and why for some their status changes. This understanding can have important implications for rejected children to help them change their unfavourable status. To enhance our understanding we turn to the research on positive leadership qualities. There is a bulk of research that tries to identify the leadership qualities, mostly in business settings, less so at schools. This study is a first step in our research to better understand differences between classes with positive leaders (popular children with positive leadership qualities) and negative leaders (popular children with negative leadership qualities). Studies suggest that important characteristics of leaders are communication and trust. Leadership literature also distinguishes between transforming and transactional leadership styles, the former being characterised by exhibiting positive leadership behaviours such as individualized consideration and inspirational motivation, that lead towards higher satisfaction of others. Aggression and hostility cannot be perceived as positive traits, however, findings on whether they are supportive or hindering for leadership are mixed. Our results suggest that although being aggressive does not hinder a child from having high sociometric popularity, this popularity is not so stable as popularity of children who are not aggressive. While differing reports on connection of popularity and aggressiveness can be found in the literature, connection of aggressiveness and lower stability of sociometric popularity has not yet been reported. Reports on stability of low sociometric suggest that once a child gains status of a rejected child, it is difficult to change it. There may be several reasons for this, such as correlation of low socioeconomic status that is difficult to change with low sociometric popularity. Our results suggest that a change in communication may be a way to overcome this "status trap". Unlike a change in socioeconomic status of a child, a change in communication can be brought about by proper school interventions.

Keywords:
Sociometric popularity. Classroom. Leadership qualities.

Introduction

Numerous studies focused on development of sociometric popularity among children. Their results suggest that sociometric popularity is relatively stable and that sociometric popularity of highly popular and highly unpopular children are the most stable (Cillessen et al., 2000; Jiang, Cillessen, 2005; Cillessen, 2007). However, although stable, there is still a substantial
variability in sociometric popularity that is not explained. In this study we try to look at why some children that are highly popular remain so and some loose this status. Also we look at why some highly unpopular children remain unpopular and why for some their status changes. This understanding can have important implications for rejected children to help them change their unfavourable status.

We sought inspiration from research on positive leadership qualities. There is a bulk of research that tries to identify the leadership qualities, mostly in business settings, less so at schools. This study is a first step in our research to better understand differences between classes with positive leaders (popular children with positive leadership qualities) and negative leaders (popular children with negative leadership qualities). Studies suggest that important characteristics of leaders are communication (de Vries et al., 2010) and trust (Dirks, Ferrin, 2002). Leadership literature also distinguishes between transforming and transactional leadership styles, the former being characterised by exhibiting positive leadership behaviours such as individualized consideration and inspirational motivation, that lead towards higher satisfaction of others (Barbuto, Burbach, 2006, Peterson, Luthans, 2003). Aggression and hostility cannot be perceived as positive traits, however, findings on whether they are supportive or hindering for leadership are mixed (Limon, LaFrance, 2005).

Sample

We obtained data from 371 schoolchildren (49% boys, 51% girls). We started collecting data when they were starting their fifth grade (ages 11-12) and finished when they were finishing their sixth grade (ages 12-13). We collected four rounds of data, each round beginning approximately six months after the previous round. Schools were located in a large town in Slovakia.

Method

1. GAPR

To measure pupils' perception of classmates the Graphical Assessment of Peer Relationships (GAPR) Questionnaire (Dobeš, Fedáková, 2010) was used. Questionnaire consists of five ellipsoid spaces. Participants are first asked to fill in their name into the centre of the questionnaire. Then they fill in the names of people they are assessing. Classmates with whom they have better relationships were to be placed closer to the centre, classmates with whom their relationship is worse were to be placed further away from the centre. Every pupil was to place all of their classmates' names on the questionnaire. Thus, for every pupil, a score was obtained. Average was calculated from the placements of all the classmates on the questionnaire, ranging from 1 to 5, one denoting the best perception of the relationships with the classmates to five denoting the worst perception.

This tool was administered at every round.

2. QLQ

Questionnaire of Leadership Qualities (QLQ) was used to measure four interpersonal characteristics of children in school. Questionnaire was inspired by research on leadership characteristics (de Vries et al, 2010), by questionnaires on interpersonal traits and created by us to reflect the situation in class relationships. Its items are presented in the Appendix. Items were devised to measure four factors - trust, communication, hostility and aggressiveness. Cronbach alphas for respective factors were 0.77, 0.74, 0.64 and 0.67. Every factor was measured by four
questions, for aggressiveness, question number 4 was dropped from further analysis because of low inter-item correlation.

For every item there were five possible answers: 1 - I agree completely, 2 - I agree, 3 - Something in between, 4 - I disagree, 5 - I strongly disagree. For every factor, mean score was calculated, ranging from 1 to 5.

**Results**

1. **Sociometric popularity and leadership qualities.**

First, we looked at the relationship between sociometric popularity and leadership qualities. In line with literature (deVries et al., 2010; Dirks, Ferrin, 2002; Newcomb et al., 1993) we expected trust and communication to correlate positively with sociometric popularity. We expected aggressiveness and hostility to correlate negatively. However, our results support only positive relationship between trust, communication and sociometric popularity. Hostility and aggressiveness did not correlate with sociometric popularity. This suggests that in order for children to be perceived as friends, trust and communication are necessary, however, also aggressive and hostile children can gain friends and high sociometric status in class. Results were consistent across all four rounds. Results are presented in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>Trust</th>
<th>Hostility</th>
<th>Communication</th>
<th>Aggressiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popularity, round 1</td>
<td>.13*</td>
<td>-.04</td>
<td>.24*</td>
<td>-.10</td>
</tr>
<tr>
<td>Popularity, round 2</td>
<td>.15*</td>
<td>-.08</td>
<td>.27*</td>
<td>-.11</td>
</tr>
<tr>
<td>Popularity, round 3</td>
<td>.15*</td>
<td>-.01</td>
<td>.28*</td>
<td>-.03</td>
</tr>
<tr>
<td>Popularity, round 4</td>
<td>.18*</td>
<td>-.02</td>
<td>.28*</td>
<td>.02</td>
</tr>
</tbody>
</table>

2. **Stability of sociometric popularity and leadership qualities.**

Second, we looked at the relationship between stability of sociometric popularity and leadership qualities. We calculated standard deviations of GAPR scores across four rounds for every child (only children that completed all four rounds were included). We used standard deviations as a proxy for stability of sociometric popularity. We then correlated the deviations with leadership qualities. For the whole sample, there were no significant correlations between stability of sociometric popularity and leadership qualities. We then created two sub-samples. Children who scored below 2.5 in the first round of GAPR (children with high sociometric popularity) and children who scored above 3.5 in the first round of GAPR (children with low sociometric popularity). We then again correlated standard deviations of GAPR scores across four rounds with leadership qualities. In children with high popularity, aggressiveness correlated negatively with stability of sociometric popularity ($r=-0.36$, $p=0.01$, $N=47$). In children with low popularity, communication correlated negatively with stability of sociometric popularity ($r=-0.33$, $p=0.02$, $N=50$). These results suggest that higher popularity is more stable if not connected
with aggressiveness and that low popularity is less stable if connected with good communication.

**Discussion**

Our results suggest that although being aggressive does not hinder a child from having high sociometric popularity, this popularity is not so stable as popularity of children who are not aggressive. While mixed reports on connection of popularity and aggressiveness can be found in the literature (Faris, Felmlee, 2011), connection of aggressiveness and lower stability of sociometric popularity has not yet been reported.

Reports on stability of low sociometric popularity (Cillessen et al., 2000; Jiang, Cillessen, 2005; Cillessen, 2007) suggest that once a child gains status of a rejected child, it is difficult to change it. There may be several reasons for this, such as correlation of low socioeconomic status that is difficult to change with low sociometric popularity (Pettit et al., 1996). Our results suggest that a change in communication may be a way to overcome this "status trap". Unlike a change in socioeconomic status of a child, a change in communication can be brought about by proper school interventions (Dobeš, Fedáková, 2010).
References


Appendix

Questionnaire of Leadership Qualities (QLQ). Inverse items are marked with asterix. Items are marked according to factors - T - trust, C - communication, H - hostility, A - aggressiveness.

T1. When I trust my classmates, it usually pays out in the end.
H2. When a classmate is friendly to me, I wonder what does he / she want from me.
C3*. In class I talk only to my friends.
A4*. When a classmate makes me angry, I try to understand why did he / she do it.
T5*. My classmates cannot be trusted.
H6. I know that my "friends" talk about me behind my back.
C7. During last month I have talked to everyone in our class.
A8. When a classmate makes me angry I shout at him/her or hit him/her.
T9. It usually pays out to trust people.
H10. Sometimes I have got a feeling that classmates make fun of me behind my back.
C11*. I talk only to some people in our class.
A12. If a classmate does anything bad to me, I do something bad back to him/her.
T13. Most people in our class can be trusted.
A14. If a classmate makes me angry I stop talking to him/her.
H15. It is suspicious when somebody is nice to me.
C16. I can talk to every classmate without any problem.