Examining the Academic and Social Goals of Adolescents Who Excel Academically, Socially, in Both Areas, and in Neither

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Introduction

• Being popular (excelling socially) is often associated with academic performance (excelling academically)

• Adolescent students who are “popular”, indicated by reciprocated friendships, higher # of friends, and peer acceptance, also have higher academic achievement\(^1,2,3\)

• Students who are rejected or victimized by peers have lower classroom participation & academic achievement\(^4,5\)

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• Students who excel socially & academically also have adaptive goals while at school
  – Want to develop friendships, build meaningful relationships with peers, or to be prosocial$^1,^2$
  – Want to develop deeper understanding of school material and improve$^3$

$^1$ Wentzel, 1993; $^2$ Ryan & Shim, 2006; $^3$ Pintrich, 2000
• However, a subset of adolescents only excel academically, or only socially
### Introduction

<table>
<thead>
<tr>
<th>Low Popularity</th>
<th>Low Academic Performance</th>
<th>High Academic Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Excelling in neither</td>
<td>Excelling only academically</td>
</tr>
<tr>
<td>High Popularity</td>
<td>Excelling only socially</td>
<td>Excelling in both areas</td>
</tr>
</tbody>
</table>
Aim of the current study

- Examine differences in academic and social achievement goals across the four groups
  - excelling in both (high GPA, high popularity)
  - excelling only academically (high GPA, low popularity)
  - excelling only socially (high popularity, low GPA)
  - excelling in neither (low GPA, low popularity)
- Examine how the four groups differ in their changes in achievement goals across the school year
Academic achievement goals

Mastery
Understanding & personal improvement
“Really understanding my work is important to me.”

Performance-Approach
Demonstrate academic competence
“My goal is to look smarter than other students.”

Performance-Avoidance
Avoid appearing academically incompetent
“It is important to me that I don’t look stupid.”

Ames, 1992; Elliot, 1999; Elliot & McGregor, 2001
Social achievement goals

**Development**
- Develop meaningful relationships
  - “It’s important to me to have friends who really understand me.”

**Demonstration-Approach**
- Demonstrate social competence
  - “It’s important to me that others think of me as popular.”

**Demonstration-Avoidance**
- Avoid appearing socially incompetent
  - “My goal is to avoid doing things that would cause others to make fun of me.”

Ryan & Shim, 2006; 2008
Methods

• Hardcopy surveys administered at two time points (the beginning and end) of the school year
• 834 students at a US suburban public high school
  – 53% female
  – 9th-11th grades
Measures

• **Academic achievement goals**
  - Mastery (5 items, $\alpha = .88$)
  - Performance-approach (5 items, $\alpha = .87$)
  - Performance-avoidance (5 items, $\alpha = .82$)

• **Social achievement goals**
  - Development (5 items, $\alpha = .91$)
  - Demonstration-approach (4 items, $\alpha = .85$)
  - Demonstration-avoidance (4 items, $\alpha = .81$)

• **5-point Likert scale**

Academic goal measures from PALS, Midgley et al., 2000; Social goal measures adapted from Ryan & Shim (2006)
Measures

• Peer nominations
  – Students asked to list peers they hang out with the most at school
  – “Excelling socially” based on # of nominations each student received by others (indegree)

• Academic performance
  – “Excelling academically” based on GPA (0.00-4.00)

• Clear limitations of both proxy measures
• How do the four groups differ in their academic and social achievement goals?
  – Median split to determine high vs. low GPA and high vs. low peer nominations and assign students to one of four groups
  – ANOVAs to determine group differences

• How do the four groups differ in their change in goals across the school year?
  – General linear model with a between-subjects factor (student group) and a repeated measures within-subjects factor (W1 and W2 levels of motivation)
### Results

<table>
<thead>
<tr>
<th>Low # of Peer Nominations</th>
<th>Low Academic Performance</th>
<th>High Academic Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$N = 262$</td>
<td>$N = 197$</td>
</tr>
<tr>
<td></td>
<td>$M$ GPA = 2.62</td>
<td>$M$ GPA = 3.87</td>
</tr>
<tr>
<td></td>
<td>$M$ Peer Noms = 1.26</td>
<td>$M$ Peer Noms = 1.78</td>
</tr>
<tr>
<td>High # of Peer Nominations</td>
<td>$N = 135$</td>
<td>$N = 240$</td>
</tr>
<tr>
<td></td>
<td>$M$ GPA = 2.92</td>
<td>$M$ GPA = 3.90</td>
</tr>
<tr>
<td></td>
<td>$M$ Peer Noms = 6.16</td>
<td>$M$ Peer Noms = 6.78</td>
</tr>
</tbody>
</table>
Results

Academic Mastery
“really understanding my work is important to me”

- Excelling in Neither
- Excelling Academically
- Excelling Socially
- Excelling in Both

$F(3,744) = 6.99, p < .001$
Results

Academic Performance-Approach
“my goal is to look smarter than other students”

F(3,744) = 7.78, p < .001
Results

Social Development
“it’s important to me to have friends who really understand me”

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excelling in Neither</td>
<td>*</td>
</tr>
<tr>
<td>Excelling Academically</td>
<td>*</td>
</tr>
<tr>
<td>Excelling Socially</td>
<td></td>
</tr>
<tr>
<td>Excelling in Both</td>
<td></td>
</tr>
</tbody>
</table>

F(3,743) = 22.17, p < .001
Results

Social Demonstration-Approach

“it’s important to me that others think of me as popular”

F(3, 744) = 2.74, p < .05
Results

Social Demonstration-Avoidance

“my goal is to avoid doing things that would cause others make fun of me”

Excelling in Neither  Excelling Academically  Excelling Socially  Excelling in Both

$F(3,744) = 5.75, p < .01$
Results

• While many sig. differences in goal levels between groups, only one significant difference in change in goal across the year (goal x group interaction)
  – Performance-avoidance goals decreased more for students who excelled in both areas compared to just excelling in one
Results

Performance-Avoidance Goals

Estimated Marginal Means

Beginning & End of the School Year

FriendGPACategories
- Excelling in Both
- Excelling Socially
- Excelling in Neither
- Excelling Academically
Summary

• Is it enough to excel in only one area? Excelling either academically or socially seemed to be a protective factor, as the *excelling in neither* group had lower mastery goals and development goals compared to other groups.

• However, students who do well only academically, compared to other groups, reported higher social demonstration goals, i.e., concerned about demonstrating their social competence or avoiding showing their lack of popularity.
Theoretical Implications

- Informs achievement goal theory through highlighting small differences in students’ goals depending upon different combinations of academic and social success.
- However, few group differences in changes in goals across time.
- Given the correlational data, important to consider the two-way direction of influence.
Practical Implications

• Support students who do well academically but struggle socially by discouraging a focus on comparisons to others

• In general, students who excel neither socially nor academically have lowest mastery & development goals
  – Help these students focus on personal improvement

• Need research on how teachers can manage peer relations at school
Next steps

• Understand why there are group differences
• Need different measures of “excelling socially”
  – Reciprocated friendships; strength of friendships
  – How happy are students with their friends? 1 good friend vs. 10 bad
• Move beyond median split
  – Look at students only at the extremes (e.g., > 90th % academically)
  – Interactions between GPA, number of peer nominations, and goals
• Consider other motivational frameworks
Thank You

Questions or comments kara.makarafuller@glasgow.ac.uk
or tweet @kara_makara

Data collected when I was in the Combined Program in Education and Psychology at U of Michigan

Thank you to the ICM organisers!
EXTRA SLIDES
# Means & Standard Deviations

<table>
<thead>
<tr>
<th>Variable</th>
<th>W1 M</th>
<th>W1 SD</th>
<th>W2 M</th>
<th>W2 SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic – Mastery</td>
<td>4.10</td>
<td>.77</td>
<td>4.00</td>
<td>.86</td>
</tr>
<tr>
<td>Academic – Performance-Approach</td>
<td>2.42</td>
<td>.95</td>
<td>2.39</td>
<td>1.03</td>
</tr>
<tr>
<td>Academic – Performance-Avoidance</td>
<td>2.47</td>
<td>.97</td>
<td>2.25</td>
<td>1.00</td>
</tr>
<tr>
<td>Social – Development</td>
<td>4.11</td>
<td>.84</td>
<td>4.08</td>
<td>.93</td>
</tr>
<tr>
<td>Social – Demonstration-Approach</td>
<td>2.20</td>
<td>.89</td>
<td>1.96</td>
<td>.83</td>
</tr>
<tr>
<td>Social – Demonstration-Avoidance</td>
<td>2.23</td>
<td>.88</td>
<td>2.13</td>
<td>.89</td>
</tr>
<tr>
<td>Grade point average (GPA)</td>
<td>3.33</td>
<td>.75</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Peer nominations</td>
<td>3.76</td>
<td>3.10</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note. All on scale of 1 (not at all true of me) to 5 (very true of me) except GPA (0-4) and peer noms. (0-14)*
• Image 1 - from Shane Global Language Centres, CC General License