

Parental Predictors of Asian Gifted Students' Achievement Emotions

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Abstract

This study examined parental achievement goals and parent-child relationships as predictors of Asian gifted students' achievement emotions in class. Analysis of data collected in a South Korean high school for gifted children showed that the parental mastery goal of emphasizing the child's task mastery predicted gifted students' enjoyment and hope positively and hopelessness negatively. The parental performance goal of emphasizing the child's normative competence predicted gifted students' enjoyment, hope and pride negatively. In the parent-child relationship, 'respect' predicted pride positively while 'close' predicted shame, anxiety, and anger positively. Notably, 'conflict' in the parent-child relationship positively predicted all examined negative achievement emotions. Implications and ways of improving Asian gifted students' achievement emotions are discussed.

1. Introduction

In recent years Asian students have gained a good reputation due to their outstanding academic performance. In the latest PISA study, for example, students in seven Asian countries and economies (Singapore, Shanghai, Hong Kong, Macau, Taipei, South Korea, and Japan) outperformed their counterparts in most other OECD countries in all academic subjects tested (math, science, and reading) [1]. This result is consistent with other PISA studies over the past 10 years. However, we should not ignore the evidence that some Asian students good performance in PISA comes at the expense of their enjoyment of learning. Whilst the common belief is that students who perform well academically are likely to be happy at school, in some Asian countries students who performed well in PISA reported lower happiness at school than the OECD average [1]. For example, in the PISA 2015 survey students in South Korea reported the lowest level of happiness at school over all participated countries despite their outstanding academic performance [1]. Likewise, Japanese students reported high levels of stress symptoms including depression and social dysfunctions [2] and a national survey of young people in Singapore [3] found that the majority of Singaporean adolescents ranked 'education' as the most stressful aspect of their life. This is consistent

with a study [4] that reported that 'being pressured to keep up with schoolwork' was the primary concern of secondary-school students in Singapore. Also, many studies have reported that students in Asian countries experience higher levels of anxiety and depression than their non-Asian counterparts [5].

Multiple studies have pointed out that East Asian adolescents' learning-related emotions are influenced by parental involvement. For example, students in out-performing Asian countries report that they are under high pressure from significant others, such as parents, to excel academically [6]. Parental pressure to achieve academically is one of the main sources of stress and anxiety amongst Asian adolescents [7].

Although parents influence Asian students' learning-related emotions, there has been little research into the nature of parental contributions to the positive and negative emotions of high performing Asian students. This study aimed to address this gap by examining parental achievement goals and parent-child relationships as potential predictors of Asian gifted students' positive and negative emotions in class.

2. Theoretical frameworks

2.1. Achievement emotions

Achievement emotions are the achievement-related emotions that are frequently experienced by learners [8]. Achievement emotion theorists have defined positive and negative achievement emotions on the basis of control-value theory [8][9], which asserts that learners' emotions are determined by their appraisals of the control they have over their success and the importance they attribute to particular achievements and outcomes. For example, students would feel positive achievement emotions such as enjoyment when they perceive that they have a high degree of control over a learning outcome and value that outcome highly, whereas they would feel negative emotions such as boredom in relation to a learning outcome over which they have little control or to which they attach a low value.

One of the critical antecedents of Asian adolescents' achievement emotions is feedback from significant others, such as parents. It is known that students who anticipate normative feedback display

higher negative achievement emotions and lower positive achievement emotions than students who anticipate self-referenced feedback [10]. Given that the educational environment of Asian gifted students is highly competitive and they face high parental expectations, parental contributions to their achievement emotions should be investigated.

2.2. Parental achievement goals

Parental achievement goals are the expectations parents have of their children's development or competence [11]. There are two types: parental mastery goals and parental performance goals [12]. Parents who endorse mastery goals want their children to develop competence whereas parents who endorse performance goals want their children to demonstrate their competence by outperforming others. Parents who focus on mastery tend to evaluate their children's performance by temporal comparison (e.g. past vs. present performance) whereas parents who focus on performance tend to evaluate their children's performance through peer comparisons.

There is some evidence that parental factors influence children's emotions, for example, Buric [13] showed that the value parents' placed on gaining knowledge was positively correlated with most positive achievement emotions: enjoyment, hope, pride and relief.

2.3. Parent-child relationship

The parent-child relationship is defined by the child's perception of parent-child interactions and characterized by gratitude, closeness, guilt, conflict and respect [14]. Korean students' parent-child relationships were investigated by Bong [15], who found that perceived 'conflict' in the parent-child relationship was a common direct and indirect predictor of maladaptive student behaviors such as avoiding seeking help and cheating. Nonetheless, since the direct associations between parent-child relationships and students' achievement emotions have not been precisely explained, further studies on parental factors contributing to students' achievement emotions are required.

3. This study

The aim of this study was to investigate the associations between parental involvement (parental achievement goals and parent-child relationship) and gifted students' positive and negative achievement emotions. The research questions examined in this study are:

1. What parental factors (parental achievement goals and parent-child relationship) predict gifted students' positive achievement emotions (enjoyment, hope, and pride) in a gifted school?
2. What parental factors (parental achievement goals and parent-child relationship) predict gifted students' negative achievement emotions (hopelessness, boredom, shame, anxiety, and anger) in a gifted school?

4. Method

4.1. Participants

The participants were 117 students in a high school in South Korea for children gifted in science and mathematics. The school's students are academically outstanding and selected through nationwide competitions in mathematics or science (e.g., math or science Olympiad) and drawn from the top academic achievers in middle schools.

4.2. Measures

The participants completed a total of 70 items: a 24-item achievement emotions questionnaire [16], an 11-item parental achievement goal questionnaire [11] and a 35-item parent-child relationship questionnaire [14]. The achievement emotions questionnaire consisted of eight subscales that represent students' emotions in the classroom. The questionnaire examines three positive achievement emotions (enjoyment; pride; hope) and five negative achievement emotions (shame; boredom; anxiety; anger; frustration). The parental achievement goals questionnaire consisted of six items measuring parental mastery goal (e.g. my parents would like me to challenging class work, even if I make mistakes) and five items measuring parental performance goal (e.g. my parents would like it if I could show that I am better at class work than other students in my class). The parent-child relationship questionnaire consisted of five subscales (e.g. close, grateful, guilty, respect, and conflict) measuring children's attitude to their parents.

4.3. Analysis

The first step of analysis was calculation of descriptive statistics (mean and standard deviation), internal consistencies (Cronbach's alpha) and bivariate correlations. Regression analysis was performed to determine which parental factors (parental achievement goals and parent-child relationship) predicted the various achievement emotions. Separate analyses for each achievement emotion were performed using SPSS.

5. Findings

5.1. Predictors of gifted students' positive achievement emotions

Table 1 presents the bivariate correlations between parental factors and the positive achievement emotions of participants. Two aspects are remarkable. First, parental mastery goals were positively correlated with all the positive achievement emotions that were examined, whereas parental performance goals were not correlated to any of them. Second, close and respect in the parent-child relationship were positively correlated with all positive achievement emotions examined, whereas conflict in the parent-child relationship was correlated only with pride negatively.

Table 1. Bivariate correlations involving positive achievement emotions

Variable	1	2	3	4	5	6	7	8	9	10
1.PM	1	.33***	.52**	.47**	.45**	.55**	-.01	.44**	.37**	.40**
2.PP	.33**	1	.06	.57**	.34**	.11	.52**	-.05	-.09	-.08
3.Gratitude	.52**	.06	1	.65**	.61**	.78**	-.42**	.40**	.13	.42**
4.Close	.47**	.06	.64**	1	.52**	.75**	-.33**	.44**	.29**	.54**
5.Guilt	.45**	.37**	.61**	.52**	1	.62**	-.69**	.27**	.13	.27**
6.Respect	.55**	.11	.78**	.75**	.62**	1	-.40**	.51**	.28**	.55**
7.Conflict	-.01	.53**	-.42**	-.33**	-.07	-.40**	1	-.17	-.07	-.24**
8.Enjoyment	.44**	-.09	.40**	.45**	.27**	.51**	-.17	1	.68**	.76**
9.Hope	.37**	.05	.13	.30**	.13	.28**	.06	.68**	1	.57**
10.Pride	.40**	-.08	.42**	.54**	.27**	.51**	-.17	.76**	.57**	1

Note. PM = parental mastery goals, PP = parental performance goals

* $p < .05$; ** $p < .01$; *** $p < .001$

Multiple regression analyses were conducted to examine the relationships between parental factors and students' positive achievement emotions, with a separate analysis for each positive achievement emotion. Table 2 summarizes the results of these analyses. The enjoyment regression yielded an overall effect, $F(7, 109) = 9.171, p < .001, R^2 = .37$. Parental mastery goal ($\beta = .30, p < .01$) was positive predictor of enjoyment while parental performance goal ($\beta = -.30, p < .01$) was negative predictor. The hope regression yielded an overall effect was $F(7, 109) = 4.75, p < .001, R^2 = .23$. Likewise enjoyment, hope was predicted by parental mastery goal ($\beta = .35, p < .01$) and parental performance goal ($\beta = -.21, p$

$< .01$) while none of factors in parent-child relationship predicted hope. The pride regression yielded an overall effect, $F(7, 109) = 10.002, p < .001$. Parental performance goals were a negative predictor of hope ($\beta = -.22, p < .05$) whereas close ($\beta = .27, p < .05$) and respect ($\beta = .42, p < .01$) in parent-child relationship were a positive predictor. No other relationships involving the positive achievement emotions emerged.

Table 2. Multiple regression analyses with parental factors as predictors of positive achievement emotions

Variable	Enjoyment	Hope	Pride
PM	.30**	.35**	.18
PP	-.30**	-.21**	-.22*
Gratitude	-.02	-.25	.06
Close	-.15	.20	.27*
Guilty	-.05	-.07	-.09
Respect	.41	.29	.42**
Conflict	.20	.25	.11

Note. The values displayed are standardized regression coefficients. PM = parental mastery goals, PP = parental performance goal

* $p < .05$; ** $p < .01$; *** $p < .001$

5.2. Parental predictors of students' negative achievement emotions

Table 3 displays the bivariate correlations between parental factors and the negative achievement emotions of participants. Two parental factors are noteworthy. First, parental performance goals were positively correlated with all the negative achievement emotions whilst parental mastery goals were not. Second, conflicts in the parent-child relationship were positively and strongly correlated with all negative emotions examined whilst gratitude and respect in the parent-child relationship were negatively correlated with hopelessness, boredom, and anger.

Similar multiple regression analyses carried out to examine the relationships between the parental factors and students' negative achievement emotions, with a separate analysis for each negative achievement emotion. Table 4 presents a summary of these results. The hopelessness regression yielded an overall effect, $F(7, 109) = 14.831, p < .001, R^2 = .49$. Parental mastery goals were a negative predictor ($\beta = -.17, p < .05$) of hopelessness whereas conflict in parent-child relationship was a positive predictor ($\beta = .67, p < .001$). The boredom regression yielded an overall effect, $F(7, 109) = 16.244, p < .001, R^2 = .51$. Parental performance goal ($\beta = .20, p < .05$) and conflict ($\beta = .09, p < .001$) in parent-child relationship were positive predictor of boredom. The regressions of shame, anxiety and anger had two positive predictors of close ($\beta = .28, p < .05$; $\beta = .36, p < .01$; $\beta = .23, p < .05$ respectively) and conflict (β

= .66, $p < .001$; $\beta = .53$, $p < .001$; $\beta = .67$, $p < .001$ respectively) in parent-child relationship. There were overall effects in the models of shame $F(7, 109) = 11.932$ ($p < .001$), anxiety $F(7, 109) = 7.237$ ($p < .001$) and anger $F(7, 109) = 20.111$ ($p < .001$).

Table 3. Bivariate correlations involving negative achievement emotions

Variable	8	9	10	11	12
1.PM	-.09	-.05	-.03	-.03	-.09
2.PP	.38**	.47**	.36**	.29**	.39**
3.Gratitude	-.32**	-.26**	-.20	-.11	-.38**
4.Close	-.14	-.19*	-.03	.09	-.21*
5.Guilty	-.03	-.04	.08	.16	-.15
6.Respect	-.23*	-.28**	-.17	-.06	-.36**
7.Conflict	.67**	.70**	.61**	.46**	.75**
8.Hopeless	1	.70**	.74**	.68**	.79**
9.Boredome	.70**	1	.68**	.57**	.78**
10.Shame	.74**	.68**	1	.71**	.67**
11.Anxiety	.68**	.57**	.71**	1	.58**
12.Anger	.79**	.78**	.67**	.58**	1

Note. PM = parental mastery goals, PP = parental performance goals

* $p < .05$; **; $p < .01$; *** $p < .001$

Table 4. Multiple regression analysis for parental factors as predictors of negative achievement emotions

Variable	Hopeless ness	Boredo m	Shame	Anxiety	Anger
PM	-.17*	-.12	-.15	-.20	-.08
PP	.07	.20*	-.02	.01	.10
Gratitude	-.15	.12	-.02	-.06	-.03
Close	.16	.10	.28*	.36**	.23*
Guilty	.02	-.06	.10	.17	-.14
Respect	.10	-.17	-.10	-.07	-.00
Conflict	.67***	.09***	.66***	.53***	.67***

Note. The values displayed are standardized regression coefficients. PM = parental mastery goals, PP = parental performance goals

* $p < .05$; **; $p < .01$; *** $p < .001$

6. Discussion

This study examined the relationships between parental achievement goals, parent-child relationship and gifted students' achievement emotions. The results showed that parental mastery goal is a positive predictor of the two positive achievement emotions of students, enjoyment and hope, while was a negative predictor of a negative achievement emotion, hopelessness. Parental performance goals are a negative predictor of all positive achievement emotions examined, but was a predictor of only negative achievement emotion, boredom. Overall, the results corroborate earlier research showing that parental mastery goals have a salutary effect, buffering students against negative emotions, whilst

parental performance goals have a negative impact on students' positive achievement emotions. On more detailed inspection, however, the findings of this study differ from those of earlier studies involving non-gifted samples. Unlike the other studies, which found a positive relationship between parental performance goals and negative emotions such as academic stress [17], in this study parental performance did not predict most of negative achievement emotions. Instead, parental performance goals seemed to decrease the positive achievement emotions of gifted students.

Conflict in the parent-child relationship was the strongest predictor of the negative achievement emotions except boredom. Interestingly, gifted students who have 'close' relationship with parents seem more likely to feel higher level of shame, anxiety, and anger. It would be because gifted students feel much pressure or desire to meet parental expectations that comes from the close relationship with parents. The characteristic of the parent-child that predicted positive achievement emotions were close and respect, which predicted gifted students' pride. The results are interesting in that most of the positive achievement emotions appeared independent of the nature of the parent-child relationship, perhaps because gifted students have relatively high intrinsic motivation and high interest in learning and so their positive achievement emotions are not influenced by external factors such as their relationship with their parents. Further research may be needed to determine whether the parental contribution to students' emotions varies with school type.

7. Conclusions

Parental factors influence to variance in gifted students' achievement emotions in three ways. First, emphasizing parental performance goals and causing conflict with children would affect negatively to gifted students' achievement emotions. This study found that gifted students' positive achievement emotions (enjoyment, hope, and pride) were reduced if their parents emphasized the importance of high academic scores or high achievement rankings. Also, gifted students' negative emotions were exacerbated by conflict with their parents. Second, parental mastery goal helps gifted students feel better achievement emotions. This study revealed that parental mastery goals mitigate a negative emotion (hopelessness) as well as amplify two positive emotions (enjoyment and hope). Third, close in parent-child relationship is a double-edged sword as a predictor of a positive emotion (pride) as well as three negative emotions (shame, anxiety, anger).

8. References

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