

The Relation of Academic and Non-Academic Factors to
Changes in Self-Esteem and to Teacher-Rated Adjustment
Following Transition to Junior High School

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ABSTRACT

This study examined the influence of children's perceptions with regard to academic and non-academic factors on teacher-rated adjustment and changes in self-esteem following transition to junior high school. We hypothesized that positive self-concepts of ability (SCA) for each domain should relate to positive changes, while worries and anxieties with regard to these domains should relate to negative changes. Based on previous findings (Simmons and Blyth, 1987), the relationship of physical maturity and dating behavior to the transition was also assessed. The approximately 1000 girls and 860 boys who participated in the study represented working class and professional families from predominantly white, low- to middle- income communities. The study had a two-year, four-wave design. Child perception variables, as well as teacher ratings of adjustment, physical maturity and the child's dating interest were assessed by measures for which reliability and validity had been established. Self-esteem was assessed by Harter's (1982) Self-Esteem Scale. Analyses conducted on Wave 2 and 3 and Wave 2 and 4 data via multiple regression identified both protective and risk factors for adjustment to the junior high transition. Protective factors included positive self-concepts of ability in academics, sports, and friend-making, as well as estimates of being good-looking and popular. Risk factors included having worries about tests and grades, popularity and friends, as well as being self-conscious about class performance and about what others think. Greater physical maturity predicted to better adjustment for both sexes, while dating did not predict to either outcome measure. The implications of these findings for understanding early adolescent development are discussed.

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Recently, concern has been raised over the transition to junior high school. Some children are adversely affected by this transition. Two areas, in particular, that seem to suffer are self-esteem and adjustment to junior high school. Although boys have an overall higher level of self-esteem, a general decline occurs in the transition from sixth grade for both sexes (Eccles and Midgley, 1990). Recent work examining the junior high transition (Simmons and Blyth, 1987; Simmons, Carlton-Ford and Blyth, 1987) has shown that, over and above level of self-esteem in 6th grade, previous success in academic and social domains is positively related to 7th grade self-esteem.

Consistent with this work on individual differences, the present study investigates factors in both academic and non-academic domains that could influence the ease of transition for a child. Specifically, we predicted that children's self-concepts of ability (SCA) in these domains and their worries and anxieties with regard to each domain would be related to adjustment and self-esteem following the transition to 7th grade. Positive self-concepts should serve as protective factors for the transition, while worries and anxieties should have a negative impact on the transition and thus place a child at risk for experiencing difficulties. We used data from a larger investigation being conducted at the University of Michigan (Transitions in Adolescence Project) to test these hypotheses. This project assessed adolescents' beliefs, values, motives, and behaviors in several activity domains across the transition to junior high school. Given the findings of Eccles et al (1989) that self-esteem shows within year as well as between year changes, we tested our predictions for measures gathered both in the fall and the spring of the students' seventh grade year.

SUBJECTS

Subjects were recruited from twelve school districts located in predominantly white, low - to middle-income communities. Approximately 95% of the teachers agreed to allow students to be recruited into the study. The final sample consisted of approximately 1000 girls and 860 boys, approximately 85% of the initial sample.

METHODS

Questionnaires were completed twice each year (fall, spring) over two years. The student questionnaire contained items assessing self-perceptions and perceptions of family and school environment. Single items for which reliability and validity had been established were used to assess child perception variables (see Table 1 for exact items), as well as teacher ratings of adjustment (Eccles, Midgley, & Wigfield, 1988). All

items were measured via a 7-point Likert scale unless otherwise noted. Self-esteem was assessed by Harter's (1982) Self-Esteem Scale.

The academic competence rating is a composite of a student's scores on standardized achievement tests in math and English and of their sixth grade teachers' ratings of their relative ability in these domains compared to other students. Math and English were collapsed to a general academic rating since initial descriptive analyses indicated no difference between these domains.

HYPOTHESES

We hypothesized that, above and beyond the child's self-esteem at Wave 2 and their overall academic competence, our predictors would explain positive and negative change in the Wave 3 and Wave 4 adjustment measures.

We postulated that protective factors would include positive self-concepts of ability in academic, athletic and social domains, while risk factors would include worries about tests, grades, friends and popularity, and students' self-consciousness about classroom participation.

Based on the findings of Simmons and Blyth (1987), we hypothesized that dating would serve as a risk factor for girls adjustment to the transition. Although there is some evidence to suggest that early physical maturity has a negative influence on the transition to junior high school, for girls in particular, there is also evidence that suggests that physical maturity can serve as a protective factor. Thus, no specific predictions were made with regard to the impact of pubertal measures.

To test these hypotheses we compared the following two regression models to assess whether the predictor variable added significantly to the total variance explained:

Model C: $SE3/(SE4) = SE2 + \text{Academic Competence}$

Model A: $SE3/(SE4) = SE2 + \text{Academic Competence} + \text{Predictor}$

Similar models were compared to assess the influence of the predictor variables on teacher-rated adjustment at Waves 3 and 4.

By controlling for self-esteem at Wave 2 we are testing the extent to which protective factors (risk factors) are associated with a gain (loss) in the self-esteem between the end of the sixth grade and the beginning (or end) of the seventh grade year.

RESULTS: SELF-ESTEEM

As predicted, protective factors facilitated positive change in self-esteem, while risk factors exacerbated a negative change (See Figure 1). Confidence in one's ability in academics, athletics, and friend-making all predicted to gains in self-esteem. Positive estimates of appearance and popularity also facilitated gains in self-esteem. Worries and self-consciousness with regard to these domains, on the other hand, predicted to declines in self-esteem. The majority of the protective factors in the non-academic domain were social rather than athletic. All of these results were replicated in Wave 4. Interestingly, even though academic competence was related to children's self-esteem, prior academic competence accounted for relatively little of the variance in the children's psychological adjustment to junior high school (i.e. in the gains and losses of their self-esteem at Waves 3 and 4).

Figure 2 depicts the amount of variance accounted for in post-transition (Wave 3) self-esteem by items with a significant sex interaction. Girls' positive estimates of popularity accounted for significantly more variance than did those of boys'. In addition, the amount of variance accounted for by boys' self-consciousness about being corrected in class was significantly more than that accounted for by girls'.

RESULTS: ADJUSTMENT

As hypothesized, protective factors were associated with more positive teacher ratings of adjustment to junior high school, while risk factors in these domains were associated with lower ratings of adjustment (See Figure 3). Confidence in one's ability to make friends significantly predicted to positive teacher-rated adjustment across the transition.

Teachers' ratings of students' physical maturity also predicted positively to adjustment. The greater the extent to which teachers rated a student as physically mature, the better the adjustment rating.

Self-consciousness about being called on in class and being corrected by the teacher, on the other hand, had a negative impact on adjustment. The more self-conscious a student at Wave 2, the poorer their teacher-rated adjustment to junior high school. In addition, and unlike the results for self-esteem, a student's prior academic competence accounted for the largest amount of variance in the seventh grade teachers' ratings of the children's adjustment to junior high school.

The negative effect of students' self-consciousness about being called on in class was replicated in Wave 4.

Figure 4 illustrates the amount of variance accounted for in teacher-rated adjustment by items with a significant sex interaction. As was true

for the self-esteem results, girls' confidence in their popularity accounted for significantly more variance than that of boys'. Furthermore, being nervous about grades being handed back accounted for significantly more variance in the boys' adjustment than the girls'.

OVERALL CONCLUSIONS

Consistent effects across the two dependent measures

1. The general results support our hypotheses. Protective factors in both academic and non-academic domains facilitate positive gains in self-esteem and better adjustment following the transition to junior high school, while risk factors in these domains negatively influence both self-esteem and adjustment. The greater the extent to which students have confidence in their abilities in academic, social and athletic domains in the sixth grade, the better their adjustment to the junior high school transition. Furthermore, the more worried and self-conscious a student was with regard to classroom performance in grade 6, the lower their seventh grade self-esteem and their teacher-rated adjustment to the transition. Within the non-academic domain it is primarily variables pertaining to social and self-consciousness factors that go across the two dependent measures. This finding may reflect the changing pressures on children at this particular period in life. Physically, children at this age typically manifest the changes associated with puberty (i.e. breasts, menstruation, voice change). Coupled with these physical changes, there are also social role changes. For example, there is increased emphasis at this time, from both peers and families, on physical appearance and on social presentation. Given these physical and social changes, it is therefore not surprising that children's perceptions and concerns at this time reflect these domains.

2. There were consistent sex differences that came through across both the dependent measures. Perception of popularity is a more important predictor of both post-transition self-esteem and teacher-rated adjustment for girls than for boys. For boys, on the other hand, it appears that self-consciousness about classroom performance is a more important outcome predictor than for girls. These results are consistent with the general findings in the literature on sex-typing, wherein boys are more concerned about, and influenced by, academic competence, whereas girls are more affected by issues of social competence. The results do, however, contradict other aspects of the literature that assert that girls are more affected by anxiety with regard to school. Previous research has shown that boys tend to underreport their degree of anxiety in comparison to girls. Although we did not find sex differences in the mean levels of anxiety reported by the students, it is possible that the boys did indeed

under-report. But, more importantly, our findings suggest that, regardless of the level of anxiety reported by a student, boys are significantly more sensitive to the negative effects of such anxiety than are girls.

3. Dating did not significantly predict to either self-esteem or teacher-rated adjustment for either boys or girls. This result contradicts previous literature that found dating to be a risk factor for girls' adjustment to junior high school.

Interesting contrasts in the predictions of the two dependent measures

1. Interestingly, the two control variables affect the two dependent measures differently. Contrary to what we had expected, students' Wave 2 self-esteem is not related to teachers' rating of adjustment to junior high school; instead, Wave 2 self-esteem predicts Waves 3 and 4 self-esteem quite strongly. In contrast, students' previous achievement is a much stronger predictor of the teachers' rating of the students' adjustment to junior high school. Furthermore, far fewer of the children's psychological characteristics predict to the teachers' rating of the children's adjustment to junior high than predicts to changes in the children's self-esteem following the transition to junior high school. It appears, then, that the teachers' view of children's adjustment to junior high school is primarily related to the children's academic performance. This finding has important clinical implications. Since teachers are the people in the best position to identify children at risk, it is unfortunate that they appear so unaware of the children's psychological state until a problem begins to affect their academic achievement.

2. An interesting result that contradicts previous literature is that physical maturity is a protective factor for both girls and boys in teachers' rating of adjustment. Again, it appears that for teachers, the salient factor in rating adjustment is a physical attribute rather than a psychological variable.

3. The replication of results from Wave 3 in Wave 4 for self-esteem strongly suggests that these results reflect the impact of the predictor variables on self-esteem across the transition and that the post-transition effects are stable within the school year. The relative lack of replication of the influence of the predictor variables on teacher-rated adjustment in Wave 4 further supports the assertion that the seventh grade teachers are not sensitive to the psychological states of the children. Even after getting to know the children over the course of the school year, teachers continue to rate children's adjustment primarily in terms of the children's academic competence.

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TABLE 1

Academic

PROTECTIVE FACTORS

How good at English are you?

How good at math are you?

RISK FACTORS (1 - 4 Likert scale)

Do math tests scare you?

While you are taking a test in math, how nervous do you get?

How nervous do you get when the teacher hands back grades on class assignments?

I don't like the teacher to call on me in math because I wonder what the other kids are thinking about me.

I feel very embarrassed if the teacher corrects my answer in front of the other students in math.

Non-Academic

PROTECTIVE FACTORS

Some people feel they are very good looking and other people feel they are less good looking. How good looking do you feel you are?

How good are you at making friends?

How popular are you in school?

How good are you at sports?

RISK FACTORS (1 - 4 Likert scale)

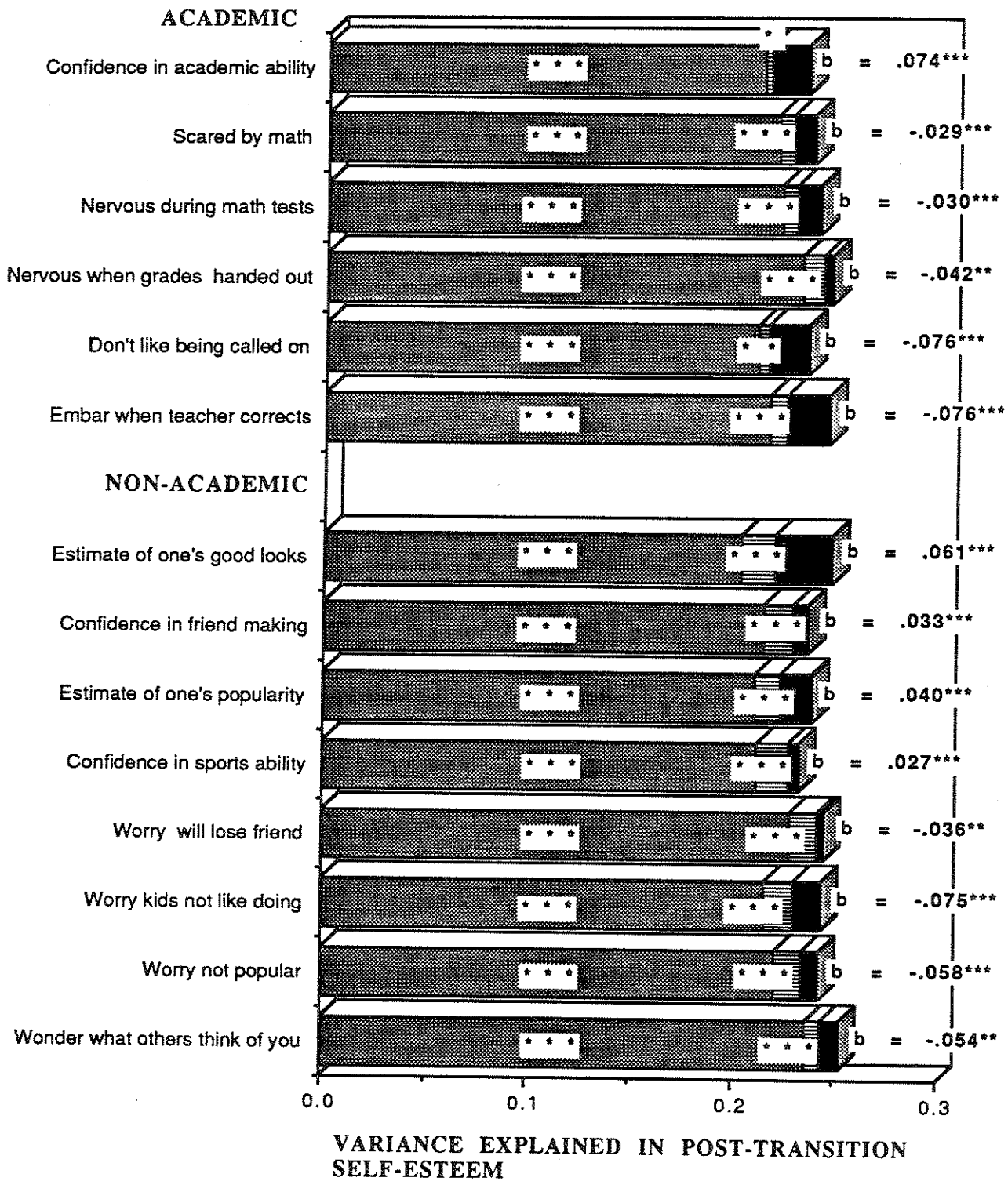
When a friend gets mad at you, how nervous do you get that they might not want to be your friend anymore?

How worried are you that maybe other kids don't like to do things with you all that much?

How worried are you that maybe you're not popular as popular as you'd like to be?

When I meet new people my age, I wonder what they will think about me.

Figure 1 THE EFFECT OF STUDENTS' ACADEMIC AND NON-ACADEMIC BELIEFS ON POST-TRANSITION SELF-ESTEEM (WAVE 3)



All of these results were replicated at Wave 4




-  Self-Esteem Wave 2
-  Academic competence
-  Predictor

Figure 2 AMOUNT OF VARIANCE ACCOUNTED FOR IN POST-TRANSITION SELF-ESTEEM (WAVE 3) BY ITEMS WITH A SIGNIFICANT SEX INTERACTION

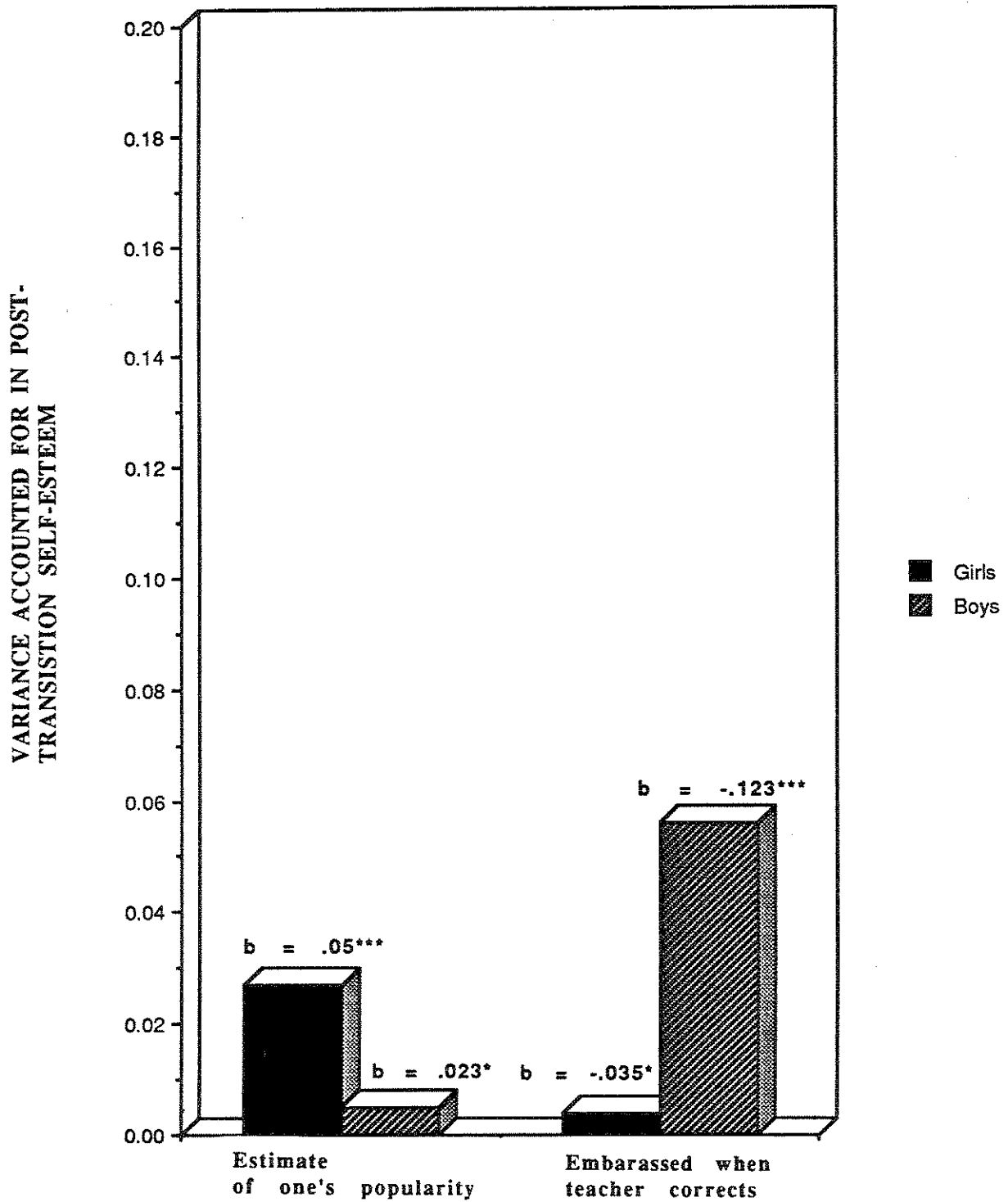
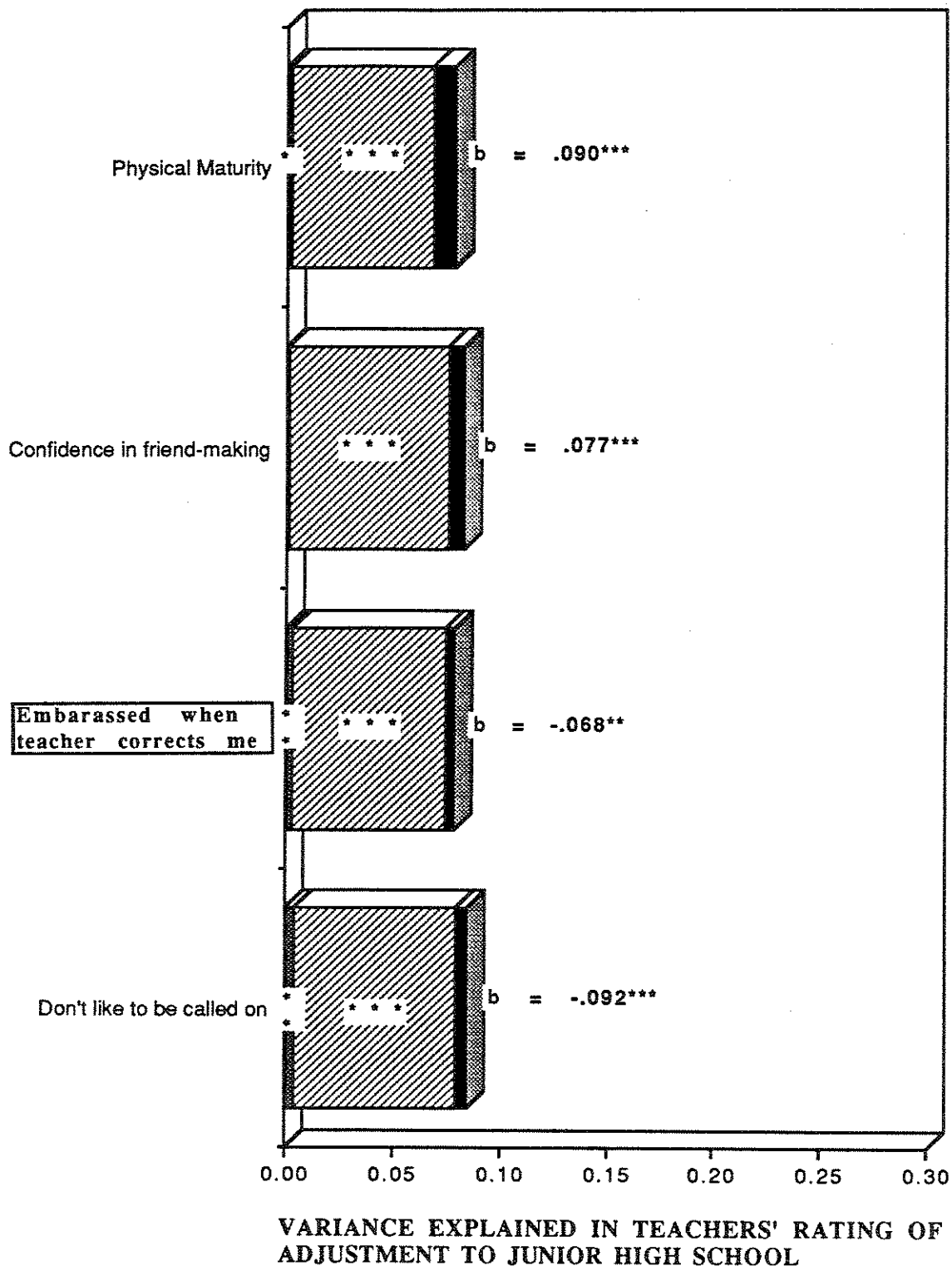


Figure 3

THE EFFECT OF STUDENTS' BELIEFS AND TEACHERS' RATING OF STUDENTS' PHYSICAL MATURITY ON TEACHERS' RATING OF ADJUSTMENT TO JUNIOR HIGH SCHOOL



Results of boxed items were replicated at Wave 4

- Self-Esteem Wave 2
- Academic competence
- Predictor

Figure 4 AMOUNT OF VARIANCE ACCOUNTED FOR IN TEACHERS' RATING OF ADJUSTMENT TO JUNIOR HIGH SCHOOL BY ITEMS WITH A SIGNIFICANT SEX INTERACTION

