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Educational aspiration–expectation discrepancies: Relation to socioeconomic and academic risk-related factors

Paul Boxer^{a,*}, Sara E. Goldstein^b, Tahlia DeLorenzo^a, Sarah Savoy^a, Ignacio Mercado^a

^a Department of Psychology, Rutgers University, Newark, NJ 07102, United States

^b Montclair State University, United States

ABSTRACT

Keywords:

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This study examines whether disconnection between educational aspirations and expectations is associated with socioeconomic status, academic performance, academic risk-related behaviors and related psychosocial factors in an ethnically and economically diverse sample of early adolescents from a public middle school ($N = 761$). Results suggest that students who aspire to achieve more than they expect to achieve also are likely to have more economically disadvantaged backgrounds and poorer academic performance. These students also show a variety of academic and social risks. Specifically, students whose aspirations exceeded their expectations reported lower levels of school bonding, higher levels of test/performance anxiety, and elevated behavioral/emotional difficulties. Results are discussed in terms of social-cognitive theory as well as applications for promoting student social and academic success.

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One of the more increasingly robust propositions in developmental research is that, generally speaking, cognitive beliefs become reliable and valid predictors of related behaviors beyond the early to middle childhood period (Davis-Kean et al., 2008). Thus, for example, with increasing age, youth who believe it is acceptable or relatively easy to behave aggressively are more likely to engage in aggression (Davis-Kean et al., 2008; Huesmann & Guerra, 1997), and youth who believe they are competent in mathematics are more likely to perform well in mathematics (Davis-Kean et al., 2008). Such observations are consistent with the well-elaborated social-cognitive (Bandura, 1986; Huesmann, 1998) and expectancy-value (Eccles, 1984; Eccles [Parsons] et al., 1983; Wigfield & Eccles, 1992) frameworks for understanding the relations of cognitive structures (including beliefs, attitudes, and values) to actual behaviors.

Theoretically, although situational inconsistencies might arise (e.g., through cognitive dissonance; Egan, Santos, & Bloom, 2007), the cognitive mechanisms driving behavior are internally consistent and originate through fairly well-integrated social learning experiences (Dubow, Boxer, & Huesmann, 2009; Frome & Eccles, 1998; Zelli, Dodge, Lochman, Laird, & Conduct Problems Prevention Research Group, 1999). But what happens when otherwise stable internal beliefs are not synchronous? In the present study, we evaluated the potential impact on academic success of discrepancies in adolescents' achievement-oriented belief system. With data obtained from a large and socioeconomically diverse population of middle school students ($N = 761$), we examined the relation of discrepancies between academic *aspirations* (how much education youth want to achieve) and *expectations* (how much education youth think they will achieve) to theoretically associated social, economic, academic, and behavioral covariates.

* Corresponding author.

E-mail address: pboxer@psychology.rutgers.edu (P. Boxer).

The development of academic aspirations and expectations

Adolescents' academic aspirations – how much education they would like to attain – predict a variety of academic outcomes, including grades, educational attainment, motivational levels, and occupational prestige (e.g., Cunningham, Corprew, & Becker, 2009; Dubow et al., 2009; Mello, 2008). Similarly, studies have shown that holding positive expectations for the future, including optimistic expectations regarding the completion of high school and the ability to attain stable employment, yield both protective and promotive effects on youths' general social and behavioral adjustment (Dubow, Arnett, Smith, & Ippolito, 2001; Wyman, Cowen, Work, & Kerley, 1993). Adolescents who believe that they will achieve greater academic success are more likely to do so, as compared to their less optimistic peers, especially when other facilitative social and academic factors are present (e.g., Messersmith & Schulenberg, 2008; Ou & Reynolds, 2008). Aspirations and expectations are thus potentially critical influences on youths' future academic and occupational trajectories (Armstrong & Crombie, 2000; Beal & Crockett, 2010; Gottfredson, 1981).

Of course, neither aspirations nor expectations operate in a vacuum. As elaborated in key belief-behavior models (Bandura, 1986; Eccles, 2005; Huesmann, 1998), a variety of social and personal factors bear on the ultimate performance of behavior. For example, developmental studies have shown that children learn the importance of educational and vocational attainment from parents who model these values and outcomes (Dubow et al., 2009; Frome & Eccles, 1998), that early childhood academic skill development is critical for middle childhood academic success (Duncan et al., 2007), and that social status in the childhood peer group contributes to academic and vocational development in adulthood (Dubow, Huesmann, Boxer, Pulkkinen, & Kokko, 2006). Adolescents' activity choices also have important links to aspirations and expectations. A recent study by Beal and Crockett (2010) demonstrated that educational and occupational expectations were influenced over time by participation in related extracurricular activities, and that activity participation in turn also was influenced by expectations. This reciprocal effect was not found for achievement-related aspirations: Aspirations predicted activity participation, but activity participation did not predict aspirations over time.

As Eccles and colleagues have theorized and demonstrated, the origins of adolescents' motivations to achieve are complex and involve parental modeling of achievement-related outcomes, self-schemas regarding personal and social identities, and cognitive beliefs regarding the subjective value of various achievement-related activities and goals (Eccles, 2005; Eccles et al., 1993; Eccles, Wigfield, & Schiefele, 1998). For example, with data from a large ($N = 444$) sample of seventh grade students, Jodl, Michael, Malanchuk, Eccles, and Sameroff (2001) observed that in the academic domain (e.g., beliefs about the importance of schooling, perceptions of youths' academic competence) parents' expressed values and beliefs regarding their children's academic abilities and futures directly predicted the youths' expressed values and beliefs. Davis-Kean (2005) observed in a sample of 868 8–12-year-olds that this sort of direct link is part of a mediational process tying parents' own educational attainment to their children's academic achievement. Dubow et al. (2009) reported that relations between childhood parental education levels (measured when target subjects were 8 years old) and middle adulthood (age 48) occupational and educational outcomes were mediated in part by educational aspirations and attainment measured during late adolescence (age 19).

The potential for disconnect between aspirations and expectations

Studies conducted by Oyserman and colleagues (e.g., Destin & Oyserman, 2009; Oyserman, Bybee, & Terry, 2006; Oyserman, Terry, & Bybee, 2002), emanating from theory developed and refined by Markus (Markus, 1977; Markus & Nurius, 1986; Markus & Oyserman, 1989), have centered on the role of self-beliefs in promoting positive outcomes and reducing risk for negative outcomes. Specifically, this work has hinged on the key concept of *possible selves* – cognitively constructed representations of future selves that may be positive or negative, representing hopes and fears regarding future states, and not necessarily “well anchored in social reality” (Markus & Nurius, 1986, p. 955). As aspirational constructions, possible selves can serve as incentives for increasing positive, prosocial goal-directed behavior or for decreasing negative antisocial behavior. Thus, a youth whose hoped-for possible self is a high-achieving, well-compensated professional should be motivated and committed to graduating from high school, pursuing a college education, and potentially a graduate/professional degree beyond that. A youth who maintains a feared possible self of an unemployed person with few prospects might pursue similar goals. Youth who maintain such hoped-for and feared possible selves simultaneously have “balanced” possible self-schemas that should be more effective in promoting positive outcomes (Oyserman & Markus, 1990).

Because possible selves are not necessarily derived from empirical realities, there always is the potential for some real disconnect between youths' aspired-to selves – the possible selves they *want* to become – and their expected selves or the possible selves they believe they *will* become. A variety of factors might be posited to account for this disconnect, including developmental factors such as discovering one's talents and interests or perceived barriers due to gender role or academic feedback (e.g., Armstrong & Crombie, 2000; Gottfredson, 1981). An additional factor that can explain this disconnect is youths' social-economic circumstances. Economically disadvantaged children are perceptive to barriers they face in order to succeed at the same level as children from non-disadvantaged communities (Destin & Oyserman, 2009), and thus might be disengaged from education and less likely to pursue higher education (U.S. Department of Education, 2008). An academically skilled, highly motivated youth who wants to attend college might feel inhibited from doing so by the economic reality of high tuition costs and the social reality of poor family support or a lack of parental modeling of achievement. Destin and Oyserman (2009) reported experimental observations of middle schoolers that illustrate the barrier of college tuition costs in a low-

income context. They found that students who were informed in detail about need-based financial aid for college reported higher expected grades than did students reminded instead about the high cost of college, and indicated that they would spend more time on homework than did students who received no priming information.

The implications of disconnect between aspirations and expectations could be quite far-reaching. Perceiving barriers to desired levels of achievement could result in underachievement in the short run, as demonstrated by Destin and Oyserman's (2009) experiment. However, these short-term reductions in effort and motivation might covary with depressed self-efficacy for academic achievement. In turn, such reduced effort could lead to longer-term impacts on educational and vocational attainment through the effect of the self-fulfilling prophecy (i.e., the ultimate fulfillment of a false belief; Smith, Jussim, & Eccles, 1999) and the enduring effect of reduced self-efficacy (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001).

The present study

Although the prior research discussed above has illuminated the importance of academic expectations and aspirations, and started to examine factors associated with a potential discrepancy between expectations and aspirations, less work has focused on the specific social and academic correlates of these discrepancies. Despite what potentially is at stake, relatively little is known about the implications of discrepancies between aspirations and expectations for youth outcomes aside from indicators of academic achievement. For example, youth who believe that they cannot achieve the level of academic success that they would like to might experience higher levels of school-related anxiety. Such youth might be more likely to perceive that formal academic feedback in the form of grades can represent barriers to future academic choices (such as admission to college, for example). A corollary to this issue is that youth who view school as an environment where they are not likely to achieve desired goals might feel less bonded to school itself, which also is risk factor for academic decline (e.g., Bond et al., 2007; Eisele, Zand, & Thomson, 2009).

It is also not clear how aspiration–expectation discrepancies relate to adolescent behavioral and mental health. Academic achievement and behavioral/mental health are clearly linked, probably in reciprocal fashion, and especially in regard to problem behavior (Hinshaw, 1992; Huesmann, Eron, & Yarmel, 1987). Pessimistic appraisals regarding the likelihood of longer-term academic success might further worsen adolescents' mental health status beyond the direct impact of poor academic performance. Further, given that peers are important socialization agents for adolescents' developing identity and self concepts (e.g., Bandura, 1989; Brown & Lohr, 1987; Brown, Mory, & Kinney, 1994), peer factors are likely tied to academic aspirations and expectations as well. For example, adolescents who have risky attitudes about school might be drawn to peers with similarly risky orientations (e.g., Ryan, 2000); aspiration–expectation discrepancies also might lead youth to such peers.

In the present study we examined the predictive role of socioeconomic status and academic achievement in the academic aspiration–expectation discrepancy, and in turn the effects of this discrepancy on a set of theoretically meaningful academic risk-related behaviors and related psychosocial factors in a sample of middle school students. Early adolescence is an ideal time to examine academic risk processes; it has been characterized as a turning point in terms of influencing future trajectories of academic achievement and psychosocial adjustment (e.g., Carnegie Council on Adolescent Development, 1995). Further, the transition from elementary to middle school has well-documented implications for academic achievement and motivation, such as increased school-related anxiety and lower levels of attachment and bonding to school (e.g., Eccles, Lord, & Buchanan, 1996; Eccles et al., 1993; Eccles & Roeser, 2005). Also, because of growing social and cognitive sophistication, young adolescents from lower socioeconomic status households might face the added challenge of an enhanced awareness of perceived social and economic barriers to their success. Finally, during early adolescence the peer group as a social ecosystem takes on greater importance to the individual as a unique source of influence, converging with parental influence to shape both positive and negative outcomes (e.g., Goldstein, Davis-Keen, & Eccles, 2005).

In this study, we explored these issues in a population sample of 761 middle school students (7th and 8th grade students; 83% of students enrolled). We hypothesized that socioeconomic disadvantage and poor academic performance would be associated with elevated aspirations relative to expectations. We also hypothesized that youth holding this aspiration–expectation discrepancy would show higher levels on a number of academic and social risk-related indicators. We explored sex differences given research documenting the importance of sex to determining educational/vocational trajectories as the function of academic self-concept and related factors (e.g., Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002; Mello, 2008). We incorporated indicators of race/ethnicity and grade level to examine our predictive models while controlling the influence of those demographic factors.

Methods

Participants

Data for this study were obtained through a school improvement initiative assessing various aspects of middle school (7th and 8th grade) students' social development and academic achievement. Data collection occurred in a racially/ethnically and economically diverse public middle school in a mixed urban/suburban district in the northeastern US.

The analysis sample of 761 students (M age = 12.78 years, SD = .70) comprised 83% of the middle school student body (47% 7th grade, 53% 8th grade) during the period of assessment. Students were approximately evenly divided by gender (47.4% male, 52.6% female) and were racially diverse (14.8% Black/African-American, 23.3% White, 28.1% Hispanic/Latino/a, 6.3%

Asian, 19.1% mixed race/ethnicity, 8.4% other or declining to indicate race/ethnicity). In terms of socioeconomic status, students reported parental educations ranging from fewer than 12 years through doctoral or professional degrees ($M = 3.44$, corresponding to midway between “some college” and “bachelor’s degree”; $SD = 1.18$). In this district, eight neighborhood elementary schools feed a single, centralized middle school. Based on data from the state educational database, the eight feeder schools varied in terms of the proportion of students eligible for free/reduced lunch, ranging from 6% of the student body through 49% of the student body.¹

Measures

Academic expectations and aspirations

Students provided responses to two questions regarding their possible academic futures: “What is the highest level of education that you... WOULD LIKE to achieve?” and “...THINK that you will achieve?” Responses were made on a 5-point scale of 1 = “middle school,” 2 = “high school graduate/GED,” 3 = “some college,” 4 = “college graduate,” and 5 = “graduate or professional degree.” Items were based on similar measures used in studies of academic achievement and aspirations (e.g., Dubow et al., 2009).

Academic performance

Students noted their typical and current academic performance in response to two items asking them to rate the “type of grades” they “usually get” and were “getting this semester” on an 8-point scale ranging from 1 = “mostly As” to 8 = “mostly Ds and Fs.”

Academic goal-directed behavior

Academic goal-directed behavior was indicated by a variety of different measures:

School importance. Students completed a 2-item measure assessing the extent to which they agreed with statements concerning the importance of school (e.g., “I have to do well in school if I want to be a success in life”). Items were based on work by Eccles and colleagues (e.g., Eccles et al., 1993; Eccles & Wigfield, 1995). Responses were made on a 5-point scale ranging from 1 = “strongly agree” to 5 = “strongly disagree.” Composite scores are the mean of the 2 items ($\alpha = .52$).

Peer attitudes towards school. Students completed a 3-item measure regarding how many of their friends would encourage them to avoid engaging in activities linked to academic goal-directed behaviors (e.g., “How many of the friends you spend the most time with think that it’s okay not to do their homework if their friends want them to do something else instead?”); based on previous work on risky peer association (e.g., Goldstein et al., 2005). Responses were made on a 5-point scale ranging from 0 = “none of them” to 4 = “most or all of them.” Composite scores are the mean of all 3 items ($\alpha = .64$).

Preference for peers over school. Students responded to 6 items about how often they engage in activities linked to academic goal-directed behavior as the function of their orientation to their friends (e.g., “How often do you... put off doing homework to do something fun with your friends?” “... let your schoolwork slip and get a lower grade in order to be popular with your friends?”); This scale was a modified version of an “extreme peer orientation scale” that measures adolescents’ general propensity for susceptibility to peer influence (Fuligni & Eccles, 1993). Responses were made on a 5-point scale ranging from 1 = “almost never” to 5 = “almost always.” Composite scores are the mean of all 8 items ($\alpha = .75$).

School bonding. Students completed an 8-item measure describing their own social attachment and commitment to school (e.g., “I take school seriously”; “Overall, I like going to school”; Pyper, Freiberg, Ginsburg, & Spuck, 1987). Responses were scored on a 5-point scale ranging from 1 = “not at all true for me” ... 5 = “very true for me.” Composite scores are the mean of all 8 items ($\alpha = .83$).

Test and performance anxiety. Students responded to 3 items measuring anxiety related to academic performance (e.g., “I get nervous before I have to take a test or an exam at school”). Responses were made on a 5-point scale ranging from 1 = “strongly disagree” to 5 = “strongly agree.” Composite scores are the mean of the 3 items ($\alpha = .69$).

Behavioral and emotional difficulties

Students completed the *Strengths and Difficulties Questionnaire* (SDQ, Goodman, 2001) which includes 20 items measuring various indicators of child and adolescent psychopathology (i.e., attention problems, emotional distress, conduct problems, and social adjustment difficulties). Responses were made on a 3-point scale (1 = Not true, 2 = Somewhat true, 3 = Certainly true). Global composite scores are the mean of all 20 items ($\alpha = .77$).

¹ Data from the state educational database also confirmed that the sample mirrored the entire current student body in terms of racial/ethnic composition, and was quite consistent with racial/ethnic breakdowns of the school population going back several years prior to data collection for the current study.

Procedures

As noted, data were collected as part of a broader school improvement initiative in the participating school. Although two of the authors consulted with school officials on the development of the survey instrument, all data collection procedures were handled by school personnel independently. Teachers and other school personnel administered surveys during a class period on a single day, and any student present on that day was eligible to complete or opt out of completing the survey. Survey responses were anonymous (i.e., no identifying information was included on the survey forms).

Results

Preliminary analyses

Table 1 presents means, standard deviations, and ranges for the study variables, and Table 2 presents intercorrelations of these variables. As shown, bivariate correlations generally were modest to moderate in size, in predictable directions, and statistically significant ($p < .01$).

The next step of the preliminary analyses was to categorize students in terms of the level of neighborhood socioeconomic risk. From the total analysis sample, we determined that 676 students (89%) could be verified as having lived in district neighborhoods during elementary school, per information provided regarding the name of their elementary school and/or the names of their 6th grade classroom teachers. Students whose within-district neighborhood membership during elementary school could not be verified, as well as those who had entered the middle school from a different district, were excluded from subsequent analysis. The proportion of students who were eligible for free/reduced lunch at the students' neighborhood elementary school served as a proxy for general levels of neighborhood socioeconomic status, similar to prior work (e.g., Metropolitan Area Child Study Research Group, 2002). We then classified students into groups based on the resource level (i.e., free/reduced lunch status, see above) of their neighborhoods: high resource (two neighborhoods, free/reduced lunch rates of 6% and 7%; $n = 118$), moderate resource (three neighborhoods, free/reduced lunch rates of 21%, 22%, and 29%; $n = 266$), and low resource (three neighborhoods, free/reduced lunch rates of 41%, 43%, and 49%; $n = 292$).

Next, we created an index of disconnect between what students *want* to achieve in terms of their education in the future (their academic aspirations), versus what they *think that they will* achieve in the future (their academic expectations). Students tended to have fairly high aspirations (58% graduate/professional degree, 36% college degree, 2% some college work, 1% high school graduate, <1% middle school) as well as expectations (33% graduate/professional degree, 51% college degree, 9% some college work, 4% high school graduate, 1% middle school). We computed discrepancy scores by subtracting expectation scores from aspiration scores. We then grouped students based on this score. It should be noted that in all cases, aspirations were greater than or equal to expectations; no students reported greater expectations than aspirations. Thus, one group consisted of students whose aspirations were greater than their expectations ($n = 242$) and a second group consisted of students with aspirations equal to their expectations ($n = 414$). Students with data missing on one or both indicators were not classified ($n = 20$).

Predictors of aspiration–expectation discrepancies

We first examined aspiration–expectation discrepancies with regard to demographic characteristics (socioeconomic status, racial/ethnic minority status, sex, and grade level) considered independently. Students from low-resource neighborhoods were more likely to have aspirations exceeding their expectations in comparison to students from higher resource neighborhoods ($\chi^2[2656] = 6.96, p = .031$). In the low-resource group, 43% of students had aspirations exceeding expectations; in the moderate-resource and high-resource groups this proportion was 33% and 32%, respectively. Parental education also was lower among students with aspirations exceeding expectations ($t[634] = 3.84, p < .001, d = .305$). There were no significant relations between discrepancy status and any of the other demographic variables.

Table 1
Descriptive statistics.

	N	M (SD)	Range
1 Parent education	743	3.45 (1.20)	1–6
2 Academic aspirations	752	4.53 (.64)	1–5
3 Academic expectations	752	4.12 (.82)	1–5
4 Typical grades	771	2.63 (1.28)	1–7
5 Current grades	769	2.72 (1.36)	1–8
6 School importance	770	4.24 (.67)	1–5
7 Peer attitudes	768	1.13 (.73)	0–3
8 Preference for peers	758	1.75 (.63)	1–5
9 School bonding	737	3.81 (.76)	1.25–5
10 Test/performance	755	2.90 (.91)	1–5
11 Behavioral/emotional difficulties	748	1.56 (.29)	1–2.55

Table 2
Correlation.

	1	2	3	4	5	6	7	8	9	10	11
1 Parent education	–										
2 Academic aspirations	.12**	–									
3 Academic expectations	.25**	.53**	–								
4 Typical grades	–.20**	–.22**	–.35**	–							
5 Current grades	–.17**	–.27**	–.33**	.73**	–						
6 School importance	.03	.20**	.19**	–.08*	–.13**	–					
7 Peer attitudes	.04	–.05	–.07*	.10**	.11**	.05	–				
8 Preference for peers	–.08*	–.11**	–.18**	.21**	.27**	–.09*	.43**	–			
9 School bonding	.14**	.24**	.33**	–.38**	–.36**	.28**	–.20**	–.28**	–		
10 Test/performance anxiety	–.11**	.01	–.12**	.15**	.15**	.05	.06	.07	–.09*	–	
11 Behavioral/emotional difficulties	–.15**	–.13**	–.22**	.24**	.26**	–.13**	.26**	.38**	–.39**	.26**	–

Note: ** $p < .01$, * $p < .05$.

We then examined demographic and academic predictors of aspiration–expectation discrepancy classifications simultaneously via logistic regression. As the first block of predictors, we entered the following variables into the logistic regression model: sex (1 = male, 2 = female), grade level (7 or 8), race/ethnicity (nonwhite = 0, white = 1; preliminary tests revealed no differences by specific racial/ethnic minority group), neighborhood SES (1 = low, 2 = moderate, 3 = high), parent education (1 = fewer than 12 years... 6 = doctoral degree), and grades (to conserve power, grades were entered as the mean of typical and current grades given their high correlation [$r = .73$, $p < .01$]). In the second block of the model, we included four interaction terms: sex by grades, race/ethnicity by grades, race/ethnicity by neighborhood SES, and race/ethnicity by parent education. Results of the models were evaluated with attention to odds ratios for predictors, the Hosmer–Lemeshow test, and R^2 statistic for the final model (see Menard, 2002).

Table 3 presents the results of the logistic regression analysis. None of the interaction terms entered in the second block were significant predictors, and the block as whole had no appreciable impact on overall model fit; thus for ease of presentation these results are excluded. As shown, parent education (OR = .807, $p < .01$) and grades (OR = 1.36, $p < .001$) were associated significantly with aspiration–expectation discrepancies. Lower levels of parent education and poorer grades were linked to the greater likelihood of a discrepancy. This model produced a nonsignificant Hosmer–Lemeshow statistic ($\chi^2 = 7.113$, $df = 8$, $p = .524$) and $R^2 = .046$, indicating that the model was not substantially different from the observed data and that it accounted overall for modest variation in the discrepancy classification.

Effects of aspiration–expectation discrepancies

We next examined aspiration–expectation discrepancies with regard to academic goal-directed behaviors and global behavioral and emotional difficulties. We conducted univariate analyses of covariance (ANCOVA), retaining parent education and grades in our models to control for their significant covariation with discrepancy status. We selected univariate ANCOVAs rather than multivariate ANCOVAs following best-practice recommendations concerning the value of examining single- df contrasts as a first-line analysis rather than using an omnibus F -test as a basis for considering univariate tests (Jaccard & Guilamo-Ramos, 2002). Table 4 includes the results of these analyses. As shown, students whose aspirations exceeded their expectations reported significantly less school bonding, more test/performance anxiety, and more behavioral/emotional difficulties than were students whose aspirations were equivalent to their expectations.

Discussion

This study investigated links between academic aspiration–expectation discrepancies and economic, academic, and psychosocial risk in a diverse sample of middle school students. The first goal of the current research was to examine factors that were associated with aspiration–expectation discrepancies. Because a range of economic backgrounds was represented in the participating middle school, we were able to examine the implications of neighborhood economic resource level in predicting

Table 3
Logistic regression model predicting aspiration–expectation discrepancy classification.

Predictors	B	SE (B)	Wald	p	OR	95% CI for OR
Sex (1 = male, 2 = female)	–.034	.176	.038	.846	.966	.685–1.364
Grade level	–.250	.173	2.087	.149	.778	.554–1.093
Racial/ethnic minority status (0 = nonwhite, 1 = white) ^a	–.116	.211	.300	.584	.891	.589–1.348
Neighborhood SES	–.089	.130	.470	.493	.915	.710–1.180
Parent education	–.214	.076	8.017	.005	.807	.696–.936
Grades (1 = mostly A's... 8 = Ds & Fs)	.307	.075	16.880	.000	1.359	1.174–1.573

^a Racial/ethnic categories also tested separately, using “white” as the reference group; there were no significant effects.

Table 4

Differences in study variables by aspiration–expectation discrepancy status while covarying parent education and grades.

Variable	Aspirations > Expectations (n = 242)		No discrepancy (n = 414)		Effect size indicators for difference		
	M	SD	M	SD	F	p	part η^2
School importance	4.18	.62	4.27	.68	1.58	.209	.003
Peer attitudes	1.16	.70	1.08	.75	1.00	.319	.002
Preference for peers	1.87	.67	1.70	.59	3.38	.067	.005
School bonding	3.65	.77	3.96	.72	10.30	.001	.016
Test/performance anxiety	3.10	.89	2.76	.90	14.53	.000	.023
Behavioral/emotional difficulties	1.60	.28	1.51	.29	5.764	.017	.009

Notes. Means are actual, not estimated. F-values and associated statistics are for main effect of discrepancy status variable examined with covariates. Partial η^2 reflects percentage of variance in dependent variable uniquely attributable to discrepancy status while controlling for effects of covariates.

aspiration–expectation discrepancies. Students from lower resource neighborhoods were more likely than were their peers to have aspirations that exceeded their expectations. In addition to neighborhood resource level, parental education and lower levels of previous academic performance predicted discrepancies. Adolescents whose parents had lower levels of education themselves were at an increased risk for having academic aspirations that outpaced their academic expectations.

These results add to a growing body of research on academic risk factors associated with socioeconomic factors such as parent education and neighborhood resources (e.g., Davis-Kean, 2005; Destin & Oyserman, 2009; U. S. Department of Education, 2008). In the present study, we demonstrated that adolescents who are at risk socioeconomically are also more likely than their peers to believe that they are not likely to achieve the level of academic achievement that they would like to. Perhaps adolescents are adjusting their predictions of their future success based on their perceptions of environmental feedback for themselves (i.e., their grades, which tended to be lower than their peers' grades) or for others like them (i.e., their parents' relatively lower levels of educational achievement, and their neighborhood which was comprised of adults with lower levels of socioeconomic resources).

The second focus of the current research was to examine social and educational correlates of aspiration–expectation discrepancies. Results indicate that students who would like to achieve high levels of education, but did not perceive that such an achievement is feasible, reported higher levels of social and academic risks, even after controlling for previous academic performance and parental education. Specifically, adolescents whose aspirations exceeded their expectations had higher levels of emotional and behavioral difficulties, higher levels of test anxiety, and lower levels of school bonding, as compared to their peers. Although it is not possible to assess the directionality of these correlates based on our cross-sectional data, it is feasible that the increased anxiety and behavioral and emotional symptoms might result from frustration over not believing that one is likely to achieve the degree of education one would like. With regard to the lower levels of school bonding, the adolescents showing the discrepancy could be disengaging from a situation that they believe is not going to result in goal attainment. Of course, it also is possible that adolescents' discrepancies are influenced by these difficulties, which in turn presents additional motivational challenges. It will be interesting for future longitudinal research to explore these options.

These results are consistent with theoretical propositions that although both aspirations and expectations are important, neither acts independently in predicting outcomes (Bandura, 1986; Eccles, 2005; Huesmann, 1998). These results also highlight the increased risk that economically disadvantaged youth face in terms of having aspirations that outpace expectations. This might be because these youth are sensitive to barriers they face in order to succeed at the same level as children from non-disadvantaged communities (Destin & Oyserman, 2009). Teens also might be discouraged from achieving academically if their school environment is not providing them with what they need to support their social and cognitive development (Eccles et al., 1993). These challenges might be exacerbated during early adolescence, when teens experience normative developmental leaps in social cognition, analytical thought, and future orientation at the same time when they are going through pubertal development and the concomitant increased emotional fluctuation (e.g., Eccles et al., 1993; Steinberg, 2005).

These findings, taken together with previous work on related topics, indicate that it is less than ideal for students to desire high levels of educational attainment while at the same time believing that the desired level of educational attainment is out of their reach. In the majority of cases, it would not be advantageous to lower aspirations, so that aspirations are reduced to be more consistent with expectations. Lower aspirations are associated with lower levels of achievement, and may have longer-term impacts on educational and vocational attainment through the influence the self-fulfilling prophecy (i.e., the ultimate fulfillment of a false belief; Smith et al., 1999) and lower levels of self-efficacy (Bandura et al., 2001). Rather, the goal should typically be to increase expectations – and by extension, academic self-efficacy – to align them with higher aspirations. Previous research shows that if individuals believe that they are able to accomplish a goal, they are more likely to take strides that are necessary in order to achieve that goal (e.g., Bandura, 1997; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996).

The exception to this general recommendation would be if a young adolescent has misinformation about a particular educational credential that a desired career would need (e.g., the belief that one would need a doctoral degree in order to be a nurse) or if an adolescent was selecting a career that was based on misperceptions of a person–career fit. These are very plausible situations for a young adolescent, from a developmental perspective (e.g., Gottfredson, 1981). Nonetheless, in the majority of cases, from a standpoint of promoting academic success and efficacy, efforts to improve academic expectations

could be aimed at individual belief and value systems (e.g., fostering new achievement-related values and beliefs by encouraging better academic habits and promoting clearer task goals; Eccles & Wigfield, 2002) as well as school-based educational initiatives designed to increase students' awareness of options that make academic goals more feasible.

Such initiatives might include school-wide psychoeducational awareness campaigns designed to provide easy and facilitated access to information about, and support for applying for, need-based or achievement-based scholarships, grants, and other awards. Such efforts should be coupled with developmentally-appropriate vocational awareness and aptitude counseling efforts focusing on understanding career options and the educational paths necessary to achieving these options. As an illustration of the potential benefits of school-based psychoeducational efforts, Destin and Oyserman (2009) found that students who were informed in detail about need-based financial aid for college reported higher expected grades than did students reminded instead about the high cost of college. Early adolescence is an ideal time to begin these types of programs, as youth typically are transitioning to a middle school or junior high setting during this phase, which often coincides with notable declines in academic achievement and motivation (e.g., Eccles et al., 1993). At a time of heightened sensitivity to social comparison and critique, any type of perceived negative feedback may alter the teens' academic self-concept and perceptions of chances for academic success. Such efforts could begin during the early adolescence period and then continue through the duration of secondary school, as future goals, aspirations, and expectations continue to develop.

Of course, given the cross-sectional nature of our design, it is possible that our hypothesized directional effects could work in reverse – aspiration–expectation discrepancies might emerge from the array of factors that we specified as consequences of such discrepancies. This would suggest more broadly-targeted school-based preventive interventions (see Dubow, Roecker, & D'Imperio, 1997) to deal with the constellation of risk factors tied to adolescent mental health and behavioral functioning that might converge to lower academic expectations.

There are a few limitations that should be taken into consideration when considering the results of the present study. First, all data were self-reported and thus are subject to some of the concerns with this type of methodology. Although adolescents are arguably the best reporters of certain types of data about themselves, such as cognitive variables that reflect their attitudes and beliefs like the ones measured in the present study, future research on similar topics would ideally also include data from other sources, such as parents, teachers, peers, and/or school records. Second, as noted above our data were cross-sectional, limiting causal inferences. Nonetheless, the proposed “predictors” of discrepancies (neighborhood SES, parent education, grade reports) temporally precede adolescents' current cognitions about what is educationally feasible. Finally, although the sample was very diverse in terms of student race/ethnicity and economic background, caution should be exercised in generalizing the results beyond the parameters of the sample. On a related note, our sample size was affected by data missing from some of our key indicators including SES measures as well as academic aspirations and expectations; missing data can at times lead to biased results. However, our analysis sample was still quite large and thus our point estimates can be expected to be fairly stable.

Despite limitations, our study provides insight into processes involved in young adolescents' academic achievement and motivation, as well as some potential barriers to academic achievement. This study is among only a handful exploring theorized predictors and covariates of aspiration–expectation discrepancies, and hopefully will spur new, longitudinal investigation into this important and potentially highly consequential disconnect.

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