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The magic of hope: Hope mediates the relationship between socioeconomic status and academic achievement

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ABSTRACT

Two studies examined whether hope partially mediates the relationship between socioeconomic status (SES) and academic achievement. Guided by recent theoretical formulations about social class and the social cognitive process, in Study 1 a mediational pathway from SES to academic achievement via hope was documented in a diverse sample of adolescents. The mediational pathway was replicated in Study 2 in a minority sample of high school students. In both studies, hope was found to partially mediate the relationship between SES and grade point average. In addition, the unique contribution of hope to academic achievement replicated across the 2 studies, indicating that the additional stressors and challenges associated with being a minority did not affect the mediation. These results have implications for achievement gap interventions.

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In America, achievement in schools is highly valued (National Center for Children Education Statistics, 2008). It is common practice for parents to push their children to achieve in schools and for students to push themselves to achieve in schools. In fact, academic achievement is so coveted that educated parents (as measured by having at least a bachelor's degree) almost uniformly expect their children to graduate from college (88%; National Center for Children Education Statistics, 2008), and many students commonly sacrifice sleep, mental health, and free time to achieve (American College Health Association, 2012; Galin, 2012). For example, Thacher (2008) found that in a sample of 120 university students 72 (60%) reported pulling at least one all-nighter to receive a better grade during their educational career and that these same students reported receiving on average an hour less sleep than their counterparts who did not pull all-nighters in an attempt to get better grades. These high expectations are held and these sacrifices made with the hope that achieving academically will give students more opportunities at success in life (Pryor et al., 2012).

Given the value placed on academic achievement, it is important to understand what variables predict achievement. One of the most studied and consistent predictors of academic achievement is socioeconomic status (SES), which refers to a combination of wealth, education, and occupational prestige, of the adult, or the student's family (Davies & Guppy, 1997; Davis-Kean, 2005; Sirin, 2005). SES has been shown to affect academic achievement primarily in two ways, materially and perceptually. SES has been shown to affect achievement materially through students from high-SES families having access to high-priced tutors, test preparation, and schools, all of which are generally of higher quality than those used by students

from low-SES families (Aikens & Barbarin, 2008; Orr, 2003). SES has been shown to affect academic achievement perceptually via social cognitive processes through which students construe their educational prospects and opportunities (Destin, Richman, Varnerb, & Mandara, 2012; S. E. Johnson, Richeson, & Finkel, 2011; Spencer & Castano, 2007).

In this study, we examined the mediational pathway between SES to academic achievement via a perception-based construct—hope. In this first section we briefly review literature on socioeconomic status, academic achievement, and hope. Next, we discuss how the constructs are interrelated. Then, we propose a theoretical framework for a mediational pathway from socioeconomic status to academic achievement via hope. Finally, we present two studies testing the mediational pathway of socioeconomic status to academic achievement via hope.

Socioeconomic status

SES has been defined and measured in various ways in research (National Center for Educational Statistics, 2012). In this article, SES is defined as one's perceived family status and monetary resources as compared to others (Davies & Guppy, 1997). In addition to being a key contributor to academic achievement, SES is positively related to many other positive outcomes such as social prestige (Beeghley, 2004), IQ (Tucker-Drob, Rhemtulla, Harden, Turkheimer, & Fask, 2010; Turkheimer, Haley, Waldron, D'onofrio, & Gottesman, 2003), vocabulary development (Hart & Risley, 2003), and health (Adler & Ostrove, 1999). For example, in one well-known study, Hart and Risley conducted a study to examine the effects of poverty on academic growth for children 7 months old through 3 years

old. They spent 1 hr each month for two and a half years observing the various home-based environment interactions of a financially diverse sample of 42 families with a child 7–9 months of age. They found huge differences between high- and low-SES families.

During this critical period of language development, children of high-SES families heard about 30 million more words than children in low-SES families in their first three years of life. The researchers also found high-SES families promoted better child-parent interaction, better strategies for seeking and incorporating new and complex information, and encouraged their children to speak at a rate more than six times higher than low-SES families. These differences could be the result of different patterns of thinking employed by high-SES and low-SES families (Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012).

Academic achievement

Academic achievement, as measured by grade point average (GPA), has been associated with many positive outcomes after college graduation, such as an increased probability of gaining employment (Barr & McNeilly, 2002), an increased probability of graduate school admittance (Attiyeh & Attiyeh, 1997), and an increased income after college (Cohen, 1984). For example, Barkume (1998) found the higher a college student's cumulative GPA at graduation was, the more likely the student was to be employed, the more likely the student's employment had career potential if the student was employed, and the more likely the student was earning an advanced degree.

In addition, academic achievement has been shown to be associated with better self-discipline (Duckworth & Seligman, 2005), better decision-making skills (Fleming et al., 2005), higher IQ scores (Brookover, Thomas, & Paterson, 1964), and a better overall sense of well-being (Quinn & Duckworth, 2007). Thus, as can be gathered from this evidence, academic achievement is a good indicator of several key aspects of one's life during the course of life. In the present study we tested hypotheses concerning the relationship between SES and hope in predicting academic achievement.

Hope

Hope is the perceived ability to execute envisioned routes to desirable future goals. More specifically, hope is a two-component cognitive motivational process primarily studied using Snyder's (2002) theory of hope and its accompanying scales (Snyder et al., 1991, 1997). The first component of hope is pathways. Pathways are the envisioned paths to goals. High-hope individuals, as measured by having an above average level of hope, not only are better at envisioning plausible paths to their goals, but also produce several alternative paths to their goals and more goals in general, in case of unexpected challenges in route to goals or a goal proves unattainable (Langelle, 1989; Snyder, 2002).

The second component of hope is agency. This component encompasses the belief, as well as the corresponding motivation and persistence, that individuals have in their capacity to follow their envisioned paths to accomplish their

desired goals (Snyder, 2002). High-hope individuals have been shown to engage in more strategies that promote stronger beliefs in their abilities to accomplish goals (Snyder, Lapointe, Crowson, & Early, 1998).

Hope in adolescents is most typically assessed with the Children's Hope Scale (Snyder et al., 1997), which consistently predicts better outcomes in a multitude of domains. Individuals with high hope, as opposed to low hope, tend to demonstrate increased academic achievement across all grade levels, despite hope not being significantly related to verbal or full scale IQ (Snyder et al., 1997). Additionally, high-hope individuals tend to fare better academically than low hope individuals even when previous achievement is controlled for (Gallagher & Lopez, 2008; Snyder, Cheavens, & Michael, 1999; Worrell & Hale, 2001). In addition, high hope in individuals is also associated with increased performance in athletics (Curry & Snyder, 2000), better overall health (Irving et al., 1997; Kwon, 2002), better social adjustment and competence (Kwon, 2002; Snyder, 2002), and better problem solving abilities (Michael, 2000).

In general, high-hope individuals are energetic, view obstacles as challenges, generate contingency plans, gather support when needed, experience less stress and anxiety, have many ideas for their future, are excited about their future, and perceive a high likelihood of success in their endeavors (Lopez, 2010; Snyder, 2002). In contrast, this same research finds that low-hope individuals have low energy, commonly feel stuck, have problems envisioning paths to their goals, do not believe in or are uncertain about their ability to accomplish their goals, do not persist, experience high anxiety, do not use failed experiences to inform a new plan, and are discouraged because they focus on the likelihood of failure in their endeavors (Lopez, 2010; Snyder, 2002).

Although very little hope research has been conducted in minority samples, there are a few studies that shed light on the relationship. For example, Adelabu (2008) explored how hope related to academic achievement and ethnic identity in a sample of 661 urban and rural African Americans adolescents. She reported that the agency subfactor of hope significantly predicted academic achievement ($r = .20$), whereas both agency and pathways predicted ethnic identity exploration ($r_s = .28$ and $.20$), ethnic identity affirmation ($r_s = .41$ and $.33$, $p < .01$), and future-orientation ($r_s = .39$ and $.27$). In a different study, Roesch, Duangado, Vaughn, Aldridge, and Villodas (2010) examined how hope related to several psychological factors within a sample of 127 minority undergraduate students. They found that higher pathways scores were associated with increased religious coping ($r = .25$) and planning ($r = .28$), whereas both agency and pathways scores were positively related to direct problem solving ($r_s = .32$ and $.20$) and positive thinking ($r_s = .35$ and $.22$). Finally, Vacek, Coyle, and Vera (2010) found that hope was meaningfully related to optimism ($r = .56$), self-esteem ($r = .59$), social support ($r = .38$), and life satisfaction ($r = .35$) in a sample of 137 adolescent minorities.

Polls of over 450,000 students, including both convenience and representative samples, found that about half of American school-aged students are hopeful (Gallup, 2009, 2013). Fortunately, for the students who are not hopeful, hope is malleable (Gallup, 2009; Lopez et al., 2004; Lopez, Rose, Robinson, Marques, & Pais-Ribeiro, 2009). In a meta-analysis of 27 studies on

hope enhancement strategies, Weis and Speridakos (2011) found that one's level of hope can be significantly changed. More specifically, across studies, hope interventions have been shown to improve hope levels with an average effect size of .39 (Cohen's *d*). Thus, the data show that hope is a malleable, highly influential construct that can make a huge difference across several domains in a person's life.

SES and academic achievement

Sirin (2005) explored the relationship of SES to academic achievement in a meta-analysis that consisted of more than 100,000 students attending more than 6,000 schools. He found that the correlation between academic achievement and SES ranged from .25 to .47 depending on how academic achievement and SES were measured. Thus, material resources have been shown to be substantially related to achievement, which may explain why many studies use objective measurements of material resources such as income to operationalize SES in studies predicting academic achievement (Sirin, 2005; Sutton & Soderstrom, 1999). However, different studies suggest that the exact mechanisms through which SES affects academic achievement do not reduce to just material resources. These studies suggest that an individual's perceived SES is also related to academic achievement (Jebson & Moses, 2012; S. E. Johnson et al., 2011; Spencer & Castano, 2007).

Spencer and Castano (2007) found that when socioeconomic identity is primed before a test or when the test is presented as diagnostic of intelligence, low-SES students perform well below their average ability. Similarly, S. E. Johnson et al. (2011) reported many students that were objectively wealthy, felt academically inferior at their school because they were of a lower SES than the other students in that context. Additionally, S. E. Johnson et al. found that as a result of managing these cognitive concerns and attempting to perform academically, these students experienced a higher amount of cognitive depletion, which resulted in these students having lower academic achievement than their higher SES counterparts.

Finally, Destin et al. (2012) found that perceived SES was a significant predictor of academic achievement ($r = .17$) in a sample of 430 high school students. Hence, the pathway through which SES affects academic achievement also involves social-cognitive processes through which the student interprets his or her academic opportunities. This literature speaks to the promise of identifying malleable social cognitive processes that mediate the relationship between SES and academic achievement. We propose that hope is one such process.

SES, hope, and academic achievement

Thought patterns in SES groups and perceptions of the environment

Kraus et al. (2012) argued that high- and low-SES populations engage in different patterns of thinking that are shaped by "chronic perceptions of [their] relative standing in society or in [their] community" (p. 548). These authors asserted that as a consequence of having scarce resources and living in low-SES contexts, low-SES individuals are exposed to various contextual factors such as lower wage jobs, job instability, lower

resourced schools, dangerous neighborhoods, and less powerful social connections. They further asserted that these contextual factors constrain low-SES individuals' goals, interests, actions, economic resources, and social opportunities by orienting low-SES individuals to managing external constraints, threats, crises, and situational factors. Essentially, they asserted that low-SES individuals' perception of the world is characterized by uncertainty, reduced resources, lack of individual control, and a prioritization of external contextual factors.

In contrast, high-SES individuals who are endowed with greater material resources, great social connections, job stability, and fewer external constraints are positioned to prioritize individual factors. Instead of being externally oriented, they are self-oriented and motivated by their internal states such as their goals and interests, which in high-SES contexts they are encouraged to pursue. Kraus et al. (2012) argued that high-SES individuals' thought patterns and, as a consequence, their perceptions about the world, are characterized by freedom, choice, internal motivation, control, and a prioritization of individual factors.

Kraus et al. (2012) bolstered their argument by showing that low-SES individuals (a) were more vigilant to threats in their environment (Chen & Matthews, 2001; Hajat et al., 2010), (b) experienced less personal control (W. Johnson & Krueger, 2005; Kraus, Piff, & Keltner, 2009), (c) were more community oriented (Hart & Edelman, 1992; Weininger & Lareau, 2009), (d) experienced more empathy for others (Kraus, Cote, & Keltner, 2010), and (e) exhibited a higher preference for contextual explanations than for dispositional explanations (Beauvois & Dubois, 1988; Kluegel & Smith, 1986). Additionally, several researchers have found that the environment (i.e., contextual factors) of populations in low-SES contexts accounts for the majority of their outcomes, whereas individual differences account for the majority of the outcomes of those populations from high-SES contexts (Harden, Turkheimer, & Loehlin, 2007; Tucker-Drob et al., 2010; Turkheimer et al., 2003).

In keeping with the theory outlined in Kraus et al. (2012), hope is one possible mechanism through which SES influences academic achievement. More specifically, given that low-SES individuals prioritize contextual factors, they may not be able to effectively and efficiently focus on and envision goals in the future. In essence, low-SES individuals could be poor visionaries, which results in low hope and, consequently, low academic achievement. In support of this hypothesis, Snyder (2002) found that low-SES individuals tend to have lower hope than high-SES individuals. Ultimately, examining if hope partially (partial, as opposed to complete mediation, is appropriate because, as noted previously, material resources do factor into achievement irrespective of the perception of the material resources [Aikens & Barbarin, 2008; Orr, 2003]) mediates the relationship between SES and academic achievement is important because if hope does partially mediate this relationship, it might provide an effective and cost efficient conduit through which intervention can be targeted for low-SES students, improving their academic achievement despite their SES disadvantage (Kraus et al., 2012; Snyder, 2000).

Study 1

In the first study, the meditational relationship between SES and academic achievement via hope was tested using a large ethnically diverse adolescent population. More specifically, relying on mediation approaches outlined by Baron and Kenny (1986) and using the theoretical framework outlined previously, in the present investigation we tested the following hypotheses: (a) lower SES students would demonstrate lower academic achievement than higher SES students would, (b) lower SES students would report less hope than higher-SES students would, and (c) hope would partially mediate the relationship between SES and academic achievement.

Method

Participants

The sample consisted of 586 (51.8% girls) adolescents aged 11–18 ($M_{\text{age}} = 15.69$ years, $SD = 1.57$ years; $M_{\text{grade}} = 10.29$, $SD = 1.39$) from two Western states. Participants were recruited from a summer program at a major university, two urban high schools, a suburban high school, and a rural high school. Self-reported racial and ethnic groups were African American ($n = 38$; 6.6%), Asian American ($n = 76$; 13.2%), European American ($n = 226$; 39.4%), Hispanic American or Latino ($n = 61$; 10.6%), American Indian ($n = 126$; 22%) and other ($n = 47$, 8.2%). Twelve participants were excluded from analysis because they were missing data on key variables such as ethnicity, SES, hope, or GPA.

Procedure and measures

Graduate students and the principal investigators went to the summer program and two urban schools to recruit students to participate in the study. They left the surveys with teachers of various classes and picked them up the next week. Students took questionnaire packets home and returned them within the week. Student participants received a \$10 honorarium. In addition, data were also collected from a rural and suburban school in another state. The surveys were mailed to school administrators who administered the surveys. Completed surveys were mailed back to the principal investigators. Participation in this study was voluntary. For all participants under the legal age of consent, assent was obtained from the participant and consent was obtained from their parent or legal guardian. For all participants older than the legal age of consent, consent was obtained.

Hope

Hope was measured with the Children's Hope Scale (CHS; Snyder et al., 1997). The CHS is a 6-item instrument compris-

ing two subscales (a) pathways, the ability of youth to envision paths to their goals (e.g., "When I have a problem, I can come up with lots of ways to solve it") and (b) Agency, the youth's belief in their ability to persevere on those paths (e.g., "I am doing just as well as other kids my age"). Responses to a 6-point Likert-type scale range from 1 (*none of the time*) to 6 (*all of the time*), with higher scores indicating either a higher ability to envision paths to one's goals or a higher perceived ability to accomplish the goals one has envisioned. The average of all 6 items was used in this study. The CHS has been validated and scores from the measure were found to be internally consistent ($\alpha = .72$ – $.86$; Snyder et al., 1997; Valle, Huebner, & Suldo, 2004). In the current sample, the alpha coefficient was .81.

SES

SES was measured using the MacArthur Scale of Subjective Social Status–Youth Version (Adler, Epel, Castellazzo, & Ickovics, 2000). This measure asks children and adolescents to mark where they perceive their family is in relation to other families in American society based on monetary resources, parental occupations, and schooling on a ladder. There are 10 rungs on the ladder to choose from, with the highest rung indicating the highest SES and the rung on the bottom indicating the lowest SES. The MacArthur Scale of Subjective Social Status–Youth Version has proven to be useful in previous research (e.g., Goodman et al., 2001).

Academic achievement

Current year GPA on a 0–4 scale was used to measure academic achievement. GPA was obtained from participants via self-report. Kuncel, Credé, and Thomas (2005) found in a meta-analysis consisting of over 44,000 adolescent students that adolescent self-report GPA had a .82 correlation with actual GPA.

Results

Table 1 contains means, standard deviations, and correlations among GPA, SES, and hope. Preliminary analyses found that race and gender did not affect the results reported. Correlations among hope, SES, and academic achievement were weak to moderate and positive, and all were statistically significant ($p < .05$).

Using the procedure outlined by Baron and Kenny (1986) and reaffirmed as an appropriate and accurate mediational procedure by Iacobucci (2013), we conducted three regressions and a Sobel test to assess for mediation (see Figure 1). Baron and Kenny asserted that evidence for mediation is found under the following conditions: (a) the independent variable (SES) significantly predicts the outcome variable (GPA), (b) the independent variable significantly predicts the mediator (hope), and (c) the mediator significantly predicts the outcome variable, while the independent variable simultaneously no longer predicts the outcome variable. Baron and Kenny further asserted that complete mediation is obtained when a Sobel test is not significant, indicating that the pathway from independent variable to outcome variable via the mediator is not significantly different than the direct pathway from the independent variable to the outcome variable. In the first regression model, SES significantly predicted GPA. In the second regression model, SES

Table 1. Study 1: Mean, standard deviation, and correlation among SES, hope, and GPA variables ($n = 618$).

Variable (range)	<i>M</i>	<i>SD</i>	1	2
1. SES (1–10)	5.89	1.54		
2. GPA (0–4)	3.05	0.81	.10*	
3. Hope (0–6)	4.15	0.89	.14**	.28**

Note. GPA = grade point average; SES = socioeconomic status.

* $p < .05$. ** $p < .01$.

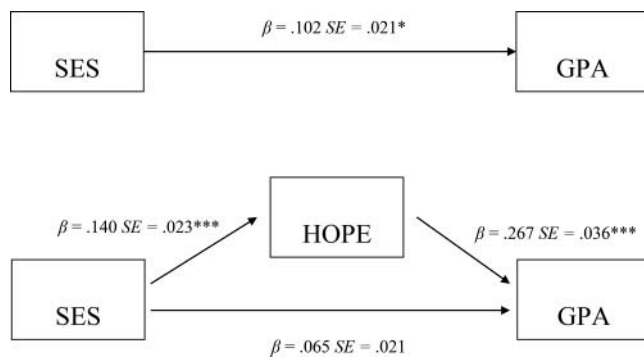


Figure 1. Standardized mediational pathway from socioeconomic status (SES) to grade point average (GPA) via hope. * $p < .05$. *** $p < .001$.

significantly predicted hope. In the final regression model with hope and SES as predictors of GPA, SES no longer predicted GPA while hope significantly predicted GPA. However, the Aroian Sobel test was significant, $Z = 4.68$, $SE = 0.008$, $p < .001$. The adjusted R^2 was .077 for the model.

Discussion

The goals of this study were to (a) examine the relationship between SES and both academic achievement and hope and (b) test the mediational relationship between SES and academic achievement via hope. This study had several notable findings. First, it was hypothesized that SES would correlate positively with academic achievement. This first hypothesis was supported; those students who reported lower perceived SES generally had lower GPAs than did those students who reported a higher perceived SES, although the effect size was small. Second, it was hypothesized that SES would correlate positively with hope. This second hypothesis was supported; those students who reported lower perceived SES generally had lower hope than did those students who reported a higher perceived SES, and this effect size was also small. Third, it was hypothesized that hope would partially mediate the relationship between SES and GPA as a consequence of the different environmental effects of SES on the perceptions of low- and high-SES populations. The results indicated that hope was a partial mediator of the relationship between SES and GPA, suggesting that SES affects students' levels of hope, which influences their academic achievement.

Given that a major aspect of hope theory is the concept of how people deal with obstacles and stressors (high-hope individuals cope with and respond to obstacles and stressors as challenges, whereas low hope individuals feel stuck and defeated; Snyder et al., 1991; Snyder et al., 1998), a question that arises from this study is what specific role do the obstacles

and stressors of the different SES contexts play in this mediational relationship? More specifically, does the obstacle and stressor aspect of hope account for a significant portion of the mediational relationship between SES and GPA? If it does, the size of the mediational effect would be different for different populations because different populations endure varying levels of obstacles and stressors (Crocker, Major, & Steele, 1998; Fiske, 1998).

Study 2

Study 1 showed that hope partially mediated the association between SES and GPA in a mixed sample that was 40% European American. In keeping with Worrell's (2014) contention that hypotheses be examined in ethnic minority groups, Study 2 was conducted to replicate Study 1 in an independent sample of only minority students. As minority students in the United States endure more challenges, obstacles, and stressors in the academic realm than nonminority students do (Booker, 2006; Cohen, Steele, & Ross, 1999; Crocker et al., 1998; Fiske, 1998), it is possible the mediating effect hope has on the relationship between SES and achievement is stronger as a result of challenges and obstacles being such a big aspect of hope theory. Similar to Study 1, the following hypotheses were tested: (a) lower SES students would demonstrate lower academic achievement, (b) lower SES students would report less hope, (c) hope would partially mediate the relationship between SES and academic achievement, and (d) hope's mediational effect would be stronger in the minority population.

Method

Participants and procedure

Participants were 86 (58.1% girls) ninth- and 10th-grade students from a large multiethnic urban high school in a Western state. The students ranged in age from 14 to 17 years old ($M_{age} = 15.02$ years, $SD = 0.801$ years). Self-reported racial and ethnic groups were African American ($n = 32$; 37.2%), Asian American ($n = 23$; 26.9%), and Hispanic American or Latino ($n = 31$; 36.1%). These data were a subset of a larger dataset collected data for use in school improvement activities. The high school administered the questionnaire to assess school climate and other variables of interest to the school administration.

Measures. The hope and academic achievement measures were the same as those used in Study 1. The SES measure used in this study was a 7-option SES self-report measure, with the following options: poor, working class, lower middle class, middle class, upper middle class, lower upper class, and wealthy. The alpha coefficient for the CHS in this sample was .80.

Results

Table 2 contains means, standard deviations, and correlations for GPA, SES, and hope. As in Study 1, correlations among hope, GPA, and SES were small to moderate, positive, and all significant at the .05 level. Preliminary analyses found that race and gender did not affect the results reported. Again using the

Table 2. Study 2: Mean, standard deviation, and correlation among SES, hope, and GPA variables ($n = 86$).

Variable (range)	<i>M</i>	<i>SD</i>	1	2
1. SES (1–6)	3.86	1.10		
2. GPA (0–4)	3.10	0.75	.22*	
3. Hope (0–6)	4.44	0.88	.30**	.34**

Note. GPA = grade point average; SES = socioeconomic status.
* $p < .05$. ** $p < .01$.

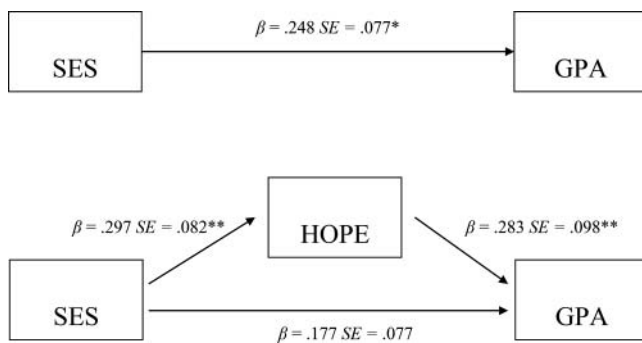


Figure 2. Standardized mediational pathway from socioeconomic status (SES) to grade point average (GPA) via hope. * $p < .05$. ** $p < .01$.

procedure outlined by Baron and Kenny (1986), we conducted three regressions and a Sobel test to assess for mediation (see Figure 2). In the first of the three regression models, SES significantly predicted GPA. In the second model, SES significantly predicted hope. In the last model, with hope and SES as the predictors, the SES–GPA relationship was not significant, while hope was still a significant predictor of GPA. The Aroian Sobel test was significant, $Z = 2.20$, $SE = 0.038$, $p = .027$, and the adjusted R^2 was .111 for this model.

Discussion

This study had several goals. The first goal was to replicate the findings from Study 1 through (a) examining the relationship between SES and both academic achievement and hope and (b) testing the mediational relationship between SES and academic achievement via hope in a different population using a different measure of SES. The same pattern of findings were found: (a) SES positively correlated with both hope and academic achievement, and (b) hope partially mediated the relationship between SES and GPA, under the different study conditions, confirming and generalizing the finding from Study 1. The second goal of this study was to test whether the mediation would be stronger in a minority population than a mixed population of both minorities and nonminorities as a consequence of the additional obstacles and stressors that minorities encounter in the academic domain. However, this hypothesis was not supported. In both samples, the size of the mediation coefficient was roughly the same.

General discussion

Mediation: SES and GPA via hope

The perception of a stressor or situation in general has powerful implications for how one responds (Adler & Ostrove, 1999; Cohen et al., 1999). A person encountering a stressor or situation can react in way that leads to an auspicious or detrimental outcome depending on that person's perception. For instance, if the person sees the stressor as a challenge, he or she is more likely to act in a way that leads to an auspicious outcome. However, if an individual sees it as an obstacle that causes him or her to be stuck, he or she is more likely to act in a way that leads to a detrimental outcome (Snyder et al., 1991, 1998). The perception of a stressor or situation is sometimes the difference

between a positive and negative outcome. In these two studies, how SES and hope relate to perception and consequently, their role in academic achievement was explored. First, these studies replicated the empirically established finding of SES positively predicting academic achievement (Sirin, 2005). Second, a positive correlation between hope and SES was found. Third, using two different populations and two different measures of SES, the relationship between SES and GPA was found to be partially mediated via hope.

These studies support Kraus et al.'s (2012) theory that people of different SES groups perceive situations in different ways leading to different responses and outcomes. More practically, this study suggests being from a low-SES background may in part have an effect on academic achievement through limiting the possibilities that the low-SES individuals perceive as reasonably likely. With limited possibilities, the expectations (and as a consequence, the motivation; Feather, 1961) of low-SES individuals are lowered to the standards that are typical of someone from a low-SES background, such as a lower GPA (Sirin, 2005). Increased hope may have its effect on low-SES individuals by broadening the possibilities they perceive as reasonably likely, increasing their ability to envision primary and alternative paths to their goals and increasing their belief that they can achieve better outcomes. A low-SES individual with a high level of hope may not be limited by what is typical for someone from his or her SES because it is more are more likely that the person will have a plan to achieve better outcomes and the motivation to realize it. Thus, a high-hope individual, despite being low SES, may be able to overcome an SES disadvantage.

Role of hope in the SES–academic achievement relationship

It was hypothesized that hope would have a bigger effect on the relationship between SES and academic achievement in a minority population than a population mixed with both minorities and nonminorities. This hypothesis was based on the contention that minorities encounter additional stressors (e.g., racism, discrimination, stereotypes) in the academic realm (Booker, 2006). This hypothesis was not supported. Hope was found to be about as influential in the minority sample as in the sample mixed with both minorities and nonminorities.

In both the mixed and the minority samples, hope accounted for the majority of variance in academic achievement. These findings indicate that hope has similar influence in both populations and that the additional stressors in minority populations did not correspond to hope having a bigger impact on academic achievement. In addition, these findings suggest that hope interventions could be implemented universally and have similar effects across populations. More importantly, to find in two different populations, using two different widely used measures of SES, that SES makes a very small unique contribution as compared with hope in the variance of academic achievement is quite surprising because SES has been touted as one of the most important factors in academic achievement (Sirin, 2005). Given that hope made a much bigger contribution in both studies, this implies that if effective hope interventions were available to low-SES students, then SES

may not matter as much for high academic achievement as previously believed. Additionally, this further underlines the importance of hope in future research, as well as the importance of perception on positive and negative academic outcomes.

Implications

The practical implications of hope mediating the relationship between SES and GPA are immense. Increasing a student's SES is difficult, expensive, and highly impractical on a grand scale (Jäntti et al., 2006). However, increasing a student's hope can be inexpensive, highly effective, and can be employed at all levels of education (see Weis & Speridakos, 2011). Finding that hope not only mediates this relationship, but that it also accounts for the majority of the variance in academic achievement that SES and hope together explain, suggests that adolescents from low-SES backgrounds may be able to achieve as much as their higher SES counterparts (all else being equal), if they receive a little extra assistance via a hope intervention. Further, these studies support that hope can be implemented universally in ethnically mixed groups of low-SES adolescents and it would help them all similarly.

Finally, these studies highlight the importance of hope for mitigating the achievement gap. Many minority students who underachieve are typically of low SES (Lee, 2002). If hope interventions are employed widely and universally, they may be a cost-effective way to produce a highly beneficial effect on low-SES students. Better yet, if schools, teachers, and parents can focus on increasing the hope of youth, less hope-intensive interventions will be needed because hope interventions can make ripples, small amounts of hopeful energy that are given off by hopeful people that model and encourage hopeful behavior and actions, thus increasing everyone's level of hope (Lopez, 2010).

Limitations

These studies had several limitations. First, both studies use cross-sectional data. Cross-sectional data limits the causal claims of mediation analysis as cross-sectional data usually does not allow for proper manipulation of experimental variables. Second, neither sample consisted of an all low-SES population, which limits how much can be extrapolated about that population from these mixed-population studies. Therefore, testing whether hope mediates the relationship between SES and academic achievement in an all low-SES sample would give a more accurate understanding of hope's effect in that population. Finally, although self-report has been found to be a reliable indicator of actual GPA (Shaw & Mattern, 2005), it would have been best practice to obtain GPAs from the students' school instead of via self-report.

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