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Perceived School Style and Academic Outcomes among Ethnically Diverse College Students

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Perceived School Style and Academic Outcomes among

Ethnically Diverse College Students

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Abstract

Students' perceptions of their schools play an important role in achievement. One framework for measuring students' perceptions is an adaptation of Baumrind's parenting typology, which measures perceived "school style" (Pellerin, 2005) along two dimensions of *responsiveness* (warmth) and *demandingness* (high academic expectations). Although research suggests that perceptions of authoritative styles (both responsive and demanding) correlate with better student outcomes (Dornbusch et al., 1987), no existing research has considered whether these findings apply to ethnically diverse samples. We surveyed 301 students from five Midwestern colleges who completed measures of perceived school style, perceived discrimination, and several academic outcomes. Academically stigmatized students (African Americans and Latinos) perceived similar levels of demandingness but significantly lower levels of responsiveness from their instructors than did their non-stigmatized peers. Importantly, perceived discrimination in college fully mediated this relationship. With regard to the academic outcome variables, we found a significant interaction between responsiveness and demandingness such that only students who perceived high levels of both showed higher levels of attendance and out-of-class engagement. Finally, we found a significant three-way interaction between responsiveness, demandingness, and academic minority status in predicting academic efficacy. High levels of responsiveness and demandingness were related to increased academic efficacy only for non-academically stigmatized students. These results imply not only that the benefits of perceived school responsiveness and demandingness often depend on one another, but also that these benefits do not always apply equally to all students.

Perceived School Style and Academic Outcomes among

Ethnically Diverse College Students

In college, many students of color struggle academically as compared to their

White peers (Arbona & Jimenez, 2014; U.S. Census Bureau & Ewert,

2014). Interestingly, there is a large body of work which indicates that students'

perceptions of their schools, teachers, and peers can be extremely influential on both their

experience of and performance in school (Brody et al., 2014). One emerging method for

considering students' perceptions of their schools is through the framework of "school

styles," which refers to the varying ways in which schools exercise their authority

(Pellerin, 2005). Originally created as a parenting typology, this theory conceptualizes

certain styles of authority as having either positive or negative effects on factors like

adjustment, attitudes, and academic achievement (Baumrind, 1967). Given that teachers

and schools essentially "parent" children in the school setting, several studies have

examined whether the typology applies to academic authority figures as well.

Indeed, research suggests that the theory does apply to student perceptions of

academic authority figures like teachers (Pellerin, 2005; Dornbusch, Ritter, Leiderman,

Roberts, & Fraleigh, 1987). However, there are some major limitations to the current

school style framework. First, despite the overwhelming evidence that educators do not

treat all their students equally, no research has thoroughly examined whether student

perceptions of school styles vary systematically based on race/ethnicity. Second, there is

some evidence in the current literature that would suggest the benefits of perceiving a

favorable school style vary for different racial/ethnic groups (Dornbusch et al., 1987;

Steinberg, Mounts, Lamborn, & Dornbusch, 1991).

In the present study, we seek to address these two limitations. We do this by first

examining students' perceptions of school style among a diverse group of college

students. From this sample, we are able to compare perceptions between academically

stigmatized and non-stigmatized students. Second, we ask students to complete

questionnaires for a variety of academic outcomes. From these data, we are able to

analyze whether the academic benefits of certain perceived school styles apply equally

for academically stigmatized and non-stigmatized students.

School Styles

Originally, Baumrind suggested that parenting styles could be measured along

two dimensions, demandingness (high expectations) and responsiveness

(warmth). Based on relative scores on these two dimensions, she argued that parenting

styles could be categorized as either 1) *authoritative* (highly demanding and responsive),

2) *authoritarian* (highly demanding but not responsive), 3) *permissive* (highly responsive

but not demanding) or 4) *neglectful* (neither responsive nor demanding). Consistently,

authoritative as opposed to authoritarian parenting (these are the two most common

styles) has been linked to better overall adjustment and emotional health among children

(Baumrind, Larzelere, & Owens, 2010). When expanded to parents' influence on student

success, it has been replicated that children of more authoritarian-style families suffer

from lower academic achievement and school retention (Dornbusch, Ritter, Leiderman,

Roberts, & Fraleigh, 1987).

A more recent study by Pellerin (2005) tested whether the theory applied to teachers' styles of authority by measuring students' perceptions of their teachers and schools along with other academic outcomes. As was the case in the parenting research, perceiving an authoritarian style from educators was highly correlated with poor student outcomes (e.g. engagement, school retention), whereas perceiving an authoritative style was related to positive outcomes (Pellerin, 2005). Importantly, this study found that students' perceptions of their school's style were just as strong a predictor of student outcomes as the school's actual self-reported style.

Given this demonstrated importance of student perceptions of their school's style of exercising authority on influencing academic outcomes, this concept could be extremely useful in understanding the persistent racial achievement gap observed in the U.S. school system (U.S. Census Bureau & Ewert, 2014, Ladson-Billings, 2006). However, no existing research has examined racial or ethnic differences in perceived school style, partially because the existing studies have been done on relatively homogenous, White samples. Considering these limitations, we sought to make examining potential racial or ethnic differences a major focus of our study.

Research Question #1: Do students' perceptions of school style differ based on students' status as academically stigmatized?

Given the long history of racial discrimination in the United States, particularly in academia, it should come as no surprise that students from different racial/ethnic backgrounds may perceive interactions with authority figures differently. Different perceptions of authority figures could, in turn, have a dramatic impact on how students perceive the responsiveness and/or demandingness of their schools. Moreover, a great

deal of research suggests that students may perceive the same interactions very differently depending on the racial/ethnic background from which they come. African American and Latino students in particular face disproportionate stigma in academia, which could thereby influence how they perceive authority figures in school. Some researchers (e.g., McKown & Weinstein, 2003), have termed these groups of students "academically stigmatized," and we borrow this terminology in our present analysis.

In support of this differential perceptions hypothesis, a study by Ancis, Sedlacek, and Mohr (2000) found that student perceptions of discrimination in school varied significantly by race such that African American students perceived the most racial tension on campus while Latino and Asian students each respectively perceived slightly less. Relatedly, there is a extensive body of literature that demonstrates African American and Latino students are often criminalized in school beginning at a young age (Johnson, Boyden, Pittz, & Applied Research Center, 2001). African American students in particular are punished at disproportionately higher rates than other students, and studies have found that this disparity holds above and beyond any race-based differences in behavior (Forsyth, Biggar, Forsyth, & Howat, 2015; Eitle & Eitle, 2004). Students often notice these racial biases in how teachers react to student behavior, which over time can lead to increasing perceptions of discrimination by teachers and peers (Benner & Graham, 2011; Bracy, 2011; Sellers, Smith, Shelton, Rowley, & Chavous, 1998).

As mentioned above, we borrow the concept of "academically stigmatized" groups and use this, rather than simply White vs. non-White, as the basis for our primary analyses. As mentioned before, it is well-established that African American and Latino students face disproportionate stigma in school such that teachers often expect worse

behavior and lower academic achievement from them (DeCastro-Ambrosetti & Cho, 2011; McKown & Weinstein, 2003). Although Asian students certainly do experience stigma in academia, the stereotypes faced by this group are distinctly different from those faced by African American and Latino students. Specifically regarding academic achievement, educators tend to view Asian students as a "model minority" and have higher expectations for those students (DeCastro-Ambrosetti & Cho, 2011). For this reason, students of Asian descent were included in the non-stigmatized group in our analyses. Based on the established differential experiences of African American and Latino students in academia, we predict that these academically stigmatized groups will perceive their schools as more authoritarian (more demanding and less responsive) than their non-stigmatized peers.

Research Question #2: Are differences in perceived school style for stigmatized students mediated by past/present perceived discrimination or by racial rejection sensitivity?

Beyond simply identifying differences between academically stigmatized and non-stigmatized students, this study aims to determine what factors might explain these differences. We examine perceived discrimination (past and present) and racial rejection sensitivity as potential mediators for any relationship between status as academically stigmatized and perceived school style. Based on the literature which has highlighted the importance of these factors in the development of students' perceptions of their schools (described below), we predict that all three will explain some of the racial/ethnic variation in perceived school style.

As outlined above, it is well established that African American and Latino students are disproportionately stigmatized and punished as early as elementary school (Johnson, Boyden, Pittz, & Applied Research Center, 2001; Forsyth, Biggar, Forsyth, & Howat, 2015). Moreover, these experiences lead to increased perceptions of discrimination by teachers and peers, even later in life (Benner & Graham, 2011; Bracy, 2011; Sellers, Smith, Shelton, Rowley, & Chavous, 1998). Perceptions of educators, peers, and campus climate have also been found to have severe consequences spanning physical, social, and psychological symptoms, all of which in turn affect an individual's ability to function and succeed in society. Several longitudinal studies have found that perceived discrimination over time was highly related to somatic complaints, physical symptoms associated with chronic stress, and even depression (Brody et al., 2014; Huynh & Fuligni, 2012).

In a similar vein, there is some evidence that perceived discrimination over time can lead to an overall increased sensitivity to racially charged events. Mendoza-Denton, Downey, Davis, Purdie, and Pietrzak (2002) termed this phenomenon "racial rejection sensitivity," and posit that all people have varying degrees of this trait, which likely depend on previous experiences. In this way, it is possible that the discrimination which academically stigmatized students face in schools may lead to an understandable sensitivity to events or interactions which could result in rejection on the basis of race. The literature on stereotype threat proposes a similar phenomenon such that students who have been subjected to stereotypes and/or discrimination may develop increased anxiety over wanting to disconfirm that stereotype, which can in turn lead to lower academic outcomes (Fischer, 2010).

Given that academically stigmatized students tend to have experiences with teacher discrimination in K-12 (Forsyth, Biggar, Forsyth, & Howat, 2015; Eitle & Eitle, 2004) and also that these perceptions may persist over time and develop into higher racial rejection sensitivity (Mendoza-Denton et al., 2002), we predict that these three factors will at least partially explain any racial/ethnic differences in perceived school style. More specifically, though, the differential predictive power of these factors will be extremely useful in understanding differences in perceived school style. On the one hand, it could be that different perceptions of school style are the results of a developed sensitivity to racial events, in which case racial rejection sensitivity would predict the most variance. In a similar vein, it could be that perceived discrimination in K-12 academics leads to a similar accumulated sensitivity to racial rejection. In fact, we might expect that perceived discrimination in K-12 and racial rejection sensitivity act in much the same way, perhaps predicting similar portions of the variance in perceived school style. On the other hand, however, it could be that perceived discrimination in the students' current environment (college) is the most important factor in how they perceive their schools' authority. This would suggest that past experiences with discrimination are less important in determining current perceptions, whereas students' immediate environmental conditions are more important. Furthermore, if this were the case, we would expect that perceived discrimination in college would predict the most variance in perceptions of school style.

Research Question #3: Are the potential benefits of perceiving an authoritative school style moderated by students' status as academically stigmatized?

As discussed previously, the current literature on school style suggests that perceptions of an authoritative as opposed to authoritarian style of authority produce the best student outcomes in predominantly white samples of students. Those students who perceive their schools as high in both high academic expectations and warmth tend to have higher rates of school engagement, retention, and achievement (Pellerin, 2005). However, the existing literature fails to address whether all students benefit in the same way from perceiving an authoritative style from authority figures, despite the fact that some studies have suggested this may be the case (e.g., Steinberg, Mounts, Lamborn, & Dornbusch, 1991). In considering whether the academic benefits of perceiving a more authoritative school style might vary among academically stigmatized and non-stigmatized students, we were able to develop a number of plausible hypotheses. These are outlined below.

As mentioned, the existing literature on both the parenting typology and perceived school styles has given few indications of whether the academic benefits of perceiving an authoritative style apply to all students. Dornbusch and colleagues (1987), for example, found that the benefits of authoritative parenting at home resulted in the strongest academic benefits for African Americans. Asian Americans, however, experienced relatively few benefits from perceiving their parents as authoritative, possibly due to differing cultural attitudes toward authority and high academic expectations. In contrast, one study conducted by Steinberg, Mounts, Lamborn, and Dornbusch (1991) concluded that the positive effects of authoritative parenting on student achievement held above the effects of race or class. However, their results indicated numerous variations in the strength of these benefits. Namely, correlations between a perceived authoritative school

style and positive academic outcomes were weaker and less consistent for African American and Asian American students as compared to their Latino and White peers. While this is in direct contrast to previous findings, no research to date has fully addressed whether the benefits of perceived authority styles apply equally and/or consistently across ethnic groups. Additionally, no research has even begun to address this question in terms of perceived school style (as opposed to perceived parenting style), meaning we have little to no understanding of how the framework operates uniquely in the academic context.

Based on the established relationship between school style and academic achievement (Pellerin, 2005), we first hypothesize that perceptions of an authoritative school style will be strongly related to improved academic outcomes. More specifically, we predict a main effect of perceived school style such that higher perceptions of responsiveness and demandingness will each be related to higher academic achievement.

Given the conflicting findings for other racial/ethnic groups, however, it could be that academically stigmatized groups benefit either significantly less or more from perceiving an authoritative style. Of the existing research on this typology, both Dornbusch (1987) and Steinberg's (1991) results found that the benefits of perceived authoritative styles benefited White students the most consistently. It could be the case that increased perceptions of discrimination and/or sensitivity to racially charged events make the benefits of perceiving a highly responsive and demanding school mostly irrelevant. If this were true, we would predict that academically stigmatized students would see less academic benefits from perceiving a more authoritative school style.

Conversely, it could be that academically stigmatized students are even more sensitive to responsiveness and demandingness as it has the potential to repair and/or buffer against the negative effects of perceived discrimination. To more specifically formulate an alternative hypothesis, we explored other related bodies of literature for concepts which may be connected to responsiveness and demandingness. Some evidence suggests academically stigmatized students benefit more from school belonging and social embeddedness, especially positive relationships with teachers (Booker, 2006; Green, Rhodes, Hirsch, Suárez-Orozco, & Camic, 2008). Given the similarity between these concepts and the dimension of responsiveness, we predict that academically stigmatized students will demonstrate the strongest relationship between perceived responsiveness and positive academic outcomes. More specifically, some studies have found that increased teacher support is especially associated with school engagement for academically stigmatized youth (Garcia-Reid, 2007; Green et al., 2008). Considering these findings, we predict an especially strong positive relationship between perceived responsiveness and school engagement for academically stigmatized students.

In terms of predicting the relationship between perceived demandingness and academic outcomes for academically stigmatized students, the hypotheses are less clear. Shouse (1995) conducted a study examining the differential combined effects of academic press and a positive sense of community, which are conceptually similar to demandingness and responsiveness, on academic achievement for students from a diverse range of socioeconomic statuses (SES). The results of this study indicated that academic press was linked to achievement across all SES groups, but that high academic press was especially beneficial for low-SES students. Surprisingly, they found that when academic

press was low, a positive sense of community was negatively associated with achievement for low-SES students. For high SES students, however, the highest levels of achievement were predicted by low academic press and a strong sense of community.

While this study did not examine the race of the students as a factor for analyses, there is some evidence that low socioeconomic status students may face some of the same academic challenges as do academically stigmatized students. In fact, low SES and race are often highly correlated such that academically stigmatized students tend to come from lower SES backgrounds (O'Connor & Fernandez, 2006; Singh & Rice, 2015). Given this relationship, we might then expect that academically minoritized students will experience greater benefits uniquely from high perceived demandingness as compared to their non-stigmatized peers. We would also expect that when perceptions of demandingness are low, higher levels of responsiveness might have a negative effect on academic achievement.

Method

Participants

Participants for this study were recruited from five colleges in Minnesota. At each school, the offices of institutional research used internal data to facilitate recruitment via a stratified random sample. First, the offices generated two lists of students. One list comprised all students who were from a background that has been traditionally underrepresented in college. Students on this list met one or more of the following criteria: from an underrepresented ethnic group (domestic students with Latino, African-American, or Native American heritage), from a lower-socioeconomic background (defined as Pell-Grant recipients), or first-generation college attendees (students whose parents had not completed a four-year degree). The second list

comprised all of the remaining currently enrolled, full-time undergraduates at each school. Next, college officials randomly selected 85 students from each list and provided the researcher with those students' names and email addresses. Across the five schools, therefore, a total of 850 students were recruited as potential participants (425 traditionally underrepresented students and 425 well-represented students). We contacted these students asking them to participate in a one-time questionnaire which took about an hour to complete and seven brief daily-diary checklists which would be sent to them each evening. Of all the students we contacted, 299 completed enough of the study to be included in analyses (35.18% response rate). Of those who participated, 34.6% self-identified as male, 63.7% as female, and 1.3% as some other gender. The overall mean age of the sample was 20.32 years ($SD = 1.35$). Our respondents were 71.3% White, 10.9% Asian, 4.6% African American, 4% Latino, and 8.6% multiracial; the remaining 0.7% selected either 'other' or that they preferred not to respond. For the purposes of our analyses, we created a variable to describe those students who are traditionally academically stigmatized (African Americans and Latinos). In our sample, 38 participants met this criteria (13.3%).

Compensation

All portions of the survey (the one-time questionnaire and 7 daily-diary checklists) were distributed via email and administered via Qualtrics. In the one-time survey, participants entered a valid phone number and an email address to which they wished to be sent the daily-diary checklists. Each participant also indicated what time of day they would like to be sent the link to the survey, though no checklists were sent out before 8 pm to ensure that responses reflected the events of an entire day. Similarly, the

link to each checklist expired at 2 am to reduce any inaccuracy that might result from

reflecting on a previous day. Those participants who did not complete the one-time

survey were not sent any links to the daily-diary checklists.

We offered participants in our study separate payments for the one-time

questionnaire and for the daily checklists. Participants were offered online gift cards as

study incentives: $11 for the one-time survey, $2 for each daily survey, and a $10 bonus

for completing at least five of the seven daily surveys. Thus, participants could earn up to

$35 in gift cards for completing all parts of the study. These incentives resulted in high

rates of participation: altogether, participants completed $M = 5.5$, $SD = 1.8$ of the 7

possible daily surveys. Participants had the choice of receiving their payment in the form

of a single check sent after they completed all parts of the study, or as Amazon gift cards

sent as they complete each part of the study. As an additional incentive for completing

the diary checklists, we raffled four $25 Amazon gift cards on each day of the study;

every participant who completed a checklist that day was entered into the drawing to win.

On the last day of the study, each participant was sent a full debriefing form and all

compensation was distributed shortly thereafter.

Materials

Perceived School Style. Included as part of the one-time survey, students'

perceptions of their school's style were measured using an adapted version of the

Authoritative School Climate survey (Gregory, Cornell, Xitao, Sheras, Tse-Hua, &

Huang, 2010). The measure was administered in the form of two, four-item subscales

which represent the demandingness (high academic expectations, $\alpha = .68$) and

responsiveness (warmth, $\alpha = .88$) dimensions, similar to those use by Pellerin

(2005). Items on the demandingness subscale asked participants to what degree they perceive high academic expectations for all students on a 4-point Likert scale (*1 = strongly disagree, 4 = strongly agree*). For example, one item was *Most professors and other adults at this school expect a lot from students*. Items on the responsiveness subscale, on the other hand, asked participants the degree to which they perceive warmth and respect from their professors, also on a 4-point Likert scale. An example item for responsiveness is *Most professors and other adults at this school treat students with respect.*

To classify students' perceptions of their school's style as either permissive, neglectful, authoritarian or authoritative, we first averaged each participant's responses for each subscale, taking into account those items which were reverse-coded (e.g. *Most professors and other adults at this school do not really care how much students learn*). Next, we classified each participant as either high or low in their perceptions of responsiveness and demandingness. If a participant's average score on a dimension was a 3.0 or higher, indicating they either agreed or strongly agreed with the majority of the statements, we classified them as high in that dimension. Using this information, we then classified each student into one of the four categories of perceived school style (Pellerin, 2005):

- neglectful = low perceived responsiveness and demandingness;
- permissive = low perceived demandingness but high responsiveness;
- authoritarian = high perceived demandingness but low responsiveness;
- authoritative = high perceived responsiveness and demandingness.

Perceived Discrimination. To measure students' perceptions of discrimination in both their kindergarten through 12th grade schooling (K-12) and since arriving at college, we administered the academic setting subscale of the Perceived Racism Scale (McNeilly, Anderson, Robinson, McManus, Armstead, Clark, Pieper, Simons, & Saulter, 1996). To minimize the length of the one-time survey, we narrowed the original 10-item scale down to 8-items by eliminating the two items with the lowest established factor loadings. For each item, participants were asked to indicate 1) how often they experienced this in their K-12 education (adapted scale α = .89) and 2) how often they experienced this since arriving in college (adapted scale α = .93), both on a scale from 0 to 5 (*0 = never applicable, 1 = almost never, 2 = several times a year, 3 = several times a month, 4 = several times a week, 5 = several times a day*). Example items included *Teachers and students assume I'm less intelligent because of my race* and *I have been made to feel uncomfortable in a classroom of students of other racial backgrounds.* Items which originally mentioned White students as the comparison group were modified slightly so as to be applicable to participants from all racial / ethnic backgrounds (e.g. *I have been made to feel uncomfortable in a classroom of students from another racial background*).

Rejection Sensitivity-Race. To determine participants' rejection sensitivity-race (RS-race), we administered a shortened and modified version of the original RS-race scale as part of the one-time survey (Mendoza-Denton et al., 2002). In this adapted version, participants read four brief scenarios which might feasibly occur in the life of a college student. In each scenario, there existed the potential for a negative or stressful event to occur. For example:

Imagine that you are trying to get into a computer lab on a Saturday, but you forgot your key card at home. You call your roommate to see if they can bring your card to you. As you're waiting, a campus security guard approaches the lab.

For each scenario, participants answered two questions. One measured how *concerned or anxious* they would be that the negative situation would be occur based on their race/ethnicity on a 6-point scale (*1 = very unconcerned, 6 = very concerned*, α = .79). The other measured how much they would *expect* the negative situation to occur because of their race/ethnicity on a 6-point scale (*1 = very unlikely, 6 = very likely*, α = .82). To calculate each participant's RS-race score, we first multiplied their two responses to each scenario and then averaged these values across the four scenarios; higher scores indicate higher levels of RS-race. This method of multiplying scores has been shown to be advantageous in that a participant who was highly anxious about the negative event occurring but did not see that event as at all likely to happen would not score as high as someone who was both anxious and saw the event as likely (Mendoza-Denton et al., 2002).

Academic Outcomes. To determine each student's academic outcomes, we measured college grade point average (GPA), students' academic self-efficacy, average attendance over one week, and average out-of-class engagement over one week.

Grade point average. Students' GPAs were self-reported on a 4-point scale as part of the one-time survey. These values will be verified by official college transcripts at a later time if the students consented to their release.

Academic self-efficacy. Academic self-efficacy was administered as part of the one-time survey and was measured using a shortened 15-item adaptation of College Self

Efficacy Inventory (Solberg, O'Brien, Villareal, Kennel, & Davis, 1993). Items on this

scale measured students' confidence in their ability to successfully complete a variety of

tasks related to college ($\alpha = .88$). For example, one item asked how confident the student

was that they could *keep up to date with [their] schoolwork*. Responses were given on a

scale from 0 (*not at all confident*) to 10 (*extremely confident*).

   Daily attendance. Students' attendance was defined as the average number of

classes attended daily. Each day, participants indicated how many classes they had

scheduled as well as how many classes they actually attended. Using these data, we

calculated a daily percentage of classes attended for each participant and then averaged

these scores from Monday through Friday. Therefore, this variable is interpreted as the

average daily percentage of classes attended across the week the study was conducted.

   Daily out-of-class engagement. Out-of-class engagement was operationalized as

the average number of times a student reported seeking outside help each day. Each day,

participants were asked whether they have emailed a professor, met with a professor, met

with a study group or attended review session. Because each of these behaviors could

occur on school days or non-school days, we used all days of the week in calculating this

score. To calculate each participant's score, we took a sum for the total number of

activities completed each day and then averaged these numbers over the whole week. The

final score was therefore expressed as an average number of daily behaviors that occurred

on any given day during the week of the study (ranging between 0 and 4).

Results

Research Question 1: Perceptions of School Style for Academically Stigmatized Students.

To determine whether students' perceptions of their school's style varied as a function of an academically stigmatized racial identity, we first examined how participants fit into the four categories of perceived school style as described by Pellerin (2005). In general, students felt that their schools were relatively high in both responsiveness ($M = 3.35$, $SD = 0.50$ on a 4-point scale) and demandingness ($M = 3.52$, $SD = 0.42$ on a 4-point scale). Because of the negative skew in both perceived responsiveness and demandingness, only 1.7% of the sample perceived their school as neglectful, 3.4% as permissive, 10.5% as authoritarian, and the remaining 84.4% as authoritative.

Such small cell sizes made a chi-squared analysis inappropriate, so we instead ran two separate linear regressions predicting demandingness and responsiveness from status as academically stigmatized. Having an academically stigmatized race/ethnicity was found to be a significant predictor of perceived school responsiveness ($F(1, 295) = 5.33$, $p = .022$) with an adjusted R^2 of 1.4%. On average, students who possessed an academically stigmatized racial identity perceived their schools and professors as less responsive as compared to their peers ($b = -0.09$, $SE = 0.04$, $p = .022$). Demandingness, on the other hand, was not predicted by status as academically stigmatized ($F(1, 295) = 1.29$, $p = .257$) with an adjusted R^2 of 0.1%, ($b = -0.08$, $SE = 0.07$, $p = .257$). Finally, to ensure that perceptions of responsiveness and demandingness were not merely a function of what school students attended, we conducted a one-way ANOVA with college

attended as the independent variable. Results indicated that neither students' perceptions

of responsiveness ($F(1, 294) = 2.18$, $p = .071$) nor demandingness ($F(1, 294) = 1.56$, $p = .185$) varied systematically by school. A full list of descriptive statistics and t-test

comparisons between academically stigmatized and non-academically stigmatized

students can be found in Table 1.

Research Question #2: Mediating Factors in Perceptions of School Style.

According to Baron and Kenny (1986), there are four necessary steps to

determine if a statistical model qualifies for a test of mediation. Given that statistically

significant results were found for all four steps, we were then able to calculate a Sobel

test to determine whether the mediation could be fully confirmed.

Step 1. To meet the requirements for step 1, we used linear regression to

demonstrate that perceived school responsiveness (the outcome) varied systematically by

status as academically stigmatized (the predictor). The results of the first research

question indicate that there is an association between an academically stigmatized racial

identity and perceptions of school responsiveness. Students with academically

stigmatized identities tend to perceive their school as less responsive as compared to their

peers. For demandingness, no significant association was found so we did not continue

with this variable to the next steps of the model.

Step 2. To test if status as academically stigmatized was related to the proposed

mediator variables (perceived discrimination K-12, perceived discrimination college, and

racial rejection sensitivity), we conducted three separate linear regression analyses.

Results indicated that status as academically stigmatized significantly predicted all three

of the proposed mediator variables. Specifically, students with academically stigmatized

background reported significantly higher levels of perceived discrimination in K-12,

perceived discrimination in college, and racial rejection sensitivity (see Tables 1 and 2).

Given these results, we were able to proceed to the next step in qualifying for a full test

of mediation.

Step 3. To examine relationships between the proposed mediators and the

outcome variable, perceived school responsiveness, we first ran a bivariate correlation.

These results showed that perceived school responsiveness was significantly correlated to

perceived discrimination K-12 ($r(290) = -.246$, $p < .001$), perceived discrimination in

college ($r(290) = -.296$, $p < .001$), and racial rejection sensitivity ($r(292) = -.223$, $p <$

.001). To determine the unique variance in school responsiveness explained by each of

the potential mediators, we ran a hierarchical regression model with all three factors as

predictors. This model significantly predicted perceptions of school responsiveness ($F(3,$

$288) = 10.03$, $p < .001$)) with an adjusted R^2 increase of 8.5%. However, only

discrimination in college predicted responsiveness above and beyond the other predictors

($b = -0.21$, $SE = 0.07$, $t(291) = -2.91$, $p = .004$). Controlling for discrimination in college,

neither K-12 discrimination ($b = -0.10$, $SE = 0.07$, $t(291) = -1.47$, $p = .142$), nor RRS ($b =$

0.00, $SE = 0.01$, $t(291) = 0.22$, $p = .827$) were significant predictors of responsiveness.

This suggested that only discrimination in college was a potential mediator, meaning we

proceeded to the fourth step with only that variable.

Step 4. As a final step we ran a linear regression with both status as academically

stigmatized and perceived discrimination in college as predictors of perceived school

responsiveness. Overall, the model significantly predicted perceptions of responsiveness

($F(2, 287) = 14.10$, $p < .001$) with an adjusted R^2 of 8.3%. However, only perceived

discrimination in college (b = -0.26, SE = 0.05, p < .001) uniquely predicted changes in

perceived school responsiveness, while status as academically stigmatized did not (b =

0.01, SE = 0.09, p = .919). As predicted, results of a Sobel test of mediation confirmed

that perceived discrimination in college fully mediated the relationship between status as

academically stigmatized and perceived school responsiveness (z = -4.53, p < .001).

Research Question #3: Differential Benefits of Perceived School Styles.

A preliminary list of simple bivariate correlations between all variables can be

found in Table 3. To address our third research question, we ran a series of analyses of

covariance (ANCOVAs) on the four academic outcomes with responsiveness,

demandingness, and status as academically stigmatized as main effects and all of the

interactions between these variables as predictors. These analyses provided tests of equal

slopes to examine whether the associations that responsiveness and demandingness had

with each dependent variable were similar or different depending on students' status as

academically stigmatized. A full summary of the results of these analyses can be found

in Table 4.

With GPA as the dependent variable, only status as academically stigmatized

acted a significant predictor. As already demonstrated in our earlier analyses,

academically stigmatized students on average have significantly lower GPAs than do

their non-stigmatized peers (see Table 1).

With academic efficacy as the dependent variable, our analyses showed a

significant two-way interaction between demandingness and responsiveness. However,

this two-way interaction was subsumed by a significant three-way interaction between

status as academically stigmatized, responsiveness, and demandingness. To follow up on

this interaction, we split our data file into academically stigmatized and non-stigmatized

students and then ran another ANCOVA with demandingness, responsiveness, and a

demandingness / responsiveness interaction term as predictors of academic efficacy. For

academically stigmatized students, the interaction between responsiveness and

demandingness was statistically significant. Interestingly, for academically stigmatized

students who perceived high levels of demandingness, responsiveness was negatively

associated with academic efficacy. For academically stigmatized students who perceived

low demandingness, on the other hand, there was a positive relationship between

perceived responsiveness and academic efficacy (see Figure 1). For non-stigmatized

students, there was no significant interaction (see Figure 2).

　　　　With attendance as the dependent variable, we found a marginally significant

interaction between demandingness and responsiveness ($p = .056$). To follow up on this

finding, we created a new variable splitting participants into two groups based on whether

they were relatively low or high in their perceptions of demandingness (compared to $M =$

3.52). We then split the file based on this distinction and ran an ANCOVA with

perceived responsiveness as a predictor. Results showed the for students who perceived

relatively low levels of demandingness, responsiveness significantly predicted higher

levels of attendance over the course of one week ($F(1, 152) = 10.72$, $p = .001$). For

students who perceived relatively high levels of demandingness, however, perceptions of

responsiveness were not significantly related to attendance ($F(1, 131) = 0.01$, $p = .920$).

A graph of this relationship can be found in Figure 3.

　　　　Finally, with out-of-class engagement as the dependent variable, we found

significant interaction between demandingness and responsiveness ($p < .05$). As before,

to follow up we ran an ANCOVA with perceived responsiveness as the predictor and with participants split into two groups based on whether they held relatively high or low perceptions of school demandingness. For students who held low relative perceptions of school demandingness, perceived responsiveness was not significantly related to out-of-class engagement ($F(1, 156) = 0.38$, $p = .537$). For students who did perceive high relative levels of demandingness, however, responsiveness was significantly associated with out-of-class engagement ($F(1, 134) = 6.07$, $p = .015$). For students who perceived high levels of demandingness, higher perceived responsiveness was significantly related to higher out-of-class engagement (see Figure 3).

Discussion

In this study, we sought to expand on the recent research exploring student perceptions of school style by examining whether these concepts apply to students from diverse ethnic backgrounds. In our first research question, we hypothesized that students' perceptions of school style would vary based on status as academically stigmatized such that students from stigmatized racial backgrounds would perceive a more authoritarian (less responsive and more demanding) school style than their non-stigmatized peers. This hypothesis was partially confirmed in that academically stigmatized students tended to perceive their schools as less responsive than their peers. However, we found no significant differences between stigmatized and non-stigmatized students in their perceptions of school demandingness.

These findings are compelling for a number of reasons. Firstly, these results support the broader body of research which asserts that students of color do in fact have very different and often more negative experiences in academia. Even among students

attending the same school, academically stigmatized students perceived less warmth, respect, and care from their institution and professors. Because our study only collected data regarding student perceptions and not on any objective features of their schools' climates, we can only speculate as to the cause of these findings. One potential explanation for this difference could be that academically stigmatized students are actually being treated differently (with less responsiveness) than their peers. Indeed, there is some research which suggests this is the case. Several studies have found, for example, that African American students are punished disproportionately more than their peers (Forsyth, Biggar, Forsyth, & Howat, 2015; Eitle & Eitle, 2004). Moreover, these analyses also found that these disparities held even when controlling for the nature of the behavioral infraction. Given these findings, students might be responding to actual differences in treatment and therefore indicating lower levels of perceived responsiveness.

Unfortunately, we do not know much about whether patterns of educators treating African American and Latino students differently also hold true in college. An alternative explanation might be that academically stigmatized students are simply accustomed to distant or even strained relationships with authority figures given their differential experiences pre-college. In this way, students may have a predisposition to these more negative perceptions regardless of other objective factors. In fact, the literature on rejection sensitivity does suggest this may be the case (Mendoza-Denton et al., 2002). Future studies might consider incorporating additional measures of on-campus discrimination as a way to explore this question.

Also regarding our first research question, we were surprised to find that academically stigmatized students did not perceive different levels of demandingness than their non-stigmatized peers. Past research has suggested that educators hold lower academic expectations for African American and Latino students as compared to their White and Asian peers (DeCastro-Ambrosetti & Cho, 2011). There is also substantial evidence that perceptions of demandingness (sometimes referred to as "academic press"), predict a number of important outcomes like academic engagement and achievement (Shouse, 1995; Murphy & And, 1982; Lee, 2012). Encouragingly, the results from our study suggest that schools are communicating clear standards for academic achievement to all of their students, regardless of their racial backgrounds.

More specific to school style as a construct, our findings also suggest that the categorical classification of perceived school styles (e.g. neglectful, permissive, authoritarian or authoritative) may be conceptually useful, but is perhaps too simplistic to be used as a means of comparison. By using perceptions of responsiveness and demandingness as separate, continuous variables, we were able to capture additional nuance in how these perceptions vary across students from diverse backgrounds. Namely, we found that academically stigmatized students perceived different levels of responsiveness from their schools, but that their perceptions of demandingness were not significantly different from their non-stigmatized peers.

Based on the differences in perceived responsiveness we observed between academically stigmatized and non-stigmatized students, we also sought to explain the mechanism behind this finding. To do this, we proposed a mediation model where perceived discrimination in K-12 school, perceived discrimination in college, and racial

rejection sensitivity mediated the relationship between status as academically stigmatized and perceived responsiveness. When we entered these factors into the model, perceived discrimination in college almost completely mediated this relationship.

This finding is encouraging in that it suggests students' current environment is the most important factor in determining their perceptions. Had we found that perceived discrimination K-12 or racial rejection sensitivity were greater predictors, this would have suggested a degree of inflexibility or a lack of changeability in student perceptions. If past experiences are the greatest determinant of how students perceive their environment, it would be quite difficult to make any intervention. Given our findings, however, there may be a way to intervene and alter students' perceptions to be more positive. It is feasible that colleges and universities could implement measures to reduce actual incidents of discrimination on campus, which would, in turn, reduce students' perceptions of discrimination. There is emerging evidence that courses or campus programs focused on diversity and building awareness of racism can make lasting reductions on students' racial biases (Case, 2007; Nordstrom, 2015).

Additionally, we should note that our study used a measure of perceived discrimination which included items regarding both professors and other students. We therefore are not able to determine whether discrimination from a specific domain (e.g. from teachers in a classroom setting) is the most important predictor of perceived school style. Moreover, it could be that perceived discrimination in different domains may differentially affect students' perceptions of responsiveness or demandingness. Future research might consider this question so as to further understand this relationship.

For our final research question, we sought to determine whether the academic benefits of perceiving high responsiveness and demandingness were moderated by students' status as academically stigmatized. Contrary to what we initially expected, we found different patterns of association between responsiveness and demandingness for each of the academic outcome variables.

For GPA, we found that only responsiveness was a significant predictor and that this results did not differ for stigmatized versus non-stigmatized students. Although past research has argued that demandingness is the sole most important predictor of academic achievement (e.g. Shouse, 1995), our results indicate that demandingness did not significantly predict GPA. Interestingly, this suggests that perhaps only perceptions of responsiveness are associated with academic achievement when achievement is narrowly defined as grade point average. We should note, however, that we are hesitant to over-emphasize these findings due to the fact that our sample sizes for this particular analysis were exceptionally small. Because a number of our participants were first-year students, the participating schools will not release their transcripts to us until those students have completed a full year of college. Additionally, a number of students simply chose to not self-report their GPA and to have us take this data from their official transcripts when they are released. This limited data especially affected our statistical power in comparing the non-academically stigmatized group to the academically stigmatized group, which already had a very small sample size. Ideally, future revisions of the present study will be able to incorporate more complete data for GPA and therefore address this limitation.

For academic efficacy, we found a significant three-way interaction between responsiveness, demandingness, and students' status as academically stigmatized.

Demandingness and responsiveness were only positively associated with academic efficacy for non-stigmatized students. Although academically stigmatized students had significantly lower scores on academic efficacy than their peers, we found no significant association with either responsiveness or demandingness for this group of students. This finding suggests that schools may be able to improve their non-stigmatized students' academic efficacy by creating a warm and challenging campus environment. It does not, however, provide much insight into how to improve efficacy for stigmatized students. It may be that academically stigmatized students' lower academic efficacies are the result of other factors such as stereotype threat (Fischer, 2010). These issues may need to be addressed first before responsiveness and demandingness can have any meaningful impact on academic efficacy for these students.

For attendance, we found a two way interaction between demandingness and responsiveness. For students who perceived high levels of demandingness, increased perceptions of responsiveness were not associated with higher attendance. For students who perceived relatively lower levels of demandingness, however, there was a positive association between responsiveness and attendance. These results suggest that students are most likely to attend class when the academic environment is highly demanding. Additionally, when this is the case, students seem to attend class regardless of whether they also perceive responsiveness from their professors. However, in the absence of a demanding environment, students can be compelled to attend class by the presence of a warm and responsiveness school environment. In this way, it could be that creating a demanding academic environment is the best way to encourage attendance, but that a responsiveness environment can essentially "fill in" to encourage attendance if academic

challenge is not present.   These results are consistent with existing research which has

found academic press to be a uniquely important factor in predicting academic

engagement and also achievement (Lee, 2012; Shouse, 1995). However, in contrast to

past work which has found that these benefits are even greater for underrepresented

students (e.g., Shouse, 1995), we found no differences between stigmatized and non-

stigmatized students. This suggests that status as academically stigmatized and SES may

operate differently with regard to these constructs.

　　　For out-of-class engagement, on the other hand, we found that both high levels of

perceived responsiveness *and* demandingness were necessary to see a positive association

with out-of-class engagement. We suspect that seeking out-of-class assistance with

school work is both an academic and a social endeavor. Admitting a lack of

understanding and asking for help is not always easy for students and may require a

degree of vulnerability and therefore trust in the person you're seeking help from.

Considering this, it could be that in order for students to seek the most out-of-class

assistance they need to be both challenged enough to need help *and* comfortable enough

with the academic environment that they feel secure in doing so.

　　　More broadly speaking, these findings further support the assertion that the

dimensions of responsiveness and demandingness operate differently and are therefore

best utilized as separate variables, rather than as a means to a simplistic categorical

classification.   The original categorical typology suggests that students need to perceive

high levels of both responsiveness and demandingness to produce the best academic

outcomes. Interestingly, we only found this to be true in two cases: 1) for the out-of-class

engagement variable and 2) for the academic efficacy of non-stigmatized students.

Future research should further consider the nuanced relationships between these dimensions, as it appears that they may operate differently based on their relationship to one another and also based on the specific outcome being measured. Moreover, although we only found one academic outcome which was differentially predicted by perceptions of school style for stigmatized versus non-stigmatized students, there may be others that were not measured by the present study.

The present study also had a number of limitations. For example, it is worth noting that this study did not consider socioeconomic status as a factor for analysis. Race and socioeconomic status are highly interrelated such that there is a well-established "wealth gap" between families of color and White families (Singh & Rice, 2015). On average, more families of color fall under the low-income designation than do White families, making these factors easily confounded in research. Future revisions of this study might incorporate our data on family income to determine whether our findings also apply to low-income students from non-stigmatized racial backgrounds. Another limitation of this study is that all the schools we sampled were quite similar in a number of ways. All five schools were relatively small, private schools in Minnesota. Additionally, although we did not formally measure this factor, we suspect that the composite acceptance rate of the schools we sampled is higher than the national average. Future research might consider whether our findings apply to students attending public universities, community colleges, or technical schools with a wider range of acceptance rates and student populations.

Finally, our findings are somewhat encouraging in that they suggest certain perceptions of school style, although more nuanced than we originally expected, are

associated with some academic benefits which apply to all students regardless of their

racial/ethnic background. Only for academic efficacy did we find a difference between

stigmatized and non-stigmatized students such that responsiveness and demandingness

were not beneficial for stigmatized students. If teachers and academic institutions can

take steps to intentionally create learning environments which are both challenging and

supportive to their students, this may have the potential to improve student outcomes.

Relatedly, our results showed that academically stigmatized students perceive lower

levels of warmth and respect from their educators than do their non-stigmatized peers.

Whether these differences in perception are the results of actual differences in treatment

or some other factor, these findings suggest that educators should dedicate additional

effort to creating warm, respectful, and supportive environments for academically

stigmatized students.

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Appendix

Authoritative School Climate Survey

Instructions: Thinking about the professors at the college you now attend, how much do you agree or disagree with these statements?

(*1 = strongly disagree, 4 = strongly agree*)

Responsiveness/Support

Student Support Scale - Respect for Students Subscale

Most professors and other adults at this school…

1.   ...care about all students.

2.   ...want all students to do well.

3.   ...listen to what all students have to say.

4.   ...treat students with respect.

Demandingness/Structure

Academic Expectations Scale

Most professors and other adults at this school…

1.   ...expect all students to work hard.

2.   ... really want students to learn a lot.

3.   ...expect a lot from students.

4.   ...do not really care how much students learn. (reverse coded)

Perceived Racism Scale

Instructions: The following items describe situations which might occur in academic life. For each item, please indicate 1) how often you experienced this in your K-12 education and 2) how often you experienced this since arriving in college.

(*0 = never applicable, 1 = almost never, 2 = several times a year, 3 = several times a month, 4 = several times a week, 5 = several times a day*)

1. I have been made to feel uncomfortable in a classroom of students from another racial background.

2. Teachers and students assume I'm less intelligent because of my race.

3. Students of other races assume I gained admission to school only because of Affirmative Action - not based on my abilities or intelligence.

4. My graded assignments are judged more critically because of my race.

5. Although I'm equally prepared and responsive, I am called on less than students of other racial backgrounds in class.

6. When I excel academically, I am looked upon as an exception to my race.

7. I find it difficult to trust teachers and/or students from different racial backgrounds.

8. Although I am equally intelligent, students of other racial backgrounds often don't include me in study groups because of my race.

Racial Rejection Sensitivity

Instructions: Please read and imagine yourself going through the followings four

situations. After reading each scenario, please answer two questions about how you

might feel.

(for the first question, *1 = very unconcerned, 6 = very concerned*; for the second

question, *1 = very unlikely, 6 = very likely)*

Situations:

1. Imagine that you are in class one day, and the professor asks a particularly

    difficult question. A few people, including yourself, raise their hands to answer

    the question.

    1. How concerned or anxious would you be that the professor would

        not call on you based on your race/ethnicity?

    2. I would expect the professor not to call on me because of my

        race/ethnicity.

2. Imagine that it's the second day of your new class. The teacher assigned a writing

    sample yesterday and today the teacher announces that she has finished correcting

    the papers. You wait for your paper to be returned.

    1. How concerned or anxious would you be that you will receive a

        poor grade on your paper based on your race/ethnicity?

    2. I would expect to receive a poor grade on my paper based on my

        race/ethnicity.

3. Imagine that you are trying to get into a computer lab on a Saturday, but you forgot your key card at home. You call your roommate to see if they can bring your card to you. As you're waiting, a campus security guard approaches the lab.

    1. How concerned or anxious would you be that the security guard will ask to see your student ID based on your race/ethnicity?

    2. I would expect the security guard to ask to see my student ID based on my race/ethnicity.

4. Imagine that your favorite professor has invited students with babysitting experience to send her resume and potentially babysit her three year old child. You have lots of experience working with kids, but several other students are also applying.

    1. How concerned or anxious would you be that the professor will not select you to babysit her child based on your race/ethnicity?

    2. I would expect the professor not to select me to babysit her child based on my race/ethnicity.

Table 1

Overview of All Variables

	Total	Academically Stigmatized	Non-Academically Stigmatized	
Sample Size (N)	299	38	259	
Perceived Responsiveness	3.35	3.18	3.38	$t(295) = 2.31, p = 0.022*$
	(0.50)	(0.57)	(0.48)	
Perceived Demandingness	3.52	3.45	3.53	$t(44.39) = 0.97, p = 0.337$
	(0.42)	(0.50)	(0.41)	
Racial Rejection Sensitivity	2.23	6.36	1.60	$t(38.03) = - 4.57, p < 0.001**$
	(3.32)	(6.38)	(1.94)	
Perceived Discrimination (K-12)	1.32	2.32	1.17	$t(38.44) = - 8.15, p < 0.001**$
	(0.57)	(0.86)	(0.31)	
Perceived Discrimination (college)	1.23	1.95	1.12	$t(38.52) = - 4.83, p < 0.001**$
	(0.59)	(1.04)	(0.38)	
College GPA	3.47	3.17	3.51	$t(210) = 2.59, p = 0.010**$
	(0.57)	(0.34)	(0.58)	
Academic Efficacy	8.61	8.06	8.71	$t(43.24) = 2.37, p = 0.022*$
	(1.29)	(1.62)	(1.21)	
Attendance	0.93	0.91	0.94	$t(45.71) = 0.98, p = 0.333$
	(0.12)	(0.14)	(0.12)	
Out-of-Class Engagement	0.77	0.82	0.76	$t(291) = -0.74, p = 0.462$
	(0.54)	(0.43)	(0.55)	

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

Table 2

Coefficient Variables Resulting from Multiple Regression Analyses

	Unstandardized Coefficients		Standardized Coefficients		
	b	*SE*	β	*t*	Sig.
Perceived Discrimination (K-12)	1.15	0.07	0.678	15.67	.000
Perceived Discrimination (college)	0.83	0.09	0.475	9.16	.000
Racial Rejection Sensitivity	4.76	0.51	0.483	9.41	.000

Note. Independent Variable: Academically Stigmatized

Table 3

Correlations between All Variables

	1	2	3	4	5	6	7	8	9	10
1. Academically Stigmatized	–									
2. Perceived Responsiveness	-.13*	–								
3. Perceived Demandingness	-.07	.56**	–							
4. Racial Rejection Sensitivity	.48**	-.22**	-.20**	–						
5. Perceived Discrimination (K-12)	.68**	-.25**	-.16**	.63**	–					
6. Perceived Discrimination (college)	.48**	-.30**	-.24**	.71**	.61**	–				
7. College GPA	-.18*	.19**	.15*	-.20**	-.22**	-.14*	–			
8. Academic Efficacy	-.17*	.25**	.11	-.30**	-.25**	-.25**	.25*	–		
9. Attendance	-.07	.08	.02	-.01	-.03	-.02	.16*	.11	–	
10. Out-of-Class Engagement	.04	.10	.12*	.06	.08	.11	.06	.19**	.15**	–

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

Table 4

Results from ANCOVAs Predicting Academic Outcomes

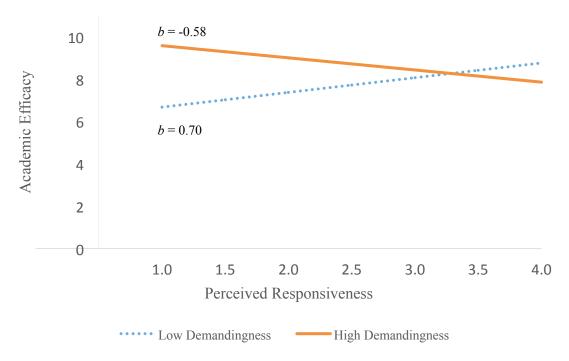|	Grade Point Average	Academic Efficacy	Attendance	Out-of-Class Engagement
Academically Stigmatized	$F(1, 203) = 7.75, p = .006$	$F(1, 289) = 2.36, p = .125$	$F(1, 277) = 0.23, p = .630$	$F(1, 284) = 0.06, p = .807$
Responsiveness	$F(1, 203) = 1.18, p = .278$	$F(1, 289) = 1.35, p = .246$	$F(1, 277) = 0.45, p = .504$	$F(1, 284) = 0.09, p = .762$
Demandingness	$F(1, 203) = 0.31, p = .580$	$F(1, 289) = 0.03, p = .870$	$F(1, 277) = 1.12, p = .290$	$F(1, 284) = 2.28, p = .133$
Academic Stig. x Responsiveness	$F(1, 203) = 0.06, p = .809$	$F(1, 289) = 4.43, p = .036$	$F(1, 277) = 0.19, p = .662$	$F(1, 284) = 0.05, p = .824$
Academic Stig. x Demandingness	$F(1, 203) = 0.05, p = .818$	$F(1, 289) = 0.88, p = .348$	$F(1, 277) = 0.54, p = .464$	$F(1, 284) = 0.28, p = .600$
Responsiveness x Demandingness	$F(1, 203) = .235, p = .628$	$F(1, 289) = 0.07, p = .791$	$F(1, 277) = 3.69, p = .056$	$F(1, 284) = 4.43, p = .036$
Academic Stig. x Responsiveness x Demandingness	$F(1, 203) = 0.44, p = .507$	$F(1, 289) = 4.15, p = .043$	$F(1, 277) = 0.54, p = .464$	$F(1, 284) = 0.08, p = .781$

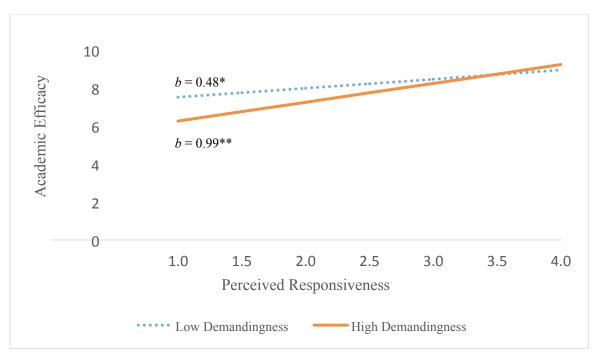*Figure 1*. Demandingness * responsiveness predicting academic efficacy for academically stigmatized students, *p* < .05, **p* < .01.

Figure 2. Demandingness * responsiveness predicting academic efficacy for non-academically stigmatized students, *p* < .05, **p* < .01.

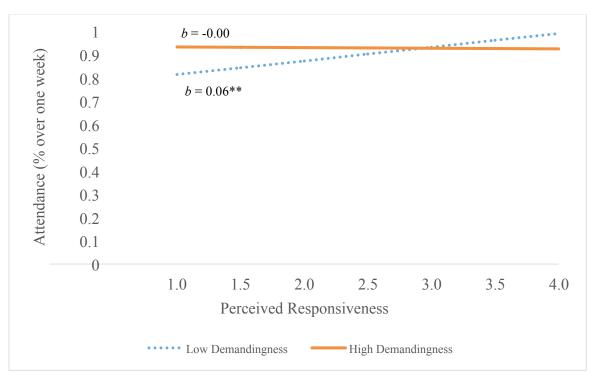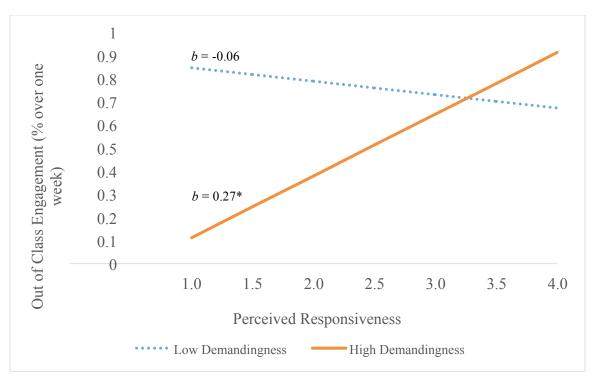*Figure 3*. Demandingness * responsiveness predicting attendance, *p < .05, **p < .01.

Figure 4. Demandingness * responsiveness predicting out-of-class engagement, *p* < .05, **p* < .01.