This study investigated whether generational status and concern with family would moderate the effect of personal goals and goal structures on high school students' self-regulation and English achievement. Participants included first-, second-, and third-generation Americans who completed questionnaires examining personal goal orientations, perceived classroom goal structures, and self-regulation. There were significant differences between the generational status groups on all dependent variables. English achievement, perceived mastery goals, perceived mastery classroom goal structure, and sense of family obligation significantly predicted self-regulation in English. There was no association between self-regulation and performance goals or performance goal structures. Girls had higher grades than boys, and first-generation students had higher grades than second-generation students. Personal mastery and performance approach goals positively related to achievement. The positive association between mastery goal structure and self-regulation was stronger among students who felt a strong family obligation. The negative relationship between perceived performance goal structure in the classroom was weaker among students with a stronger sense of family obligation. The positive association of mastery with self-regulation was weakest for more recent immigrants. The positive relationship between English achievement and performance approach goals was strongest among students with a weak sense of family. (Contains 15 references.) (SM)
Differences Between Students in The Consequences of Goals and Goal Structures:
The Role of Culture and Family Obligation

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Santa Clara University

This research was funded by a grant from the W. T. Grant Foundation.
Achievement goal theory has become one of the most prominent theories of achievement motivation in the field today (Weiner, 1992). For the most part, goal theory research, like motivation research more generally, has been conducted with Caucasian samples, and potential differences among students in the adoption and function of achievement goals have not been systematically explored (Graham, 1992). The purpose of this study was to examine whether students differed in their achievement goal orientations, their perceptions of the goals emphasized in their classrooms, and the relations among goals, goal structures, self-regulation, and achievement according to their immigration status and an important cultural variable: sense of family obligation.

Goal theory posits that students perceive there to be different reasons for achievement striving in school. The particular reason that students endorse in a given achievement situation influences their level of effort, persistence, cognitive engagement, and affective reaction to success and failure. Three purposes of achievement, or goals, have been examined most: the purpose developing competence (mastery goals), the purpose of demonstrating superior ability relative to others (performance-approach goals), and the purpose of avoiding appearing less able than others (performance-avoid goals). The particular goals students pursue in any achievement situation are believed to be influenced in part by the goals that are made salient in the achievement setting (e.g., the classroom). These situational goal stresses are called "goal structures" (Ames, 1992).

Goal theorists have tended, with a few notable exceptions, to focus on whole-group examinations of goals. That is, they have generally examined the consequences of holding a particular goal orientation among entire samples, rather than searching for different effects of goals among different sub-groups within the sample. One exception to this general trend is the examination of different effects of performance goals on students with high and low perceptions of
ability (e.g., Elliott and Dweck, 1988). More recently, some researchers have found that performance goals may have different effects for boys and girls (Urdan, 1997a) and for African American and Caucasian students (Midgley, Arunkumar & Urdan, 1996).

Some goal theorists have suggested that goals and perceived goal structures, particularly performance goals and goal structures, may have different effects on students of different cultural backgrounds (e.g., Urdan, 1997b). For example, performance goals, which emphasize outperforming others, may have different effects for students from cultures that value competition and individual achievement than for those from cultures that emphasize group cohesion (Markus & Kitayama, 1991). Similarly, students in a classroom that emphasizes performance goals (i.e., a performance goal structure) may respond to that goal structure differently depending on the cultural value placed on demonstrating superior ability by different students.

One way that children of different cultures may differ is in their sense of family obligation and relatedness (Fuligni & Tseng, 1999). Students who strive to succeed in school so they will make their families proud and be better prepared to provide for them in the future may think about competition and appearing able differently than students who are more focused on personal achievement and recognition. When students do not want to appear academically unable (performance-avoid goal) because it will bring shame upon the family, the effect of that goal may be different than for students who are more concerned with avoiding personal shame. In this study, we explore whether generational status and a concern with family moderates the effect of personal goals and goal structures on self-regulation and achievement in English.

Method

The sample consisted of 731 students from three ethnically diverse high schools in California. Twenty-three percent of the sample (165) were born outside of the United States (1st
generation), and 49% (335) were born in the United States to immigrant mothers (2nd generation). The remaining participants (N = 231, 28%) were born in the United States to mothers that were also born in the U.S. and were therefore at least third generation U.S. residents (3rd+ generation).

The participants completed questionnaires administered in their English classrooms by trained research assistants. The surveys were written in Spanish and English and included items measuring personal goal orientations (mastery, performance-approach, performance-avoid), perceived classroom goal structures (mastery and performance) and self-regulation. The personal goal orientation items were taken from the Patterns of Adaptive Learning Survey (PALS; Midgley et al., 2000) and were adapted to be specific to the domain of English. The classroom goal structure items were developed by the authors and were validated in a pilot study with a different sample of approximately 500 high school students (Urdan & Giancarlo, 2000). The self-regulation items were adapted from Wolters (2000). All of these measures had acceptable internal reliability coefficients with this sample (Cronbach's alphas greater than .80). Sample items for these scales are presented in the appendix. A family orientation scale developed for this study included five items such as "An important reason that I try to do well in school is to please my parents" and "I want to do well in school so that I can be better prepared to take care of my family." This scale also had an acceptable alpha (.78). All of the items on the survey employed a 5-point scale (1 = "Not at all true", 5 = "Very true"). The survey also had questions asking students in which country they were born and in which country their mothers were born. Participants' English grades were collected from school records.

Results

Our first research question was whether first, second, and third+ generation high school students differed in their personal achievement goals, perceptions of the classroom goal structure,
self-regulation, and achievement in their English/Language Arts classrooms. One-way analyses of covariance (ANCOVAs) were conducted for each dependent variable using students’ grade in their English class for the first semester and mother’s education level as the covariates for all analyses (except the analysis involving English grade and mother’s education level as the dependent variables). The unadjusted means and standard deviations and the adjusted $F$ value for each analysis are presented in Table 1.

As the statistics in Table 1 indicate, there were significant differences between the generational status groups on all of the dependent variables. In general, the first generation students tended to score highest on all of the performance and motivational variables despite having significantly less educated mothers. Those students whose families had lived in the United States the longest (i.e., third+ generation students) were, on average, the lowest achievers and scored the lowest on all of the motivational and performance variables, although their scores were often not significantly different from those of the second generation students. Interestingly, first generation students scored higher on both the performance-approach and performance-avoidance goal orientations, as well both the perceived classroom mastery and performance goal structure constructs.

Our primary research question was whether personal goal orientations and goal structures were associated with self-regulation and achievement in high school English classrooms differently depending on the generational status of the student and the degree to which students felt a sense of obligation to the family. To examine this question, we conducted hierarchical multiple regression analyses. In the first step of the analyses we entered demographic variables (mother's level of education, gender of student, the generational status of the student), personal goal orientations and classroom goal structure variables, and the family obligation variable. In the next and final step,
interaction terms were entered into the equation. For the interactions involving the sense of family obligation, product interaction terms were created by combining mean-centered scores on the family obligation variable with scores on each of the goal orientation and classroom goal structure variables, creating five interaction terms (see Jaccard, Turrisi & Wan, 1990, for a description of this technique). To create the interaction terms involving generational status, we first created a dichotomous "immigration" variable by placing third+ generation students in one group (assigned a value of 0) and combining the first and second generation students into the other group (assigned a value of 1). Product interaction terms were then created by combining each of the goal and goal structure variables with the dichotomous immigrant variable. For the analysis with self-regulation as the dependent variable, students' grade in their English class was also included in the regression model. The regression coefficients and t values for these regression analyses are presented in Table 2.

The results of the analysis with self-regulation as the dependent variable revealed that achievement in English (i.e., English grade), personal mastery goals, perceived mastery classroom goal structure, and a sense of family obligation all significantly predicted self-regulation in English. Specifically, higher achievers were more self-regulating than lower achievers and students with strong mastery goal orientations, a strong perception of a mastery goal structure, and strong family obligation were more self-regulating than those low in these three variables. There was no association between self-regulation and performance goals or performance goal structures.

When we regressed students' grades in their English class on our set of predictor variables we found that girls had higher grades than boys, first-generation students had higher grades than did second-generation students, and that personal mastery and performance-approach goals were positively related to achievement. Interestingly, classroom performance goal structure was
negatively associated with achievement in English. A sense of family obligation was also positively associated with English grades.

Interactions

To directly examine our question of whether the association between personal achievement goals, classroom goal structures, and our two dependent variables (English achievement and self-regulation) is moderated by generational status or sense of family obligation, we must examine the regression coefficients for the interaction terms. Because there is a high degree of multicollinearity among the product-term interaction variables, we had to examine only one interaction term at a time. This strategy produced five significant interactions for the regression analysis involving self-regulation, two for family obligation interaction and three for generational status. First, our interaction results indicate that the positive relationship between a perceived classroom mastery goal orientation and self-regulation was accentuated by a significant family obligation X classroom mastery goal structure interaction ($\beta = .08, p < .01$). In other words, the main effect of the perceived classroom mastery goal structure on self-regulation already indicated that those students who perceive a stronger emphasis on mastery goals in their English classroom were more likely to report using self-regulation strategies than those students who perceived less emphasis on mastery goals in the classroom. The interaction tells us that the positive association between mastery goal structure and self-regulation was stronger among those students who were also strong in their sense of family obligation. In contrast, the negative relationship between a perceived performance goal structure in the classroom was weaker among students who had a stronger sense of family obligation.

The significant interactions involving the comparisons of students from immigrant families with third+ generation students in the self-regulation analyses the association between self-
regulation and personal achievement goals differed between students whose families had more recently immigrated and those who had been here for at least three generations. Specifically, these interactions indicate that the positive association of mastery with self-regulation is weaker for more recent immigrants than for third+ generation students. In addition, the null relationship between both types of performance goals and self-regulation is actually a negative relationship for more recent immigrants and null only for the third+ generation students.

For the analysis involving English grade as the dependent variable, there were two significant interactions. First, there was a significant, negative performance-avoidance goal X family obligation interaction ($\beta = -.11$). This interaction indicates that for those students with a stronger sense of family obligation, the association between achievement and performance-goals is negative, whereas for students with a weaker sense of family obligation this relationship between achievement and performance-avoidance goals is null. Second, there was a significant performance-approach goals X family obligation interaction ($\beta = -.11, p < .01$). This interaction indicates that the positive relationship between English achievement and performance-approach goals is strongest among students with a weak sense of family obligation and weaker among students with a stronger sense of family obligation.

**Discussion**

Taken together, the results of these analyses suggest that immigrant students are performing better than native students in their English classes and that they have a stronger sense of obligation to the family. These results support the findings of others who have compared native and immigrant students (e.g., Fuligni, 1997; Suarez-Orosco, 1991). In addition, our results indicate that first generation students are stronger in their endorsement of both mastery and performance goals, including performance-avoidance goals, than are second and third+ generation students. Moreover,
first generation students are more likely than less recent immigrants to perceive their English classrooms as stronger in their emphasis on both mastery and performance goal structures. One possible interpretation of these data is that more recent immigrants have some sort of response bias and simply tend to agree with survey items more often than less recent immigrants. Such a pattern of socially desirable responding is always a question with survey research, and is something that we have addressed in our latest wave of data with this sample (we are currently analyzing these data).

A different interpretation of our results is that personal goals and goal structures may operate differently for different students. For example, goal theorists have long argued that performance goals, with their emphasis on outperforming others and demonstrating ability, may have more detrimental effects for students who doubt their abilities than for those students who perceive themselves to be more able than others (e.g., Dweck & Leggett, 1988). Similarly, a small body of research suggests that perceived school (Maehr & Fyans, 1989) and classroom (Urdan, Kneisel, & Mason, 1999) goal structures may be interpreted and related to motivational and performance outcomes differently for different students according to such factors as the ethnicity, age, and achievement level of the student.

Data supporting this second interpretation may be found in the results of our regression analyses. These results suggest that personal goal orientations and classroom goal structures operate differently for students with different values and with different degrees of removal from their native cultures. For students with a strong sense of family obligation, a concern with outperforming peers (performance-approach goals) and with being outperformed by peers (performance-avoidance goals) is negatively associated with achievement in English whereas the opposite is true for students with a weaker family orientation. Such social comparison goals may have a null or facilitative effect on performance in the classroom when pursued for individual
purposes and an inhibitory effect when associated with family goals. If we consider the family obligation variable to be a rough assessment of students' collective, or interdependent, sense of self, then it makes sense that individualistically oriented goals such as performance goals may have a more debilitating effect for those students with collectivist, rather than individualistic, concerns (Markus & Kitayama, 1991).

Similarly, students with stronger family relatedness motives appear to respond differently to classroom goal structures, with the family obligation accentuating the positive effects of a perceived classroom mastery goal structure on self-regulation. The lack of association between self-regulation and a perceived classroom performance goal structure for those with a strong family obligation becomes a negative association for those students less concerned with helping and bringing honor to the family.

The three significant interactions involving the dichotomous immigrant status variable in the self-regulation regressions all indicate that the association between self-regulation and achievement goals is more negative for more recent immigrants than it is for third+ generation students. Mastery goals, while positively related to self-regulation for all students, is somewhat more weakly related among more recent immigrants than for third+ generation students. These interactions also suggest that both performance-approach and performance-avoidance goals are negatively related to self-regulation for first- and second-generation students but unrelated to self-regulation for third+ generation students. These results for performance goals are parallel to the performance goals X family obligation interactions found on achievement in English. Because most of the immigrants in this study came from Asian or Latin American countries, both of which are considered to be stronger in their emphasis on collectivist values than is the dominant American culture, these interaction effects involving performance goals may indicate that the longer families
live in the United States, the more removed they become from their native, more collectivist roots, and the more negative the effects of individualistically oriented performance goals.

Of course, these conclusions and interpretations must be tempered by several limitations to the study. First, as mentioned earlier, it is possible that students from different cultures or of different generational status may have responded in more or less socially desirable ways. Such differences may have skewed our results, a possibility that we will be able to explore soon with our most recently collected data. Second, our data analysis strategy clearly oversimplified the picture. By examining one interaction term at a time, we probably produced more significant interactions that we would have found had we been able to explore several interaction terms simultaneously. Perhaps the optimal data analysis strategy would be to conduct multi-sample structural equation modeling. We plan to conduct such analyses in the near future. These multi-sample comparisons will allow us to determine whether the relations among our independent and dependent variables (i.e., goals and achievement, goals and self-regulation) are equally strong for each of our generational groups while simultaneously considering the influence of family obligation.

Despite these limitations, the results found in this study suggest that there may well be differences between students with different, perhaps culturally influenced, values, and that these values may be altered with each successive generation that lives in the United States. These differences may affect both the adoption and influence of achievement goals and goal structures on self-regulation, achievement, and perhaps other motivational and behavioral outcomes. The potential differences among students in the perception, adoption, and operation of goals and goal structures suggest that a full understanding of achievement goals and their influence may not be gained until and unless researchers include a broad range of students and consider the possible effects of culturally defined values on achievement goals.
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Sage.
Appendix

Sample items from survey

Mastery goals
“It’s important to me that I thoroughly understand the work in this class.”

Performance-approach goals
“I want to do better than other students in this class.”

Performance-avoidance goals
“It is important to me that I do not do worse than other students in this class.”

Classroom mastery goal structure
“In this class, mistakes are seen as part of the learning process.”

Classroom performance goal structure
“In this class, there is a lot of competition among students.”

Self-regulation
“I try to adapt how I do my English assignments to fit with what the teacher wants or expects.”

Family obligation
“The main reason I try to do well in school is to bring honor to my family.”
Table 1

Means, standard deviations, and *F values for ANCOVA analyses including English grade and Mother’s level of education as covariates (N = 731).

<table>
<thead>
<tr>
<th></th>
<th>1st Generation N = 165</th>
<th>2nd Generation N = 335</th>
<th>3rd+ Generation N = 231</th>
<th>F</th>
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<td>9.00 *</td>
<td>8.59 a</td>
<td>7.18 b</td>
<td>18.44***</td>
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<td></td>
<td>2.85</td>
<td>3.34</td>
<td>3.47</td>
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<td>Mother’s education level</td>
<td>3.49 a</td>
<td>3.61 ab</td>
<td>3.87 b</td>
<td>5.01**</td>
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<td></td>
<td>1.44</td>
<td>1.47</td>
<td>1.02</td>
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<td>Mastery goals</td>
<td>3.90 a</td>
<td>3.70 b</td>
<td>3.54 b</td>
<td>7.54**</td>
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<tr>
<td></td>
<td>.77</td>
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<td>.73</td>
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<td>Performance-approach goals</td>
<td>2.88 a</td>
<td>2.70 b</td>
<td>2.53 b</td>
<td>9.14**</td>
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<tr>
<td></td>
<td>.95</td>
<td>.88</td>
<td>.95</td>
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<tr>
<td>Performance-avoidance goals</td>
<td>2.65 a</td>
<td>2.45 b</td>
<td>2.24 c</td>
<td>14.47***</td>
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<tr>
<td></td>
<td>.87</td>
<td>.93</td>
<td>.93</td>
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<td>Classroom mastery goal structure</td>
<td>3.67 a</td>
<td>3.39 b</td>
<td>3.36 b</td>
<td>11.07***</td>
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<tr>
<td></td>
<td>.81</td>
<td>.78</td>
<td>.78</td>
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<td>Classroom performance goal structure</td>
<td>2.99 a</td>
<td>2.78 b</td>
<td>2.74 b</td>
<td>9.06**</td>
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<td></td>
<td>.77</td>
<td>.83</td>
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<td>Family obligation</td>
<td>4.28 a</td>
<td>4.16 a</td>
<td>3.81 b</td>
<td>18.64***</td>
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<td>.66</td>
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<tr>
<td>Self-regulation</td>
<td>3.59 a</td>
<td>3.39 b</td>
<td>3.29 b</td>
<td>4.50*</td>
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<td></td>
<td>.73</td>
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<td>.81</td>
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Notes: * indicates *p < .05, ** p < .01, and *** p < .001. Groups with different superscripts indicate significant differences at the *p < .05 level using both Tukey and Scheffe contrasts. English grade was scored on a 13-point scale (1 = F and 13 = A+). Mother’s education level ranged from 1 = “Did not begin high school” to 6 = “Advanced degree.”
### Table 2

Regression results ($N = 731$).

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<td>R-squared</td>
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Notes. * indicates $p < .05$, ** $p < .01$, *** $p < .001$. First and second generation coded 0 = not first (second) generation, 1 = first (second) generation. Immigrant coded 0 = second and third generation, 1 = first generation.
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