Students' experiences of home–school dissonance: The role of school academic culture and perceptions of classroom goal structures[☆]

Revathy Kumar [*]

University of Toledo, Foundations of Education, Mail Stop #923, Toledo, Ohio 43606-3390, USA

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Abstract

This paper examines stability and change during the elementary-to-middle school transition, focusing on adolescents' experiences of home–school dissonance because of real or perceived differences between home/self and values within the school context. Relationships were hypothesized between exacerbation and amelioration of dissonance, middle school mastery and performance goal practices, and students' perceptions thereof. The sample consisted of 274 African-American and 284 European-American (49% female) students. Middle school teachers ($N = 236$) provided data on school academic practices. Multilevel growth curve analysis indicated significant variance among the 10 middle schools regarding change in dissonance. Both mastery-focused middle school practices and students' perception of middle school classrooms as more performance and less mastery focused than elementary classrooms were significant predictors of change in dissonance. Path-analyses evidence pointed to the mediational role of school belonging on the relationship between perception of classroom mastery goals and dissonance. Path analyses revealed direct and indirect effects of perception of classroom performance goals on dissonance and school belonging. This paper highlights the importance of creating inclusive learning environments that minimize social comparison saliency and validate students for who they are.
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"Seldom is attention paid to a person's behavior in more than one setting or the ways in which the relation between settings can affect what happens within them" (Bronfenbrenner, 1979, p. 18). Bronfenbrenner's observation is particularly compelling when applied to the role that context plays in the development and well being of adolescents. The ease with which individuals negotiate the boundaries between a society's contexts and institutions depends on what is valued in the different contexts in which they live, how well individuals feel they fit in these different contexts and whether the participants in one context respect the values and norms of the participants in other contexts.

Many adolescents perceive little overlap between home and school cultures and feel that they do not fit in with their peers and classmates at school (Phelan, Yu, & Davidson, 1994). For these adolescents, traversing the boundary between home and school is a difficult and dissonant experience. The primary purpose of this study is to examine adolescents' feelings of home–school dissonance[1] as it relates to the academic practices that teachers report are emphasized within the school context and also as it relates to their own perceptions of the academic goal structures emphasized in the classroom contexts in elementary and middle school. Further, this paper explores the psychological processes that mediate this relationship between adolescents' perceptions of the academic climate in school and their feelings of dissonance.

1. Home–school dissonance

Students experience home–school dissonance when their integrity and adequacy are threatened because of real or perceived differences between home/self and what is valued within the school context. For example, some students whose physical appearance and characteristics differ from those of most other students in the school context may feel they do not fit in because salient and visible characteristics that set these students apart are often not valued by their classmates and teachers (Brewer, 2004; Kumar, 2003; McGuire, McGuire, Child, & Fujioka, 1978; Rosenberg, 1977). Students may also experience dissonance when the cultural values, beliefs and norms of their home contexts are incongruent with the schools' cultural values and norms. This conflict may result in cultural discontinuities between students and schools. For example, parents' behavioral expectations of their children may differ from teachers' expectations, and the disparity may arouse dissonance (Ladson-Billings, 1994; Lareau, 1996). Of course, not all differences necessarily lead to feelings of conflict and dissonance between home and school contexts.

Dissonance between home and school includes both cognitive and affective components. It incorporates an awareness of real or perceived discrepancies between home culture—a reflection of who one is—and what is valued in the school context as well as the negative emotional reaction that accompanies this awareness. It is the threat to the individual's self as the result of these differences and discrepancies, not the differences per

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[1] The term dissonance in this study refers specifically to home–school dissonance.

se, that arouses dissonance (Steele & Liu, 1983). Lowered feelings of self-worth result from the prospects of such rejection and the anxiety associated with it (Baumeister & Tice, 1990). There is evidence that students who report that they feel upset because their family is very different from their classmates' families and who are troubled because their home and school lives are two different worlds have lower self-esteem, engage in more self-deprecation, feel less hopeful about their future, are angrier and feel less academically efficacious than students who do not experience such discrepancies between home and school (Arunkumar, Midgley, & Urdan, 1999).

Home–school dissonance functions as a social phenomenon. Several studies have examined how the school's social climate and the nature of interactions within the school context influence dissonance. In his early works, Rosenberg (1962, 1977) found that students' numerical, religious or ethnic minority status in school could make school uncomfortable and alienating for them. More recent research (e.g., Bukowski & Sippola, 2001; Graham & Juvonen, 2002) provides compelling evidence that numerical and undervalued minority status places adolescents at greater risk of being victimized by their peers. Recommendations emerging from these and other studies (e.g., Gay, 2000; Ladson-Billings, 1994; Suarez-Orozco & Suarez-Orozco, 2002) call for a more positive school environment that promotes tolerance and acceptance of diversity and encourages teachers and administrators to be caring and competent.

Just what does caring and competent mean within the complex teaching and learning classroom environment? How can teachers create a positive social environment when they are engaged in the academic task of promoting learning in the classroom? As will be argued in the following pages, these two aspects of the school environment— academic and social—are not mutually exclusive. Rather, they are closely intertwined. It is important to examine whether teachers' actions and practices and whether students' perceptions of the academic climate teachers maintain in their classrooms influence other aspects of students' lives, such as their feelings of home–school dissonance. And it is hoped that a serious examination of how the academic and social environments are intertwined will contribute to ameliorating the negative feelings of those students experiencing home–school dissonance.

2. School academic culture, students' perceptions of academic goal structures and home–school dissonance

This study examines the academic culture of the learning environment within the framework of achievement goal theory proposed by Ames (1992); Maehr and Midgley (1991, 1996), and their colleagues. Central to this theory is the meaning and definition of "success" in a learning environment. Success can be defined in terms of improvement, progress, and intellectual development. Alternately, it can be defined as demonstrating one's superior ability and as being better than one's peers. These two definitions of success reflect vastly different conceptions of school success and vastly different reasons that students engage in academic activities. The practices that a school's teachers engage in convey to students the teachers' collective definition of school success.

Achievement goal theory defines school practices that encourage intellectual development through effort and engagement in challenging activities as "mastery-focused," and term school practices in which comparison and competition are the norm as "performance-focused" (Ames, 1992; Maehr & Midgley, 1991, 1996). For instance, practices such

as public honor rolls or special privileges based upon academic standing send important messages to students regarding what constitutes success in a given school (Maehr & Midgley, 1991; Midgley, 1993). In a performance-focused school environment, the nature of the task is not the issue; rather, the focus is on student performance, particularly relative to others. Thus, one of the main distinctions between mastery- and performance-focused environments is focus on the task versus a focus on the self in comparison to others in the environment.

Mastery-focused learning environments focus on student improvement and mastery. These environments are designed to create a community of learners in an atmosphere of mutual respect. An environment that promotes respect for and openness toward others' ideas and ways of thinking is more likely to encourage students and teachers to be less judgmental of others whose ideas, values, and cultural norms are different from theirs. Thus, a mastery-focused academic culture, unlike a performance-focused one, is likely to be beneficial for students at risk of experiencing home–school dissonance.

Recent evidence indicates that evaluative conditions in an academic context heighten self-awareness of one's social identity, particularly ability stereotypes associated with this identity (Steele, 1997). The current study proposes to extend the implications of this theory. Specifically, it proposes to examine whether performance-focused practices in schools in which evaluations and social comparisons are the norm not only increase awareness of ability stereotypes—defined by group membership, but also intensify the saliency of other discrepancies between one's social attributes and what is valued in the school context to exacerbate feelings of home–school dissonance.

While the school-level practices convey the academic goal structures—mastery and performance—at the school level, how students perceive these practices within their classrooms is a more subjective, but nonetheless important, experience, since their perception of the classroom academic climate in terms of mastery and performance goal structures is an important aspect of their psychological environment within the classroom (Maehr, 1991). Findings from earlier studies document the more positive academic (e.g., Blumenfeld, Puro, & Mergendoller, 1992; Church, Elliot, & Gable, 2001; Greene, Miller, Crowson, Duke, & Akey, 2004), affective (e.g., Kaplan & Midgley, 1999; Ryan, Gheen, & Midgley, 1998; Grant & Dweck, 2003), and behavioral (e.g., Kaplan, Gheen, & Midgley, 2002; Turner et al., 2002) outcomes associated with perceiving the classroom environment as mastery-focused. Earlier research also documents and the more negative affective (L. Anderman, 1999) and behavioral (Turner et al., 2002) outcomes including disaffection for school (Kumar, Gheen, & Kaplan, 2002) associated with perceiving the classroom environment as performance-focused.

Research indicates, perceiving the classroom as performance-focused is associated with heightened feelings of self-consciousness (Roeser, Midgley, & Urdan, 1996), and poor self-image (Eccles et al., 1993; Eccles & Midgley, 1989). This suggests that perception of social comparisons within a performance-focused environment brings to the fore social stereotypes and other discrepancies associated with the self in the school context. Therefore, while perceiving learning environments as mastery-focused may provide a sense of validation and affirmation (Kumar, 2004), perceiving learning environments as performance-focused may increase an awareness of not only of one's personal shortcomings but also possibly of stereotypes and shortcomings associated with one's social attributes. The plausibility of this hypothesis is examined based on data obtained from fifth grade elementary school students.

While no prior research has examined the relationship between perceived achievement goals and dissonance, based on the pattern of findings associated with perceiving the classroom as mastery-focused, it is hypothesized that perceiving the classroom as mastery-focused will be associated with amelioration of home–school dissonance and perceiving the classroom as performance-focused will be associated with exacerbation of home–school dissonance.

3. Transition to middle school and change in home–school dissonance

A comparison of the academic practices in middle schools and in elementary schools indicates that middle schools, in general, are more performance-focused and less mastery-focused than elementary schools (Anderman & Maehr, 1994; Anderman & Midgley, 1997). There are several reasons for this. First, most middle schools use academic ability tracking more frequently than do elementary schools. This practice heightens social comparison—a comparison that unduly disadvantages students in the lower academic tracks. Second, middle school teachers, in contrast to elementary school teachers, use more rigorous grading criteria and issue more frequent public evaluations of class work, creating a classroom environment of social comparison (Eccles & Midgley, 1989). Third, due to the departmentalized nature of middle schools, teacher–student relationships also deteriorate upon transition from elementary to middle school (Feldlaufer, Midgley, & Eccles, 1988; Midgley, Feldlaufer, & Eccles, 1988). Thus we see that many middle school academic practices result in learning environments that can have a detrimental effect on adolescents' well being.

Such environments may prove even more difficult for adolescents already at risk for experiencing dissonance. For these adolescents, increased emphasis on social comparisons is likely to sharpen awareness of other differences that exist between themselves and their peers. Further, the larger and less personal nature of middle school as compared to elementary school may increase feelings of "not fitting in" and of loneliness and anonymity that these adolescents experience. Therefore, it is hypothesized that adolescents moving into middle schools dominated by performance-focused practices are likely to experience an increase in feelings of dissonance; while adolescents fortunate enough to move into more mastery-focused middle schools are less likely to experience such a downturn.

Students' perceptions of classroom goal structures are also likely to change upon transition from elementary school to middle school. Longitudinal studies have linked changes in perceptions of the classroom goal structures from elementary to middle school to changes in cognition, affect, and academic performance among students (e.g., Hirsch & Rapkin, 1987; Seidman, Allen, Aber, Mitchell, & Feinman, 1994; Urdan, Midgley, & Anderman, 1998). Perception of an emphasis on performance goals in middle school classrooms as compared to elementary school classrooms was associated with an increase in negative affect and the use of projective and denial coping strategies to deal with failure. However, perception of greater emphasis on mastery goals in middle school classrooms as compared to elementary school classrooms was associated with an increase in positive affect, use of positive coping strategies with failure and increased self-efficacy (L. Anderman, 1999; Kaplan & Midgley, 1999; Urdan & Midgley, 2000).

Again, based on the pattern of findings associated with changes in perceptions of the classroom goal structures, it is hypothesized that students who perceive their middle school classrooms as more mastery-focused compared to their elementary school classrooms are likely to

experience a decrease in their feelings of dissonance, and students who perceive their middle school classrooms as more performance-focused than their elementary school classrooms are likely to experience an increase in their feelings of dissonance.

3.1. Relationship between students' perception of goal structures and dissonance: The mediating role of sense of school belonging

The arguments presented thus far suggest a direct relationship between the academic goal and interpersonal dimensions involving relationship of home/self (in terms of social attributes) and others in the school context. A review of literature on sense of belonging to school and achievement goals (L. Anderman, 1999; Arunkumar & Maehr, 1997; Finn, 1989; Goodenow, 1993; Roeser et al., 1996) suggests that sense of belonging to school may mediate the relationship between academic goal structures and home–school dissonance.

When students are pitted against one another, as they are in a performance-focused learning environment, it is more difficult to create a sense of connectedness with peers and to experience a sense of belonging to school in general. A mastery-focused learning environment, on the other hand, aims to create a community of learners. In such an environment, the shared purpose is conducive to creating emotional bonds among peers and classmates. There is evidence that students' perception of an emphasis on mastery goals in school is related to their adoption of personal mastery goals, which in turn is related to their feelings of belonging to school (Roeser et al., 1996). Further evidence indicates that their perception of an emphasis on performance goals in school is negatively related to their feelings of belonging in school (Arunkumar & Maehr, 1997). Another study using hierarchical linear modeling found that school performance goal structure, as reported by teachers, was related negatively to sixth grade students' sense of school belonging (Arunkumar & Bryant, 1998).

The risk and resilience literature suggests that students who do not identify with school are more likely to drop out (Finn, 1989) and to engage in negative behaviors (Brooks, Nomura, & Cohen, 1989). Phelan and her colleagues found that students who perceived the barriers between home and school to be insurmountable also reported their interactions with teachers and peers as negative and alienating (Phelan, Davidson, & Yu, 1996), suggesting that lowered feelings of membership to the school community are associated with feelings of dissonance between home and school. Based on this evidence and on the relationship between mastery- and performance-focused goals and sense of school belonging, it is hypothesized that sense of school belonging may mediate the relationship between students' perceptions of classroom goal structures—mastery and performance—and home–school dissonance. Thus, when students perceive their classrooms as being mastery-focused, they are likely to feel a greater sense of belonging to school, which in turn ameliorates some dissonance. And when they perceive their classroom as performance-focused, their sense of belonging to school is lowered, thereby exacerbating dissonance (Fig. 1). While the hypothesized direction of relationship includes sense of belonging to school as the factor mediating the relationship between achievement goals and dissonance, it is acknowledged that reciprocal causation between feelings of home–school dissonance and sense of school belonging may occur, particularly in a performance-focused environment. Therefore alternate models with dissonance as the factor mediating the relationship between achievement goals and sense of belonging to school will also be tested.
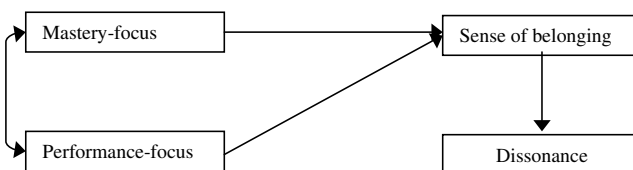
Fig. 1. Hypothesized model: Sense of school belonging mediating the relation between sixth-grade students' perceptions of classroom achievement goal structures and home–school dissonance.

3.2. Summary

In summary, it is hypothesized that there is a direct relationship between mastery and performance achievement goal structures emphasized in schools, and students' perceptions of classroom goals as mastery- or performance-focused on their feelings of dissonance between home and school. That is, adolescents will experience higher levels of dissonance when they perceive that their elementary classrooms (fifth grade) are performance-focused and will experience lower levels of dissonance when they perceive that their elementary classrooms are mastery-focused. When adolescents move from elementary to middle schools, feelings of dissonance will be exacerbated if they perceive their middle school classrooms (sixth grade) as more performance-focused than their elementary school classroom. However, it will be ameliorated when they perceive their middle school classrooms as more mastery-focused than their elementary school classrooms. Further, exacerbation or amelioration of dissonance upon transition to middle school will also be related to middle school teachers' report of practices associated with learning and achievement. If school academic practices, as reported by teachers, are more mastery oriented, students are likely to experience a decrease in dissonance upon transition to middle school. On the other hand, if school academic practices reflect a performance orientation, then students are likely to experience an increase in dissonance upon transition to middle school. When considering these relationships, statistical controls for student characteristics, that is, their achievement history in terms of their year-end grade point average, ethnicity, socioeconomic status, and gender will be included.

Additionally, this study also explores whether students' sense of belonging to middle school mediates the relationship between their perception of achievement goal structures in the classroom and their feelings of dissonance between home and school in the sixth grade.

4. Method

4.1. Participants

4.1.1. Student sample

This three-year longitudinal study is part of a larger study examining changes in students' patterns of learning as they move from the fifth grade in elementary school, through middle school, to the ninth grade in high school. The students participating in this study lived in four ethnically and economically diverse school districts and moved from 21 elementary schools in the fifth grade to 10 middle schools in the sixth grade. The sample for

this particular study included 268 male and 290 female students. Of the 558 students, 274 were African American and 284 European American. Socioeconomic diversity existed within both minority and non-minority student groups. Forty-six percent of African American students and 37% of European American students were eligible to participate in the free lunch program, but the remaining students were not eligible to participate in the free or reduced-fee lunch program.

4.1.2. Teacher sample

Surveys were administered to middle school teachers who taught core courses such as science, math, social studies, and language arts. Seventy-four percent of the middle school teachers ($N = 236$) completed the survey. Seventy-two percent of this sample of teachers was European American, 24% African-American, and the rest were from other ethnic backgrounds. Sixty-six percent of the teachers were female.

4.2. Measures

Sample items and reliabilities for all student and teacher measures are presented in Appendix A.

4.2.1. Student measures

All items on the student survey were rated on a five-point scale ranging from 1 (*Not at all true*) to 5 (*Very true*). Reliabilities for all student measures were within an acceptable range of .70 to .80 and varied slightly (differences ranging from .01 to .03) across years. The reliability of all measures varied little (differences ranging from .00 to .05) across subgroups—males and females and minority and non-minority students—within each year.

4.2.1.1. Dissonance between home and school.   The scale measuring feelings of dissonance between home and school was constructed for an earlier study (Arunkumar et al., 1999) and based upon ethnographic research that examined dissonance in the various contexts that young adolescents experience. The items in this scale were also piloted with a small sample of fifth-grade students to ensure that they were unambiguous and easily comprehended. Piloting this scale also aided in establishing item validity, because the student sample participating in the pilot study was asked to interpret the meaning of each item in the scale. The items assess students' discomfort or negative feelings that result from differences between parents and home life, and teachers and school life. The scale demonstrated good internal consistency with an alpha that averaged .75 across samples and years, factoring separately from other measures of disengagement and disaffection from school (e.g., skeptical beliefs about the value and relevance of education).

The construct validity of the scale was determined based on the interviews conducted with students who scored high on this scale. (Students who did not experience dissonance were not interviewed.) All 49 students interviewed indicated during the course of the interview that they experienced dissonance in school either because of a clash in values, beliefs and behaviors between home and school, or because they felt very different from most of their peers in school. Several of the students interviewed also experienced social rejection from their peers in school (Kumar, 2003; Kumar et al., 2002). Another study (Arunkumar et al., 1999) focused on students who experienced either high dissonance (top third on the dissonance scale) or low dissonance (bottom third on the scale) and

found that high-dissonance students were angrier and more self-deprecating, had a lower self-esteem, were less hopeful, felt less academically efficacious and had a lower GPA than low-dissonance students, suggesting that the scale also has predictive validity.

4.2.1.2. Perceptions of classroom goal structures. Scales assessing students' perceptions of the goal structures in their classrooms (perception of a mastery-goal structure and perception of a performance-goal structure) were also included. These two measures were included only in the survey given to students in fifth and sixth grades. Both scales are from the Patterns of Adaptive Learning Survey (PALS), developed by Midgley and her colleagues (Midgley et al., 1996). To establish the validity of these measures, observational data identifying goal-related messages and practices salient in the classroom were collected from classrooms were survey data had already been collected (L. Anderman, Patrick, Hruda, & Linnenbrink, 2002; Patrick, Anderman, Ryan, Edelin, & Midgley, 2001). In addition teachers themselves were asked about goal related approaches to instruction that could reflect an emphasis on mastery goals (e.g., ''I make a special effort to recognize students' individual progress, even if they are below grade level'') and performance goals (e.g., ''I help students understand how their performance compares to others'').

Studies combining these two sources of information have found positive correlation between students' and teachers' reports of the classroom goal structures (Urdan et al., 1998). In addition, several studies that include students' perceptions of the mastery- and performance-goal structure in the classroom (e.g., Anderman, 1999; Kaplan & Midgley, 1999; Midgley & Urdan, 2001; Urdan et al., 1998) provide evidence of scale reliability and validity.

Perception of a mastery-goal structure in the classroom was measured on a five-item scale. This scale assesses the extent to which students perceive that their teachers emphasize learning and effort. Perception of a performance goal structure was measured on a four-item scale. This scale assesses the extent to which students perceive that their teachers emphasize relative ability and social comparison. Both scales have been used with several different samples of adolescents from various ethnic and socioeconomic backgrounds and have been found both reliable and valid (e.g., Anderman & Midgley, 1997; Arunkumar & Maehr, 1997).

4.2.1.3. Sense of school belonging. Guided by the work of Wehlage and his colleagues (Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989), Goodenow (1993) developed an 18-item student questionnaire to assess students' sense of school membership. Hagborg (1998) found that the scale was composed of three factors labeled belonging, rejection and acceptance. Hagborg (1998) established reliability, criterion and construct validity through a series of contrast-group comparisons and correlations involving school attendance, school location (urban versus suburban), student social status, grades, homework time, social-emotional distress and students' perceptions of school climate. The present study includes five items from the belonging sub-scale. These were based on factor analysis conducted on data collected from a sample of 181 eighth-grade students in an earlier study (Arunkumar & Maehr, 1997). This five-item scale assesses students' feelings of membership and belonging to the school community.

4.2.1.4. Grade point average. Course grades at the end of the school year were used as a measure of performance. These grades were collected from school records. Grades were

coded using a 13-point scale (1 = E, 13 = A+) for the core academic subjects (literature, language arts, math, science and social studies). An overall grade point average was computed for each student by averaging each student's grades in these core subjects. Grade point averages for both the fifth and sixth grades were included in the analyses.

4.2.1.5. Socioeconomic status.   Student participation in the free and reduced-fee lunch programs was used as an indicator of socioeconomic status. Students are eligible for free and reduced-fee lunches based on level of family income and family size. Information regarding lunch subsidy was obtained from school records. Student participation in the free and reduced-fee lunch programs was coded on a three-point scale, with 1 = free lunch, 2 = reduced-fee lunch and 3 = full-priced lunch.

4.2.2. Teacher measures

Teachers rated the extent to which the learning goal structures of the school for students were mastery- and performance-oriented. The format of the items on the teacher scales was also a five-point scale ranging from 1 (*Not at all true*) to 5 (*Very true*). Data regarding school academic culture obtained from teachers correlated with principals' reports of school-related academic practices for students and teachers as well as teachers' reports of their own instructional practices (Roeser, Marachi, & Gehlbach, 2002). Based on variable-centered and person-centered analyses, they found that school goal structure, both in terms of the school learning culture for students and the school work culture for teachers, was related in conceptually consistent ways with teachers' own instructional approaches in the classroom. This suggests that teachers are shaped by and contribute to the goal structures that characterize the learning and teaching cultures in their school.

4.2.2.1. Teachers' perceptions of mastery- and performance-goal structures in school.   The seven-item scale assessing teachers' perceptions of a mastery-goal structure for students measured teachers' perceptions of whether investing effort in learning, learning from mistakes and connecting learning with students' lives are salient aspects of the school's academic culture. The four-item scale assessing teachers' perceptions of a performance-goal structure for students measures teachers' perceptions that competition, focus on extrinsic outcomes and test scores and recognition for superior achievement are salient aspects of the school's academic culture. Teachers' perceptions of each goal structure were aggregated within each school to get an overall measure of the school's mastery- and performance-goal structures.

5. Procedure

The sample was recruited when the students were in the fifth grade. Students were required to obtain parental permission to participate. Eighty-three percent of students in the targeted classrooms received permission to do so. Trained research assistants administered surveys to participating students in the students' classrooms during the spring of their fifth-, sixth- and seventh-grade years. Survey administrators read instructions and items aloud while the students read along and responded. Students were informed that this was not a test and that there were no right or wrong answers. They were also assured that their answers would be kept confidential.

Surveys were also administered to all the middle school teachers when participating students were in the sixth grade; these surveys were delivered to the school and teachers completed them individually. A prepaid mailer was enclosed with the surveys so that teachers could return them to the project office without incurring any cost.

6. Analysis and results

Two sets of analyses were conducted after a preliminary examination of the descriptive statistics and correlation among the variables. The first set of analyses—using growth curve analysis, a three-level analysis using Hierarchical Linear Modeling (Bryk & Raudenbush, 1992)—was conducted to test the *direct effect* of students' perceptions of their classroom goal structures in the fifth and sixth grades in elementary and middle school, respectively, on their feelings of home–school dissonance. It also tested the relation between middle school goal structures as reported by teachers on the developmental trajectories in home–school dissonance across the transition from elementary to middle school. The second set of analyses was conducted using LISREL (Joreskog & Sorbom, 1993) and was designed to explore the relationship among sixth-grade students' perceptions of classroom goal structures, their experiences of home–school dissonance and students' sense of belonging to school.

7. Descriptives and correlation among measures

The means and standard deviations of all the variables for the student-level variables and school-level variables are presented in Table 1 and correlation of student-level variables in Table 2. The mean level of dissonance experienced by students remained fairly constant across the three years ($M_{\text{(averaged across the three years)}} = 1.83$, $SD_{\text{(averaged across the three years)}} =$

Table 1
Means and standard deviations for student-level and school-level variables [N (students) = 558, N (teachers) = 236]

	Mean	SD
Student-level variables		
Dissonance year 1	1.82	.89
Dissonance year 2	1.86	.81
Dissonance year 3	1.82	.77
Class mastery focus, year 1	4.01	.86
Class mastery focus, year 2	3.78	.88
Class performance focus, year 1	2.83	.95
Class performance focus, year 2	2.77	.88
School belonging, year 1	3.40	1.14
School belonging, year 2	3.71	.98
GPA (grade 5)	8.24	2.40
GPA (grade 6)	7.52	2.79
School-level variables		
Middle school teachers' perceptions of school as:		
Mastery-focused	3.53	.75
Performance-focused	3.77	.61

Table 2
Correlation among student-level variables

$N = 558$	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Dissonance year 1	.												
2. Dissonance year 2	.33***	.											
3. Dissonance year 3	.45***	.44***	.										
4. Class mastery-focus year 1	−.11**	−.05	−.04	.									
5. Class mastery-focus year 2	−.07	−.13**	−.10*	.33***	.								
6. Class performance-focus year 1	.33***	.14***	.22***	−.19***	−.08	.							
7. Class performance-focus year 2	.23***	.31***	.22***	−.13**	−.17***	.37***	.						
8. School belonging year 1	−.22***	−.10**	−.06	.33***	.19***	−.31***	−.30***	.					
9. School belonging year 2	−.18***	−.22***	−.20***	.17***	.38***	−.17***	−.33***	.42***	.				
10. GPA (grade 5)	−.20***	−.19***	−.19***	.02	.03	−.13**	−.19***	.12**	.09*	.			
11. GPA (grade 6)	−.18***	−.17***	−.17***	.01	.14***	−.17***	−.24***	.10*	.16***	.62***	.		
12. Ethnicity (European-American)	−.09	−.01	−.03	−.12*	−.13**	−.21***	−.06	.15***	−.04	−.10**	−.15***	.	
13. Gender (Female)	−.09*	−.10*	−.08	.04	.12***	−.15***	−.17***	.08	.11**	.17***	.24***	−.03	.
14. Socio-economic status	−.09	−.06	−.11	−.05	−.08	−.10**	−.06	.01	−.07	.24***	.18***	.08	−.05

* $p < .05$.
** $p < .01$.
*** $p < .001$.

.82). Autocorrelations of the dissonance variable across the three years indicated that while there was some stability ($r_{12} = .33$, $r_{13} = .45$, $r_{23} = .44$) in students' feelings of dissonance across time, there was also some variability. The correlations of students' minority status, socioeconomic status and gender with dissonance were all $r = .1$ and below, for all three time points. There was a low negative relationship $r = -.22$ ($p<.001$) between sense of school belonging and dissonance in both the fifth and sixth grades. There was a positive relation between perception of the class as performance-focused and dissonance for both fifth ($r = .33$, $p<.001$) and sixth ($r = .31$, $p<.001$) grades and a low negative correlation between dissonance and perception of the class as mastery-focused in both the fifth ($r = -.11$, $p < .01$) and sixth ($r = -.13$, $p < .01$) grades.

While there was a low, but significant, positive correlation between middle school teachers' report of school performance goal structure and students' perception of classroom goal structure as performance-focused in the sixth grade ($r = .13$, $p<.001$), the correlation between middle school teachers' report of school mastery goal structure and students' perception of classroom goal structure as mastery-focused in the sixth grade was not significant ($r = .06$, ns).

7.1. Growth curve analysis: A test of direct effects of achievement goals on dissonance

The use of growth curve analysis permitted analyses to be extended to data structures that have three levels of hierarchy—that is, within-student (developmental, level 1), between-students (individual, level 2) and between-contexts (school, level 3). Thus, this method of analysis permitted the examination of (1) variability among students in their developmental trajectories; (2) variability in students' perceptions of the classroom environment at the student level; and (3) middle school characteristics and their variability at the school level. Variations among students' average level of dissonance in the fifth grade (the intercept) and changes in students' feelings of dissonance over time (slopes) at level 1 were the dependent measures to be explained by student- and school-level predictors at levels 2 and 3, respectively.

As the purpose of this study is to examine the effect of middle school practices on the change in dissonance from elementary to middle school, the analysis sequence conducted involved (1) the within-student or the unconditional model without any predictors: model 1; (2) middle school practices predicting dissonance: models 2a and 2b; (3) middle school practices and students' perceptions of the classroom goal structures predicting dissonance: model 3; and (4) middle school practices and students' perceptions of the classroom goal structures predicting dissonance controlling for student demographic characteristics: model 4. Results of these analyses are presented in Table 3.

7.2. Model 1: Within-student model examining variance in both average level of dissonance in the fifth grade and change in dissonance from elementary to middle school

The within-student model (level 1) examined whether there was a systematic pattern of deviation from the linear parameter in dissonance when students transitioned from elementary to middle school. To do this, the years were coded 0, 1, and 1, respectively, for the fifth, sixth, and seventh grades. The code "0" represented elementary school and "1" represented middle school. Preliminary analyses indicated that, on average, students experienced little change in dissonance across the transition from elementary to middle

Table 3
Relations between school academic practices, perceptions of classroom achievement goal structures, and change in dissonance from elementary to middle school

	Within student model	Middle school practices predicting dissonance		Classroom goal structures predicting dissonance	
	Model 1	Model 2a	Model 2b	Model 3	Model 4
Estimation of fixed effects					
Average l dissonance (5th gr)	−.05	−.05	−.05	−.05	.12
Between-student predictors of average dissonance (5th gr)					
Class performance (5th gr)				.32***	.28***
Class mastery (5th gr)				−.06	−.08
Gender					−.14
Ethnicity					−.05
Socioeconomic status					−.03
GPA (5th gr)					−.06***
Change in dissonance from elementary to middle school		.02	.02	.02	.11
Between-school predictors of change in dissonance					
School performance		−.04			
School mastery		−.31**	−.31**	−.32**	−.27*
Between-student predictors of change in dissonance					
Class performance (5th gr)				−.04	−.04
Difference in class performance between 5th and 6th grs				.17***	.16***
Class mastery (5th gr)				.01	.01
Difference in class mastery between 5th and 6th grs				−.07*	−.08*
Gender					.09
Ethnicity (EA)					.10
Socioeconomic status					.01
GPA (6th gr)					.01
Estimation of random effects					
Level 1: Within student variance Var	.425	.425	.425	.421	.421
Level 2: Between-student variance (5th gr) Var	.52	.52	.52	.43	.40
χ^2	1233.09***	1232.54***	1232.84***	1114.51***	1072.89***
Level 2: Between-student variance in change (5th gr to 6th gr) Var	.20	.20	.19	.18	.17
χ^2	733.01***	727.04***	725.44***	710.84***	704.82***
Level 3: Between school variance Var	.03	.01	.01	.01	.00
χ^2	21.63***	14.02*	14.08	11.57	8.08
Deviance statistic	3737.83	3733.47	3733.54	3640.15	3610.99

Note. Class mastery = Students' perception of class as mastery-focused, Class performance = Students' perception of class as mastery-focused; School mastery = Teachers' report of school practices as being mastery-focused (aggregated); School performance = Teachers' report of school practices as being performance-focused (aggregated); Gr = grade; GPA = Grade point average; Ethnicity: EA = European American.

* $p < .05$.
** $p < .01$.
*** $p < .001$.

school. However, there was significant variability among students in the change in dissonance from elementary to middle school.

To examine whether systematic changes in home–school dissonance occurred when the students moved from the sixth to the seventh grade, the years were coded 0, 0, and 1, respectively, for the fifth, sixth, and seventh grades. No significant systematic change in dissonance was found within middle school (that is, from sixth to seventh grade).

Results from the analysis of model 1 (Table 3), the within-student model (i.e., with no predictors included at levels 2 and 3), indicated that 36.2% of the total variance in home–school dissonance was due to factors within individual students. There was little change in the average level of dissonance ($\gamma_{100(\text{average change in dissonance})} = .02$, ns) from elementary to middle school. However of the total variance, 44.6% occurred between students in their initial levels of fifth grade dissonance, and 16.7% occurred between students in change in dissonance when they transitioned from elementary to middle schools. That is, there were systematic patterns of difference between students in both their average level of dissonance in the fifth grade ($\chi^2 = 1233.09$, $p<.001$) and in the change experienced in dissonance when they moved from elementary school to middle school ($\chi^2 = 733.01$, $p<.001$). Finally, this analysis also indicated that 2.5% of the total variance between students in change in dissonance was due to contextual factors ($\chi^2 = 21.63$, $p<.001$). These results suggest that the middle school environment into which students moved played some role in determining whether or not they experienced an increase or decrease in home–school dissonance.

7.3. Models 2a and 2b: School goal structures predicting change in home–school dissonance from elementary to middle school

In order to examine the effect of differences between middle school cultures on change in dissonance across the transition, middle school teachers' perceptions of an emphasis on mastery- and performance-goal structures in the school were aggregated within each of the ten middle schools and incorporated as predictors at level 3.

Results presented in Model 2a, Table 3, indicate that a mastery-goal structure in the middle school had a significant negative effect ($\gamma_{(\text{school mastery-focus})} = -.31$, $p < .01$) on the change in dissonance that students experienced when they moved into middle school, but a school performance-goal structure did not have a significant effect and was therefore excluded from subsequent models. Increase in dissonance from elementary to middle school was attenuated when the middle school goal structure reflected a high level of mastery focus (Models 2a and 2b). The difference of $\chi^2 = 4.29$ in the deviance statistic between Models 1 and 2b was significant ($p<.001$) in a χ^2 distribution with $df = 1$. This implies that the model including mastery-focused practices at the school level provided a better fit for the data than did Model 1 (Snijders & Bosker, 1999).

7.4. Models 3 and 4: Students' perception of classroom goal structures predicting average level of dissonance in elementary school and change in dissonance from elementary to middle school

Models 3 and 4 built on Model 2b to examine whether—in addition to teachers' reports of the extent of mastery-focused practices in school—students' perceptions of the classroom goal structures were also predictive of their feelings of dissonance. In Model 3, the predictor variables for average level of dissonance in elementary school (intercept)

were students' perceptions of their fifth-grade classrooms as mastery-focused and as performance-focused. Variables predicting change in dissonance from elementary to middle school (slope) included the difference in students' perception of the classroom as mastery-focused between the fifth and sixth grades (controlling for perception of the class as mastery-focused in the fifth grade) and the difference in students' perception of the classroom as performance-focused between the fifth and sixth grades (controlling for perception of the class as performance-focused in the fifth grade). One problem with using simple difference scores (difference in perceptions of the sixth-grade classroom as compared to the fifth-grade classroom) as predictors of change in dissonance from elementary to middle school is the fact that these scores are likely to be negatively correlated with students' perceptions of the classroom environment in the fifth grade. This "regression to the mean effect" is more likely for individuals who are at the extreme ends of this scale. Models 3 and 4 address this problem by including change in students' perception of the classroom environment *controlling* for their perceptions at the fifth-grade level (Cohen & Cohen, 1983; Cronbach & Furby, 1970; Newton & Rudestam, 1999; Willett & Sayer, 1994). The reliability of the two difference scores was calculated based on the reliabilities and standard deviations of the measures in the fifth and sixth grades (Linn & Slinde, 1977)[2]. The reliability of difference in students' perceptions of the classroom as mastery-focused between the fifth and sixth grades was .67, and the reliability of difference in students' perceptions of the classroom as performance-focused between the fifth and sixth grades was .78, indicating that both difference scores are reliable and that substantial variance exists in the difference scores.

Students who perceived the class as being more performance-focused ($\gamma_{\text{(performance-focus)}}$ = .32, $p < .001$) were likely to experience higher levels of dissonance in the fifth grade. However, perceiving the class as mastery-focused was not significantly predictive of students' feelings of dissonance in the fifth grade. From Model 3, Table 3, it is also seen that students experienced a systematic and significant increase in dissonance across the transition when they perceived their sixth-grade classrooms to be more performance-focused ($\gamma_{\text{(difference in performance-focus)}}$ = .17, $p < .001$) and less mastery-focused ($\gamma_{\text{(difference in mastery-focus)}}$ = $-.07$, $p < .05$) than their fifth-grade classrooms, controlling for their perception of the fifth-grade classroom as performance-focused and mastery-focused, respectively. As indicated by the significant decrease in the deviance statistic from Model 2b to Model 3 ($\chi^2 = 93.39$, $p < .001$, $df = 5$), including students' perceptions of classroom goal structures as predictors of both initial levels of dissonance and change in dissonance from elementary to middle school in Model 3 provided a better fit for the data than did Model 2b.

Model 4 built on Model 3 to include student demographic characteristics, namely gender, ethnicity and grade point average as control variables at the between-student level (i.e., level 2). That is, students' average level of dissonance and change in dissonance over

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[2] The formula for calculating the reliability of the difference scores (Linn & Slinde, 1977) was

$$\rho_{\text{DD}'} = \frac{\rho_{xx'} . \sigma_x^2 + \rho_{yy'} . \sigma_y^2 - 2\rho_{xy} . \sigma_x . \sigma_y}{\sigma_x^2 + . \sigma_y^2 - 2\rho_{xy} . \sigma_x . \sigma_y}$$

where $\rho_{xx'}$ and σ_x^2 are fifth-year reliability and variance (mastery or performance), $\rho_{yy'}$ and σ_y^2 are sixth-year reliability and variance (mastery or performance), and ρ_{xy} is the correlation between the same measure in the fifth and sixth grades.

time were modeled as a function of students' perception of their classroom goal structures, controlling for student demographic characteristics and grade point averages at the between-student level. Overall, students' demographic characteristics were not significantly predictive of students' feelings of dissonance.

The effect of school mastery-focused practices, as reported by teachers, on students' feelings of dissonance was calculated based on the results presented in Model 4, Table 3. The final equation including all the predictor variables in Model 4 is presented below:

Level 1

$Y_{tij} = \pi_{0ij\text{(within student dissonance, fifth grade)}} + \pi_{1ij}a_{1ti\text{(change in dissonance)}} + e_{tij\text{(unexplained variance within student)}}$

Level 2

$\pi_{0ij} = \beta_{00j\text{(average level of dissonance)}} + \beta_{01j\text{(perception class mastery-focused)}} + \beta_{02j\text{(perception class performance-focused)}} + \beta_{03j\text{(GPA)}} + \beta_{04j\text{(gender)}} + \beta_{05j\text{(SES)}} + \beta_{06j\text{(ethnicity)}} + r_{0ij\text{(unexplained variance between students in average levels of dissonance)}}$

$\pi_{1ij} = \beta_{10j\text{(average change in dissonance)}} + \beta_{11j\text{(perception class mastery-focused)}} + \beta_{12j\text{(difference between fifth and sixth grade in perception of class as mastery-focused)}} + \beta_{13j\text{(perception class performance-focused)}} + \beta_{14j\text{(difference between fifth and sixth grade in perception of class as performance-focused)}} + \beta_{15j\text{(GPA)}} + \beta_{16j\text{(gender)}} + \beta_{17j\text{(SES)}} + \beta_{18j\text{(ethnicity)}} + r_{1ij\text{(unexplained variance between students in change in dissonance)}}$

Level 3

$\beta_{10j} = \gamma_{100\text{(average change in dissonance)}} + \gamma_{101\text{(mastery-focused school culture)}} + U_{1j\text{(unexplained variance)}}$

The average level of dissonance experienced by students who moved into more mastery-focused middle schools (middle schools that were 1 standard deviation above the mean on the school mastery-focus scale) was 1.9 on the five-point dissonance scale as compared to 2.5 for students who moved into less mastery-focused middle schools (schools 1 standard deviation below the mean on the school mastery-focus scale), indicating that students who moved into more mastery-focused schools were likely to experience lower average levels of dissonance compared to students who moved into less mastery-focused schools.

7.5. Relationship between students' perceptions of classroom goal structures, sense of school belonging and home–school dissonance

Path analyses using LISREL 8 (Joreskog & Sorbom, 1993) with maximum likelihood estimation were conducted to test the fit of the hypothesized model and other alternative models (Kline, 1998, p. 279). Covariance matrix served as the database for the analyses. Fig. 2 presents six models along with the path coefficients and the disturbance variances. Results presented in Fig. 2 are in a standardized metric to facilitate interpretation. To determine the suitability of the models, several fit indices were used: the χ^2 statistic along with the probability and degrees of freedom as a measure of overall fit; LISREL Goodness-of-Fit Index (GFI); Bentler and Bonett's Comparative Fit Index (CFI) and the Normed Fit Index (NFI). For the GFI, CFI and NFI a value between .9 and 1.0 indicates that the model provides a good fit to the data. Hu and Bentler (1999) suggested that a cutoff value close to .95 for the CFI is needed to conclude that the fit is relatively good. A summary of these fit indices is presented in Table 4.
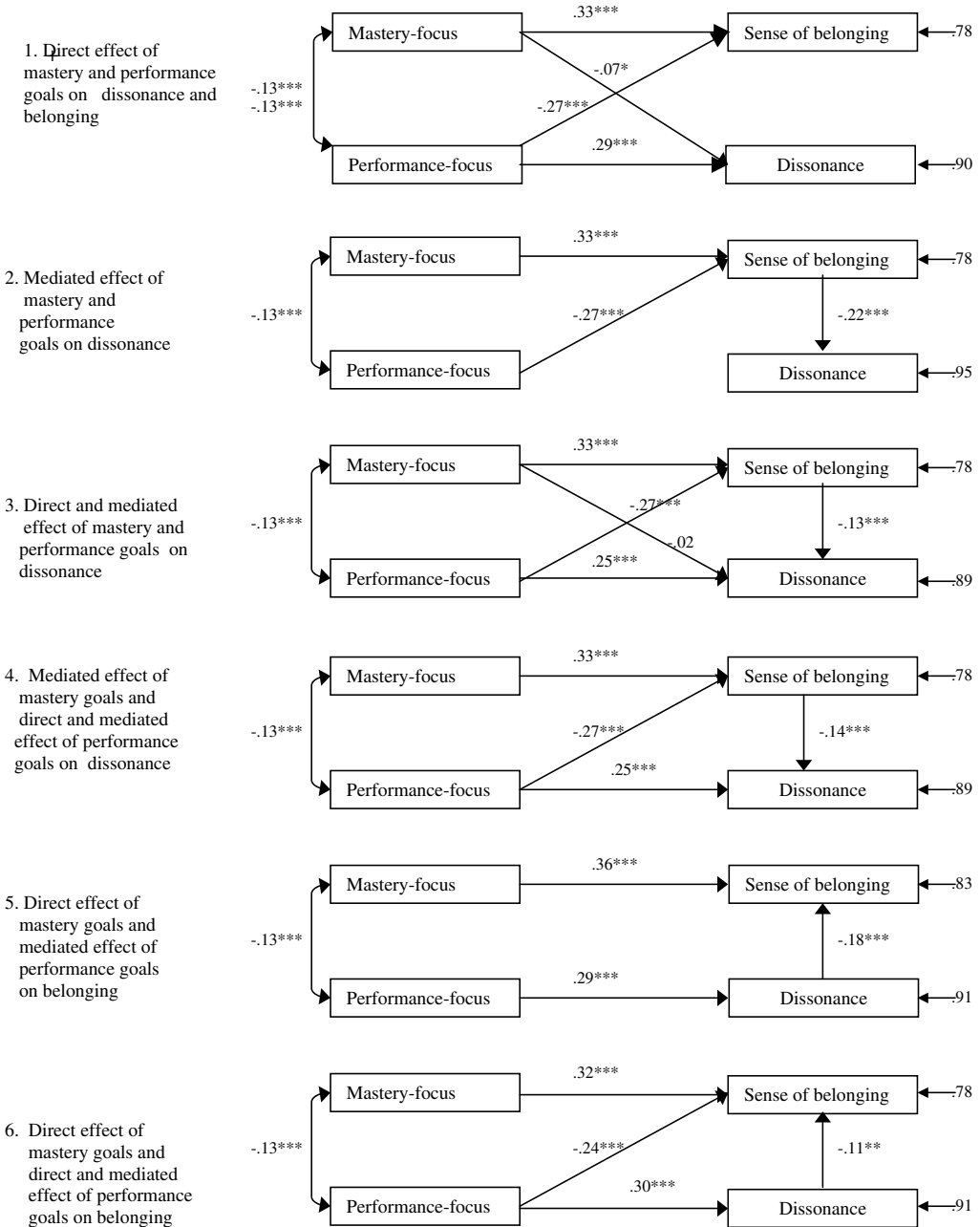
Fig. 2. Path models with standardized coefficients: Relationship among sixth-grade students' perceptions of classroom achievement goal structures, home–school dissonance, and sense of school belonging.

The first model—direct effects model—included only direct effects of perception of classroom goal structures (mastery and performance) on both sense of school belonging and dissonance. The second model in Fig. 2 was the hypothesized model, with the relation between

Table 4
Summary of Model Fit Indices

Model	χ^2	$p<$	df	GFI	NFI	CFI
1. Direct effect of mastery and performance goals on dissonance and belonging	9.27	.002	1	.99	.97	.97
2. Mediated effect of mastery and performance goals on dissonance	41.71	.001	2	.97	.85	.86
3. Direct and mediated effect of mastery and performance goals on dissonance	.00	1.000	0	perfect fit		
4. Mediated effect of mastery goals and direct and mediated effect of performance goals on dissonance	.61	.430	1	1.00	1.00	1.00
5. Direct effect of mastery goals and mediated effect of performance goals on belonging	136.52	.001	2	.91	.52	.52
6. Direct effect of mastery goals and direct and mediated effect of performance goals on belonging	3.44	.061	1	1.00	.99	.99

Note. GFI = Joreskog–Sorbom Goodness of Fit Index; NFI = Bentler–Bonett Normed Fit Index; CFI = Comparative Fit Index.

perception of goal structures and dissonance mediated by sense of school belonging. The third model was constructed to test the relative significance of the direct and mediated effects of perceptions of classroom goal structures on dissonance. As is evident from Table 4, the hypothesized model (Model 2) did not fit the data. Model 3, however, was a saturated model ($df = 0$) and therefore fit the data perfectly. A comparison of the direct effect of perception of classroom as mastery-focused on dissonance $\gamma_{21} = -.07, p < .01$ in Model 1 (Fig. 2) with its indirect effect on dissonance ($-.07, p < .001$) in Model 2 (presented in the LISREL output) suggests that the effect of perception of mastery-focused goals in the classroom on dissonance is largely mediated by their sense of school belonging. This is further supported by the non-significant direct effect ($\gamma_{21} = -.02$) and the significant indirect effect ($-.05, p < .01$) of mastery goals on dissonance, as indicated in the LISREL output for Model 3.

In Model 2, the indirect effect of perception of class as performance focused on dissonance via sense of school belonging was significant ($-.06, p < .001$). In addition, modification indices provided in the LISREL output suggested the inclusion of a direct path between students' perception of performance goal structure in the classroom and dissonance (modification index = 39.72, Model 2). As the direct effect of perception of mastery goals on dissonance was not significant, this path was excluded from subsequent models.

Model 4 included the direct effect of perception of classroom as performance-focused on dissonance, together with the indirect effects of perception of mastery- and performance-focused goals in the classroom on dissonance via sense of school belonging. This model was a significant improvement on Models 1 and 2 as evidenced by the small and non-significant χ^2 value and a value of 1.00 for the GFI, NFI and CFI (Table 3). Model 4 is nested in Model 3 and based on the change in χ^2 test for nested models; the change in χ^2 was not significant, indicating that the more restrictive Model 4 provided a more parsimonious fit for the data.

Models 5 and 6 were alternate models designed to test whether dissonance mediated the relation between perception of performance goal structures and sense of school belonging. That Model 5 did not fit the data is evident from the large and significant χ^2 value and the CFI and NFI values presented in Table 4. As indicted by the LISREL output, while the indirect effect of perception of class as performance focused on sense of school belonging via

dissonance was significant ($-.07$, $p < .001$), the high modification index (43.20) and the poor fit of the model warranted the inclusion of a direct path between students' perception of performance goal structure in the classroom and sense of school belonging. According to the change in χ^2 tests for nested models, when compared to the more restrictive Model 5, Model 6 provided a significantly better fit (change in $\chi^2 = 43.89$, 1 df, $p < .001$) for the data.

The findings that emerge from the results of these six path analytic models suggest that the relationship among these variables is more complex than was hypothesized. Perceptions of the two goal structures—mastery and performance—in the classroom related in different ways to sense of school belonging and dissonance. Perception of mastery goal structures in the classroom had a significant, positive and direct effect on students' sense of school belonging and a low—but significant—negative and indirect effect on dissonance. Perceptions of performance goal structures in the classroom contributed both directly and indirectly to increased feelings of dissonance (Model 4) and to decreased feelings of school belonging (Models 5 and 6). While these findings suggest that reciprocal pathways exist between dissonance and sense of school belonging, it is important to note that Model 4—with a direct effect of perception of class performance goal structures on dissonance and an indirect effect of both perception of mastery and performance goals on dissonance via school belonging—was the parsimonious and best fitting of all the models tested. This implies that sense of school belonging may have a stronger effect on dissonance than dissonance on sense of school belonging. Overall, this model accounted for 11% and 22% of the variance in home–school dissonance and sense of school belonging, respectively.

8. Discussion

Results from this study support findings from earlier ethnographic work (e.g., Phelan et al., 1994, 1996) that navigating the school and home contexts does not affect all students the same way. For many students in our sample, the daily transition between home and school occurred with relative ease. However, other students found it a difficult and dissonant experience. Feelings of consonance or dissonance that students experience between home and school are likely to be shaped and reshaped as they move from one school to the next. Expecting all children to suffer an increase in dissonance when they move into middle school assumes a certain degree of homogeneity in students' experiences. Results from this study suggest that this may not be the case.

Several important findings emerged from this study. Results based on growth curve analysis indicate that teachers' reports of middle school practices as mastery-focused were significantly related to decrease in dissonance across the school transition. On the other hand, teachers' reports of performance-focused practices in middle school did not prove to be a significant predictor of change in dissonance. However, perceiving the middle school classrooms as more performance-focused than the elementary classroom was associated with a corresponding increase in dissonance. One possible explanation for these seemingly contradictory results is that students' perceptions of the classroom goal structures are based on subjective experiences whereas teachers' reports are more objective accounts of school practices, such as maintaining a public honor roll system in school. Indeed, as mentioned earlier, a student's perception of the school environment is a critical aspect of his or her psychological environment (Maehr, 1991), and reactions to this psychological environment are important. A classroom that is perceived as more mastery-focused

and less performance-focused by one student may be perceived very differently by another student. The subjective nature of students' perception of the classroom environment also explains the low correlation between students' perception of the classroom goal structures with the more objective teachers' report of school practices. It appears that students' perceptions of classroom goal structures and teachers' reports of school practices tap into different aspects of the variance in change in home–school dissonance across the transition from elementary to middle school. This issue needs to be investigated in greater depth in future research.

Path analyses examining the relation between perception of class goal structures, dissonance and school belonging also shed light on the somewhat puzzling finding (based on growth curve analysis) that students' perceptions of class performance goals were significantly predictive of home–school dissonance, while students' perceptions of class mastery goals were not significantly predictive of dissonance. The reason class mastery goal structure did not directly predict dissonance, whereas class performance goals did, is because the effect of class mastery goal structure on dissonance is indirect, mediated by students' sense of belonging to school. The beneficial effects of perceiving the classroom as mastery-focused increase students' sense of belonging to the school community and thereby decrease dissonance. On the other hand, this study suggests that perceiving an emphasis on performance goals in the classroom leads to both an exacerbation of home–school dissonance, and low sense of school belonging thereby creating an overall sense of alienation within the school context.

Thus, perception of the two goal structures in the classroom relate in different ways to sense of school belonging and dissonance. As mentioned earlier, the emphasis of mastery goals is more on the task at hand and the emphasis of performance goals is more on social comparative aspects of the self, some of which may have negative connotations for the self. Therefore, the relation of mastery and performance goal structures to other variables, and the pathways and mechanisms through which they influence students' thoughts and behaviors, may be different.

When students feel that they are in an environment that encourages social comparison and competition with their classmates, they experience greater dissonance. This finding suggests that an extension of Steele's (1997) theory of stereotype threat may be warranted. For students at risk of experiencing dissonance, heightened self-consciousness that results from perceiving the classroom as performance-focused and evaluative arouses doubts not just about ability, as Steele suggests; it also make them aware of their other shortcomings—real or imagined. Based on these findings, teachers would do well to move away from encouraging social comparisons among their students.

These findings reinforce what many teachers, educators and researchers have stressed for some time now: the need to create a more inclusive school community in which students feel comfortable and accepted and in which mutual trust and respect exists among both students and teachers (Noddings, 1988). Creating this kind of atmosphere in school is particularly important for students who find the daily transition from home to school a stressful and alienating experience.

As stated earlier, home–school dissonance is a social phenomenon. This study evidences that, in addition to attending to the to the nature of relationship within the school context and examining the social culture of the school, it is essential to be cognizant of the academic culture as well. This is especially important in helping students who are at risk of experiencing home–school dissonance. If schools want to promote the well-being of students

who experience such conflict they need to face the challenge of minimizing the saliency of differences among students and must work to foster learning within an inclusive and empowering learning environment.

Reflecting upon the questions raised earlier, namely how can teachers foster a positive social environment when they are engaged in the academic task of promoting learning in the classroom, it is important to first acknowledge the learning environment's complexity. As the results of this study suggest, school wide implementation of mastery-focused practices is an important aspect of improvement that can promote a positive social climate (i.e., students not focusing on stereotypes and other discrepancies that set them apart from classmates and peers) within this complex environment. When students find that their teachers are invested in student learning, they are encouraged to work to potential and are constantly challenged to think, learn and improve. Cultivating this dynamic community of learners is particularly important for students who are at risk of not fitting within the school environment, of feeling very different from their peers in school and of feeling that their home and school lives are worlds apart.

In this regard, one important contribution of this study is its focus on school-level processes. Most research examining goal structures in the learning environment in relation to student outcomes has occurred primarily at classroom level. (Anderman, 1999; Anderman et al., 2002; Kaplan & Midgley, 1999; Turner et al., 2002; Urdan et al., 1998). While classroom investigation is important, few have ventured to examine how the goal structures emphasized at the school level affect students. This study highlights the importance of examining goal structures at different levels of context specificity and the importance, especially, of the school level.

This study focuses specifically on how teachers' report of school practices and students' perception of achievement goal structures in the classroom may exacerbate or ameliorate dissonance. In light of recent research on students' personal achievement goals— particularly the importance of separating approach and avoidance personal goals and the positive potential of performance-approach goals as compared to performance-avoid goals (Harackiewicz, Barron, Pintrich, Elliot, & Trash, 2002; Pintrich, 2000; Midgley, Kaplan, & Middleton, 2001)—it will be interesting to examine how the approach-avoid motivation dimension relates to affective processes such as feelings of dissonance.

8.1. Limitations of the study

The sample of schools included in this study was limited to 10 middle schools, restricting the number of predictor variables that could be included at the school level. Therefore, other school-level factors, like the ethnic composition of the school that may have been related to students' experiences of dissonance were not included in the study. A second limitation of this study is that only lunch status was used as a measure of students' socioeconomic status. Relation between dissonance and more sensitive measures of socioeconomic status (e.g., parental occupation or education) needs to be examined.

Interactions among the predictor variables at the student level have not been examined. Ethnicity and socioeconomic status did not emerge as significant predictors of either students' initial levels of dissonance or change in dissonance across the transition to middle school. However, it is possible that these student characteristics may interact with students' perceptions of the environment to either exacerbate or ameliorate their feelings of

dissonance. Interactions between individual characteristics and the motivational climate of the school were not examined in this study. However, this study does provide evidence that, regardless of ethnicity, if students perceive their classrooms as performance-focused and schools as unsupportive, it is detrimental to their well-being because these factors are associated with increased feelings of dissonance.

9. Conclusions

Home–school dissonance remains a very real and difficult problem that some students in American schools continue to face. Although the number may not be large, these students experience diminished emotional well-being as they make the daily transition between home and school (Arunkumar et al., 1999). Feelings of dissonance between home and school are influenced by students' prior experiences in school and also by their present perceptions and feelings about the school environment. This study demonstrates that schools, particularly teachers, can play a proactive role in helping students who risk experiencing dissonance by moving toward practices that de-emphasize relative performance and by creating a community of learners in which there are no winners or losers and in which all are accepted.

Appendix A. Student measures with sample items

A.1. Dissonance between home and school

$\alpha_{(year\ 1)} = .76$ $\alpha_{(year\ 2)} = .73$ $\alpha_{(year\ 3)} = .74$
I feel troubled because my home life and my school life are like two different worlds.
I feel uncomfortable when my parents come to school, because they are different from the parents of many of my classmates.

A.2. Perception of classroom as mastery-focused

$\alpha_{(year\ 1)} = .78$ $\alpha_{(year\ 2)} = .79$
Our teacher thinks mistakes are okay as long as we are learning.
Our teacher gives us time to really explore and understand new ideas.

A.3. Perception of classroom as performance-focused

$\alpha_{(year\ 1)} = .73$ $\alpha_{(year\ 2)} = .72$
Our teachers make it obvious when students are not doing well on their work.
Our teacher points out those students who get good grades as an example to all of us.

A.4. Sense of school belonging

$\alpha_{(year\ 1)} = .81$ $\alpha_{(year\ 2)} = .78$
I am proud of belonging to this school.
I feel like a real part of this school.

A.5. Teacher measures

A.6. Middle school teachers' perception of the school as mastery-focused

α = .81
In this school:
A real effort is made to recognize students for effort and improvement.
Students are told that making mistakes is OK as long as they are learning and improving.

A.7. Middle school teachers' perception of the school as performance-focused

α = .73
In this school:
Students hear a lot about the importance of making the honor roll or being recognized in honor assemblies.
Students are encouraged to compete with each other academically.

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