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Classroom climate and students' goal preferences: A cross-cultural comparison

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Goal preferences indicate intentions to achieve or avoid particular states. We examined whether Curacaoan and Dutch students differ in goal preferences related to school and whether goal preferences are associated with students' evaluation of the classroom climate. Measurement invariance of the instruments was also tested between samples. Participants attended vocational high schools in Curacao ($N = 276$) or in the Netherlands ($N = 283$). Both the classroom climate and goal preferences differed between the samples. In the Netherlands the preference for individuality, belongingness, and recognition was stronger, whereas in Curacao mastery, satisfaction, self-determination, and material gain were more frequently endorsed. The two variables were modestly correlated. Schools do have a globalizing effect on students' school experiences and hardly adapt to goal preferences. The latter seem to be affected by non-school related cultural factors.

Key words: Goal preferences, classroom climate, cross-cultural comparison.

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INTRODUCTION

Goal preferences are undoubtedly of great importance to students' learning. They are related to students' persistence to learn, students' learning style (superficial or in-depth learning) and also to learning outcomes (for a review see Boekaerts, De Koning & Vedder, 2006). In this article we deal with goals that students either want to realize (desired states) or wish to avoid (undesired states). Goal preferences define students' intentions to achieve or avoid particular states, situations or performances (cf. Austin & Vancouver, 1996; Wentzel, 1994). We examine goal preferences in the school context to determine whether students' goal preferences differ in classroom samples from Curacao and the Netherlands. A greater understanding of cultural similarities and differences in students' goal preferences is important for efforts to optimize the learning opportunities of all students worldwide.

In most schools around the world, achievement goals are of utmost importance, but there has been an increasing interest in the role of non-achievement goals, like belongingness and peer acceptance, particularly in schools of developed countries. Students learn to collaborate with their peers in order to acquire knowledge and skills in various academic and non-academic domains. This is not to say that non-achievement goals have not previously played a role. They most certainly did, but empirical research related to non-achievement goal preferences has been sparse. One criticism of previous studies is that researchers have exclusively focused on the desired end-state, namely achievement, excluding other academic goals that students bring to the classroom (cf. Boekaerts, 2002). This article suggests that it is

crucial for researchers to identify the desirable and undesirable end-states that students have in mind when at school, for either school-related learning tasks or other issues (e.g., personal well-being or social skills). Identification of multiple goals that students bring to bear on activities in the classroom should allow researchers to examine how these goals interact and affect students' learning and well-being. For instance, do students have to cope with intrapsychic conflicts between the pursuit of achievement goals and desired non-achievement goals, and if so, how do these conflicts affect students' behavior in class?

Cultural Differences in Goal Preferences: Curacao and the Netherlands

Culture is a multilayered system of meanings and other man-made structures that influence an individual's activities and development. School may be seen as an especially important part or layer of culture during childhood and adolescence. Studies show that the classroom environment can exert a major influence on the salience of particular goals (cf. McCaslin, 2004; Urdu, 1997) and that teachers' instructional approaches are correlated with students' goal preferences (e.g., Kaplan & Maehr, 1999). A sense of relatedness between teachers and their students promotes students' preference of social support goals (Newman & Schwager, 1993); whereas, students experiencing autonomy support are more likely to adopt mastery goals and they are more effortful and persistent while completing learning tasks (i.e., acquiring mastery). Moreover, teachers' support predicts students' (pro)social goal preferences (Wentzel, 1994) and good relationships with peers predict social responsibility (social

support) goal preferences (Wentzel, 1994, 1998). In the remainder of this text we refer to these aspects of instructional approaches and educational practices as classroom climate.

McInerney, Roche, McInerney, and Marsh (1997) suggested that cultural groups (they studied Anglo-Australian, Australian Aboriginal, and Native American students) did not significantly differ in goal preferences, particularly when it comes to learning and achievement related goals, since schools around the world focus on these goals. Their finding concurs with a notion brought forward by scholars contending that schools are important carriers and representative bodies of a global culture of cognitive, individualized achievement and competition (Suarez-Orozco, 2001; Vedder, 1994). They actually claim that schools homogenize students' learning experiences, thus lessening the impact of culture specific and school transmitted socialization practices. In the present study, we examine similarities and differences in goal preferences and classroom climate for samples of students enrolled in Curacaoan and Dutch senior vocational high schools.

Schools may create largely comparable learning settings in Curacao and the Netherlands. This, however, is not to say that the wider, non-school socialization contexts between Curacao and the Netherlands are also comparable. Curacao is part of the Netherlands Antilles, a group of politically autonomous small islands in the western Caribbean that form part of the Kingdom of the Netherlands. One of the consequences of being part of the Dutch kingdom is that the school system including the curricula and the language of instruction (Dutch) are similar between the two countries. Apart from the schools and educational system, however, Curacao and the Netherlands considerably differ as socialization contexts. In Curacao, the population mainly consists of descendents of former slaves from West Africa who almost exclusively use a Creole language called Papiamentu outside the formal school context. In the Netherlands, the white European population forms the majority and their language is used both in- and outside school. Studies (Kromhout & Vedder, 1996; Vedder, 1999) have indicated that Curacaoan people, with their predominantly African background, are characterized by family value orientations and socialization practices that are different from those of Dutch Europeans. The first rule of Curacaoan education is that children respect adults. Respectful behavior is defined as being polite, not arguing, and doing as adults say. A recent study amongst 13 to 18-year-old Antillean immigrant adolescents in the Netherlands and their Dutch contemporaries (Phinney, Berry, Vedder & Liebkind, 2006) confirmed that Antillean youths are characterized by higher levels of adherence to parental authority values, such as respect and obedience, than Dutch youth. Dutch parents, on the other hand, perceive social competence and independence as the most important goals for their adolescent children (Rispen, Hermanns & Meeuws, 1996). Considering these cultural differences between Curacao and the Netherlands, we expect that these are reflected in differences as to goal preference scores. The Dutch sample is expected to have higher preference scores for belongingness, self-determination, and individuality than the Curacao sample.

Summary of Research Questions

In the present study we will explore the cultural dependence of adolescents' self-reports on goal preferences and classroom climate. A preliminary question concerns the measurement invariance of the instruments used to compare the two samples. Two additional questions are also addressed: (1) Do Curacaoan and Dutch students differ on appraisals of classroom climate and goal preferences? (2) Are Curacaoan and Dutch students' goal preferences associated with their appraisals of the classroom climate?

METHOD

Participants

The Curacaoan sample consisted of 276 youth; the Dutch sample consisted of 283 youth. Participants in both samples attended senior vocational high schools, studying either "ICT applications" (116 in the Netherlands and 77 in Curacao) or "office work" (167 in the Netherlands and 199 in Curacao). In the Dutch sample 62.5% of all participants were male whereas in the Curacao sample 31.2% of participants were male.

Curacao has four schools for senior vocational education, all of which were invited to participate. The largest school agreed to participate. In the Netherlands 8 out of 43 contacted schools agreed to participate. Due to the limitation to "ICT" and "office work" and to non-immigrant students, eventually five schools were represented in our Dutch sample. Both in the Netherlands and in Curacao, ICT studies mainly attract boys. In the Curacao sample 61% of all ICT students were male, whereas in the Dutch sample 98.3% were male. Office work is favored by girls in the Curacao sample (80.4%) and Dutch (62.3%) samples.

The Curacaoan participants ranged in age from 16 to 25 years, with an average of 18.8 ($SD = 1.6$). Dutch participants ranged in age from 15 to 22 years with an average of 17.5 ($SD = 1.2$). The wide age range in both samples is mainly due to grade repetition in students' earlier school career. Most students finished a school for junior general academic education (MAVO): 66% in the Dutch sample and 73.5% in the Curacao sample. Parental education slightly differed between the two samples. Forty-four percent of the students in the Dutch sample and 40% in the Curacaoan sample lived with parents who had completed less than 5 years of secondary education. The biggest difference was found for parents who had completed a secondary school preparing for a study at a professional university (Curacao 37% and the Netherlands 19%). A chi-square analysis revealed a statistically significant difference in parental education between the two samples, $\chi^2(N = 559, df = 8) = 36.39, p < 0.001$.

Procedure

Both in the Netherlands and Curacao the questionnaires were group-administered in classrooms. Data collection was supervised by a research assistant who also provided oral instructions for each survey and answered any questions. All participants were informed that participation was voluntary, and that their responses were confidential. For both samples the questionnaires were available in the Dutch language only. In Curacao, the students are proficient in Dutch and their teachers asked us to use Dutch, because they doubted whether students would understand the items if translated into Papiamentu.

Instruments

Surveys consisted of three parts. The demographic survey included items describing students' age, their own and their parents' country of

birth and the highest level of parental education (ranging between 1 "no education" and 9 "college").

The Goal Importance and Attainment Scale (GIAS; De Koning & Boekaerts, 2001) was inspired by the work of Ford (1992). He provided a model of multiple goals that individuals pursue in different goal domains, distinguishing desired within-person consequences from desired person-environment consequences. The former category includes such goals as self-confidence and satisfaction. The latter category includes goals like belongingness, individuality, and mastery. The GIAS measures two constructs, namely goal preference and goal attainment. Here, we exclusively focus on goal preferences. The instrument contained 23 items measuring 8 goal domains: *individuality, mastery, belongingness, self-determination, material gain, satisfaction, and recognition*. Students had to report on the extent to which they would want to achieve particular academic and non-academic goals (the goal preference dimension). The items are presented in Table 2. Students rated the goal preference on a five-point Likert scale ranging from 1 (not at all) to 5 (very much so).

The classroom climate list is an abridged version of an instrument developed by De Koning and Boekaerts (2001) and contains 15 items. The instrument is strongly inspired by Higgins' and Battistich's notions of school culture and the instruments they used to measure it (Higgins, 1995; Higgins-D'Alessandro & Sath, 1997; Watson, Battistich & Solomon, 1997). Response categories ranged from 1 (completely agree) to 4 (completely disagree). The instrument consists of three subscales. The first subscale combines seven items referring to *students' influence on the curriculum* (henceforth *curricular autonomy*). The second subscale combines four items that express students' perceptions of teacher expectations (henceforth *teacher expectations*). The final subscale contains four items that all express a positive relationship between teachers and students (henceforth *teacher-student relationships*). All items are presented in Table 3.

A possible methodological limitation of the present study is the reliance on self-reports. With respect to goal preferences this may mean that actually we will be dealing with rationalizations of what are seen as mental representations that regulate students' activities in schools. These are not necessarily the actual regulating entities. Nevertheless, an earlier study showed that goal preferences were correlated with a selection of school activities in the expected direction (Hijzen, Boekaerts & Vedder, 2007), which suggests that goal preferences, as measured in this study are used for selecting and regulating activities. With respect to the classroom climate we measured students' appraisals of classroom practices, not the actual practices. From earlier studies (Shuell, 1996; Vedder, Boekaerts & Seegers, 2005) it is known that student perceptions of what the teacher does and how supportive or restraining the school environment is, is more predictive of students' well-being and efforts to do well in school than actual teacher behaviors and other learning conditions.

Analyses

We initially tested the structural equivalence of each instrument to determine whether the instruments measure the same concepts in the

two cultural contexts (Curacao and the Netherlands). We followed the procedure for multiple groups confirmatory factor analysis described by Byrne (2006). Using an a-priori factor structure of each instrument we conducted separate confirmatory factor analyses (CFA) for each sample. After making post-hoc changes based on modification indices, a common baseline model for both samples was established. This model was applied in a multi-sample CFA using data from both samples. After having found that this (unconstrained) model satisfied particular fit criteria, an identical multi-sample CFA was conducted, with the additional constraint that the factor loadings are the same in the two samples (resulting in the constrained model). Byrne (2006) states that if the fit of the unconstrained model is good and the fit of the constrained model is similarly good, or just a little worse, then this is indicative of measurement invariance. The fit is measured using a variety of indices: the χ^2 statistic, the comparative fit index (CFI), the Bentler-Bonett non-normed fit index (NNFI) and the root mean-square error of approximation (RMSEA). Byrne (2006) suggests that a value of at least 0.95 for the CFI and NNFI is indicative of a good fit. Values between 0.90 and 0.95 are considered acceptable. An RMSEA value of less than 0.05 indicates the model provides a good fit to the observed data. The χ^2 should ideally be non-significant; however, given its large sensitivity to sample size (Byrne, 2006), this is not always a realistic requirement. In regard to the comparison of the fit of the unconstrained and constrained model, Little (1997) proposes that the CFIs should differ not more than 0.05 in order to speak about multiple groups measurement invariance. Establishing measurement invariance of the instruments is a first step in answering the question whether either goal preferences, classroom climate or both are culture dependent.

Next, we examined whether students' goal preferences and their evaluation of the school climate differed between samples controlling for students' sex, type of school program, and parents' educational level. This was accomplished with two multivariate analyses of covariance (MANCOVAs) performed separately for goal preference and classroom climate subscales. Finally, we investigated associations between goal preferences and appreciation of the classroom climate in the two samples. Specifically, we computed correlations between students' appraisals of the classroom climate and their goal preferences.

RESULTS

Measurement invariance of goal preferences and classroom climate

Table 1 presents the various fit indices for the confirmatory factor analyses conducted separately for each sample. These indices generally indicate the models provide an acceptable fit to the Curacaoan and Dutch data.

Tables 2 and 3 present overviews of the items describing goal preferences and classroom climate, respectively. Each table includes the standardized loadings of the unconstrained models.

Table 1. Fit indices from the separate CFA's for each country for the following two scales: the Goal Importance part of the Goal Importance and Attainment Scale and the Classroom Climate Scale for Curacaoan and Dutch students of senior vocational high schools

	Goal importance		Classroom climate	
	Curacao	The Netherlands	Curacao	The Netherlands
CFI	0.943	0.960	0.944	0.978
NNFI	0.930	0.952	0.929	0.971
RMSEA	0.042	0.055	0.087	0.058
χ^2/df	319.77/208 = 1.54	413.96/208 = 1.99	270.45/82 = 3.30	185.20/82 = 2.26
Significance χ^2	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$

Table 2. Factor structure (CFA; standardized solution; unconstrained model) of the goal importance part of the Goal Importance and Attainment Scale for Curacaoan and Dutch students of senior vocational high schools

Factors	Factor loading	Error variance
<i>1) Individuality</i>		
I want to be unique or special	0.79	0.62
I want to be able to do unusual things	0.87	0.50
I want to have unusual things	0.82	0.58
<i>2) Mastery</i>		
Continuously I want to increase my skills	0.83	0.56
I steadily want to know more about my profession	0.88	0.48
I want to master the subjects	0.92	0.38
Continuously I want to learn something new	0.82	0.57
<i>3) Belongingness</i>		
I want to be part of my class	0.78	0.62
I want to get along with my classmates	0.85	0.53
I want to feel fine in class	0.86	0.51
I want to be liked	0.72	0.69
<i>4) Self determination</i>		
I want to be able to determine what I do	0.90	0.44
I want to take my own decisions	0.88	0.47
I myself want to decide how to proceed with things	0.88	0.48
<i>5) Material gain</i>		
I want to be able to buy whatever I feel like	0.65	0.76
I want to have the opportunity to earn lots of money	0.93	0.38
I want to have lots of cloths	0.82	0.58
<i>6) Positive self-evaluation; satisfaction</i>		
I want to be satisfied with myself	0.85	0.53
I want to feel satisfied	0.86	0.52
I want to feel relaxed	0.75	0.66
<i>7) Recognition</i>		
I want to impress others	0.82	0.58
I want to be more attractive than others	0.82	0.58
I want to be respected	0.87	0.49

Table 3. Factor structure (CFA; standardized solution; unconstrained model) of the Classroom Climate Scale for Curacaoan and Dutch students of senior vocational high schools

	Factor loading	Error variance
<i>1) Perceived curricular autonomy</i>		
Students have a say in rules	0.68	0.46
Students are in a position to change things	0.72	0.52
Students have an influence on organizational issues	0.68	0.47
Students and teachers together decide on what has to be done	0.82	0.67
Teachers give students room to choose assignments	0.81	0.66
Students can do the things they really like to do	0.79	0.63
Students can decide how long they work on assignments	0.81	0.65
<i>2) Teacher expectations</i>		
Teachers trust your capacities	0.89	0.79
Ones effort is highly appreciated.	0.92	0.40
Teachers are confident that you will become a good professional	0.86	0.75
Teachers let you know that you are capable of finishing school	0.86	0.74
<i>3) Teacher-student relations</i>		
Teachers interact in a pleasant manner with students	0.86	0.74
Teachers treat students with respect	0.88	0.78
Teachers try to understand their students	0.83	0.69
Teachers are interested in their students	0.83	0.68

Table 4. Multi-sample confirmatory analysis fit indices for the unconstrained and constrained model

	Unconstrained model	Constrained model	Difference
<i>Goal importance</i>			
CFI	0.954	0.933	-0.021
NNFI	0.944	0.923	-0.021
RMSEA	0.050	0.057	0.007
χ^2/df	742.39/416 = 1.78	1059.94/517 = 2.05	
Significance χ^2	$p < 0.001$	$p < 0.001$	
<i>Classroom climate</i>			
CFI	0.964	0.948	-0.016
NNFI	0.953	0.939	-0.014
RMSEA	0.072	0.082	0.010
χ^2/df	455.66/164 = 2.78	593.72/179 = 3.32	
Significance χ^2	$p < 0.001$	$p < 0.001$	

Table 5. Goal preferences and classroom climate; reliabilities (Cronbach alphas) per subscale by sample

	Curacao	The Netherlands
<i>Goal preferences</i>		
Individuality	0.68	0.88
Mastery	0.72	0.93
Belongingness	0.70	0.89
Self determination	0.75	0.93
Material gain	0.70	0.79
Satisfaction	0.65	0.86
Recognition	0.69	0.90
<i>Classroom climate</i>		
Curricular autonomy	0.84	0.82
Teacher expectations	0.78	0.82
Teacher-student relations	0.73	0.66

Table 4 provides the fit indices for the unconstrained and the constrained model of the multiple groups CFA. These indices indicate acceptable fit for both goal preferences and classroom climate. The difference in CFI between the two models is slightly above 0.02 for goal preferences, and below 0.02 for classroom climate, both of which indicate measurement invariance between the two samples.

Table 5 presents estimates of the internal consistency (Cronbach's α) of each GAIS and classroom climate subscale. For both instruments the alphas are generally satisfactory to good. The alphas for the goal preferences were consistently higher in the Dutch sample.

Mean-level differences in goal preferences and classroom climate

Means and standard deviations for goal preferences and students' evaluations of the classroom climate are presented in Table 6. Multivariate analyses of covariance (MANCOVA) were conducted with each of the two sets of variables: goal preferences and classroom climate, in which we included sample as a fixed

factor and gender, program type, and highest level of education of either parent (nine levels) as covariates. We found a main effect for sample on goal preferences (Wilks' $F[7, 548] = 26.84$, $p < 0.001$, $\eta^2 = 0.26$). Subsequent univariate analyses detected statistically significant differences on all aspects of goal domains (see Table 6). For three goal domains (individuality, belongingness and recognition), the Dutch students reported stronger preferences than the Curacaoan students. For all other goal domains the Curacaoan students had higher scores. The differences were largest for the mastery and satisfaction subscales ($\eta^2 \geq 0.10$). We also found a main effect for sample on classroom climate (Wilks' $F[3, 552] = 13.20$, $p < 0.001$, $\eta^2 = 0.07$). Subsequent univariate analyses also detected statistically significant differences on all three aspects of classroom climate (see Table 6). Students' curricular autonomy was evaluated higher in the Dutch sample, whereas teacher expectations and the teacher-student relationships were evaluated more positively in the Curacaoan sample.

Associations between school climate and goal preferences

Next, we explored the extent to which goal preferences and classroom climate scores were concurrently related by calculating Pearson Product-Moment correlations separately for each sample. Table 7 presents the correlations between goal domains and appraisals of the classroom climate.

A first observation is that most correlations are statistically non-significant in both samples and that all associations reaching statistical significance are quite modest (< 0.21). No statistically significant relations were found between students' evaluation of curricular autonomy and their goal preferences. In both samples positive evaluations of teacher expectations and of the quality of teacher-student relationships corresponded to a stronger preference for belongingness. Only in the Dutch sample was a positive evaluation of teacher expectations and student-teacher relationships related to students' stronger preference for mastery goals. In the Curacao sample, students who had a stronger drive to distinguish themselves were more negative about the quality of the student-teacher relationship.

Table 6. Differences between the Curacaoan and the Dutch sample in goal preferences and classroom climate

	<i>F</i> [1, 554]	<i>p</i>	η^2	Mean (<i>sd</i>) Cur. – Mean (<i>sd</i>) Netherl.	
<i>Goal preference</i>					
Individuality	24.01	0.000	0.04	2.78 (1.15) – 3.32 (1.05)	C < N
Mastery	63.23	0.000	0.10	4.69 (0.53) – 4.21 (0.73)	C > N
Belongingness	10.62	0.001	0.02	4.20 (0.76) – 4.39 (0.66)	C < N
Self-determination	12.74	0.000	0.02	4.52 (0.71) – 4.25 (0.76)	C > N
Material gain	6.69	0.01	0.01	4.22 (0.86) – 4.00 (0.88)	C > N
Satisfaction	77.74	0.000	0.12	4.79 (0.44) – 4.31 (0.68)	C > N
Recognition	8.69	0.003	0.02	2.74 (1.08) – 3.13 (1.08)	C < N
<i>Classroom climate</i>					
Students' curricular autonomy	12.64	0.000	0.02	2.03 (0.59) – 2.20 (0.45)	C < N
Teacher expectations	6.82	0.009	0.01	2.87 (0.53) – 2.75 (0.47)	C > N
Teacher–student relations	8.25	0.004	0.02	2.73 (0.50) – 2.59 (0.47)	C > N

Table 7. Correlations (Pearson *pm*) between goal preferences and school climate scores for the Curacaoan (upper half, *n* = 276) and the Dutch sample (lower half, *n* = 283)

	Curricular autonomy	Teacher expectations	Teacher–student relationships
Individuality	–0.06	–0.01	–0.16 ^a
Mastery	0.00	0.06	0.08
Belongingness	0.11	0.20 ^b	0.18 ^a
Self-determination	–0.00	0.06	0.03
Material gain	0.08	–0.11	–0.08
Satisfaction	–0.07	0.00	0.13 ^a
Recognition	0.05	0.00	–0.20 ^b
Individuality	–0.03	–0.01	0.00
Mastery	0.07	0.16 ^b	0.17 ^a
Belongingness	0.04	0.16 ^a	0.19 ^a
Self-determination	0.11	0.13 ^a	0.07
Material gain	0.01	0.01	0.04
Satisfaction	0.08	0.12	0.10
Recognition	–0.02	–0.07	–0.06

^a *p* < 0.05; ^b *p* < 0.001.

DISCUSSION

In order to be able to do comparative research it is important to make sure that the instruments being used measure the same characteristic or construct in a similar way in different cultural contexts. Both the measure for class climate and the measure for goal preferences appeared structurally equivalent between the students sampled in Curacao and those sampled in the Netherlands. Other important findings were that region or country of sampling did make a difference. With respect to classroom climate the differences were small, as was the case for students' preference for most of the goal domains. Exceptions were students' preferences for mastery and satisfaction, which were stronger in the Curacaoan sample. As expected, stronger preferences for individuality, recognition and belongingness goals were found in the Dutch sample. In both samples the correlations between students' appraisals of the classroom climate and their goal preferences were generally low.

School as a global equalizer

Several scholars contend that schools have a strong globalizing effect on students' school and learning related experiences (Plomp & Loxley, 1992; Suarez-Orozco, 2001; Vedder, 1994). In accordance with this notion, we found that students' appraisals of the classroom climate hardly differed between the two samples. However, the equalizing effect was not so strong that students' goal preferences also were similar between the two cultural contexts. This was especially apparent for differences in mastery and satisfaction goals. Students from the Curacaoan sample had stronger preferences in this domain than students from the Dutch sample. If we assume that schools do have an equalizing effect, particularly with regard to school and learning-related goal domains (cf. McInerney *et al.*, 1997), then our findings suggest schools in the Netherlands and in Curacao did not succeed in doing away with all differences, at least not in students' appraisals of the importance of mastery goals.

Cultural differences: Curacao and the Netherlands

First, we have to state very clearly that we used nothing but a very superficial measure of students' cultural background, i.e., their own and their parents' country of birth. No socialization practices, values or routines were measured in either study. We clarified that other studies have made a strong case for differences between Curacao and the Netherlands and their respective values that dominate socialization practices. These studies showed that respect for adults and obedience are more important in socialization practices in Curacao, whereas autonomy and getting along well with peers are important goals in the Dutch educational context. This having been said, we would like to consider the cultural background as an explanation for findings that do conflict with the notion of the school as a global equalizer.

The finding of a stronger preference for individuality, recognition and belongingness goals in the Dutch sample is in accordance with earlier studies (for a review see Boekaerts, De Koning & Vedder, 2006) showing that this is characteristic of the Dutch individualist cultural environment. From this perspective, family experiences and the way people interact in out-of-school situations are seen as more important for adolescents' value orientations and corresponding aspirations than are school experiences. As stated earlier, Dutch parents perceive of social competence and independence as the most important goals for their adolescent children (Rispen *et al.*, 1996).

Associations between classroom climate and goal preferences

We expected to find a strong correlation between goal preferences and students' appraisals of school and learning-related experiences (cf. Kaplan & Maehr, 1999), particularly for the five goal domains that clearly deal with school and learning-related experiences: individuality, mastery, belongingness, self-determination and recognition. Contrary to our expectation, curricular autonomy scores did not correlate with goal preference scores at all. As expected, a more positive evaluation of teacher-student relationships corresponded to a stronger preference for belongingness goals, but we certainly did not find the expected strong correlations. The finding that for students living in Curacao higher scores for social recognition coincided with a lower appreciation of the student-teacher relationships corresponds to earlier studies of Boggiano *et al.* (1989) and Dweck (1986) who showed that students whose goal it is to show off about their ability to learn and about their performance, or who hold recognition as an important goal preference, easily run into problems when they receive help from the teacher. Help or support, which they receive without an explicit request, may be experienced as a threat to their goal achievement.

Perhaps the most important finding was that most aspects of the school climate were not associated with students' goal preferences. This means that schools in both samples were evaluated by students as being largely non-adaptive towards their goal preferences. As stated earlier, we did not study actual instructional and other school practices. In terms of the

suggested importance of supporting students' self-regulated learning it nevertheless seems fair to say that students did not feel supported by school staff in their efforts to pursue their own preferred goals. More bluntly stated, students experience that goal attainment is not considered by schools as a common responsibility of school and students. Insight into how and to what extent teachers actually adapt to differences in goal preferences and the extent to which students do experience this adaptation is a step towards interventions for promoting students' bond with schools and their investment in self-regulated learning. After all, better insight in students' goal preferences serves the purpose of coming closer to predicting and co-regulating their behavior while being engaged in learning tasks.

Limitations and future directions

Several limitations of the study should be acknowledged. First, we have been careful to avoid equating our samples with the corresponding populations of youth attending schools in Curacao and the Netherlands. We have no reason to believe our samples are not representative of these populations, but future research is needed to generalize these findings to Curacaoan and Dutch youth, as well as youth of other nationalities. Second, we did not include measures of the broader cultural and educational context. This precludes us from examining the fit between the cultural setting and the samples. In this sense, the reference to these cultural settings may be seen as a post hoc attribution that begs for an explicit test in new research. Finally, as mentioned previously, we have exclusively relied on youth self-reports. In future studies it would be better to include also more objective measures of at least the classroom climate. In another study (Hijzen *et al.*, 2007) we adopted a stimulated recall procedure, showing students' videotaped episodes from classroom interactions and discussing the type of goals they were pursuing. The outcomes suggest that students' class behaviors are steered by multiple goals, many of which students are not aware of during the course of their activities. Use of self-reports may overestimate the role of conscious goals as well as students' capability to autonomously, without specific recollection cues, reflect on these goals. Future studies on students' school and learning-related goal preferences can substantially gain validity by including measures of explicit as well as implicit goals.

Conclusions

The two samples, using largely similar educational curricula, showed only small differences in their appreciation of the classroom climate. Clearer differences were found with respect to two out of seven goal preferences: satisfaction and mastery goal preferences. With respect to classroom climate and the five goal domains for which students' preferences hardly differed between the two samples, the findings suggest that schools do have an equalizing effect. However, the differences involving the two remaining goal domains suggest that this effect was not all that robust. Further research will have to explore the

directionality of the association between classroom climate and goal preferences, as well as investigate the mechanisms by which schools function as an equalizer. Is it effectuated by establishing a homogeneous climate in all classrooms of a school, irrespective of the broader and varying socialization contexts? Or is it more beneficial to tailor different classroom climates to fit various broader socialization contexts in order to ensure uniform results in terms of students' goal preferences? The findings of the present study leave room for both possibilities.

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