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Students' Anticipated Situational Engagement: The Roles of Teacher Behavior, Personal Engagement, and Gender

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Students' Anticipated Situational Engagement: The Roles of Teacher Behavior, Personal Engagement, and Gender

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ABSTRACT. Among 9th-grade students (248 girls, 255 boys) from a large multiethnic school, the authors examined 2 aspects of anticipated situational engagement in relation to 3 types of hypothetical teacher behavior: authoritarian, authoritative, permissive. Furthermore, the authors investigated the moderating roles of students' personal (trait-like) engagement and gender. Multilevel analyses showed differential effects of teacher behavior type. Anticipated situational engagement was generally highest with the authoritative teacher and lowest with the authoritarian teacher. However, students' personal engagement and gender qualified these effects. The effects of the authoritative and authoritarian teachers versus the permissive teachers on anticipated situational engagement were more positive (or less negative) for students with high versus low personal engagement. Also, the positive effects of the authoritative and permissive teachers versus the authoritarian teacher were stronger for female students than for male students. Results show that anticipated situational engagement should be understood by examining the combined influences of contextual and individual characteristics.

Keywords: gender, personal engagement, situational engagement, teacher behavior

Student engagement is one of the key constructs in motivation research. Although several definitions have been proposed, *student engagement* can be considered as the tendency to be behaviorally, emotionally, and cognitively involved in academic activities. Thus, compared with their less engaged peers, engaged students demonstrate more effort, experience more positive emotions, and pay more attention in their classrooms (see Fredricks, Blumenfeld, & Paris, 2004; Reeve, Jang, Carrell, Jeon, & Barch, 2004). Because engagement is associated with

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positive student outcomes—including higher grades and less dropping out (Connell, Spencer, & Aber, 1994; Connell & Wellborn, 1991; Finn & Rock, 1997; Johnson, Crosnoe, & Elder, 2001; Skinner, Wellborn, & Connell, 1990)—researchers have examined how teachers can increase the engagement of their students. Typically, researchers have considered academic engagement as a trait-like personal characteristic. However, much of student learning takes place in the classroom, and teachers create conditions of engagement in whole-class settings. Hence, it is important to distinguish engagement at the *situational* level from engagement at the *personal* trait-like level (for similar discussions on other motivational constructs, see Blais & Hess, 2002; Krapp, Hidi, & Renninger, 1992).

The present research focused on two aspects of students' situational engagement: anticipated academic effort and enjoyment (see Lau & Roeser, 2002). We aimed to make an original contribution to the literature by using a within-participant design, first, to study students' anticipated situational engagement in response to different types of hypothetical teachers, and, second, to examine these responses as a function of students' personal (trait-like) engagement and their gender. Thus, in keeping with other motivational approaches (e.g., Blais & Hess, 2002; Krapp et al., 1992), we tried to increase our understanding of students' situational engagement by considering the combined influences of contextual (teacher) and individual (student) characteristics. We tested five hypotheses among a sample of students from (predominantly) ethnic minority backgrounds. Most of the researchers on the contextual determinants of academic engagement have examined White middle-class students (see Fredericks et al., 2004). However, considering the often low achievement outcomes of ethnic minority students, it is important to focus on the academic engagement of these students also (see Green et al., 2008; Johnson et al., 2001).

Teacher Behavior and Engagement

According to the self-system model of motivation (Connell & Wellborn, 1991; Skinner & Belmont, 1993), engagement is dependent on the extent to which one's basic psychological needs are met. The model assumes that people need to feel competent, securely related to their social surroundings, and autonomous in order to be truly involved in the activities they undertake. Social settings play a crucial role in satisfying these needs, and teachers are important agents in the students' environment. Consistent with this model, several studies have found significant relations between dimensions of teacher behavior and students' academic engagement (Furrer & Skinner, 2003; Green, Rhodes, Heitler Hirsch, Suárez-Orozco, & Camic, 2008; Hughes, Zhang, & Hill, 2006; Reeve et al., 2004; Skinner & Belmont).[1] Two relevant dimensions are structure and involvement. *Structure* refers to teacher behavior that involves (a) formal and informal rules and (b) clear demands and expectations to perform. This type of behavior is assumed to increase students'

feelings of competence. Teacher involvement or support behavior entails the display of affection and concern, and this is assumed to foster students' sense of relatedness to their social environment (Connell & Wellborn; Skinner & Belmont).

The concepts of *structure* and *involvement* are not confined to the motivational literature. Other research has indicated that these, or similar dimensions, describe teachers' classroom behavior. For example, Wubbels, Brekelmans, and Hooymayers (1992) provided evidence that teachers' interpersonal styles can be reliably and validly assessed in terms of Leary's (1957) circumplex model. The circumplex model consists of two orthogonal dimensions: control (i.e., power, dominance, and structure) and affiliation (i.e., warmth, friendliness, and involvement). Likewise, structure and involvement appear to characterize the styles of teachers with a teacher-centered orientation and a student-centered orientation, respectively (Hativa & Birenbaum, 2000; Kember, 1997).

In the present research, we examined the role of different types of hypothetical teacher behavior. These types entailed different combinations of structure and involvement. Research has shown that teacher behavior can be meaningfully conceptualized in socialization terms (Wentzel, 2002). The present types originated from extensive ethnographic research among students from the present sample (Verkuyten & Canatan, 2003) and showed strong resemblance to the authoritarian, authoritative, and permissive parenting styles that Baumrind (1991a, 1991bb) identified. The *authoritarian* style reflects high levels of structure (or "demandingness") but low levels of involvement (or responsiveness). The authoritative and permissive styles are characterized by high levels of involvement. However, whereas an authoritative teaching style entails high levels of structure, the latter is characterized by low structure (Baumrind, 1991a, 1991b).[2]

Teachers not only influence their students but also adapt their own behavior to them. Hence, the relation between teacher behavior and student engagement is bidirectional and interactive (see Skinner & Belmont, 1993). In the present study, we focused on one possible direction of this mutual influence by examining hypothetical teacher behavior types as classroom determinants of students' anticipated academic effort and classroom enjoyment. The self-system model (Connell & Wellborn, 1991; Skinner & Belmont, 1993) predicts positive effects of teacher structure and involvement on students' situational engagement. Hence, we hypothesized the following:

Hypothesis 1 (H_1): Students report more engagement in relation to authoritative (structured and involved) teachers versus authoritarian (structured but uninvolved) and permissive (involved but unstructured) teachers.

However, taking an interactive approach we also assumed that the differential effects of these teacher types were modified by two student characteristics: personal engagement and gender.

Personal Engagement and Gender

As far as we know, no researchers have considered the links between personal engagement and situational engagement. Yet, it is reasonable to assume that they are positively related, because both constructs refer to the tendency to be academically involved. Thus, we expected the following:

H_2: Students' personal engagement will have main effects on their intended effort and enjoyment across different situations.

In addition, we examined the interactions between students' personal engagement and teacher behavior type. We evaluated two different hypotheses. According to the self-system model (Connell & Wellborn, 1991; Skinner & Belmont, 1993), students are more engaged when teachers provide them with structure and involvement. We hypothesized the following:

H_3: Because personally engaged students will show more academic effort and enjoyment in specific situations, they will probably have less unfulfilled needs for competence and involvement compared with personally unengaged students. Thus, their situational engagement will likely be less affected by the type of teacher behavior.

However, we can also argue the following:

H_4: Personally engaged students will make a more positive (or less negative) differentiation between more structuring teachers and less structuring teachers (i.e., authoritarian and authoritative vs. permissive, respectively).

Although these students may be less dependent on teacher structure for feeling competent, they may have a higher need for a structured and organized classroom environment to effectuate their personal tendency to be actively involved in academic activities. Especially for these students, an overly permissive or chaotic atmosphere may be discouraging.

Some researchers have found that women are more academically engaged than men (Finn & Rock, 1997; Johnson et al., 2001; Smerdon, 1999), but others have not (e.g., Harper, Carini, Bridges, & Hayek, 2004). The focus of the present study was not on the main effect of gender on situational engagement, but on its moderating influence on the effect of perceived teacher behavior. More specifically, we expected the following:

H_5: The differences between involved (i.e., authoritative or permissive) teachers and the uninvolved (i.e., authoritarian) teacher would be more

important for the situational engagement of female students than for that of male students.

The reason is that many studies have shown that, in general, compared with men, women are more sensitive and responsive to relational aspects and emotional outcomes (for reviews, see Eagly, 1995; Feingold, 1994). Social relationships and connections to others are more likely to be part of women's self-concepts than part of men's self-concepts (Costa, Terracciano, & McCrae, 2001; Cross & Madson, 1997). A recent study among ethnic minority students supports our line of reasoning. Using a longitudinal design, Green et al. (2008) found that teacher support positively affected initial (or base) levels of engagement among female students, but only changes in engagement among male students. Thus, it appears that girls are quicker than boys to respond to the involvement of their teachers.

Method

Participants and Procedure

Participants were 503 students (248 girls, 255 boys) from 36 Grade 9 classes in a large multiethnic secondary school in the city of Rotterdam in the Netherlands. The school had three different (geographical) locations and enrolled adolescents from mainly non-Dutch and low socioeconomic backgrounds. The mean age of the participating students was 14.69 years ($SD = 0.90$ years). On the basis of their self-reports of the ethnicity of both their parents, the majority of the participating students (81%) could be identified as Turkish ($n = 131$), Moroccan ($n = 91$), Hindustani-Surinamese ($n = 85$), Creole-Surinamese ($n = 25$), Cape Verdian ($n = 51$), or Dutch ($n = 23$). The nonethnic Dutch students were second-generation immigrants who mastered the Dutch language. Dutch is the official language of communication for all regular schools in the Netherlands.

All students completed a (Dutch) questionnaire in the classroom and under the supervision of their teacher. The questionnaire contained an introduction in which students were asked to answer questions about school and themselves. Also, we guaranteed all students anonymity. Most students could complete the questions within 40 min. The questionnaire assessed personal engagement before situational engagement.

Measures

Personal engagement. To assess students' personal engagement, we used a seven-item measure that Verkuyten, Thijs, and Canatan (2001) developed and examined with Turkish and Surinamese students (for all seven items, see the Appendix) Sample items are "During lessons, I try to work as hard as I can" and "Going to

school is a waste of time" (reverse coded), which participants rated on a 5-point Likert-type scale ranging from 1 (*never*) to 5 (*always*).[3] The items loaded on one factor (i.e., personal engagement) accounting for 41.2% of their variance and yielded a Cronbach's alpha of .75. In support of its construct validity, previous researchers found this scale to be negatively related to absenteeism and positively related to achievement outcomes (Verkuyten et al.).

Situational engagement. To assess their situational engagement in relation to different types of teacher behavior, we presented students with descriptions of three hypothetical teachers (Teachers A, B, and C). We did not specify the genders of these teachers. These descriptions were developed for the present study and on the basis of extensive ethnographic work in the same school (see Verkuyten & Canatan, 2003). They also correspond closely to parental styles identified in the literature (Baumrind, 1991a, 1991bb). Hence, the three descriptions have both ecological and face validity.

Teacher A represented the authoritarian type and was described as highly structuring but uninvolved ("The teacher wants us to be quiet and work hard. He/she is not involved with us and he/she only has attention for the lecture"). Teacher B represented the authoritative type, that is, both structuring and involved ("The teacher wants us to work hard but he/she also listens to us. He/she is strict but also involved with us"). Last, Teacher C represented the permissive type, that is, low in structure and high in involvement ("It is especially important to the teacher that we feel at home. Most of the time, we do not have to work hard. He/she is primarily concerned with us and less with the lecture").

Students completed two single-item measures in response to each description. These items referred to students' intended academic effort ("With this teacher I want to do my best") and classroom enjoyment ("With this teacher, I enjoy myself"). Participants rated both items on a Likert-type scale ranging from 1 (*never*) to 5 (*always*).

Table 1 shows the means and intercorrelations for the six items. Except for enjoyment in the context of the authoritarian teacher, mean scores were higher than the midpoints of the scales, indicating relatively high levels of engagement in the different situations. In addition, effort and enjoyment were strongly related within each teacher context ($r > .5$), and the correlations of the engagement scores between the different contexts were moderately low ($< .24$; see Cohen, 1988). This indicates, first, that it was appropriate to examine effort and enjoyment as multivariate indicators of situational engagement and, second, that there was situational variability in these indicators.

Data Analytic Strategy

Because each student provided situational engagement ratings in relation to three different (hypothetical) teachers, it might seem appropriate to test our hypotheses by repeated-measure analyses of variance (ANOVA). However, like

TABLE 1. Pearson Correlations, Means, and Standard Deviations for Situational Engagement Items

Teacher type and engagement item	1	2	3	4	5	6	M	SD	n
Authoritarian									
1. Effort	—						3.21	1.23	502
2. Enjoyment	.50***	—					2.39	1.22	502
Authoritative									
3. Effort	.24***	.13**	—				4.32	0.85	501
4. Enjoyment	.11*	.12**	.67***	—			4.10	0.96	501
Permissive									
5. Effort	−.04	−.13**	.07	.05	—		4.15	1.08	503
6. Enjoyment	−.07	−.15**	.08	.14**	.66***	—	4.23	1.03	503

*$p = .05$.
**$p < .01$.
***$p < .001$, two-tailed.

other conventional statistical tests, ANOVAs assume an independent sampling of individual participants (Tabachnick & Fidell, 1996). This assumption was clearly violated in our study because individual students ($n = 503$) were nested within classes ($n = 36$). Analyzing dependent data with conventional statistical tests can yield spuriously significant results because of the underestimation of standard errors (Snijders & Bosker, 1999). To prevent this, we used multilevel analyses.[4] Multilevel analysis corrects for dependencies between observations nested within the same units (e.g., classes). Moreover, it can handle variable numbers of observations per unit, which allow for the inclusion of units with (some) missing observations and the examination of both within-participant designs and multivariate designs (Goldstein, 1995; Snijders & Bosker).

We tested multilevel regression models using MLwiN (version 2.0; Rasbash, Browne, Healy, Cameron, & Charlton, 2004). In these models, we specified three hierarchically nested levels: Level 1 (teacher type) pertaining to engagement ratings within students, Level 2 (student) pertaining to different individual students, and Level 3 (class) pertaining to different classes. In addition to this, we specified another level to simultaneously examine intended effort and classroom enjoyment as two multivariate aspects of situational engagement. This level (Level 0, engagement variable) was included only to define the multivariate structure of our data. By examining multivariate models, we could test whether the effects of teacher type, personal engagement, and gender were similar for both engagement variables. If this was the case, we estimated a more parsimonious version of each model specifying common coefficients for both effort and enjoyment.

We estimated all models using the Restricted Maximum Likelihood (REML) estimation method. We assessed relative model improvement by comparing the fit (deviance) of nested models. Differences between these statistics follow a chi-square distribution, and degrees of freedom are given by the differences in numbers of parameters (Snijders & Bosker, 1999).

We examined students' differential responses to the three teacher types with dummy variables. That is, we represented each type by a dummy variable that was coded as 1 for that type and 0 for the other types. We examined the effects of students' gender with a dummy variable coded as 1 for female and 0 for male students. For ease of interpretation and to allow for meaningful comparisons of effects, we standardized all continuous variables (z scores).

Results

We evaluated four models. First, we tested a so-called *intercept-only* model. This model included no predictors and estimated the variance distributions of the dependent variables (anticipated effort and enjoyment) across the different levels. We used the model as a baseline to compare the relative fit of Model 2. In Model 2, we tested the main effects of teacher behavior. In Model 3, we examined the unique contributions of students' personal engagement and gender. Last, in Model

4, we tested the interactions of teacher behavior with personal engagement and gender. Table 2 shows summary statistics for each model.

Intercept-Only Model

The second and third columns of Table 2 show the estimates for the intercept-only model (Model 1). It appeared that the Level 1 (teacher type) variance for academic effort and classroom enjoyment were .998 and .996, respectively. This means that almost all ($>$.99.5%) of the variation in engagement scores could be attributed to individual students' differential responses to the three different types of teacher behavior.

Main Effects of Teacher Behavior

We tested H_1 by regressing students' situational engagement scores on (two) dummy variables for the (three) different types of teacher behavior. As shown in Table 2, Model 2 fit the data significantly better than the intercept-only model (Model 1), and the three types of teacher behavior accounted for 18% and 38% of the variance in anticipated academic effort and classroom enjoyment, respectively.

Inspection of regression coefficients (not included in the table) revealed that students reported significantly more anticipated effort and enjoyment (a) with the authoritative teacher compared with the authoritarian teacher ($b = .95$, and $b = 1.26$, respectively; ps $< .001$) and (b) with the permissive teacher compared with the authoritarian teacher ($b = .81$, and $b = 1.35$, respectively; ps $< .001$). In addition, it appeared that students also reported more anticipated effort with the authoritative teacher versus the permissive teacher ($b = .15$, $p < .01$) but that classroom enjoyment was equal with the authoritative and permissive teachers ($p > .05$).

Main Effects of Personal Engagement and Gender

In the third model of the multilevel analysis, we entered personal engagement and gender as Level 2 predictors (Model 3 in Table 2). This led to a significant improvement of the model and accounted for 3% and 2%, respectively, of additional variance in anticipated effort and enjoyment. Personal engagement had positive effects on both effort and enjoyment ($b = 0.18$, and $b = 0.14$, respectively; ps $< .001$). This finding supported H_2, that students with higher personal engagement anticipate being more situationally engaged. Because gender appeared to have a similar effect on effort and enjoyment, we estimated a common coefficient. However, this effect was nonsignificant ($b = .07$, $p > .05$).

TABLE 2. Summary of Multilevel Regression Models

Item	Model 1		Model 2		Model 3		Model 4	
	Effort	Enjoyment	Effort	Enjoyment	Effort	Enjoyment	Effort	Enjoyment
Variance Level 1: Teacher type	.998	.996	.763	.608	.752	.598	.724	.559
Variance Level 2: Student	.000	.000	.058	.004	.039	.000	.040	.006
Variance Level 3: Class	.002	.003	.003	.010	.000	.005	.000	.005
Total variance	—	.999	.824	.622	.791	.603	.764	.570
Variance explained (%)	0	0	18	38	21	40	24	43
Deviance	7608.135		6858.252		6794.162		6704.076	
Difference deviance	—		749.883***		64.090***		90.086***	
df	—		4		2		4	

Note. For Model 1, there were no predictors; for Model 2, the predictors were the dummy variables for teacher type and students' personal engagement; and for Model 3, the predictors were the dummy variables for teacher type and students' personal engagement, gender, and the interactions among teacher type, gender, and personal engagement.
*** $p < .001$, two-tailed.

FIGURE 1. Interaction effects of teacher behavior types and personal engagement on intendend academic effort.
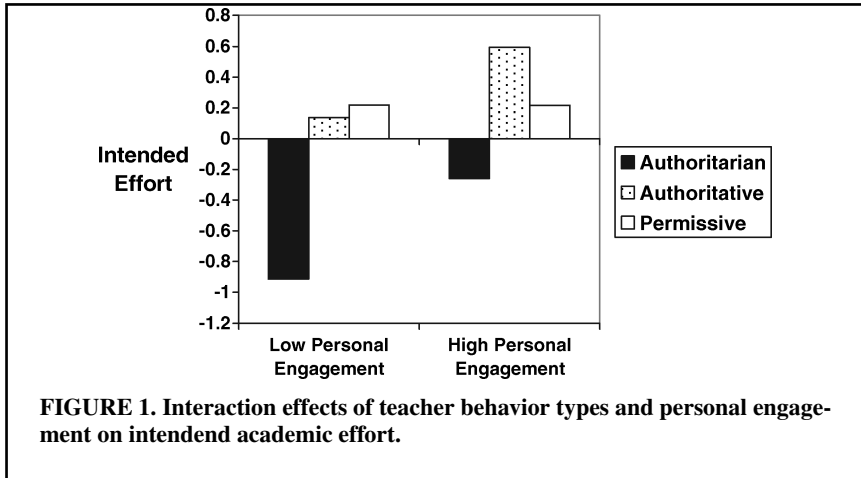
Cross-Level Interactions

Last, to test our remaining hypotheses, we investigated the cross-level interactions of the teacher behavior types with students' personal engagement and gender. This allowed us to test H_3–H_5.

We computed interaction terms by multiplying the dummy variables with personal engagement (the standardized measure) and the (centered) dummy for gender. As shown in Model 4 (Table 2), adding these interactions as predictors significantly increased the fit of the model. Together, the interaction terms explained another 3% of the variance in the situational engagement measures. Because all interactions were similar for anticipated effort and enjoyment, we estimated common coefficients.

Personal engagement. For personal engagement, all interaction terms were significant. Thus, the differences in anticipated engagement (effort and enjoyment) with the authoritative teacher versus the authoritarian teacher, the permissive teacher versus the authoritarian teacher, and the permissive teacher versus the authoritative teacher were all affected by the extent to which students reported being generally involved in academic activities. For authoritative teacher versus authoritarian teacher, $p < .05$; for permissive teacher versus authoritarian teacher, $p < .001$; and for permissive teacher versus authoritative teacher).

To examine the nature of these interactions, we performed simple slope analyses (Aiken & West, 1991). We calculated the effects of teacher type for students with a relatively strong personal engagement and a weak personal engagement separately (1 *SD* higher than *M* and 1 SD lower than *M*, respectively). Figure 1 shows the effects for anticipated academic effort, and Figure 2 shows the effects for anticipated classroom enjoyment.

FIGURE 2. Interaction effects of teacher behavior types and task personal engagement on classroom enjoyment.
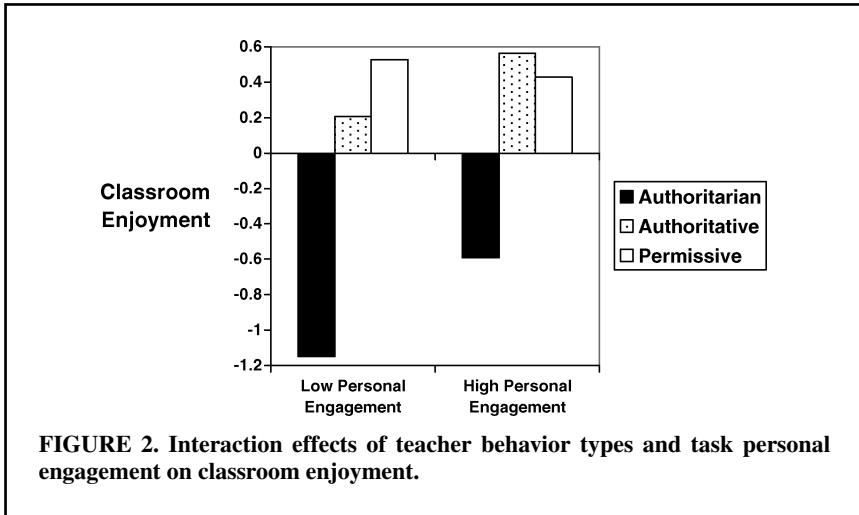
For academic effort, two of three teacher differences were smaller for students with high personal engagement versus students with low personal engagement: those between the authoritative and authoritarian teachers ($b = .85$, vs. $b = 1.05$, respectively; $ps < .001$) and those between the permissive and authoritarian teachers ($b = .48$ vs. $b = 1.13$, respectively; $ps < .001$). In contrast, the (positive) difference between authoritative and permissive teachers was larger for students with a high personal engagement ($b = .38$, $p < .001$, vs. $b = -.08$, ns).

For classroom enjoyment, all teacher effects were smaller for students with high personal engagement versus low personal engagement: the difference between the authoritative and authoritarian teachers (respectively, $b = 1.16$, vs. $b = 1.36$, $ps < .001$); the difference between the permissive and authoritarian teachers ($b = 1.02$, vs. $b = 1.68$, respectively; $ps < .001$); and the difference between the authoritative and permissive teachers ($b = .14$, $p < .05$, vs. $b = -.32$, $p < .001$, respectively).

Gender. For gender, there were significant interactions ($p < .001$) with the differences between the authoritarian teacher versus the authoritative and permissive teachers, but not with the difference between the authoritative teacher and the permissive teacher ($p > .05$). Figure 3 shows the interactions for anticipated academic effort, and Figure 4 shows the interactions for anticipated classroom enjoyment.

For academic effort, the positive effects of the authoritative teacher versus the authoritarian teacher were larger for female participants than for male participants (respectively, $b = 1.17$, vs. $b = .74$, $ps < .001$). Likewise, in comparison with male students, female students differentiated more strongly between the permissive and authoritarian teachers ($b = 1.01$, vs. $b = .60$, respectively; $ps < .001$).

FIGURE 3. Interaction effects of teacher behavior types and gender on intended academic effort.
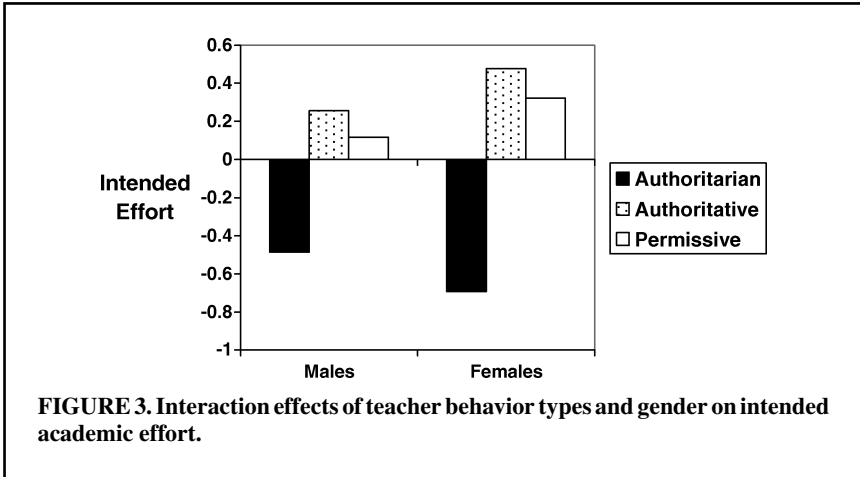
For classroom enjoyment, the pattern of results was similar. Compared with male participants, female participants reported more enjoyment with the authoritative teacher versus the authoritarian teacher ($b = 1.47$, vs. $b = 1.04$, respectively; ps $< .001$) and with the permissive teacher versus the authoritarian teacher ($b = 1.57$, vs. $b = 1.15$, respectively; ps $< .001$).

Ethnic Differences

Because of the small number of ethnic Dutch students ($n = 23$), we could not examine whether our results applied to ethnic majority and minority students

FIGURE 4. Interaction effects of teacher behavior types and gender on classroom enjoyment.
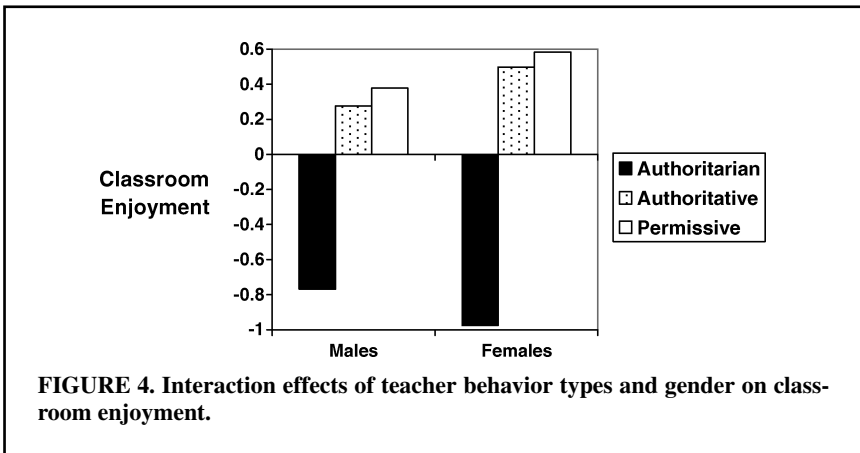
equally. However, we could explore differences among the latter. In a final set of analyses, we examined whether the results were similar for the three largest ethnic groups in our sample: the Turkish ($n = 131$), Moroccan ($n = 91$), and Hindustani-Surinamese students ($n = 85$). We reran all previous models (see Table 2), adding two dummy variables for the three ethnic groups, and the interactions of these dummies with all other predictors. Next, we examined whether the specification of these group differences improved the fit of each model. The improvement was significant only for Model 3, $\chi^2(6, N = 1832) = 14.49, p < .05$. Inspection of this model revealed one significant difference ($p < .01$): The main effect of personal engagement on classroom enjoyment was smaller for the Turkish students ($b = .01, ns$) than for the Hindustani-Surinamese students ($b = .24, p < .01$).

Discussion

The present study examined situational engagement among students in a predominantly ethnic minority sample by using descriptions that Verkuyten and Canatan (2003) developed on the basis of ethnographic research. The distinction between situational and personal engagement is important for understanding how teachers create conditions of engagement in whole-class settings. We focused on two aspects of situational engagement: intended academic effort and classroom enjoyment. We assessed these aspects with only one item. Yet, the within-teacher correlations between these items were considerable ($>.5$), and cross-level interactions and gender effects were similar. This indicates that both items were reliable indicators of the same underlying construct.

H_1 pertained to the main effects of the three (hypothetical) behavior types, which entailed different combinations of structure (clear instructions and expectations) and involvement (display of interest and warmth). As expected, students reported more intended academic effort with the authoritative teacher (who showed both structure and involvement) than with the permissive or authoritarian teachers (who showed either structure or involvement). In addition, despite equal enjoyment levels with the permissive and authoritative teachers, more enjoyment was reported with the authoritative than with the authoritarian teacher. These findings are largely consistent with the self-system model of motivation, which states that individuals' engagement depends on the extent to which different basic needs are satisfied. Whereas structure can increase students' feelings of competence, involvement can foster their sense of relatedness (Connell & Wellborn, 1991; Skinner & Belmont, 1993). Although we had no expectations about the effects of the permissive teacher versus the authoritarian teacher, situational engagement was clearly higher with the former type of teacher. It is likely that the authoritarian teacher was perceived as overly restrictive, without providing space for students' autonomy ("wants us to be quite and work hard"). According to the self-system model, not only the experience of competence and of relatedness but also a sense of autonomy are essential for self-directed motivation

Structure can increase feelings of competence, but too much of it might thwart students' need for autonomy and hinder students' motivation in the classroom (Connell & Wellborn; Skinner & Belmont). Future research is needed to test this interpretation.

In support of H_2, students' personal engagement was associated with more engagement across teacher behaviors. This indicates that both measures referred to the tendency to be academically involved, only at different levels of specificity. However, researchers should note (a) that the effect of personal engagement on intended effort was stronger than that on classroom enjoyment and (b) that the latter was not significant for the Turkish students. It is likely that this is because of the nature of our personal engagement measure. Whereas student engagement includes both affective and behavioral components (Fredricks et al., 2004), our measure predominantly assesses the latter.

There were two different expectations for the interactions between teacher behavior type and students' personal engagement. H_3 was that the anticipated situational engagement of personally engaged students would be less responsive to teacher behavior. However, according to H_4, personally engaged students would make more positive (or less negative) differentiations between the authoritative and authoritarian teachers versus the permissive teachers. Note that H_3 and H_4 overlapped to the extent that the main effect of the authoritarian teacher versus the permissive teacher was negative. H_1 received a fair amount of support. Students' personal engagement reduced the impact of the teacher differences on classroom enjoyment and academic effort (the only exception being the difference between the authoritative and the permissive teacher). H_2 was fully confirmed. Students' personal engagement appeared to increase their intended effort in response to the authoritative teacher versus the permissive teacher. Moreover, it decreased the negative differences between (a) the authoritative teacher and the permissive teacher on classroom enjoyment and (b) the authoritarian teacher and the permissive teacher on intended effort and enjoyment. Together, these results suggest that, in comparison with unengaged peers, the situational engagement of personally engaged students is more dependent on teacher structure and less dependent on teacher involvement.

Consistent with H_5, for both academic effort and classroom enjoyment, the positive effects of the authoritative and permissive teachers versus the authoritarian teacher were stronger for female students than for male students. Thus, teacher involvement appeared to be more important for the situational engagement of female participants. These results are in line with the common finding that social relationships and connections to others are more likely to be part of women's self-concepts (Cross & Madson, 1997) and that female participants compared with male participants are more sensitive and responsive to relational aspects and emotional outcomes (Eagly, 1995; Feingold, 1994).

The present findings add to the literature on the self-system model in two important ways. First, they suggest that it is important to understand how teachers

create conditions for engagement in whole-class settings and to consider combinations of teacher behaviors. The study of teacher types appears to provide a useful way to examine these combinations. Second, our findings underline the importance of taking individual characteristics into account. Not all students were equally dependent on, or responsive to, the same teacher behavior. Future researchers should examine the roles of personal engagement and gender further and should try to identify other moderating characteristics. Students' ethnicity might be one of these factors.

Several studies have shown that different parenting styles (resembling the teacher types in the present study) can have different effects on school adjustment for different ethnic groups (e.g., Chao, 2001; Leung, Lau, & Lam, 1998). The effects of teacher type and their interactions with personal engagement and gender turned out to be similar for the three largest groups in our study (Turkish, Moroccan, & Hindustani-Surinamese). Yet, a replication of the present study among more and larger ethnic groups, including ethnic Dutch students, would increase the generalizability of our findings.

Last, we discuss some limitations. First, we assessed the dependent variables of academic effort and classroom enjoyment with single self-report items. Future researchers should try to replicate our findings using (validated) multiple-item measures to assess different aspects of situational engagement. However, the intercorrelations and common effects supported the psychometric quality of the present items. Second, our personal engagement measure originated from a study among Turkish and Surinamese students, and it focused on the behavioral aspect of student engagement. Future studies should focus on students' cognitive and emotional academic involvement (Appleton, Christenson, Kim, & Reschly, 2006; Fredericks et al., 2004) using measures tested among different ethnic groups. Last, all participants attended the same school community. This means that school was a constant and that the findings are not the result of school differences. However, it also means that it remains to be examined whether the findings generalize to students from similar multiethnic schools. There is reason to assume that generalization is quite likely. As indicated, the participating students were from 36 classes distributed over three different (geographical) locations. Our models revealed engagement differences between these classes, and additional analyses (not reported in the text) indicated between-class differences for students' personal engagement as well. These differences were not the focus of the present study, but they suggest that our study involved students from somewhat different academic environments.

Much of student learning takes place in classrooms, making it important to examine how teachers create conditions of engagement in whole-class settings. Situational engagement is a function of teachers' classroom behavior and student characteristics. We have tried to show that students' situational academic effort and classroom enjoyment are related to teacher behavior in combination with personal engagement and with gender. Teachers' behavior has important motivational effects, but the ways in which their behavior affects students' situational

engagement depends on students' general academic involvement and the importance that they attach to social relationships and emotional outcomes.

AUTHOR NOTES

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NOTES

1. In this study, we did not consider the effect of parents. However, evidence that parents are also important to students' academic engagement is ample (e.g., Furrer & Skinner, 2003; Glasgow, Dornbusch, Troyer, Steinberg, & Ritter, 1997).

2. A fourth style that Baumrind (1991b) identified is *disengaged*. This style refers to behavior that is both nonstructuring and uninvolved. This style was not included because it was not found in the ethnographic study (Verkuyten & Canatan, 2003).

3. Strictly speaking, the level of measurement of Likert-type scales is ordinal. However, like other researchers, we treated them as interval scales.

4. There are two empirical reasons that support the need to analyze our data with multilevel models. First, additional analyses showed that 12.5% of the variance in personal engagement (a central predictor in our study) was attributable to systematic differences between classes ($p < .001$). Researchers should correct for such dependencies at the class-level to obtain unbiased estimates and to prevent spuriously significant results. Second, we compared our results with those we obtained by using repeated measures ANOVAs. The outcomes were not (fully) similar. For example, whereas the repeated measures analyses indicated that students reported more enjoyment with the authoritative teacher than with the permissive teacher, $F(1, 502) = 4.74$, $p < .05$, the multilevel analyses showed that this would be an incorrect conclusion.

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APPENDIX
Personal Engagement Items

1. I am quiet during lessons.
2. I do my homework.
3. During lessons, I try to work as hard as I can.
4. During lessons, I pay more attention to fellow students than to the teacher[a]
5. Going to school is a waste of time.[a]
6. I try hard at school because I want to learn as much as possible.
7. I always try to work hard, even if teachers' instructions are not very clear.

[a]Reverse-coded item.