

School Alienation, Student Learning and Social Behavior
in Challenging Times

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Abstract

Current challenges in the educational sector along with age-related changes during early adolescence contribute to an increased sense of school alienation among students. Across a wide array of student behaviors, the failure to participate in classroom as well as socially deviant behaviors can be viewed as some of the central concerns associated with school alienation. This study examined the change in and cross-lagged relationships among alienation from learning, teachers, and classmates, and different self-reported learning and social behaviors across 508 secondary school students spanning a 1-year interval from Grade 7 to Grade 8. The results revealed a slight increase in school alienation and a decline in classroom participation. Earlier school alienation predicted students' later in-class participation and delinquent behavior, but not vice versa. The three alienation domains were shown to have different relationships with targeted learning and social behaviors: Alienation from learning and from teachers negatively predicted student classroom participation. Alienation from teachers and from classmates contributed to subsequent delinquent behavior. The study results emphasized the importance of school alienation for students' participation in classroom activities as well as in disruptive behaviors. Theoretical and practical implications of the findings for educational research and practice are discussed.

Keywords: classroom participation, cross-lagged panel analysis, delinquent behavior, school alienation

Introduction

Everyday life in modern society is characterized by continuous change and rapid development, challenging all actors in the educational sector. The dissemination of knowledge is greatly accelerated by globalization and rapid technological advances, and is changing the dynamics of its distribution and the processes of its acquisition (Stromquist & Monkman, 2014). As knowledge and information are the most powerful tools in today's knowledge societies, lifelong learning and being able to consistently create, adapt, or acquire new knowledge become key elements for personal success (Van Weert, 2005).

The impermanent nature of knowledge and meaning puts pressure on individuals to continuously filter the abundance of information available in order to stay up to date. This affects millennial generation students, who need to process the large amount of constantly changing information and are required to develop broad sets of skills and competencies to do so (e.g., multitasking, flexibility, reasoning, transmedia navigation, networking) (Jenkins, Purushotma, Weigel, Clinton, & Robison, 2009; Zhang & Zhuang, 2011).

The constant acceleration in all areas of life (i.e., in economics, politics, the cultural and social spheres) and the accompanying challenges can induce various forms of alienation, such as "alienation from space and time, the objective world, social world, and the self," partly because acquisition of new experiences requires time that is not easily available anymore (Rosa, 2009, p. 18). Similarly, students who cannot cope with the high-speed tempo in everyday school life may become increasingly alienated from learning and develop negative attitudes toward school-related activities, and over time, even toward education in general.

The deleterious effects of school alienation may be one of the root causes for various problematic learning and social behaviors in educational contexts, such as deviant, disruptive behavior, or student non-participation in class (Hascher & Hadjar, 2018). If antisocial

behavior caused by alienation is not addressed in a timely manner and adequately, it may spiral into more serious problems and confrontations between students and teachers as well as among students. As a result, alienation from school may increase, which can reinforce further engagement in risky or problem behaviors as they enter adolescence (Calabrese & Adams, 1990). Therefore, school alienation may be helpful in shedding light on why some young people fail to manage the new responsibilities and challenges they face in learning at school. However, little is known about how alienation with regard to different school-related aspects (e.g., learning, teachers, classmates) is associated with students' learning and social behavior.

The present study focused on the direction of the relationship between school alienation and different facets of student learning and social behavior. In particular, we used longitudinal data, with assessments in the first and second year of secondary school (when transition effects have already manifested themselves), to examine the association between three domains of school alienation toward the social and academic aspects of school life (namely learning, teachers, and classmates), student classroom participation, and delinquent behavior.

School Alienation: Conceptualization, Causes, and Consequences

Current theoretical and research literature on school alienation (SAL) reflects some of the alienation categories originally addressed by Seeman (1959), including powerlessness, meaninglessness, normlessness, isolation, and self-estrangement (e.g., Barnhardt & Ginns, 2014). However, there is considerable inconsistency across and even within research studies in how SAL is defined and measured. For example, in the context of motivation research, some scholars defined alienation as a subdimension of academic amotivation (Legault, Green-Demers, & Pelletier, 2006), whereas others suggested that it is the opposite of engagement (e.g., Case, 2008; Fredricks, Blumenfeld, & Paris, 2004), or that it is synonymous with the construct of disengagement (Altenbaugh, Engel, & Martin, 1995).

Further uncertainty exists about whether engagement and disengagement are bipolar opposites or rather distinct constructs (Martin, 2013). Moreover, considering that the concept of engagement is measured in many different ways, it may not be surprising that it often overlaps with other constructs (Wefald & Downey, 2009), such as alienation. Several studies have argued that alienation is not a necessary condition for disengagement (Barnhardt & Ginns, 2014) and that alienation and engagement are not symmetrically opposite constructs (Schabracq & Cooper, 2003). For example, an individual may be disengaged for many reasons, but not necessarily feel alienated, or perhaps a person can be engaged in school activities, whilst at the same time be alienated. A recent review of SAL research critically examined the similarities and differences between the concepts of alienation and disengagement, questioning the idea of equalizing the two constructs (for an overview, see Hascher & Hadjar, 2018).

There is, however, some consensus that alienation in educational settings represents a multidimensional construct (e.g., Johnson, 2005) and typically manifests itself in three school-related domains (Hascher & Hadjar, 2018): alienation from learning (1), from teachers (2), and from classmates (3). First, seeing little practical value in education and its relevance to everyday life leads to estrangement from learning processes at school (Eccles & Roeser, 2009). Second, lack of teachers' emotional involvement and inability to satisfy students' needs may contribute to a distancing between teachers and students (Ifeagwazi, Chukwuorji, & Zacchaeus, 2015). Third, lack of positive and supportive interactions among students, rejection from peers, and feelings of non-belonging are substantially related to feelings of loneliness and students' distancing from their classmates (Buhs & Ladd, 2001; Mouratidis & Sideridis, 2009). Consequently, in the study presented in this chapter, we address SAL as a set of negative attitudes toward learning, and/or the teachers, and/or the classmates, and eventually school as a whole, comprising both cognitive (i.e., students' beliefs, assumptions,

perceptions, and judgments) and emotional (i.e., students' feelings toward school) aspects (Hascher & Hadjar, 2018).

There may be a variety of reasons at different levels for the development of SAL (Hascher & Hadjar, 2018). Today's sped-up social life (i.e., social acceleration) may be a considerable source of alienation (Rosa, 2009, 2013, 2016) at the societal level, however, factors at the micro- (i.e., individual) and meso- (i.e., classroom, school) levels cannot be neglected. Accordingly, the development of SAL needs to be investigated from a multi-causal perspective (Hascher & Hadjar, 2018). The alienation process is most likely to occur and may be of special relevance during early adolescence, when individuals experience declines in academic motivation and interest in learning along with a mismatch between their needs and changes in the classroom and school environments (Archambault, Janosz, Morizot, & Pagani, 2009). Such a mismatch gives rise to psychological and physical disengagement from school, progressing into SAL, and sometimes even into dropping out (Eccles & Roeser, 2009; Gutman & Eccles, 2007). However, when students perceive their learning environments as meaningful and effective, they are more likely to express motivated and cognitively engaged behavior in classrooms (Blumenfeld, Kempler, & Krajcik, 2006). For example, students who understand the growing importance of acquiring new skills and competencies needed in a modern era, who find themselves in a context where education seems to matter, are more likely to actively participate in school life and less likely to exhibit SAL. Conversely, those who do not see any value in education may become increasingly disenchanted with and alienated from school. In addition, as students enter secondary education, they often undergo the selection and ability grouping pressure, because they are allocated to different school tracks according to previous assessment of their ability level (Betts & Shkolnik, 2000).

The central challenge of SAL lays in the associated short-term and long-term negative experiences, including health-damaging behaviors, family problems, poor well-being, depression, difficulties in fitting in, low student participation, or antisocial behavior and delinquency (Dekel & Tuval-Mashiach, 2012; Tarquin & Cook-Cottone, 2008). One severe long-term consequence of SAL is detachment from the whole education system (Tarquin & Cook-Cottone, 2008; Wehlage & Rutter, 1986).

School Alienation, Student Learning and Social Behavior

School alienation and classroom participation. It can be assumed that school alienation develops slowly over time, showing its early manifestations through low participation in the classroom (Hascher & Hadjar, 2018). Student classroom participation is an indicator of behavioral engagement represented by students' active involvement in classwork, including asking and answering questions, contributing to in-class discussions, and showing attention, persistence, and diligence (e.g., Jones, 2008; Skinner, Kindermann, & Furrer, 2009).

The transition to secondary school is often accompanied by a decreased level of participation in school along with difficulties to overcome it (Rocca, 2010). Some studies revealed a dramatic decrease in participation during the seventh grade, which continues to decline as one goes up in grade level (Blyth, Simmons, & Carlton-Ford, 1983). Students' unwillingness to participate in learning processes may also be attributed to intensified SAL and non-identification with school, which are especially evident during the period of early adolescence (Barber, Stone, Hunt, & Eccles, 2005). Alienated adolescents may ignore the importance of performing the required tasks and refuse to participate in class activities.

Some researchers simply confirmed the negative association between student alienation and student participation (e.g., Barber et al., 2005; Çağlar, 2013; Staples, 1977), without specifying the direction of the relationship. Most studies considered a lack of

student participation as a consequence of SAL (e.g., Hascher & Hagenauer, 2010; Murdock, 1999). Nevertheless, classroom participation could also serve as an individual resource to prevent students from becoming alienated from school (Astin, 1999; Carlson, 1995). More research is needed that specifies the relationship between SAL and participation because of the utmost importance of students' participation for their thriving in modern society (Appleton, Christenson, & Furlong, 2008; Rocca, 2010).

School alienation and delinquent behavior. The relationship between SAL and undesirable school behaviors has been well established (Sankey & Huon, 1999; Williamson & Cullingford, 1998). Delinquent behavior in school is defined as disruptive behavior in classroom and school environments as well as psychological and physical aggression against teachers and classmates (Melzer, Schubarth, & Ehninger, 2006). SAL represents a crucial factor in influencing such school-related problems as disruptive and delinquent behavior (Yuksekk & Solakoglu, 2016). Delinquent groups show higher levels of alienation (Calabrese & Adams, 1990) with social bonding variables as moderators of the effects of SAL on delinquency (Yuksekk & Solakoglu, 2016). Further, higher degrees of SAL were shown to increase the risk of undesirable behavior among school children, such as bullying (Natvig, Albrektsen, & Qvarnström, 2001).

Although previous research has firmly established the association between SAL and delinquency, the causal direction of the relationship has not been assessed to date because of the cross-sectional nature of the previous studies (Calabrese & Adams, 1990; Sankey & Huon, 1999). With a specific stress on challenging times, it is important to test the role of SAL in delinquency and their mutual relationship.

The Present Study

Previous findings have shown correlations between SAL and students' learning and social behavior (Barber et al., 2005; Hoermann et al., 2005; Sankey & Huon, 1999). The current one-year study went beyond prior research by examining the association between early adolescents' alienation from social and academic aspects of schooling and various facets of their learning and social behavior. We specifically focused on adolescents in the first and second years of secondary school (Grades 7 and 8), because this developmental period is often associated with an increase both in SAL and delinquency (Hascher & Hagenauer, 2010; Simons, Chao, Conger, & Elder, 2001) and a decline in participation in school (Rocca, 2010). Applying a cross-lagged design (see Figure 1), we investigated the relationships among study constructs separately for each SAL domain, gaining a deeper understanding of the distinct effects of academic (i.e., learning) and social (i.e., teachers and classmates) aspects regarding students' learning and social behavior.

More specifically, we addressed two research questions:

1. How do SAL domains (i.e., alienation from learning, from teachers, from classmates) and related facets of learning and social behavior (i.e., student classroom participation, delinquent behavior) change from Grade 7 to 8?

We expect that SAL and delinquent behavior increase over the time course of a school year (Hypothesis 1a) due to an increasing misfit of student needs and learning environment (Archambault et al., 2009; Mann, 2005). We predict a decrease in student classroom participation (Hypothesis 1b) based on previous findings that have revealed declines in participation in secondary schools as students progress in grade level (e.g. Archambault et al., 2009; Blyth et al., 1983).

2. What is the relationship between the SAL domains and facets of learning and social behavior between Grades 7 and 8?

We expected that earlier alienation from learning, teachers, and classmates would negatively predict later classroom participation (Hypothesis 2a) and positively predict students' later disruptive and delinquent behavior (Hypothesis 2b). Although we hypothesized that SAL is predictive of student learning and social behavior (Hascher & Hagenauer, 2010; Murdock, 1999; Yuksek & Solakoglu, 2016), we also tested potential reversed and reciprocal cross-lagged relationships among these variables. For example, one could expect highly active and involved students to be less alienated from school later (Astin, 1999; Carlson, 1995). One could also expect a mutual influence over time: school alienation may affect subsequent learning and social behavior which in turn may have an impact on later school alienation. Cross-lagged panel analysis allows to test whether cross-lagged effects arise in both directions (Selig & Little, 2012).

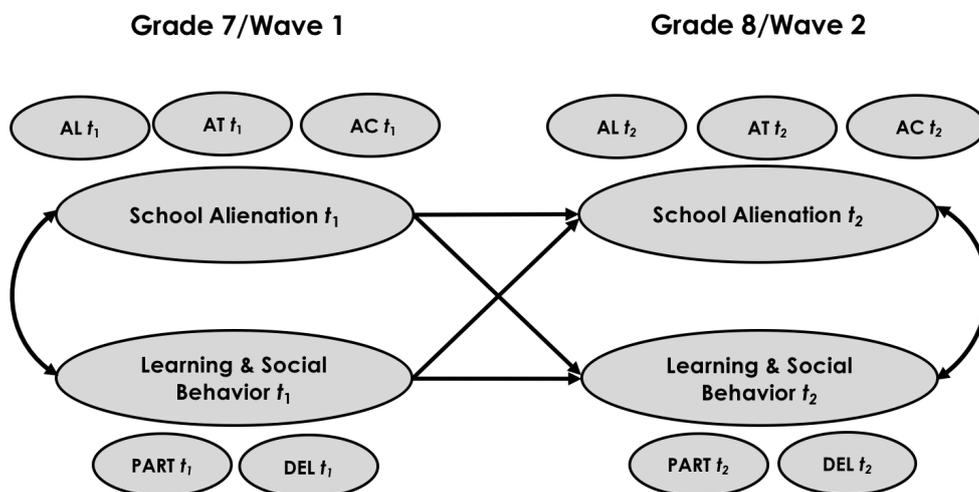


Figure 1. Hypothesized cross-lagged panel model of the relationship between the domains of school alienation and facets of learning and social behavior between Grade 7 and Grade 8. AL = Alienation from Learning. AT = Alienation from Teachers. AC = Alienation from Classmates. PART = Student Classroom Participation. DEL = Delinquent Behavior. t_1 = Wave 1. t_2 = Wave 2.

Method

Participants and Procedure

This study used data from two waves of the longitudinal research project “School Alienation in Switzerland and Luxembourg” (SASAL, 2015-2018). The sample for this study consisted of 508 secondary school students from the Swiss canton of Bern who completed surveys at Grade 7 and Grade 8 and participated in both waves (45.6% male; $M_{\text{age}}(t_1) = 13.0$ years [$SD = .54$]; $M_{\text{age}}(t_2) = 14.0$ years [$SD = .57$]).

At the secondary level in Switzerland, students are allocated to different school tracks. In our sample, the majority of students (55%) were students from the middle track (*Sek*), 36% from the lower track (*Real*), and 9% from the upper track (*Spez-Sek*), approximating the true population distribution in the Swiss canton of Bern (Allraum, Marti, Wassmer, & Bucher, 2016). Academically demanding *Sek* and *Spez-Sek* tracks prepare students for grammar schools (*Kantonsschule* or *Gymnasium*) and further studies at the university level.

Participants were recruited on a voluntary basis via school principals and teachers and were assured of complete confidentiality and anonymity. Data collection was conducted by trained personnel who administered self-report questionnaires to students in their classrooms during regular school-time. Integrated within a framework of a larger project, data collection for the variables presented here took about 15 minutes at each time point. There was a negligible amount of missing data due to student nonresponse (less than 0.8% of missing data at the item level).

Measures

School alienation. Twenty-four items of the School Alienation Scale (SALS; Hascher & Hadjar, 2018; Morinaj et al., 2017) were used to tap SAL. Participants responded to the items on a 4-point Likert scale ranging from 1 (*disagree*) to 4 (*agree*) at each time point. Based on previous exploratory and confirmatory factor analyses (see Morinaj et al., 2017),

three subscales were formed and were used as factor indicators, including (a) *Alienation from Learning* (8 items, e.g., “I don’t find pleasure in learning at school”; $\alpha_{t1} = .88$, $\alpha_{t2} = .86$), (b) *Alienation from Teachers* (8 items, e.g., “I do not feel taken seriously by my teachers”; $\alpha_{t1} = .79$, $\alpha_{t2} = .85$), and (c) *Alienation from Classmates* (8 items, e.g., “In my class I feel like someone who doesn’t fit in”; $\alpha_{t1} = .83$, $\alpha_{t2} = .80$). The SALS was validated across the Swiss and the Luxembourgish primary and secondary school students and across gender and demonstrated good psychometric properties (Morinaj et al., 2017).

Student classroom participation. Five items representing students’ attention, effort, and persistence while participating in classroom learning (e.g., “I take an active part in the classroom”) were used to measure student classroom participation (Eder, 1995). Items were rated on a 4-point scale (1 = *disagree* to 4 = *agree*). The scale showed good psychometric properties ($\alpha_{t1} = .81$, $\alpha_{t2} = .82$).

Delinquent behavior. Students’ delinquent behavior (Melzer et al., 2006; $\alpha_{t1} = .94$, $\alpha_{t2} = .93$) was assessed with 19 items. Participants were requested to indicate the frequency of specific delinquent behavior during the last 12 months (e.g., “Annoying or provoking a teacher”) on a 6-point scale from 1 = *never* to 6 = *almost daily*.

Data Analysis Strategy

To investigate the change in SAL, in learning and social behavior, as well as the cross-lagged relationships between these constructs across the two measurement points, we employed structural equation modelling using the statistical package Mplus Version 7.31 (Muthén & Muthén, 1998-2012). As a preliminary step, we tested for factorial measurement invariance of the constructs across the two measurement points (Brown, 2015; Newsom, 2015). Separate measurement models were designed for each SAL domain paired with each of the three facets of learning and social behavior at t_1 and t_2 . First, we assessed the models in which factor loadings were freely estimated across the two waves (nonrestricted models).

Second, the corresponding factor loadings were constrained to equality across time (restricted models). Third, Satorra–Bentler scaled difference chi-square tests between the non-restricted and restricted models were conducted (Satorra & Bentler, 2001). Residuals of the corresponding items were allowed to correlate over time in all models.

In the next step of the analyses, we tested the hypothesized structural model with two time waves applying cross-lagged panel analysis (see Figure 1). We simultaneously evaluated the cross-sectional correlations between the three SAL domains and the three facets of learning and social behavior, the temporal stability of the constructs, and their cross-lagged effects (i.e., effects of SAL on learning and social behavior and vice versa) over time, estimating nine smaller models.

For all analyses, we used the maximum likelihood estimation with robust standard errors (MLR). Goodness of fit was assessed based on several fit indices: χ^2/df -ratio, the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residual (SRMR). As a general practice, models with $\chi^2/df > 2$, $CFI \leq .90$, $RMSEA$ and $SRMR \geq .08$ should not be accepted (Little, 2013; Schermelleh-Engel, Moosbrugger, & Müller, 2003). The Satorra-Bentler scaled chi-square was used for chi-square difference testing.

Results

Descriptive Statistics

The intercorrelations among all the constructs included in the study were computed for both points of time (Grades 7 and 8). As expected (see Table 1), the SAL domains correlated negatively with student self-reported classroom participation both synchronously and over time, and positively with self-reported delinquent behavior; student classroom participation correlated negatively with delinquent behavior.

Table 1

Mean Values and Correlations between the School Alienation Domains and Facets of Learning and Social Behavior at Two Measurement Points

	1	2	3	4	5	6	7	8	9	10
1. AL t_1	–									
2. AL t_2	.63**	–								
3. AT t_1	.49**	.36**	–							
4. AT t_2	.32**	.49**	.52**	–						
5. AC t_1	.23**	.21**	.37**	.32**	–					
6. AC t_2	.14**	.33**	.28**	.46**	.57**	–				
7. PART t_1	-.49**	-.33**	-.35**	-.20**	-.18**	-.09*	–			
8. PART t_2	-.42**	-.53**	-.32**	-.39**	-.14**	-.17**	.55**	–		
9. DEL t_1	.32**	.22**	.33**	.22**	.21**	.11*	-.30**	-.28**	–	
10. DEL t_2	.23**	.28**	.30**	.31**	.25**	.22**	-.20**	-.30**	.60**	–
<i>M</i>	1.83	1.90	1.56	1.65	1.50	1.53	3.31	3.26	1.48	1.49
<i>SD</i>	.56	.54	.46	.53	.44	.48	.47	.49	.66	.64

Note. AL = Alienation from Learning. AT = Alienation from Teachers. AC = Alienation from Classmates. PART = Student Classroom Participation. DEL = Delinquent Behavior. t_1 = Wave 1. t_2 = Wave 2.

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

We next examined whether SAL or students' learning and social behavior changed as students moved from Grade 7 to Grade 8 (Hypotheses 1a and 1b). The results of dependent t -test for paired samples considering two time points determined that students' alienation from learning and teachers slightly increased over a period of 1 year ($p < .01$, $d = 0.13$ and $p < .001$, $d = 0.18$, respectively). A small increase was also observed in students' alienation from classmates, however, the result was not statistically significant ($p > .05$). Student classroom participation was found to decrease across time ($p < .01$, $d = 0.10$). There was no significant difference in self-reported delinquent behavior between t_1 and t_2 ($p > .05$).

Measurement Models

We constructed separate measurement models for each SAL domain across the two facets of learning and social behavior over the two measurement points. The goodness-of-fit indices for the (a) non-restricted and (b) restricted models are presented in Table 2.

Constraining the factor loadings to be equal over time still provided a close fit to the data and yielded a non-significant chi-square difference, confirming that there was no substantial

difference between the non-restricted (1a–2a) and more constrained (1b–2b) models. Thus, the results revealed a cross-time measurement invariance for the SAL domains and the facets of learning and social behavior.

Table 2

Model Fit Indices for Tested Measurement Models

Model	Overall Fit Indices					Model Comparison	Comparative Fit Indices	
	χ^2	<i>df</i>	CFI	RMSEA	SRMR		$\Delta\chi^2$	Δdf
Alienation from learning								
1a. AL–PART	471.05	268	.96	.04	.04	–	–	–
1b. AL–PART	481.69	279	.96	.04	.05	1b vs. 1a	10.50 (ns)	11
2a. AL–DEL	2165.59	1286	.92	.04	.06	–	–	–
2b. AL–DEL	2201.01	1311	.92	.04	.06	3b vs. 3a	38.46 (ns)	25
Alienation from teachers								
1a. AT–PART	402.96	280	.97	.03	.04	–	–	–
1b. AT–PART	414.67	291	.97	.03	.04	1b vs. 1a	11.60 (ns)	11
2a. AT–DEL	2162.15	1298	.92	.04	.06	–	–	–
2b. AT–DEL	2198.05	1323	.92	.04	.06	3b vs. 3a	38.54 (ns)	25
Alienation from classmates								
1a. AC–PART	370.18	234	.96	.03	.05	–	–	–
1b. AC–PART	385.93	244	.96	.03	.05	1b vs. 1a	15.76 (ns)	10
2a. AC–DEL	2030.24	1196	.92	.04	.06	–	–	–
2b. AC–DEL	2067.06	1220	.92	.04	.06	3b vs. 3a	38.69 (ns)	24

Note. a = non-restricted models, b = restricted models. AL = Alienation from Learning. AT = Alienation from Teachers. AC = Alienation from Classmates. PART = Student Classroom Participation. DEL = Delinquent Behavior. CFI = Comparative Fit Index. RMSEA = Root Mean Squared Error of Approximation. SRMR = Standardized Root Mean Square Residual. $\Delta\chi^2$ and Δdf = changes in chi-square and degrees of freedom between the non-restricted and restricted models. ns = nonsignificant.

Cross-Lagged Panel Models

To explore the structural relationships between the SAL domains and the facets of learning and social behavior across time, we specified separate cross-lagged panel models, constrained in compliance with the established factorial invariance. For all models, we constrained the factor loadings for repeated indicators to be equal across t_1 and t_2 , and included correlated measurement residuals among the corresponding items. The final cross-lagged models exhibited good model fit (see Table 3).

Table 3

Results of Cross-Lagged Structural Models for School Alienation Domains and Facets of Learning and Social Behavior

Model	χ^2	<i>df</i>	CFI	RMSEA	SRMR
Alienation from learning					
AL-PART	483.24	280	.96	.04	.05
AL-DEL	2201.01	1311	.95	.04	.05
Alienation from teachers					
AT-PART	415.51	292	.97	.03	.05
AT-DEL	2198.33	1324	.95	.04	.06
Alienation from classmates					
AC-PART	386.95	246	.96	.03	.05
AC-DEL	2067.06	1220	.95	.04	.06

Note. AL = Alienation from Learning. AT = Alienation from Teachers. AC = Alienation from Classmates. PART = Student Classroom Participation. DEL = Delinquent Behavior. χ^2 = chi-square. *df* = degrees of freedom. CFI = Comparative Fit Index. RMSEA = Root Mean Squared Error of Approximation. SRMR = Standardized Root Mean Square Residual.

Alienation from learning, classroom participation, and delinquent behavior. The model for the cross-lagged relations between alienation from learning and student classroom participation fitted the data well (see Table 3) and is illustrated in Figure 2. It accounted for 43% of the variance in student classroom participation in Grade 8. Students feeling alienated from learning at t_1 reported less participation in classroom activities at t_2 ($\beta = -.18, p < .01$). The reverse path between student classroom participation and alienation from learning was not significant. The data revealed relatively high autoregressive coefficients for alienation from learning ($\beta = .72, p < .001$) and student classroom participation ($\beta = .51, p < .001$), suggesting only little changes in individuals' standings on the constructs over a 1-year period. The time-specific correlations between the two constructs (i.e., correlations at each measurement occasion) confirmed a negative association. No cross-lagged relations between alienation from learning and delinquent behavior were found.

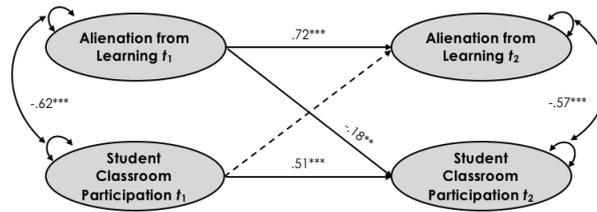


Figure 2. Standardized parameter estimates for the cross-lagged model of the relations between alienation from learning and student classroom participation at Grades 7 (t_1) and 8 (t_2). Dashed line indicates a nonsignificant path. $N = 508$. * $p < .05$, ** $p < .01$, *** $p < .001$.

Alienation from teachers, classroom participation, and delinquent behavior. The models for the cross-lagged relationships between alienation from teachers and student classroom participation as well as alienation from teachers and delinquent behavior suggested a very good fit to the data (see Table 3). The total variance accounted for in student classroom participation and delinquent behavior at t_2 was 41% and 40%, respectively. It was found that students’ feelings of alienation from teachers in Grade 7 significantly negatively predicted their classroom participation ($\beta = -.12, p < .05$) and positively predicted delinquent behavior ($\beta = .13, p < .05$; see Figure 3) in Grade 8. The reverse effects, however, were not significant. The autoregressive coefficients revealed relatively high stability across time.

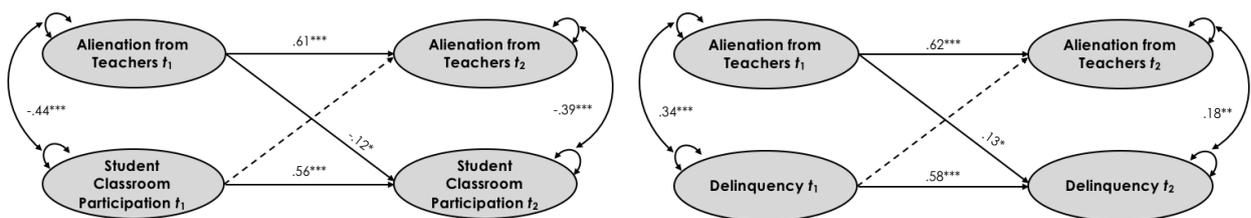


Figure 3. Standardized parameter estimates for the cross-lagged model of the relations between alienation from teachers and the two facets of learning and social behavior at Grades 7 (t_1) and 8 (t_2). Dashed lines indicate nonsignificant paths. $N = 508$. * $p < .05$, ** $p < .01$, *** $p < .001$.

Alienation from classmates, classroom participation, and delinquent behavior.

The model (see Figure 4) fitted the data well (see Table 3) and accounted for 41% of the variance in delinquent behavior in Grade 8. We observed a significant negative effect of alienation from classmates at t_1 on delinquent behavior at t_2 ($\beta = .17, p < .05$). However,

earlier delinquent behavior did not predict later alienation from classmates. The specified constructs demonstrated relatively high temporal stability, indicating little change in individuals' standings on the constructs across time. The cross-lagged effects between alienation from classmates and student classroom participation were not significant.

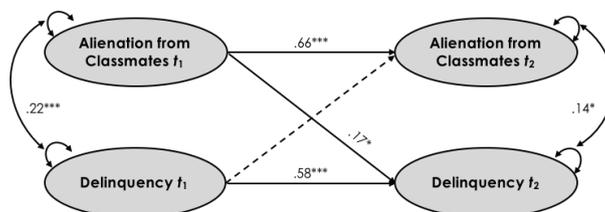


Figure 4. Standardized parameter estimates for the cross-lagged model of the relations between alienation from classmates and delinquent behavior at Grades 7 (t_1) and 8 (t_2). Dashed line indicates a nonsignificant path. $N = 508$. * $p < .05$, ** $p < .01$, *** $p < .001$.

Discussion

The purpose of this one-year study was to examine the cross-lagged relations between adolescents' SAL and their learning and social behavior during the first years of secondary school. In drawing attention to the developmental period after the transition to secondary school, this study addresses limitations in the existing alienation research. Of particular significance in the current study is the finding that early experiences of alienation from learning, teachers, and classmates have an impact on later student in-class participation and (undesirable) school behaviors.

The results firstly showed that SAL slightly but significantly increased from Grade 7 to Grade 8 (Hypothesis 1a). This finding adds to the body of literature that SAL increases with grade level (Hascher & Hagenauer, 2010; Murdock, 1999) and highlights the accumulating problems of adolescent students in current times. It also enriches the existing research by showing that the increase differs for different dimensions of SAL because no intensification in students' alienation from classmates occurred. This can be explained by the growing importance of peer relationships during the period of early adolescence, when

students depend more strongly on friends and start establishing close relationships with peers in order to satisfy their needs for acceptance and relatedness (Furman & Collins, 2009).

Social relationships along with the quality of the teaching and learning environment can be regarded as key variables for alienation prevention. Because at this period individuals experience significant emotional and cognitive changes (e.g., Schunk & Meece, 2005), efforts to establish a supportive classroom climate and ensure meaningful learning activities seem to be particularly important.

The study results also confirmed the assumption evident in prior research (Rocca, 2010) that student classroom participation decreases with grade level (Hypothesis 1b). Decline in students' intrinsic academic motivation and interest in learning over time (Gottfried, Fleming, & Gottfried, 2001), accompanied by school environments that do not satisfy their needs (Archambault et al., 2009; Mann, 2005), could explain students' reduced willingness to participate in classroom learning. Due to the harmful long-term consequences of school alienation and low participation in education such as school failure (Hascher & Hadjar, 2018), nurturing students' interest and motivation to learn in school and creating space for students' participation should advance to the top of schools' agendas.

Regarding delinquency, we did not find any changes. This might be due to the self-report measurements, but is also in line with previous research which supported a greater stability than change in delinquency during adolescence (Moffitt, Lynam, & Silva, 1994). Future studies should include potential moderators of stability (e.g., family functioning, peer group influences) as well as account for the influences across longer time spans.

With regard to the second research question, we found evidence that former SAL predicts later in-class participation (Hypothesis 2a). The finding supports those alienation theories that propose SAL as an antecedent of student classroom participation (Murdock, 1999). This association was observed in regard to alienation from learning and alienation

from teachers, but not for alienation from classmates. Alienation from learning and teachers in particular, may hinder students' active partaking in learning, which again is a necessity for the current student generation who need to acquire a vast amount of knowledge and skills required for integration into today's and also tomorrow's knowledge society.

One explanation for the finding that the learning domain of school alienation was negatively associated with in-class participation may be that perceptions of irrelevance of academic learning along with negative feelings toward education, especially during adolescence, play a more decisive role in student non-participation (Archambault et al., 2009; McGivney, 2014). Conceptual overlap between the constructs of alienation from learning and classroom participation may also be a potential explanation for this result.

At the same time, our results showed that a powerful impact stems from the teacher–student relationship, presumably due to an influential role of teachers in structuring and encouraging active learner participation in lessons (Cornelius-White, 2007). The relationships between teachers and students shape the quality of classroom learning experiences and stimulate students' motivation and learning (Davis, 2003). Thus, perceiving teacher–student relationships as supportive along with seeing the connection between learning and life may both result in increased attachment to school and student participation in class, including for students who are at risk for struggling in school in our current society. From this perspective, questioning what constitutes good teacher–student relationships as well as classroom quality might be beneficial in responding to the changes and challenges in the educational sector.

Consistent with previous research (Calabrese & Adams, 1990; Yuksek & Solakoglu, 2016), SAL was positively related to delinquency. Specifically, our results confirmed the direct relationship between SAL in Grade 7 and students' disruptive and delinquent behavior in Grade 8 (Hypothesis 2b), however, only in regard to alienation from social actors. Our findings support those of previous studies which have shown that quality teacher–student and

student–student relationships (Calabrese & Adams, 1990; Hurrelmann & Bründel, 2007) serve as protective mechanisms against disruptive and deviant school behaviors.

Limitations and Future Directions

The findings need to be interpreted in light of several limitations. First, all our measures were based on self-reports rather than more objective measures of SAL, in-class participation, and delinquent behavior. Research that includes, for example, teacher-reported measures of students' classroom behaviors, would offer additional evidence to students' responses. A mixed-method approach that combines student self-report with observational data could also be a relevant approach in this context. A further limitation concerning the operationalization of constructs is the potential overlap between the constructs of alienation from learning and classroom participation (e.g., if self-reported low classroom participation is not understood as a consequence of alienation but is interpreted as an indicator of self-reported alienation). Future research that integrates observational data of individual classroom behavior could shed some light on this issue.

A second limitation is the restricted possibilities with the two-wave models. Confirming measurement invariance at two waves does not indicate invariance across all waves in a multiple-wave design (Newsom, 2015). Having three or more waves of data could strengthen cause-and-effect interpretations and would be beneficial for assessing the temporal stability of lagged relationships over time (Newsom, Jones, & Hofer, 2013).

Third, the models include only selected variables and do not provide a complete picture of the variables that may affect SAL and students' behaviors. Future research may address other forms of behavioral engagement (e.g., extracurricular participation, attendance) and consider various types of delinquent behavior, such as cyberbullying, substance abuse, or even school shootings. Fourth, in interpreting the study results, the cultural context has to be taken into account. Subsequent studies should be carried out with other cultural groups to

allow more generalizable inductions from the data. Finally, future research must analyze the specific interplay of SAL and different forms of (dis)engagement. Further research is also needed to explore the role of SAL in other forms of learning and social behavior (e.g., learning behavior outside school, concentration, absenteeism).

Implications for Education

Despite these limitations, the findings also have some practical implications. Schools as well as education policy are facing the problem of increasing SAL. In order to respond to the needs of students who are alienated by the current educational system, it is important to ensure quality education and promote sustainable development within a society. If schools and teachers aim to reduce SAL and the risk of delinquent behavior as well as to stimulate student in-class participation, they have to nurture healthy and high-quality teacher–student as well as student–student interactions and create school environments that foster meaningful academic learning. With the increased role of knowledge and the growing importance of developing various skills and competencies (Jenkins et al., 2009), schools should facilitate those classroom practices that would help students to fulfill their future roles in modern society and reflect on the new responsibilities and life challenges they face. Considering that secondary school environments are frequently characterized by an emphasis on teacher control and discipline, with few opportunities for student decision making, problem solving, and self-management, and less personal teacher–student relationships (Drexler, 2010; Eccles et al., 1991), creating an appropriate educational environment for early adolescents is another important task. By providing an appropriate educational environment that responds to the demands of contemporary society as well as students' developmental needs, educational institutions will facilitate not only adolescents' sense of school belonging, interest and motivation in school life, but also confidence in their own abilities and chances to develop and grow as responsible and productive citizens.

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