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Peer Norm Salience for Academic Achievement, Prosocial Behavior, and Bullying: Implications for Adolescent School Experiences

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Abstract

This study investigated the significance of classroom-level norm salience, calculated as the within-classroom correlation between a behavior and peer-nominated popularity, by examining the extent to which norm salience moderated the relation of individual classroom behaviors (academic achievement, prosocial behavior, and bullying) with peer acceptance, and was associated with between-classroom differences in student-rated feelings about school and teacher-rated academic performance. Participants were students ($n = 3,231$, $\bar{X}_{\text{age}} = 13.60$) attending 164 school classrooms in 30 secondary schools in the Netherlands. Results of our study demonstrate that norm salience scores are distinct from measures of descriptive norms, moderate the relations of individual classroom behaviors with peer acceptance, and can be used to define an overall profile of classroom peer norms that is related to independent measures of student adjustment.

Keywords

peer norms, norm salience, peer acceptance, popularity, aggression/bullying, prosocial behavior, academic performance

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Peers contribute to individual development through direct interactions that may occur at the dyadic or small group level, but peers also define a broader social context in which such interactions take place. Researchers characterize this broader, setting-level context with the concept of peer norms, which has been conceptualized and measured in diverse ways. One key distinction is between descriptive norms, which indicate what most people *actually* do ("what is"), and injunctive norms, which describe what people *should* do ("what ought to be"; Deutsch & Gerard, 1955). Operationally, descriptive and injunctive norms are typically measured by aggregating individual-level measures of behaviors and attitudes, respectively, across all individuals within a setting to arrive at classroom-level indices. This aggregation strategy is effective but other approaches to measuring norms directly at the classroom level are also possible (Tseng & Seidman, 2007). For example, Cialdini, Kallgren, and Reno (2007) coined the term *norm salience* to describe the sanctions (either positive or negative) associated with a behavior in a particular setting, such as the classroom, and contrasted norm salience with both descriptive and injunctive norms. The purpose of this study is to build on promising earlier studies of norm salience (Dijkstra, Lindenberg, & Veenstra, 2008; Henry et al., 2000) by demonstrating its relevance with respect to three distinct behaviors in a sample of school classrooms.

Researchers often characterize setting-level peer norms in terms of descriptive norms measured as the average behavior of individuals in a setting (typically a classroom). This research tradition builds on theories of normative influence (Cialdini, 2007; Cialdini et al., 1991; Deutsch & Gerard, 1955) suggesting that behavior that is descriptively normative is likely to be associated with acceptance. Numerous studies of peer contexts provide empirical support for this view, showing that consistent with the social misfit model (Wright, Giammarino, & Parad, 1986), children who deviate from the descriptive norm are more at risk of being rejected and less accepted by their peers, that is, the strength of the relation between behavior and acceptance or rejection depends on the average behavior of peers (Boivin, Dodge, & Coie, 1995; Chang, 2004; Sentse, Scholte, Salmivalli, & Voeten, 2007; Wright et al., 1986). For example, in first-grade classrooms with higher levels of peer-nominated aggression (i.e., high descriptive norms for aggression), aggression was more positively (less negatively) associated with peer preference. Moreover, descriptive norms for aggression in first-grade classrooms predict increases over time in aggressive behavior as youth move through elementary school (Kellam, Ling, Merisca, Brown, & Ialongo, 1998; Thomas, Bierman, & Powers, 2011), suggesting that descriptively normative behavior may shape individual development through a variety of social learning mechanisms.

Although the descriptive norm approach has shown how classroom-level measures affect the relation between individual behaviors and acceptance and rejection, one potentially important shortcoming of this approach is that it places equal weight on the behavior of all peers in a setting. Hence, an alternative approach of capturing classroom-level norms is a norm salience approach. This approach holds that behaviors correlated with status (i.e., behaviors displayed more by high-status peers than by low-status peers) within the classroom may be particularly influential. So contrary to descriptive norms, a norm salience approach accounts for potential differences in influence among peers by weighting the impact of behavior by means of the status of individuals. From this perspective, behaviors that are correlated with and contribute to status are likely to be positively evaluated (Dijkstra, Lindenberg, Verhulst, Ormel, & Veenstra, 2009) so that popular individuals influence what is considered attractive and valuable and function as role models (Bandura, 1977). As a consequence, behavior of popular individuals might be imitated by peers either to directly enhance someone's own status in the peer group or to increase affiliation with popular peers, and indirectly gain status by a process of basking in reflected glory (Dijkstra, Cillessen, & Borch, 2013; Dijkstra, Cillessen, Lindenberg, & Veenstra, 2010). The norm salience perspective may be increasingly relevant in adolescence, a developmental period when popularity becomes quite distinct from social acceptance and youth have a heightened awareness of status dynamics (Cillessen & Rose, 2005). Popular adolescents are seen as powerful and influential (Cillessen & Rose, 2005; Lease, Kennedy, & Axelrod, 2002), and even though they may not be liked by all of their peers, they may still have a disproportionate influence on which behaviors are valued (Kruglanski et al., 2002). For example, Dijkstra and colleagues (2008) found that associations between bullying and peer acceptance and rejection were dependent on involvement of popular adolescents in bullying rather than the general level of involvement of all peers.

This article extends the emerging literature on the norm salience approach in three ways. First, we examine the correlation between descriptive norms and norm salience to clarify the extent to which these conceptually distinct measures are also empirically distinct. Second, we examine to what extent measures of descriptive norms and norm salience in three different behavioral domains (academic achievement, prosocial behavior, and bullying) moderate the association between these behaviors and peer acceptance. In doing so, we broaden the application of these peer norm measures beyond the constructs of aggression and bullying (Dijkstra et al., 2008; Henry et al., 2000) to include prosocial behavior and academic achievement because the latter outcomes tend to be understudied in relation to peer norms and because

academic achievement becomes more ambiguously evaluated by peers in adolescence (Galván, Spatzier, & Juvonen, 2011). Given our developmental reasoning and our focus on adolescence, we expect that norm salience will be the primary driver of the behavioral correlates of acceptance rather than descriptive norms such that academic reputation and prosocial behavior will be more strongly associated with peer *acceptance* (liking) in classrooms where those behaviors are more strongly correlated with peer-nominated *popularity*, whereas bullying will be less strongly related to lower peer acceptance in classrooms where bullying is more strongly related with peer-nominated popularity.

Third, we examine the extent to which the salience of norms in different behavioral domains are interrelated and constitute a broader classroom climate that is associated with broader student perceptions and experiences of the classroom. At least two processes could lead to significant intercorrelations among norm salience across different behavioral domains. First, because different behavioral domains are typically intercorrelated at the individual level (e.g., academic skills are positively correlated with prosocial behavior), popular youth who are high in one behavioral domain are (probabilistically) likely to be high in a correlated behavioral domain, leading to significant correlations among norm salience scores for the two behaviors. Second, norm salience in one domain might influence norm salience in other domains. For instance, research by Keizer, Lindenberg, and Steg (2008) showed that violation of a specific norm in streets, such as the presence of graffiti, predicted rule violations in other domains, such as stealing and littering. In a similar way, classrooms in which adult-favored behaviors such as academic success are associated with popularity may influence youth to place higher value on other adult-favored behaviors such as prosocial behavior. To the extent that some combination of these processes are at work, we should observe significant associations among norm salience scores across behavioral domains as norm salience in one domain constrains the likely range of values in other domains. Such mutual constraints among norm salience scores could result in broad differences between classrooms having a desirable peer norm salience profile (i.e., peer support for academic achievement and prosocial behavior but not for bullying) and those with a less desirable norm salience profile. Extending this logic, it is possible that norm salience profiles constitute a broader classroom climate that constrains opportunities for adaptation in other domains and thus are associated with other indicators of social, emotional, and academic adjustment. If this were the case, it would suggest that norm salience scores provide an efficient means of assessing developmentally important features of the classroom context (Gest, Osgood, Feinberg, Bierman, &

Moody, 2011; Tseng & Seidman, 2007). Accordingly, we expect that classrooms with more desirable peer norm salience profiles will also be characterized by fewer negative peer experiences (rejection, victimization), more positive peer support and more positive academic adjustment (liking school, teacher-rated performance).

Method

Sample

We used cross-sectional data from a subsample of TRacking Adolescents' Individual Lives Survey (TRAILS), a longitudinal study of Dutch youth living in five municipalities in urban and rural areas in the north of the Netherlands (De Winter et al., 2005; Huisman et al., 2008). During the second wave of data collection, peer nominations were collected from a subsample of TRAILS participants and their classmates. These peer nominations, in combination with teacher-reports and self-reports which were available for TRAILS respondents only, were used in this study.

Peer nominations were assessed in all classrooms with at least three TRAILS participants. All students in these classrooms received an information letter for themselves and their parents inviting them to participate. If students or their parents wished to refrain from participation, they were requested to send a reply card within 10 days. In total, 98 students refused to participate. Peer nominations were assessed in a total of 164 classrooms in 30 schools in the 1st year ($n = 68$ classrooms) and 2nd year ($n = 96$ classrooms) of secondary education, which is comparable with the seventh and eighth grade in middle school in the United States. Dutch secondary education is divided by six academic tracks, running from vocational to college preparatory, with track assignments based on school results in primary education.

In total, 3,231 students (1,618 boys; 1,613 girls), including 983 regular TRAILS participants, filled out the questionnaire and nominated their classmates ($\bar{X}_{age} = 13.60$; $SD = .65$). Each classroom had 9 to 31 participating pupils ($\bar{X} = 19.70$; $SD = 5.82$). The ethnic composition of the sociometric sample was 87.7% Caucasian, 0.6% Turkish, 0.5% Moroccan, 1.6% Surinamese, 1.2% Antillian/Aruban, 2.5% Indonesian, and 4.2% Other (ethnicity was unavailable for 1.8%).

Measures

Peer nominations (individual level). Participating students were free to nominate an unlimited number of classmates in response to each item. The

number of times an individual was nominated by classmates was tallied and divided by the number of classmates making nominations. Four individual items were used to establish peer norm salience scores: *academics* ("Who is good at learning?"), *prosocial behavior* ("Which classmates support you, for example, when having problems at home?"), *bullying* ("Which classmates bully you?"), and *popularity* ("Who do others want to be associated with?"). The correlation of popularity was negative with academics ($r = -.09$), and positive with prosocial behavior ($r = .21$) and bullying ($r = .25$). *Peer acceptance* was also assessed with a single item ("Which classmates do you like?"). The correlation between popularity and peer acceptance was weak ($r = .22$), which is consistent with the broader developmental literature showing that popularity and acceptance are largely "decoupled" in adolescence (Cillessen & Mayeux, 2004). Three additional items were not included in the computation of norm salience scores but provided an opportunity to test whether norm salience scores were associated with broader patterns of classroom peer experiences. Single items were available to assess peer rejection ("Which classmates do you dislike?") and peer victimization ("Which classmates do you bully?"). Two items were combined into a *peer support* scale ($r = .75$): "Which classmates *give you* practical support, for example, with homework?"; "Which classmates *do you give* practical support, for example, with homework?"

Norm salience (classroom level). Norm salience scores were calculated separately for each classroom as the correlation between a particular peer-nominated behavior and peer-nominated popularity. Thus, *academic norm salience* for each class was calculated as the correlation between peer academic reputation and popularity. In the same way, *prosocial norm salience* and *bullying norm salience* were calculated within each class by correlating those behaviors with popularity.

Descriptive norms (classroom level). Descriptive norms were measured as the average proportion score across all students in the classroom for academics $\bar{X}$ (SD) = .31 (.10), prosocial behavior $\bar{X}$ (SD) = .15 (.05), and bullying $\bar{X}$ (SD) = .02 (.03). Correlations between these descriptive norms showed that academics and prosocial behavior were significantly correlated ($r = .30$), whereas academics and bullying ($r = .01$) and prosocial behavior and bullying ($r = -.04$) were not.

Student Self-Reports and Teacher Ratings

Student self-reports and teacher ratings were available for TRAILS participants only. TRAILS respondents differed from non-TRAILS respondents on

only one of the eight peer-nominated scores: Respondents with information from teachers were somewhat less accepted by their peers, $t(3,229) = 2.09$, $p = .04$. Students' *positive feelings about class* were measured with three items rated on a 5-point scale ($\alpha = .69$): items describing their feelings of fun, boredom, and excitement in class ("Most of the time I do have a lot of fun in the school class"; "I feel bored when I am with my classmates" (reversed); "I think there is a lot of excitement in the class"). *Academic performance* was measured with a 6-item teacher-rated scale ($\alpha = .85$) describing performance in six different subjects (e.g., foreign languages, mathematics, history) on a 5-point scale running from "poor" (1) to "excellent" (5).

Results

Variability in Norm Salience and Association With Descriptive Norms

Norm salience scores varied widely across classrooms (see Figure 1). Academic norm salience was generally very weakly negative (median $r = -.13$), suggesting that peers who were perceived to be good learners were also perceived to be somewhat less popular than average. However, across the 164 classrooms, academic norm salience ranged from moderately negative to weakly positive: For the classroom at the 10th percentile, $r_{10th} = -.42$, whereas for the classroom at the 90th percentile, $r_{90th} = .27$. In contrast, prosocial norm salience was weakly positive (median $r = .19$), suggesting that peers named as supportive were perceived to be more popular than average. Across classrooms, prosocial norm salience ranged from weakly negative to strongly positive ($r_{10th} = -.20$; $r_{90th} = .60$). In most classrooms, peers who were named frequently as bullies were also perceived to be more popular than average (median $r = .26$). This effect ranged from nonsignificant to strongly positive ($r_{10th} = -.07$; $r_{90th} = .68$).

Norm salience scores were not correlated with academic track level (all $r_s < .10$) and the distribution of norm salience scores within each track mirrored the overall distribution: in the lowest academic track ($r_{median} = -.11$, $r_{min} = -.70$, $r_{max} = .65$) and in the highest academic track ($r_{median} = -.11$, $r_{min} = -.76$, $r_{max} = .43$). By contrast, academic track was correlated with descriptive norms for academics ($r = .17$, $p = .03$), and bullying ($r = -.40$, $p < .001$). No association was found with prosocial behavior ($r = -.12$, $p = .14$). Moreover, the correlation between norm salience scores and descriptive norms were either unreliable ($r_{aca} = .04$, $r_{pro} = .04$) or very weak ($r_{bully} = .21$, $p < .05$), indicating that these two approaches to measuring classroom-level peer norms are empirically distinct. Nevertheless, the latter correlation seems to suggest that

Figure 1. Distribution of academic, prosocial, and bullying norm salience across classrooms.

in classrooms with higher levels of bullying, popularity is more strongly associated with bullying.

Norm Salience as a Moderator of the Correlates of Peer Acceptance

We conducted multilevel regression analyses using MlwiN 2.00 (Rasbash et al., 2000) to account for the nesting of individuals (Level 1) within classrooms (Level 2). Academics, prosocial behavior, and bullying as well as peer acceptance were measured at the individual level, whereas norm salience scores were at the classroom level. To examine whether norm salience moderated the relation between behavioral reputation and peer acceptance, separate models for academics, prosocial behavior, and bullying were tested by

Table 1. Multilevel Regression Coefficients From Models Predicting Peer Acceptance ($n = 3,231$).

DV = Peer acceptance	Academics		Prosocial behavior		Bullying	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Main effect (Level 1)						
Gender (1 = Boy)	.00	.03	.31*	.03	.02	.03
Individual reputation	.11*	.02	.46*	.02	-.13*	.02
Main effect (Level 2)						
Norm salience	.03	.05	.01	.04	-.02	.05
Interaction effect (Level 1 $\times$ 2)						
Reputation $\times$ Norm Salience	.07*	.02	.05*	.01	.07*	.02
Explained variance (%)	2.1		21.4		2.1	
Deviance	8,283		7,547		8,286	
Decrease in deviance	72 ($df = 4$)*		807 ($df = 4$)*		69 ($df = 4$)*	

Note. Decrease in deviance indicates whether or not the model fits the data better than the former model. The decrease in deviance of the first model is compared with the empty model. The decrease in deviance has approximately a chi-square distribution with the degrees of freedom equal to the difference in the number of parameters of the models.

* $p < .001$.

including cross-level interactions between individual-level behavior and class level norm salience scores. To facilitate the interpretation of these interaction effects, all variables were standardized across the sample to $\bar{X} = 0$ and $SD = 1$. We did not expect differences by gender or academic track, but we explored whether these variables moderated the relation between academic reputation and peer acceptance.

As expected, for each of the three behaviors, norm salience moderated the association between behavioral reputation and peer acceptance (see Table 1). Using one SD above and below the mean as high and low levels for the moderating variable, we created two groups and calculated the corresponding simple slopes for peer acceptance (Figure 2; see Aiken & West, 1991). Academic reputation was only associated with peer acceptance in school classrooms with a positive academic norm salience, $b = .19$, $t(3,227) = 8.04$, $p < .001$, and not in school classrooms with negative academic norm salience, $b = .04$, $t(3,227) = 1.68$, $p = .09$. Prosocial reputation was positively correlated with peer acceptance in all classrooms, but this association was somewhat stronger in classrooms with stronger prosocial norm salience, $b = .52$, $t(3,227) = 25.85$, $p < .001$, than in classrooms with weaker prosocial norm

Figure 2. Interaction effects between individual reputation and norm salience on peer acceptance.

salience, $b = .41$, $t(3,227) = 18.72$, $p < .001$. Conversely, bullying was more strongly correlated with lower peer acceptance in classrooms with more negative bullying norm salience, $b = -.19$, $t(3,227) = 8.04$, $p < .001$, than in classrooms with more positive bullying norm salience, $b = -.06$, $t(3,227) = 3.00$, $p < .01$.

To explore the robustness of these effects, we tested an additional set of models in which we added descriptive norms as a Level 2 main effect and in interaction with individual behavior. In each of these models, the interaction

effects for norm salience remained statistically significant and substantively identical in interpretation to those presented in Table 1 (results upon request). No main effects were found for descriptive norms for academics, prosocial behavior, or bullying on peer acceptance. Only one cross-level interaction was significant: The relation between prosocial behavior and peer acceptance was somewhat stronger in classrooms with a low descriptive norm, $b = .53$, $t(3,225) = 22.08$, $p < .001$, compared with classrooms with a high descriptive norm, $b = .42$, $t(3,225) = 22.05$, $p < .001$.

Classroom Norm Salience Profiles and Broader Indicators of Classroom Experience

Consistent with expectations, academic, prosocial, and bullying norm salience scores were weakly but significantly intercorrelated: $r_{\text{aca-pro}} = .22$, $r_{\text{aca-bully}} = -.23$, $r_{\text{pro-bully}} = -.22$, all $ps < .01$. We used iterative K-means cluster analyses to identify two groups of classrooms that differed in their norm salience profiles. Cluster analysis is a useful way to identify relatively homogeneous groups using information across multiple variables because its algorithm maximizes within-group homogeneity and does not require an arbitrary and complex set of a priori cut-scores. There is no definitive statistical test to determine the correct number of clusters to identify: In this case, we chose a 2-cluster solution because the resulting classroom profiles (detailed below) were consistent with our a priori expectations of desirable-versus-undesirable peer norm salience profiles; we had no a priori theories to guide comparisons among the profile-groups that resulted from the 3- and 4-cluster solutions and the limited number of classrooms would have greatly diminished statistical power to explore group differences. The 2-cluster solution produced distinct profiles of classroom norm salience scores that differed across all three norm salience scores: 56 school classrooms had a profile (Profile A) characterized by positive norms for academics ($r_{\text{mean}} = .14$) and prosocial behavior ($r_{\text{mean}} = .38$) and neutral norms for bullying ($r_{\text{mean}} = .03$); in contrast, 108 school classrooms had a profile (Profile B) characterized by negative academic norm salience ($r_{\text{mean}} = -.23$), neutral prosocial norm salience ($r_{\text{mean}} = .09$), and positive bullying norm salience ($r_{\text{mean}} = .38$).

To establish whether these norm salience profiles were indicative of broader patterns of student classroom experiences and adjustment, we compared youth in classrooms with both profiles on a range of peer-, self-, and teacher-report variables that were not involved in the computation of the norm salience scores by means of t tests. Then, we calculated the effect sizes for these comparisons based on the pooled means and standard deviation

from both profiles. Results indicated that in classrooms with more desirable norm salience profiles (Profile A), youth reported lower levels of peer rejection ($d = -.16, p < .001$), lower levels of peer victimization ($d = -.12, p < .01$) and higher levels of practical support from peers ($d = .12, p < .001$); they also reported more positive feelings about school ($d = .25, p < .001$). Moreover, youth in these classrooms were rated by teachers as displaying higher levels of academic performance ($d = .18, p < .05$).

Discussion

The aim of this study was to examine norm salience as an alternative approach for measuring peer norms in the classroom context in adolescence. Broadening previous research, we focused not only on bullying but also academics and prosocial behavior. Findings of our study showed that norm salience scores for these behaviors were independent of academic track and uncorrelated with descriptive norms, suggesting its distinct nature. Furthermore, the findings revealed that norm salience scores were more important in affecting the way individual behaviors were related to peer acceptance than descriptive norms. Finally, this study showed that clustering norm salience scores resulted in two distinct classroom profiles, which were differently associated with adolescents' school experiences.

Norm salience scores in each behavioral domain varied widely and were largely distinct from corresponding measures of descriptive norms. In light of evidence that norm salience scores are moderately stable over a period of a few months (Gest & Rodkin, 2011), these findings suggest that descriptive norms and norm salience scores should be considered psychometrically distinct and conceptually complementary approaches to measuring setting-level peer norms.

Academic norm salience varied substantially within each academic track but did not differ systematically across tracks. This is largely consistent with Jonkmann, Trautwein, and Ludtke's (2009) analysis of German secondary schools, in which the relation between academic performance and social dominance did not differ across the five highest academic tracks, though it was lower in the lowest academic track. The fact that academic norm salience was not systematically related to academic tracks, whereas descriptive norms were, underscores that descriptive norms and norm salience are empirically distinct.

This was also evidenced by the fact that norm salience in each behavioral domain moderated the correlates of peer acceptance, even after controlling for parallel interaction effects involving descriptive norms. As expected, behaviors were more strongly associated with peer acceptance when those

behaviors were perceived by peers to be associated with popularity. This replicates findings related to aggression and bullying (Dijkstra et al., 2008; Henry et al., 2000) and extends them to the domains of academic performance and prosocial behavior. Moderation effects were weakest for prosocial behavior, which is consistent with Stormshak, Bierman, Bruschi, Dodge, and Coie's (1999) finding that prosocial behavioral is robustly associated with peer acceptance across classrooms with widely varying descriptive norms.

Students in classrooms in which norm salience profiles favored academic achievement and prosocial behavior (but not for bullying) were characterized by more desirable scores on a broad range of social, motivational, and academic indicators, including measures of student-reported feelings about school and teacher-rated academic performance. These associations with meaningful indicators of school adjustment that were not included in the computation of norm salience scores suggest that a constellation of peer norm salience scores may serve as a marker of classroom functioning (Tseng & Seidman, 2007).

Because our data were cross-sectional, we cannot make any causal statements. Future research using the peer norm salience approach could productively clarify causal processes by studying the emergence and stability of peer norm salience across the school year, particularly in relation to indicators of student adjustment. Furthermore, we did not measure peers' perceptions of which behaviors were associated with popularity: Future research might profit from assessing direct perceptions of behaviors that are seen as popular.

Together, our results demonstrate that in adolescence, norm salience scores are empirically and functionally distinct from measures of descriptive norms. Not only do norm salience scores moderate the correlates of peer acceptance but can also be used to define an overall profile of classroom peer norms that is related to independent measures of student adjustment.

The implications of these findings are twofold. First, it suggests that behavior of popular, high-status adolescents as captured by norm salience scores, are important for the way behaviors are evaluated by peers. This implies that popular adolescents are influential in setting the norm and therefore might be important targets for interventions to successfully advocate what is appropriate or not (Gest et al., 2011).

Second, the finding that norm salience scores are not related to academic tracks, but systematically vary between classrooms, indicates that differences between classes are not pre-determined but partially result from specific peer group dynamics. Currently, we know very little about the processes that lead to such wide variations across classrooms in the behavioral correlates of popularity. One possibility is that the process is entirely driven by student or

classroom-composition effects, such that when a particular pool of youth are grouped together in a classroom, peer status dynamics will develop through processes endogenous to the peer group (e.g., individual social skills, past relational histories). An alternative possibility is that teachers or other exogenous forces can influence how peer norms emerge. For example, there is experimental evidence that evidence-based substance-use prevention curricula in middle schools can shift peer norm salience with regard to substance-use attitudes, behaviors, and delinquency (Osgood et al., 2013).

In this regard, it would be informative to know whether peer sanctions (i.e., low peer acceptance and peer rejection) for particular behaviors are associated with sanctions provided by teachers (Henry et al., 2000), and more generally to understand what role, if any, teachers play in shaping peer norm salience patterns. If specific curricular materials, student-teacher relationship processes, or classroom management techniques could be identified that are related to the emergence of peer norms, guiding teachers in the use of these strategies could be one route to improving the overall class atmosphere (cf. Gest & Rodkin, 2011).

This study showed that behavior of popular adolescents is an important marker for peer norms with distinct implications for adolescents' school experiences. There is substantial evidence that descriptive norms earlier in childhood are associated with peer acceptance patterns and predict future student adjustment (Kellam et al., 1998; Stormshak et al., 1999) but such effects for descriptive norms were not evident in the current sample in adolescence. Future research should investigate possible developmental shifts in the relative importance of descriptive norms, injunctive norms, and norm salience. Longitudinal studies that include multiple measures of norms across a broader developmental period will be essential in determining whether popular adolescents become increasingly important in driving the behavioral correlates of acceptance and broader patterns of school adjustment. If that is the case, a key challenge will be to understand how popular adolescents can contribute to efforts to improve adolescents' peer ecologies and to create a positive and safe environment for adolescents' daily interactions.

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