

RUNNING HEAD: Outsider behavior, Shame, Guilt

Stability and change of outsider behavior in school bullying: The role of shame and guilt in a  
longitudinal perspective

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## Abstract

We analyzed developmental changes in outsider behavior, testing whether the likelihood that it turns into bullying or defending over time depends on the individual proneness to feel shame or guilt. Participants were 155 preadolescents (72 boys and 83 girls; mean age at T1 = 10.74 years). Bullying, defending, and outsider behaviors were assessed twice by peer nominations. Shame- and guilt-proneness were assessed at T1 by a self-report questionnaire. All behaviors appeared quite stable; however, regression analyses revealed that shame and guilt were associated with outsider developmental pathway. In particular, students steadily presented outsider behavior after a nine-month period if they showed low guilt or high shame at T1. Results are discussed in terms of future directions for research and interventions.

Keywords: outsider behavior, bullying, shame, guilt, longitudinal design.

## Stability and change of outsider behavior in school bullying: The role of shame and guilt in a longitudinal perspective

School bullying is characterized by systematic aggressive behavior towards a weaker or a less powerful peer (Olweus, 1993). The social dynamics of bullying involve several peers, rather than just the bullies and their victims. During bullying situations, some peers directly (e.g., providing assistance) or indirectly (e.g., laughing and cheering) encourage bullying, whereas others stick up for their victimized peers, telling the bully to stop or helping the victim. In addition, a considerable number of students, who are well aware of bullying, shy away and do not take sides when witnessing bullying (Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996). Recent literature suggests that these children, often referred to as “outsiders”, may have a key role in stopping bullying (Pozzoli & Gini, 2012). This assumption is supported by recent findings demonstrating that bullying can be significantly reduced by motivating outsiders to act on behalf of the victims (Kärnä et al., 2011).

Shame and guilt are important behavior regulators that influence social behavior, including students’ (in)actions in bullying situations (Menesini & Camodeca, 2008; Menesini et al., 2003; Pronk, Olthof, & Goossens, 2014b). Although these two moral emotions are interrelated (Tangney, Stuewig, & Mashek, 2007), literature has shown their different features and appraisal antecedents. Guilt follows from moral violations and involves blaming one’s unstable characteristics and specific behaviors (Tracy & Robins, 2006). Guilt is linked to the tendency to take responsibility and repair the harm done, and is therefore considered an interpersonal emotion strengthening social bonds (Bybee, 1998; Tangney et al., 2007). Shame may arise after a moral violation, as well as in situations not involving moral connotation (e.g.,

when a personal failure occurs; Tangney et al., 2007; Tracy & Robbins, 2006). Feelings of shame stem from blaming one's stable characteristics and are related with avoidance tendencies (Lewis, 1992).

Recent longitudinal studies have shown that guilt and shame-proneness prompt different behavioral outcomes in children (Roos, Hodges, & Salmivalli, 2014). Whereas literature is consistent regarding the association between guilt and prosocial behavior (Bybee, 1988; Tangney et al., 2007), the tendency to manifest shame has been longitudinally associated with negative outcomes, such as withdrawal and low levels of prosocial behavior (Roos et al., 2014).

In bullying research, the tendency to feel guilt in social situations has been found to be associated with defending the victims (Menesini & Camodeca, 2008). Low guilt-proneness, on the other hand, is related to bullying and to outsider behaviors (Menesini & Camodeca, 2008; Rieffe, Camodeca, Pouw, Lange, & Stockmann, 2012). Although some outsiders seem to express feelings of guilt (Obermann, 2011) and to consider bullying as wrong (Rigby & Johnson, 2006), their withdrawn behavior actually contradicts these internalized moral standards (Bandura, 1990). Additionally, some authors have argued that outsider behavior may also be associated with inhibition and shame of exposing oneself in front of an audience (Thornberg, 2010). In other words, outsiders may be worried of behaving in an inappropriate or non-normative way in social situations and being judged by peers. Therefore, the unwillingness to stick up for the victims may be due either to low guilt, which may be expression of immoral behavior and "silent approval" of bullying, or to shame and social inhibition (Menesini & Camodeca, 2008; Thornberg, 2010).

The association between moral emotions and outsider behavior suggests that investigating the role of shame and guilt in the developmental pathway of outsider behavior is warranted. As outsiders can potentially change the dynamics of bullying (Pozzoli & Gini, 2012), it is of great importance to understand whether moral emotions are likely to strengthen their behavior or turn it into other bullying-related behaviors. This is particularly relevant in early adolescence, when rapid social changes occur, anti-bullying attitudes become less prevalent and outsider behavior increases (Pozzoli, Gini, & Vieno, 2012; Salmivalli & Voeten, 2004). We speculate that during preadolescence, outsider behavior might easily evolve into other behaviors, depending on the degree with which the moral emotions of shame and guilt are experienced.

Since guilt is associated with moral responsibility and prosocial behavior (Bybee, 1998; Menesini & Camodeca, 2008; Olthof, 2012), we expected that highly guilt-prone students manifesting outsider behavior are, likely to turn their behavior into defending over time (Olthof, 2012). We propose that the discrepancy between the actual behavior (i.e., shying away in front of bullying) and feelings of guilt may longitudinally lead to reparative and prosocial actions (e.g., defending) (Roos et al., 2014). In contrast, low levels of guilt are expected to contribute to keeping students with outsider behavior in their niche.

We further hypothesized outsider behavior to be stable over time, if associated with high levels of shame, which should foster inhibition and withdrawn attitudes (Thornberg, 2010). As the tendency to feel shame seems to hinder both antisocial (Olthof, 2012) and prosocial actions (Roos et al., 2014; Thornberg, 2010), we expected outsider behavior to turn into either bullying or defending behavior when it is associated with low levels of shame (Menesini & Camodeca, 2008; Menesini et al., 2003).

Finally, gender is an important variable in respect to bullying dynamics and moral emotions. Boys show more bullying behavior than girls, whereas defending behavior is more prevalent among girls (Salmivalli et al., 1996; Thornberg, Pozzoli, Gini & Jungert, 2015). With respect to moral emotions, girls typically experience more guilt and shame than boys (Bybee, 1998; Walter & Burnaford, 2006). For these reasons, we controlled for gender in our analyses.

## **Method**

### **Sample and Procedure**

The sample included 155 Italian preadolescents (72 boys and 83 girls; mean age at T1 = 10.74 years;  $SD = 1.25$ ; range: 9-14 years) taking part in a larger study. There were two waves of measurement, in January 2013 (T1) and October 2013 (T2). At T1, students attended the fourth grade (primary school) and the sixth and seventh grades (first and second grades of middle school in the Italian school system). Schools served different cultural and socioeconomic backgrounds. The purpose and methodology of the study were explained to schools' principals and teachers, who gave their consent. A letter was sent to parents at both time points, in order to inform them about the research and obtain their informed written consent. Altogether 504 families were contacted at T1 and 245 of them returned active written consent. The families of the children who participated in the study at T1 were contacted again at T2 and 63% of them returned the consent form (the final  $N = 155$ ). A comparison between students participating only at T1 and those participating also at T2 did not reveal differences in any of the T1 variables assessed.

Students filled in the questionnaires at school; the administration took approximately 45 minutes. The order of the instruments was randomized among participants. For the purpose of

this study, we utilized variables representing behavior during bullying episodes assessed at T1 and T2, and shame and guilt assessed at T1. We assured students with confidentiality and anonymity of all information provided.

## **Instruments**

**Behaviors during bullying episodes** (Pozzoli et al., 2012). Peer nominations were administered to assess bullying, defending, and outsider behaviors. Although a definition of the term “bullying” was included in each questionnaire, the researcher also provided a further oral explanation, in order to ensure students’ comprehension of the difference between bullying and other types of aggressive behaviors. Students were asked to nominate an unlimited number of peers whose behavior fit each of the 16 items (4 per each behavior, including victimization, which was not considered in this study). Examples of items are as follows: “In your class, who often excludes or tries to actively isolate peers from the group?” (bullying); “In your class, who often stands up for those who are threatened or offended?” (defending behavior); “In your class, who often stands by and watches without doing anything when a classmate is beaten or pushed away?” (outsider behavior). Scores received by each child were divided by the number of nominators, in order to control for classroom size. Descriptive statistics and reliabilities are displayed in Table 1.

**Moral emotions.** The Shame and Guilt Questionnaire (Olthof, Schouten, Kuiper, Stegge, & Jennekens-Schinkel, 2000; Italian adaptation, Camodeca & Menesini, 2007) was employed to assess shame- and guilt-proneness on the basis of ten hypothetical scenarios. Five of them assessed guilt, by vignettes describing harm caused to another person (e.g., “A friend of yours is well-liked by all of your classmates, who always invite him/her at parties. You are a bit jealous

and during recess you spread ugly rumors about him/her. The day after no one wants to play with him/her. Then, you realize that your friend is very sad. How do you feel?”). The other five vignettes assessed shame, describing incompetence or exposure to derision (e.g., “Last night you didn’t sleep well. You are tired when you wake up in the morning. When you arrive at school you still feel like sleeping. The teacher asks you a question, but you don’t understand anything. How do you feel?”). We asked students to imagine themselves involved in each situation and to rate on a 5-point Likert scale how much they would feel guilty/ ashamed (1 = *not at all*; 5 = *highly*) (Rieffe et al., 2012). Descriptive statistics and reliabilities are displayed in Table 1.

[Table 1]

## **Results**

Bullying variables at T1 and T2 were not normally distributed, thus we used the SPSS Van der Waerden ranking procedure to normalize them. Normalized scores were used and reported throughout the results section. Correlations among all study variables are presented in Table 1. Each T1 behavior correlated with the same behavior at T2. Moral emotions were associated with bullying and defending only cross-sectionally.

Given the high inter-correlations between bullying and outsider behavior at both T1 and T2, we corrected for their reciprocal influence, employing standardized residuals. We also used standardized residuals to correct the reciprocal influence of shame and guilt on each other. These standardized residuals were employed in hierarchical regressions, which were performed separately for shame and guilt, with bullying, defending, and outsider behaviors at T2 as outcome variables. All predictors were centered before entering them in the regression equations and interaction terms were calculated as the products between each independent variable and the

moderator (Baron & Kenny, 1986). In order to control for gender and bullying-related behaviors at T1, they were entered in the first step. Moral emotions were entered in the second step, the interactions between outsider behavior at T1 and moral emotions were entered in the third step, the 2-way interactions between gender and all the other variables were entered in the fourth step, and the 3-way interactions between gender, outsider behavior at T1, and shame/ guilt were entered in the fifth step (Table 2).

Girls, in comparison to boys, were more involved in defending. Each behavior at T2 was predicted by the corresponding behavior at T1. Moral emotions assessed at T1 were not directly associated with bullying-related behaviors at T2, except for a negative effect of shame on defending behavior. The interactive effects of T1 outsider behavior and guilt were significant in predicting bullying and outsider behavior at T2. The interaction between T1 outsider behavior and shame predicted outsider behavior at T2. None of the 2- and 3-way interactions was statistically significant.

In order to interpret the interactions and analyze the slopes, shame and guilt were dichotomized into above and below the mean scores. The coefficients of outsider behavior at T1 predicting bullying at T2 were not significant for either low or high guilt. The interaction between guilt and outsider behavior at T1 predicting outsider behavior at T2 was significant for both low ( $\beta = .40; p < .01$ ) and high ( $\beta = .20; p = .05$ ) levels of guilt, and suggested that low guilt predicted stability of outsider behavior (Figure 1). As displayed in Figure 2, high level of shame had a similar effect ( $\beta = .38; p < .001$ ).

[Table 2]

[Figure 1, Figure 2]

## Discussion

To the best of our knowledge, the present study was the first one to investigate how shame and guilt are associated with the stability or developmental changes in outsider behavior. Although we did not find evidence that outsider behavior turns into bullying or defending, the stability of such behavior was found to be related either to low guilt or high shame in social situations.

In accordance with our hypothesis, low levels of guilt seem to contribute to restraining preadolescents who manifest outsider behavior from taking an active part in bullying situations. According to previous research, guilt is associated with moral reasoning, avoidance of transgression, and prosocial behavior (Bybee, 1998; Menesini & Camodeca, 2008; Olthof, 2012). We assume that students who show low guilt-proneness in morally relevant situations may be scarcely concerned and may not feel responsible towards their peers in distress, thus failing in manifesting active prosocial behavior. We speculate that this subgroup of preadolescents may even justify bullying: In a vicious circle, outsider behavior may lead to low levels of guilt, in order to avoid both cognitive dissonance and moral distress due to ethical dilemmas of taking (or not taking) action against bullying (Forsberg, Thornberg, & Samuelsson, 2014).

Also high levels of shame accounted for the stability of outsider behavior, suggesting that the fear of behaving inappropriately in front of an audience fosters withdrawn attitudes (Olthof, 2012; Olthof et al., 2000; Thornberg, 2010). As the tendency to feel shame is associated with the need for approval and acceptance (Lagattuta & Thompson, 2007), shame-prone students with outsider tendency probably do not intervene in favor of their victimized peers due to their fear of being negatively judged by their peers. Shame might also hinder outsiders from aggressing or

from intervening in favor of the victims, because both bullying and defending behavior need some extent of dominance and self-efficacy – characteristics that shame-prone individuals often lack (Pöyhönen, Juvonen, & Salmivalli, 2012; Pronk, Olthof, & Goossens, 2014a).

Some limitations of the present study must be acknowledged. We realize that the relatively small sample, with low parental consent rate, may not be fully representative of the whole population, limiting the generalizability of the findings. Nevertheless, previous studies have pointed out that peer nominations can be considered quite accurate and reliable even when collected from a subsample of children (McKown, Gumbiner, & Johnson, 2011; Prinstein, 2007; Zakriski et al., 1999). Furthermore, our results were in line with the hypotheses, and the effects may have been even larger if all students participated in the study (i.e., resulting in more variance in behaviors to be explained). In addition, the similarity of the students participating only at T1 with those participating at both time points, as well as the multi-informant approach used (peer and self- reports) contribute to the reliability of the findings.

We acknowledge that the use of a more specific measure assessing shame and guilt in bullying situations, rather than in social contexts in general, would be more relevant and thus a stronger predictor of bullying-related behaviors. More specific instruments could be used in future research. Nevertheless, previous studies suggest that the general tendency to experience shame and guilt across different social contexts is related to prosocial, withdrawn, and aggressive/bullying behaviors (Menesini & Camodeca, 2008; Rieffe et al., 2012; Roos et al., 2014).

The proportions of variance explained in the regressions were small, suggesting that several other variables, not considered in the present study, may affect the stability of outsider

behavior. For instance, Salmivalli, Lappalainen, and Lagerspetz (1998) found that outsiders who remained in the same class (unchanged peer context) and outsiders whose friends tended to stay uninvolved remained more steadily in their role after two years. Similarly, other variables, such as social status, friendship relationships, group norms, evaluation of costs and rewards of defending (Forsberg et al., 2014; Pöyhönen et al., 2012; Pronk et al., 2014a), may intervene to turn outsider behavior into bullying or defending behavior. Future research, focusing on the interplay between personal and contextual variables in determining the stability and change of outsider behavior is warranted.

Furthermore, more longitudinal studies are needed, in order to uncover the links between moral emotions and outsider behavior. Although the present results indicated that shame and guilt contribute to the stability of outsider behavior during a nine-month period, longitudinal designs over a longer time span are highly recommended, as well as studies shedding light on possible reciprocal influences between emotions and behaviors.

In conclusion, our findings suggest that keeping track of changes in moral emotions can inform us about the stability of outsider behavior among preadolescents. This suggests that different subgroups of outsiders may exist: Those who do not feel guilt for immoral actions and who may indirectly approve bullying, and those who are ashamed and inhibited in social situations. These results may also have practical implications for prevention and intervention programs, because the different subgroups of outsiders may benefit from distinct types of interventions. Specifically, students with outsider behavior and low levels of guilt may need to acknowledge responsibility for their inaction in front of bullying. Therefore, it may be necessary to foster anti-bullying attitudes and hampering the tendency to indirectly approve bullying

(Kärnä et al., 2011). Further, given that moral choices become particularly dependent on the peer group during preadolescence (Caravita, Sijtsema, Rambaran, & Gini, 2014), we argue that group-based intervention programs, specifically oriented at increasing feelings of (collective) guilt, could be particularly effective during this developmental stage.

In respect to ashamed preadolescents with outsider behavior, we propose that they may need to overcome their social inhibition. There might be a need to increase their assertiveness and self-confidence, and importantly, it would be necessary to provide them with safe, low-risk strategies to support their victimized peers. In conclusion, we suggest that interventions aimed at changing outsider behavior need to be flexible and responsive to the quality and range of emotions manifested by students who shy away in front of bullying situations.

## References

- Bandura, A. (1990). Selective activation and disengagement of moral control. *Journal of Social Issues, 46*, 27-46. doi:10.1111/j.1540-4560.1990.tb00270.x
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Bybee, J. (1998). *Guilt and Children*. San Diego, California: Academic Press.
- Camodeca, M., & Menesini, E. (2007). Approccio contestuale al senso di colpa e alla vergogna: Ruolo degli antecedenti e comportamenti correlati [Contextual approach to guilt and shame: Role of antecedents and behavioural correlates]. *Età Evolutiva, 87*, 70–77.
- Caravita, S. C. S., Sijtsema, J. J., Rambaran, J. A., & Gini, G. (2014). Peer influences on moral disengagement in late childhood and early adolescence. *Journal of Youth and Adolescence, 43*, 193-207. doi: 10.1007/s10964-013-9953-1.
- Forsberg, C., Thornberg, R., & Samuelsson, M. (2014). Bystanders to bullying: Fourth to seventh-grade students' perspectives on their reactions. *Research Papers in Education, 29*, (5), 557-576. doi: 10.1080/02671522.2013.878375
- Kärnä, A., Voeten, M., Little, T. D., Poskiparta, E., Kaljonen, A., & Salmivalli, C. (2011). A large scale evaluation of the KiVa antibullying program: Grades 4-6. *Child Development, 82*, 311-330. doi: 10.1111/j.1467-8624.2010.01557.x
- Lagattuta, K. H., & Thompson, R. A. (2007). The development of self-conscious emotions: Cognitive processes and social influences. In J. L. Tracy, R. W. Robins, & J. P. Tangney

- (Eds.), *The self-conscious emotions: Theory and research* (pp. 91-113). New York: Guilford.
- Lewis, M. (1992). *Shame. The Exposed Self*. New York: The Free Press.
- McKknown, C., Gumbiner, L. M., & Johnson, J. (2011). Diagnostic efficiency of several control methods of identifying socially rejected children and effect of participation rate on classification accuracy. *Journal of School Psychology, 49*, 573-595. doi: 10.1016/j.jsp.2011.06.002
- Menesini, E., & Camodeca, M. (2008). Shame and guilt as behavior regulators: Relationships with bullying, victimization and prosocial behavior. *British Journal of Developmental Psychology, 26*, 183-196. doi: 10.1348/026151007X205281
- Menesini, E., Sanchez, V., Fonzi, A., Ortega, R., Rosario, O., Costabile A., & Lo Feudo, G. (2003). Moral emotions and bullying: A cross-national comparison of differences between bullies, victims and outsiders. *Aggressive Behavior, 29*, 515-530. doi: 10.1002/ab.10060
- Obermann, M. L. (2011). Moral disengagement among bystanders to school bullying. *Journal of School Violence, 10*, 239-257. doi: 10.1080/15388220.2011.578276
- Olthof, T. (2012). Anticipated feelings of guilt and shame as predictors of early adolescents' antisocial and prosocial interpersonal behaviour. *European Journal of Developmental Psychology, 9*, 371-388. doi: 10.1080/17405629.2012.680300
- Olthof, T., Schouten, A., Kuiper, H., Stegge, H., & Jennekens-Schinkel, A. (2000). Shame and guilt in children: Differential situational antecedents and experiential correlates. *British Journal of Developmental Psychology, 18*, 51-64. doi: 10.1348/026151000165562

- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Cambridge, MA: Blackwell Publishers, Inc.
- Pöyhönen, V., Juvonen, J., & Salmivalli, C. (2012). Standing up for the victim, siding with the bully, or standing by? Bystander responses in bullying situations. *Social Development, 21*(4), 722-741. doi: 10.1111/j.1467-9507.2012.00662.x
- Pozzoli, T., & Gini, G. (2012). Why do bystanders of bullying help or not? A multidimensional model. *The Journal of Early Adolescence, 20*(10), 1-26. doi: 10.1177/0272431612440172
- Pozzoli, T., Gini, G., & Vieno, A. (2012). The role of individual correlates and class norms in defending and passive bystanding behavior in bullying: A multilevel analysis. *Child Development, 83*, 1917-1931. doi: 10.1111/j.1467-8624.2012.01831.x
- Prinstein, M. (2007). Assessment of adolescents' preference and reputation based peer status using sociometric experts. *Merrill-Palmer Quarterly, 53*(2), 243-261. doi: 10.1353/mpq.2007.0013
- Pronk, J., Olthof, T., & Goossens, F. A. (2014a). Differential personality correlates of early adolescents' bullying-related outsider and defender behavior. *The Journal of Early Adolescence, 11*, 1-23. doi: 10.1177/0272431614549628
- Pronk, J., Olthof, T., & Goossens, F. A. (2014b). Factors influencing interventions on behalf of victims of bullying: A counterfactual approach to the social cognitions of outsiders and defenders. *The Journal of Early Adolescence, 36*, 267-291. doi: 10.1177/0272431614562836
- Rieffe, C., Camodeca, M., Pouw, L. B. C., Lange, A. M. C., & Stockmann, L. (2012). Don't anger me! Bullying, victimization, and emotion dysregulation in young adolescents with

- ASD. *European Journal of Developmental Psychology*, 9, 1-20. doi:  
10.1080/17405629.2012.680302
- Rigby, K., & Johnson, B. (2006). Expressed readiness of Australian school children to act as bystanders in support of children who are being bullied. *Educational Psychology* 26, 425-440. doi: 10.1080/01443410500342047
- Roos, S., Hodges, E. V., & Salmivalli, C. (2014). Do guilt and shame proneness differentially predict prosocial, aggressive and withdrawn behaviors during early adolescence? *Developmental Psychology*, 50(3), 941-946. doi: 10.1037/a0033904.supp
- Salmivalli, C., Lagerspetz, K., Björkqvist, K., Österman, K., & Kaukiainen, A. (1996). Bullying as a group process: Participant roles and their relations to social status within the group. *Aggressive Behavior*, 22, 1-15. doi: 10.1002/(SICI)1098-2337(1996)22:1<1::AID-AB1>3.0.CO;2-T
- Salmivalli, C., Lappalainen, M., & Lagerspetz, K. M. J. (1998). Stability and change of behavior in connection with bullying in schools: a two years follow-up. *Aggressive Behavior*, 24, 205-218. doi: 10.1002/(SICI)1098-2337(1998)24:3<205::AID-AB5>3.0.CO;2-J
- Salmivalli, C. & Voeten, M. (2004). Connections between attitudes and behaviors associated to bullying in schools. *International Journal of Behavioral Development*, 28, 246-258. doi:10.1080/01650250344000488
- Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotion and moral behavior. *Annual Review of Psychology*, 58, 345-372. doi: 10.1146/annurev.psych.56.091103070145
- Thornberg, R. (2010). A student in distress: Moral frames and bystander behavior in school. *The Elementary School Journal*, 110, 585-608. doi: org/10.1086/651197

- Thornberg, R., Pozzoli, T., Gini, G., & Jungert, T. (2015). Unique and interactive effects of moral emotions and moral disengagement on bullying and defending among school children. *Journal of Elementary School, 116*, 322-337. doi:10.1086/683985.
- Tracy, J. L., & Robins, R. W. (2006). Appraisal antecedents of shame and guilt: Support for a theoretical model. *Journal of Personality and Social Psychology, 32(10)*, 1339-1351. doi: 10.1177/ 0146167206290212.
- Walter, J. L., & Burnaford, S. M. (2006). Developmental changes in adolescents' guilt and shame: The role of family climate and gender. *North American Journal of Psychology, 8(2)*, 321-338. doi: 10.1037/a0033904.
- Zakriski, A. L., Seifer, R. S., Sheldrick, C., Prinstein, M. J., Dickstein, S. & Sameroff, A. J. (1999). Child-focused versus school-focused sociometrics: A challenge for the applied research. *Journal of Applied Developmental Psychology, 20(3)*, 481-499. ISSN: 1093-3973

Table 1

*Descriptive Statistics and Correlations among Study Variables.*

	Bullying T1	Outsider T1	Defending T1	Guilt T1	Shame T1	Bullying T2	Outsider T2	Defending T2
Bullying T1	/							
Outsider T1	.37***	/						
Defending T1	-.24**	-.03	/					
Guilt T1	-.22**	-.05	.21**	/				
Shame T1	-.14	-.01	.20*	.45***	/			
Bullying T2	.53***	.17*	-.23**	-.06	-.09	/		
Outsider T2	.14	.27**	-.20*	-.09	-.01	.37***	/	
Defending T2	-.14	.12	.30***	.05	-.05	-.13	-.15	/
<i>M (SD)</i>	.07 (.09)	.12 (.16)	.17 (.14)	4.11 (.71)	3.74 (.92)	.07 (.10)	.12 (.10)	.17 (.14)
Alpha	.79	.69	.87	.62	.69	.87	.66	.88

*Note.* Outsider = outsider behavior.\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 2

*Regression Coefficients of Bullying Behaviors and Shame/ Guilt at T1 Predicting Bullying-Related Behaviors at T2.*

Predictors	Bullying T2		Outsider T2		Defending T2	
	$R^2$ ( $\Delta R^2$ )	$\beta$	$R^2$ ( $\Delta R^2$ )	$\beta$	$R^2$ ( $\Delta R^2$ )	$\beta$
<i>Step 1</i>	.29 (.29***)		.11 (.11**)		.14 (.14***)	
Gender		-.14		-.11		.17*
Bullying T1		.51***		-.13		-.06
Outsider T1		.07		.24**		.13
Defending T1		.01		-.12		.21*
<i>Step 2</i>	.29 (.00)/.30 (.01)		.12 (.01)		.18 (.04*)/.15 (.01)	
Gender		-.13/-.12		-.16/-.13		.25**/.18
Bullying T1		.51/.53		-.14/-.15		-.05
Outsider T1		.07/.08		.24/.23		.13
Defending T1		.01/-.01		-.12/-.11		.20*/.21
Shame/ Guilt		-.02/.10		.13/-.11		-.21*/.05
<i>Step 3</i>	.30 (.01)/.32 (.02*)		.15 (.03*)		.19 (.01)/.15 (.00)	
Outsider T1 X Shame/ Guilt		-.08/ .16*		.16*/-.18*		-.06

*Note.* Outsider= outsider behavior. Significance for Beta was not reported if  $\Delta R^2$  was not significant. Boys = -1; girls = +1. We did not report coefficients in steps 4 and 5, which were not significant. In steps 3, only interactions coefficients were reported. Given that shame and guilt entered in different regressions, separate coefficients are provided (shame/guilt), unless the coefficient was identical.

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

Figure 1

Interaction Between Outsider Behavior at T1 and Guilt Predicting Outsider Behavior at T2.

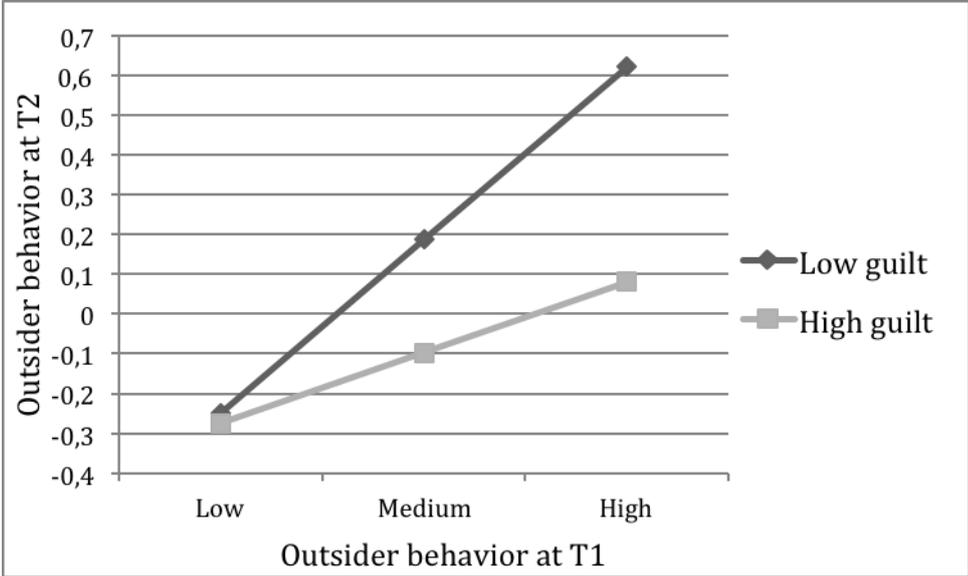


Figure 2

Interaction Between Outsider Behavior at T1 and Shame Predicting Outsider Behavior at T2.

