



# Child and Youth Classroom Incivility Scale (CYCIS): Exploring Uncivil Behaviors in the Classroom

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## Abstract

Uncivil behavior in the classroom is a growing issue among children and youth both academically and developmentally. This unique low-level antisocial behavior may be a precursor to higher-level antisocial behavior, and it is therefore important to have a relevant tool to be able to measure engagement in such behavior in the classroom. Using data from 586 children and youth (46.4% boys) between the ages of 10 and 14 ( $M = 12.02$ ;  $SD = 1.35$ ), we conducted a confirmatory factor analysis to validate a scale of classroom incivility consisting of two subscales based on intentionality (intentional and unintentional). We also ensured construct validity of our subscales by exploring HEXACO personality profiles and correlating our measures with both self- and peer-reported variables related to social and mental well-being. Our results highlight that engaging in classroom incivility is positively associated with poorer well-being, antisocial traits and antisocial behavior. Our results also demonstrate distinct personality profiles of students who reported engaging in intentional versus unintentional classroom incivility. This study is an important first step for future research exploring the potential antecedents and implications of engaging in uncivil behavior in the classroom, particularly if such behavior may have potential to escalate into more serious behavior later on.

**Keywords** Children · Youth · Classroom incivility · Psychosocial well-being · Antisocial behavior

## Introduction

Incivility in the classroom is a growing concern within educational settings, given its potential negative effects to both adolescent personal and academic development (Marini, 2009; Volk, Dane, & Marini, 2016). It has become a rising issue in educational settings, often interfering with both the learning environment and student well-being (Bjorklund & Rehling, 2009; Clark & Springer, 2007; Wilkins, Caldarella, Crook-Lyon, & Young, 2010). Incivility is defined as a “low-intensity, deviant behavior with ambiguous intent to cause harm” (Andersson & Person, 1999, p. 457). Specifically, classroom incivility can be defined as actions that interrupt a

cooperative learning environment (Feldmann, 2001). These actions in the classroom may include, but are not limited to, talking during a lesson, making fun of a classmate who answered a question wrong and packing up books before a lesson is over.

## Incivility in the Classroom

Feldmann (2001) discusses that classroom incivility may negatively contribute to the learning environment by disrupting the instructor’s teaching. However, this behavior may not be addressed or even be ignored by educators for two potential reasons. First, because incivility is considered a low-intensity antisocial behavior, it may be perceived as harmless and as something that will go away on its own (Feldmann, 2001). Second, constantly stopping the class to deal with low-intensity uncivil behavior may itself take away from instructional time on course content. Unfortunately, it is possible that uncivil behavior within the classroom setting may increase if educators choose not to address such behavior (Feldmann, 2001). Further, when classroom incivility is ignored, there is potential that behavior that may begin as

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simply being rude may escalate into more serious antisocial behavior, or be associated with negative psychosocial outcomes (Andersson & Pearson, 1999; Felblinger, 2009; Farrell, Provenzano, Spadafora, Marini, & Volk, 2016; Miller, Katt, Brown, & Sivo, 2014; Marini, 2009, Volk et al., 2016; Spadafora, Frijters, Molnar, & Volk, 2020). Uncivil behavior in the classroom can range from less serious behavior (e.g., eating during class or groaning in disapproval when instructions are given) to behavior that may be deemed more serious (e.g., phone disruptions or harassing comments; Connelly, 2009).

### Models of Classroom Incivility

Whereas incivility is often considered as a broad construct, there have been multiple conceptualizations of subtypes of incivility within the literature. These conceptualizations can assist in understanding the function and outcomes of incivility. First, as Marini (2009) describes, incivility may be modeled along two distinct continuums: the form (ranging from indirect to direct behavior) and the function (ranging from proactive to reactive behavior). On the form continuum, indirect incivility can be characterized by covert negative actions (e.g., spreading rumors), whereas direct incivility can be characterized by overt negative actions (e.g., interrupting the teacher; Marini, 2009). On the function continuum, proactive incivility involves planned and deliberate behavior that are perpetrated in order to achieve a goal (e.g., stealing notes from a classmate), whereas reactive incivility involves a retaliatory response that lacks the planning and deliberation without regard for an external goal (e.g., being rude in response to provocation; Marini, 2009).

Other researchers have focused on conceptualizing incivility based on the intensity of the action. For example, Feldmann (2001) discusses uncivil behavior in post-secondary classroom as being divided into four categories that range from low-level to higher-level behavior including: annoyances (issues of etiquette), classroom terrorism (interferes with class instruction), intimidation (threats or pressure on the instructor) and threatening actions. Burke, Karl, Peluchette and Evans (2014) have a similar conceptualization, describing three categories of uncivil behavior in the classroom with the highest level being actions that may be considered harassment, the middle level consisting of somewhat challenging behavior such as class disruption, and the lowest level consisting of actions that are considered annoying. Intentionality is another factor to consider when thinking about uncivil behavior in the classroom setting. Unintentionally uncivil behavior are actions that are considered to be as a result of being inconsiderate and lack an intention to harm others (e.g., sending text messages during class; Marini, 2009; Farrell et al., 2016). On the other hand, intentionally uncivil actions are those that are deliberate and have intent to

hurt someone else (e.g., calling a classmate names because they did not agree with your opinion; Marini, 2009; Farrell et al., 2016). In general, it seems as though classroom incivility tends to be measured on a continuum from low-level annoying behavior to more intense, intentional behavior in the classroom (e.g., Marini, 2009; Farrell et al., 2016; Feldmann, 2001; Burke et al., 2014). Given these varying models of incivility, the choice of measure becomes particularly important, specifically when studying uncivil behavior in the classroom within children and youth.

### Previous Measures of Classroom Incivility

The majority of previous research on classroom incivility has used scales that examine teacher or faculty perceptions of uncivil behavior, or the attitudes of University/college students (e.g., Clark, 2008; McKinne & Martin, 2010; Bjorklund & Rehling, 2011). For example, *The Student Incivility Questionnaire* (AlKandari, 2011) measures student perceptions of incivility, as well as the ability of the professor to intervene in uncivil behavior within a University classroom setting. One of the first measures used to measure classroom incivility was created at Indiana University in 2000 and measures faculty perceptions regarding uncivil behavior in the classroom (Royce, 2000). This survey has since been adapted by other researchers to explore incivility within a University classroom setting, both modifying it to be from a student perspective and adding items of their own (e.g., Nordstrom, Bartels, & Bucy, 2009; McKinne & Martin, 2010). Further, much of the research on incivility in the classroom has taken place specifically in nursing education settings (e.g., Clark, 2008, Marichiondo, Marchiondo, & Lasiter, 2010). For example, the *Incivility in Nursing Education Survey* asked both students and faculty to rate how often they witnessed various uncivil actions in their learning environment, as well as their attitudes toward each behavior (Clark, 2008; Clark, Farnsworth, & Landrum, 2009). However, these discussed scales ask participants about their perceptions of classroom incivility or to report how often they witness uncivil behavior within the classroom setting. These scales do not directly ask individuals how often they engage in uncivil behavior within a classroom setting. There is one recently validated scale, the *Classroom Citizenship Behavior Scale* (Myers et al., 2016, Katt et al., 2018), which measures what leads University students to choose to engage in civil, respectful classroom behavior. However, to our knowledge, there has not yet been a validated scale measuring how often children and/or youth report engaging in uncivil behavior within the classroom. Further, since youth are developmentally different from these samples, we must consider the validation of a measure that is relevant for a younger age range and their classroom environment. Specifically, classroom incivility is a novel behavior that requires consideration in a

range of age-specific samples, given that certain actions may be engaged in at different levels at different stages of development (e.g., early compared to late adolescence). Moreover, it is important to note that uncivil behavior isn't always necessarily disruptive to the classroom (e.g., reading a book or sleeping during class may not disrupt the classroom in all instances) and, however, can still be considered uncivil behavior. This distinction provides further support for the creation of a scale based on the novel behavior of classroom incivility. In addition, the exploration of adolescent incivility is important as this research can go beyond educational implications has potential to undermine group functioning (Lim, Cortina, & Magley, 2008) and perhaps be associated with further antisocial behavior (Marini, 2009; Spadafora et al., 2020). One measure to our knowledge has been validated within an adolescent sample, measuring adolescent attitudes toward uncivil behavior in the classroom (Farrell et al., 2016; Spadafora et al., 2020). This scale validation supported the conceptualization of classroom incivility from unintentional to intentional actions. Further, this scale has been validated cross-culturally in a Turkish sample of adolescents and a similar two-dimensional model was found (Bingöl, Sölkpük Turhan, Arslan, Öztabak, & Çetintaş, 2018). Whereas this measure is reliable and valid within an adolescent sample, it measures adolescent attitudes toward uncivil behavior in the classroom, as opposed to actual behavior. Nordstrom et al. (2009) found that thinking positively about uncivil behavior was the strongest predictor of engaging in such behavior; however, they also discuss that actions and attitudes may not always be the same. Moreover, it is important to focus on uncivil behavior in the classroom, as regardless of intentionality, it remains possible that these actions have the potential to negatively impact the learning environment or the students involved. Thus, an important next step in being able to explore adolescent classroom incivility is to translate and validate this previous scale into one that measures actual classroom uncivil behavior.

### Why Adolescent Behavior

If low-level antisocial behavior such as classroom incivility may be implicated in higher-level antisocial behavior in the future (Marini, 2009; Spadafora et al., 2020), then it becomes important to be able to measure engagement in uncivil actions in the classroom at younger ages. For example, it is possible that engaging in the low-level antisocial behavior of classroom incivility may escalate and become more targeted and goal directed resulting in aggressive or bullying behavior (e.g., Volk, Dane, & Marini, 2014). Further, there is potential that engaging in uncivil behavior may be associated with poorer social and mental well-being, as previous research has found associations between attitudes toward uncivil behavior in the

classroom with higher conduct problems and lower prosocial behavior (Volk, Marini, & Dane, 2016; Farrell et al., 2016). Specifically, these developmental periods may be a critical time to address uncivil behavior in the classroom before these actions become more serious. Further, exploring this behavior in adolescence may be particularly important, given the changing peer group compositions and motivations to engage in various antisocial behavior.

To explore the low-level behavior of classroom incivility, it is not only important to examine associations with self-reported pro and antisocial behavior, but also with peer-nominated characteristics and personality profiles of the youth engaging in this behavior. For example, previous research using the HEXACO model of personality (Ashton & Lee, 2009) has found that adolescents who have a willingness to exploit others or who are quick to angry are more likely to engage in antisocial behavior in general (e.g., Book et al., 2012; Farrell & Volk, 2017). Previous research has also found significant bivariate correlations with youth HEXACO personality traits and self-reported attitudes toward classroom incivility (see Spadafora et al., 2020). Moreover Spadafora, Farrell, Provenzano, Marini and Volk (2016) found different temperamental profiles of youth who reported their attitudes toward intentional and unintentional incivility, making an exploration of personality profiles of youth who engage in classroom incivility an important next step. Lastly, it is unknown how youth who report engaging in uncivil behavior in the classroom are being perceived by their peers, making the exploration of peer nominations in relation to reported engagement in classroom incivility another avenue to begin to explore. Investigating associations with pro/antisocial peer and self-reported variables will be an important step to ensure construct validity when validating our scale of engaging in uncivil behavior in the (elementary or high school) classroom. Research focused on adult samples tends to focus on uncivil behavior in the workplace (Pearson & Porath, 2005) or in college/University settings (e.g., Bantha, Sahni, & Yadav, 2020). Given developmental differences, uncivil behavior in mid-elementary and high school classrooms would manifest differently than in these other settings.

Therefore, it is important to have validated tools to measure variables that may have negative implications for youth student populations into improve prevention and intervention efforts in the classroom (e.g., Roberson & Renshaw, 2019). Much of the research to date on classroom incivility specifically has been on University/college samples (e.g., Bantha et al., 2020; Strassle & Verrecchia, 2019; Bjorklund & Rehling, 2009), making it particularly necessary to create and validate measures that are appropriate for child and adolescent samples.

## Current Study

The purpose of the current study was to translate and validate a measure of uncivil classroom behavior in a sample of adolescents. Specifically, we were interested in determining whether the two-dimensional model of classroom incivility (intentional and unintentional) captured by a previous measure of uncivil attitudes (Farrell et al., 2016) would be supported when exploring engagement in uncivil classroom behavior. We were also interested in confirming that these two dimensions that were previously validated in an adolescent sample (Farrell et al., 2016) would extend to younger youth.

We conducted a confirmatory factor analysis to determine if a two-factor model of intentional and unintentional classroom incivility would hold in a sample of youth when measuring their self-reported uncivil behavior in the classroom. We expected that our two-factor model of classroom incivility would fit our data well to indicate a strong measurement model of uncivil behavior in our sample of young adolescents. Second, to ensure construct validity, we correlated both subtypes of incivility with a range of peer and self-reported antisocial and prosocial behavior, self-reported average grades, self-reported emotional health and the six HEXACO personality traits. The HEXACO Model of Personality (Ashton & Lee, 2009) is a useful measure to correlate with engaging in uncivil behavior as it is ideally delineates personality into several traits that capture different antisocial motives for of behavior, including predatory (low Honesty-humility), callous (low Emotionality), angry (low Agreeableness) and impulsive (low Conscientiousness) motives (Lee & Ashton, 2004). These traits have been found to be significantly associated with child and adolescent antisocial behavior (Farrell & Volk, 2017; Provenzano et al., 2018; Spadafora et al., 2020). Therefore, we were interested in determining if individuals who reported intentional versus unintentional classroom incivility had distinct personality profiles.

## Method

### Participants

The sample for the present study comprised 586 youth (272 boys; 299 girls; 5 other; 12 preferred not to say) in grades five to nine between the ages of 10 and 14 ( $M = 12.02$ ;  $SD = 1.35$ ). The self-reported ethnicities of the sample were: White (63.4%), East Asian (1.4%), Southeast Asian (3.1%), South Asian (1.4%), West Asian (1.4%), Black (3.1%); Latin/Central/South American (8.7%), Indigenous

(0.3%) and Mixed (17.3%). With regard to socioeconomic status, 62.6% of the participants reported their family to be “about the same” in richness compared to the average Canadian family and 68.6% of the sample reported that their parents had completed college/University.

### Measures

Participants completed a package of questionnaires including a demographic and a classroom incivility survey. Participants completed a range of questionnaires about themselves and their behavior as part of a larger study.

### Demographics

Participants completed questions on their age, sex, ethnicity, SES, living situation and academic grades. Specifically, participants were asked, “what grade, on average, do you typically receive in school?”

### Classroom Incivility

Participants completed eleven items regarding their engagement in classroom incivility. The items used were adapted from those used in the *Adolescent Attitudes Towards Classroom In/Civility Scale* (Farrell et al., 2016). Rather than asking participants: “Please circle the answer that best describes your belief about each of the following situations,” the version for the current study asked participants, “How often have you done any of the behavior below?” One modification we made was to update item four from: “posting nasty notes on a bulletin board” to “posting mean comments online about classmates.” Further, we added an additional item: “Talking when you shouldn’t during class.” Participants were asked to rate their behavior on a five-point scale from 1 = *almost never* to 5 = *almost always*.

### Integrated Measure of Bullying and Non-Bullying Aggression (Prabaharan, 2020)

This questionnaire measures both bullying perpetration and non-bullying aggression perpetration. For example, participants were asked “In the PAST FEW MONTHS, how often have **YOU DONE** the following, against someone who was **LESS** popular or strong than you?” with participants asked to respond on a five-point scale ranging from “1 = *Never* to 5 = *Very Often*.” For the purposes of this study, composite variables (with direct and indirect) were created for overall bullying and overall aggression, with higher scores indicating engaging in that behavior more often.



### Social Dominance Strategies (Adapted from Hawley, 2003; Hawley, Little, & Card, 2008; Vaillancourt et al., 2003)

Participants completed 16 items (10 for cooperative strategies and 4 for coercive strategies) that are rated on a 5-point scale from 1 = *Never true* to 5 = *Almost always true*. A sample item for the coercive scale is: “I try to force others to follow my plans” and a sample item from the cooperative subscale is: “I cooperate with others so we all get what we want.” Higher scores indicate greater use of each strategy type.

### The HEXACO Personality Inventory SPI (De Vries & Born, 2013)

This is a simplified version of the HEXACO Personality Inventory-Revised (Ashton & Lee, 2009) comprised of 96 self-report items that measure the six major dimensions of personality. Participants rate items on a five-point scale from: 1 = *strongly disagree* to 5 = *strongly agree*. Subscales include Honesty-humility (e.g., “I find it difficult to lie”), Emotionality (e.g., “I get sad when a good friend leaves for a long time”), Extraversion (e.g., “I often act as the leader when I’m in a group”), Agreeableness (e.g., “Even when I’m treated badly, I remain calm”), Conscientiousness (e.g., “I think carefully before I do something dangerous”) and Openness to Experience (e.g., “I like people with strange ideas”). Higher scores indicate higher levels of each personality factor.

### Strengths and Difficulties Questionnaire (Goodman, 1997)

For the current study, we used the emotional problems subscale of this questionnaire consisting of five items. Participants are asked to rate their opinion on each statement using the scale: 1 = *Not true*, 2 = *Somewhat true*, 3 = *Certainly true* with a sample item of: “I worry a lot.” Higher total score indicates greater emotional problems.

### Hostility (Subscale from the Children’s Automatic Thoughts Scale; Schniering & Rapee, 2002)

Participants completed the five-item hostility subscale where they were asked: “How often have you had the following thoughts?” and responded on a scale from 1 = *Never* to 5 = *Very often*. A sample item is: “I have the right to take revenge on people if they deserve it.” Higher total scores indicated higher hostility.

### Peer-Nominated Items

As part of this study, participants also completed peer nomination questions. That is, students were asked to select

students in their grade that fit various descriptions. For the purposes of the current study, we used peer nominations for direct and indirect bullying perpetration as well as peer nominations for the following questions: “Who are your best or closest friends?”; “Who do you like (is nice) in your grade?”; “Who do others look up to and respect?”; “Who usually helps and cooperates with others?”; “Who leads the group in a fair way?”; and “Who is kind to others?”. We used total received nominations for each of these variables for the current study and created proportion scores based on the number of students in each grade.

### Procedure

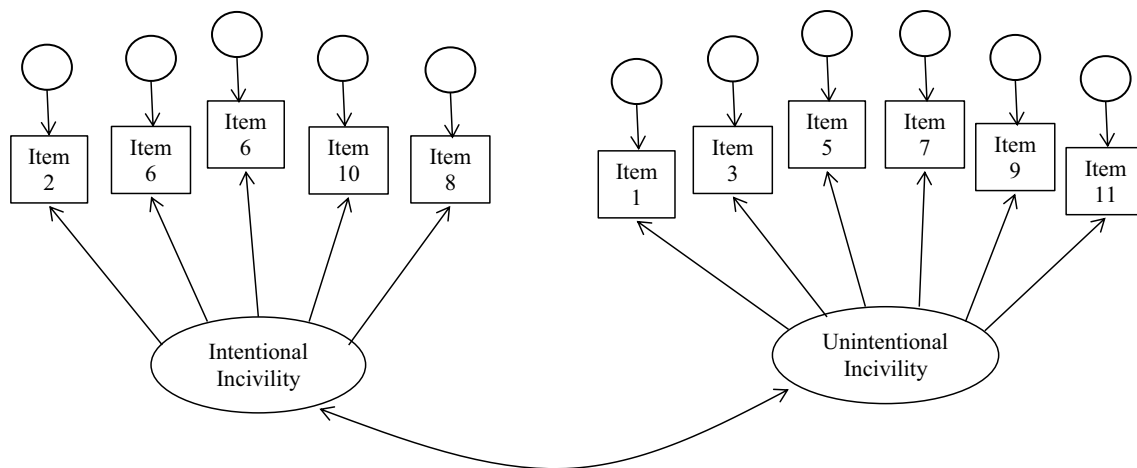
Research assistants visited local schools to collect data. Students that were in grades five to nine were invited to participate in the study. To participate, students were required to have parental consent (active for Grades 5–8, passive for Grade 9). Individuals who gave assent and had parental consent completed the survey on a tablet via Qualtrics (an online survey platform). All measures and procedures were approved by both our University ethics board and the local school board. Compensation for the study was determined by returned consent forms, as schools were given \$5 per student who returned their consent form. Additionally, a draw for gift cards took place in each classroom, with increased prizes for classes that had returned consent form (positive or negative) rates above 80%.

## Results

### Data and Statistical Analysis

Prior to analysis, missing data and plausible values were assessed for the items. Next, we used confirmatory factor analysis (CFA), as we had a strong theoretical basis for a two-factor model of classroom incivility. Exploratory factor analysis is considered best practice only when the researchers do not have a strong idea of how the factors will emerge and when the scale has not previously been used (e.g., Costello & Osborne, 2005).

The confirmatory factor analysis was conducted using MPlus version 7.2 software (Muthén & Muthén, 1998–2017) to determine whether the proposed measurement model for intentional and unintentional incivility (see Fig. 1) would have acceptable fit. We scaled the latent factor by setting its variance to 1.0 (Kline, 1998). The following indices were used to assess model fit: Root Mean Square Error of Approximation (RMSEA) with 90% confidence intervals less than .06, a comparative fit index (CFI; Hu & Bentler, 1998) less than .95 and a standardized root mean square residual (SRMR) less than .08 (Hu & Bentler, 1999). Whereas having



**Fig. 1** Latent factors of intentional and unintentional incivility. *Note* Disturbances, errors and covariances have been removed for ease of presentation. Item numbers represent each of the individual item indicators for each factor (see “Appendix 2” for item list by factor)

a nonsignificant Chi-squared ( $\chi^2$ ) value is can be used to determine adequate fit of a model, it can be sensitive to sample size (Kline, 1998), therefore, we used a  $\chi^2/df$  value less than 5 to determine adequate model fit (Wheaton, Muthern, Alwin, & Sunners, 1977).

### Preliminary Analyses

Data for the present study were collected as part of a larger study. Participants who had completed the uncivil behavior items were used for this analysis. All descriptive values were plausible (see Table 1 for means and standard deviations). For the item data, outliers were those with scores more than 15.001 standard deviations from the mean. These scores were Winsorized, such that the scores were adjusted to represent z-scores that would have been within 5 standard deviations from the mean, while maintaining rank order to one decimal place. Skewness and kurtosis values were beyond the acceptable cutoff of  $\pm 2$  (Field, 2018), and therefore, we used maximum likelihood with robust estimation (MLR) in MPlus to account for the non-normal distribution of these items. Further, all correlations between the items were under 0.8, indicating no issues with multicollinearity (Tabachnick & Fidell, 2013; see Table 1).

### Confirmatory Factor Analysis

We conducted a confirmatory factor analysis to determine if constructs of intentional and unintentional incivility would be represented by our items. The model fit was adequate ( $\chi^2(43) = 168.86$ ,  $p < .001$ ; CFI = .92; RMSEA = .07; 95% CI [.06, .08]; SRMR = .06) and each indicator was statistically significant for each respective variable (intentional and unintentional incivility).

Next, we ran a one-factor model of classroom incivility (with all eleven items) to establish if our proposed two-factor model would be a better fit as hypothesized. This one-factor model did not fit as well as our initial model ( $\chi^2(44) = 290.73$ ,  $p < .001$ ; CFI = .83; RMSEA = .10; 95% CI [.09, .11]; SRMR = .07), further supporting the two-factor model of classroom incivility. Reliabilities for each subscale were acceptable: .75 for unintentional incivility and .80 for intentional incivility. Lastly, since we expect intentional and unintentional incivility to be related, it was important to ensure that the correlation between the two constructs was within acceptable limits. The correlation between the two constructs was .60, indicating that while they are correlated with each other (as expected); we are still measuring two distinct constructs.

To further validate our scale developmentally, we split our sample into younger (pre-adolescents, ages 10–12;  $n = 350$ ) and older (adolescents; ages 13 and 14;  $n = 236$ ) samples to ensure that the factors of intentional and unintentional uncivil behavior in the classroom would fit similarly in both sub-samples. We conducted the same CFA in each sub-sample to ensure model fit would be adequate within each sample. Our analyses revealed that model fit values varied slightly, but that fit was acceptable in both sub-samples.

### Construct Validity

To ensure construct validity of our constructs of intentional and unintentional uncivil behavior, we conducted bivariate correlations and hierarchical regressions with the HEXACO personality traits, as well as bivariate correlations with both self- and peer-reported behavior and beliefs.

**Table 1** Summary statistics and intercorrelations for all incivility items

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Packing up books before a lesson is over	–	.31**	.33**	.11**	.28**	.16**	.26**	.10*	.22**	.23**	.31**
2. Making fun of a classmate who answered a question wrong		–	.39**	.48**	.41**	.55**	.26**	.48**	.36**	.35**	.38**
3. Sending text messages/notes during class			–	.36**	.49**	.38**	.35**	.30**	.28**	.29**	.38**
4. Posting mean comments online about classmates				–	.39**	.69**	.21**	.58**	.38**	.35**	.22**
5. Reading, going online, or playing a game during a lesson					–	.43**	.40**	.29**	.39**	.35**	.40**
6. Calling a classmate names because they did not agree with your opinion						–	.27**	.65**	.47**	.41**	.31**
7. Eating during class							–	.19**	.35**	.32**	.35**
8. Spreading rumors about or try exclude a classmate you dislike								–	.38**	.40**	.33**
9. Sleeping in class									–	.36**	.39**
10. Fighting with another student (physical or verbal)	2.74	1.47	1.66	1.09	1.55	1.20	1.97	1.28	1.42	1.66	2.45
11. Talking when you shouldn't during class	1.27	.80	1.02	.38	.91	.56	1.19	.69	.81	.94	1.17
<i>M</i>											
<i>SD</i>											

**Associations with HEXACO Personality Traits**

At the bivariate level, engaging in both intentional and unintentional classroom incivility was significantly negatively associated with the HEXACO personality traits of Honesty-humility, Agreeableness, Conscientiousness and Openness to Experience.

**Hierarchical Regressions with Personality Factors**

To further explore these personality associations, we conducted two hierarchical regressions to explore the personality profiles of youth who reported engaging in each subtype of uncivil behavior in the classroom. Each regression had age and sex in the first step, with the six HEXACO personality traits in step two, and each of the subtypes of incivility (intentional and unintentional) as the outcome variables.

**Preliminary Analysis** Prior to conducting the regressions, data for analysis variables (both subtypes of classroom incivility and HEXACO personality traits) were screened for relevant assumptions using SPSS version 25. Win-sorizing was utilized to address outliers, where scores were adjusted to represent z-scores that are within 3 standard deviations from the mean, while still maintaining rank order. Variables met the assumption of normality (skewness and kurtosis values  $\pm 2$ ; Field, 2018), with the exception of intentional incivility that was slightly kurtotic. All variables met the assumptions of linearity, multicollinearity, homoscedasticity and independence.

**Intentional Incivility** The first step of the model was significant, accounting for 2.5% of the variance ( $F(2, 581) = 8.71, p < .05$ ; Table 4). Sex was significant with boys reporting engaging in more uncivil behavior than girls. In step two, the addition of the personality factors accounted for 21.7% of the variance in intentional incivility ( $F(6, 575) = 24.65, p < .001$ ). Lower Honesty-humility, Agreeableness, Conscientiousness and Openness to Experience were found to be significantly associated with intentional incivility.

**Unintentional Incivility** The first step with age and sex accounted for 3.5% of the variance ( $F(2, 581) = 11.67, p < .001$ ; Table 5). Age was significant with older youth reporting engaging in more unintentional incivility in the classroom. In the second step, the model accounted for 25.6% of the variance ( $F(6, 575) = 34.79$ ). Lower Honesty-humility, higher Extraversion, lower Agreeableness and lower Conscientiousness were significantly associated with higher unintentional incivility.

### Self-Reported Variable Correlations (Aggression, Bullying, Coercive and Cooperative Dominance Strategies, Grades, Emotional Problems, Hostility)

First, age was found to be positively correlated with unintentional incivility, indicating that older youth reported engaging in more unintentionally uncivil behavior in the classroom. There was also a significant correlation with sex and intentional incivility, indicating that boys reported engaging in more intentionally uncivil classroom behavior. There were moderate positive correlations between both intentional and unintentional incivility with both aggressive and bullying behavior. Next, there were moderate positive correlations with engaging in both subtypes of classroom incivility and reporting in engaging in coercive social dominance strategies, whereas students who reported lower levels of classroom incivility also reported greater use of cooperative social dominance strategies. We also correlated the self-reported average grade of the participants with both subtypes of classroom incivility. Whereas there was no significant correlation with intentional incivility, there was a small positive correlation with average grades and unintentional incivility. Lastly, there was a small, significant positive correlation between emotional problems and unintentional incivility, whereas both subtypes of incivility were positively correlated with higher scores on the hostility scale. See Table 2 for all correlations with self-report variables.

### Correlations with Peer-Nominated Variables (Best Friends, Direct Bully, Indirect Bully, Who is Nice, Who is Respected, Who Cooperates, Who is Fair, Who is Kind)

With regard to peer-nominated data, there were some small but significant negative correlations. First, there was an association between being nominated as a perpetrator of direct bullying and engaging in classroom incivility. Next, there was a negative correlation between individuals who received nominations for, “who do you like (is nice) in your grade and self-reported engagement in intentionally uncivil behavior. There were also small negative correlations between reported engagement in both subtypes of incivility and being nominated for the questions of: “who do others look up to and respect?”, “who usually helps and cooperates with others?”, “who leads the group in a fair way?” and “who is kind to others?” with both intentional and unintentional incivility. See Table 3 for all correlations with peer-nominated variables.

### Partial Correlations

Lastly, to further explore unique relationships of each sub-factor, we conducted partial correlations for each subtype

of incivility (while controlling for the other subtype). Given the large number of related variables in our study (e.g., bullying, aggression, hostility), we chose to conduct partial correlations rather than broader multivariate analyses so as to preserve the variance associated with each variable. We also adopted a liberal alpha of .05 to accommodate the exploratory nature of our analyses (Tabachnick & Fidell, 2013). Our partial correlations revealed unique associations between our construct validity variables with intentional and unintentional incivility (see Table 6). In these analyses, intentional incivility was significantly positively correlated with self-reported bullying, aggression and hostility, being nominated as a direct bully, and negatively associated with use of prosocial strategies and being nominated as kind and cooperating. Unintentional incivility was uniquely significantly negatively correlated with lower Honesty-humility, Agreeableness, Conscientiousness, Openness and being nominated as a person who is respected and leads the group in a fair way, and positively associated with both hostility and emotional problems (Table 6).

## Discussion

The purpose of the present study was to validate a scale of classroom incivility (the CYCIS) in a sample of adolescents. Specifically, our goal was to validate a two-factor model of uncivil behavior (intentional and unintentional) in a sample of youth aged 10–14. Our results highlight that the two-factor representation of classroom incivility is consistent with regard to behavior as opposed to attitudes. Further, our results support that this scale is valid for older youth. While it remains possible for our scale to be used as a measure of total classroom incivility (mean of scores on all eleven items,  $\alpha = .83$ ), our analyses strongly support the two-factor model of incivility with separate means scores for both intentional and unintentional incivility.

First, our confirmatory factor analysis depicting intentional and unintentional classroom incivility was acceptable and superior to the one-factor model of classroom incivility. Our data further support the theoretical distinction of intentional and unintentional classroom incivility, (Marini, 2009; Farrell et al., 2016). Therefore, we believe that this conceptualization should continue to be examined both theoretically and practically, to explore factors that may be associated with classroom incivility as well as to determine what behavior may be implicated with engaging in uncivil actions. Next, when we split our sample by age, we found the model fit within each sub-sample to be adequate, further supporting that the CYCIS is developmentally appropriate for typical children who are age 10 or older. Since much of the research on classroom incivility has been within University settings (e.g., Bjorklund & Rehling, 2011), we met our goal to create



**Table 2** Summary statistics and intercorrelations of self-report study variables

Var.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Age	-																
2. Sex <sup>a</sup>		-															
3. Intent.			-														
4. Unint.				-													
5. Bully					-												
6. Agg.						-											
7. Coerc.							-										
8. Coop.								-									
9. Grades									-								
10. H										-							
11. E											-						
12. X												-					
13. A													-				
14. C														-			
15. O															-		
16. Emot.																-	
17. Host.																	-
<i>M</i>	12.04	.53	1.34	2.0	1.36	1.23	3.82	1.27	1.43	3.26	3.14	3.40	3.11	3.32	3.03	1.79	2.31
<i>SD</i>	1.40	.50	.53	.71	.49	.41	.81	.48	.65	.49	.57	.54	.42	.58	.52	.53	.91
<i>A</i>	NA	NA	.80	.75	.90	.91	.90	.81	NA	.70	.77	.77	.64	.84	.73	.76	.76

Intent., intentional incivility; Unint., unintentional incivility; Bully, bullying; Agg., aggression; Coerc., coercive strategies; Coop., cooperative strategies; Grades, average grades in school; H, honesty-humility; E, emotionality; X, extraversion; A, agreeableness; C, conscientiousness; O, openness to experience; Emot., emotional problems; Host., hostility

<sup>a</sup>Sex was coded as 0 = boy, 1 = girl

**Table 3** Intercorrelations for peer-nominated variables with intentional and unintentional incivility

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	–	– .06	.07	.18**	.06	– .22**	– .25**	– .06	– .25**	– .01	– .05	– .03
2. Sex <sup>a</sup>		–	– .12**	– .06	.08	– .11**	.02	.15**	.15**	.16**	.14**	.18**
3. Intentional			–	.60**	– .03	.14**	.05	– .10*	– .15**	– .19**	– .18**	– .20**
4. Unintentional				–	– .04	.11*	.03	– .07	– .13**	– .13**	– .16**	– .13**
5. Friends					–	.03	.10*	.59**	.59**	.58**	.54**	.50
6. Dir. Bully						–	.71**	– .04	.14**	– .08*	– .03	– .10*
7. Ind. Bully							–	.01	.26**	.01	.04	– .01
8. Nice								–	.71**	.83**	.76**	.88**
9. Respect									–	.75**	.75**	.69**
10. Cooperate										–	.91**	.89**
11. Fair											–	.81**
12. Kind												–

Friends=Received peer nominations for “Who are your best or closest friends?”; Dir. Bully=received nominations for direct bullying; Ind. Bully=received nominations for indirect bullying; Nice=received nominations for “Who do you like (is nice) in your grade?”; Respect=received nominations for “Who do others look up to and respect?”; Cooperate=received peer nominations for “Who usually helps and cooperates with others?”; Fair=received nominations for “Who leads the group in a fair way?”; Kind=received peer nominations for “Who is kind to others?”

<sup>a</sup>Sex was coded as 0=boy, 1=girl

and validate a scale that could be used for junior elementary, intermediate and high school students.

Our next goal was to examine the construct validity of the CYCIS. With regard to the links between the CYCIS and individual differences, we explored associations with engaging in classroom incivility with age, sex and HEXACO personality traits. As expected, there were both similar and unique associations with each type of classroom incivility. First, we found that boys reported engaging in more intentional incivility in the classroom, which is consistent with research on other antisocial behavior such as bullying and aggression (e.g., Hartung, Little, Allen, & Page, 2011). Older students also reported engaging in more unintentionally uncivil behavior. As students get older (i.e., intermediate or high school) they may engage in a broader range of actions that are unintentionally uncivil (e.g., talking to or texting their friends during class) and/or they may feel more empowered to engage in uncivil behavior in front of adults. These findings with sex and age are also similar to previous associations with beliefs about classroom incivility (Spadafora et al., 2016). With regard to personality traits, engaging in both subtypes of classroom incivility was associated with lower levels of Honesty-humility, Agreeableness and Conscientiousness (see Tables 4, 5). Consistent with other forms of antisocial behavior (e.g., Book et al., 2012; Farrell & Volk, 2017), it seems as though a willingness to exploit others, lack of patience and higher impulsivity are also associated with engaging in classroom incivility. Further, these findings are comparable to previous findings with beliefs toward uncivil behavior and individual differences in youth (Spadafora et al., 2016, 2020). With regard to bivariate

**Table 4** Hierarchical regression predicting intentional incivility with HEXACO personality traits

Predictors	B	SE	β	95% CI
<b>Step 1</b>				
Age	.03*	.01	.10	[.01, .06]
Sex <sup>a</sup>	– .10*	.03	– .14	[– .16, – .04]
R <sup>2</sup>	.029			
F	8.71			
<b>Step 2</b>				
Age	– .00	.01	– .01	[– .03, .02]
Sex	– .07*	.03	– .09	[– .12, – .01]
Honesty-humility	– .30*	.04	– .33	[– .38, – .23]
Emotionality	– .02	.03	– .03	[– .08, .04]
Extraversion	– .02	.04	– .02	[– .09, .05]
Agreeableness	– .11*	.05	– .10	[– .21, – .02]
Conscientiousness	– .09*	.03	– .12	[– .16, – .03]
Openness	– .07*	.03	– .08	[– .14, – .00]
R <sup>2</sup>	.228			
F	21.19			

ΔR<sup>2</sup> = .217 (p < .001) for Step 2

<sup>a</sup>Sex was coded as 0=boy, 1=girl. \* = p < .05

correlation effect sizes and partial correlations, whereas the effects for Honesty-humility were similar for intentional and unintentional classroom incivility, the effects of Agreeableness and Conscientiousness are larger for unintentional incivility. Individuals who have lower levels of Agreeableness are more impatient (Lee & Ashton, 2012), and therefore may not want to defer to classroom norms of civil behavior (e.g.,

**Table 5** Hierarchical regression predicting unintentional incivility with HEXACO personality traits

Predictors	<i>B</i>	SE	$\beta$	95% CI
Step 1				
Age	.09*	.02	.19	[.05, .13]
Sex <sup>a</sup>	– .05	.05	– .05	[– .14, .04]
<i>R</i> <sup>2</sup>	.039			
<i>F</i>	11.69			
Step 2				
Age	.05*	.02	.10	[.01, .08]
Sex	.01	.04	.01	[– .08, .09]
Honesty-humility	– .33*	.06	– .24	[– .44, – .22]
Emotionality	– .01	.05	– .01	[– .10, .08]
Extraversion	.18*	.05	.14	[.08, .28]
Agreeableness	– .24*	.07	– .14	[– .37, – .11]
Conscientiousness	– .35*	.05	– .29	[– .45, – .25]
Openness	– .08	.05	– .06	[– .18, .02]
<i>R</i> <sup>2</sup>	.295			
<i>F</i>	30.04			

$\Delta R^2 = .285$  ( $p < .001$ ) for Step 2

<sup>a</sup>Sex was coded as 0 = boy, 1 = girl. \* =  $p < .05$

**Table 6** Partial correlations for intentional and unintentional incivility (controlling for each other)

	Intentional incivility	Unintentional incivility
Self-report		
Bullying	.37**	.08
Aggression	.30**	.06
Coercive	.25**	.09*
Cooperative	– .16**	– .00
Grades	– .01	.09*
Honesty-humility	– .19**	– .24**
Emotionality	– .02	– .02
Extraversion	– .09*	.07
Agreeableness	– .05	– .23**
Conscientiousness	– .04	– .31**
Openness	– .01	– .13*
Emotional problems	– .07	.16**
Hostility	.16**	.13*
Peer nominations		
Friends	.00	– .02
Direct bully	.09*	.02
Indirect bully	.05	– .01
Nice	– .08	– .00
Respect	– .03	– .11*
Cooperates	– .10*	– .04
Fair leader	– .07	– .09*
Kind	– .09*	– .04

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

waiting to pack up your books). The association with lower Conscientiousness also makes sense as uncivil behavior is characterized as actions that are due to carelessness or inattention (Marini, 2009; Farrell et al., 2016), and individuals who are lower in Conscientiousness are often impulsive and lack discipline (Lee & Ashton, 2012).

Our findings also revealed that youth who engage in unintentional classroom incivility have higher levels of Extraversion, whereas individuals who report engaging in more intentionally uncivil behavior have lower levels of Openness to Experience, highlighting distinct characteristics between individuals who engage in incivility in the classroom. Moreover, these findings seem to be unique to engaging in uncivil behavior in the classroom, as they were not found in previous research exploring attitudes toward classroom incivility (Spadafora et al., 2020). It seems as though youth who tend to engage in unintentional classroom incivility are students who are outgoing and enjoy being social (Lee & Ashton, 2012). Therefore, these students may be more likely to talk during a lesson or perhaps rush to pack up their books before the lesson is finished to go meet their friends. On the other hand, youth who report engaging in intentional incivility are less open-minded and less intellectually curious (Lee & Ashton, 2012) and therefore perhaps not as interested in paying attention to the lesson, and may be choosing to engage in more intentionally uncivil behavior in the classroom as a result of their boredom or frustration with the classroom environment. Overall, these findings emphasize that while some of the traits of youth who engage in classroom incivility are consistent with antisocial behavior and beliefs in general, our study also highlights unique differences of individuals who report engaging in classroom incivility.

With regard to self-reported variables, antisocial behavior (bullying and aggression), coercive and cooperative social dominance strategies, emotional problems and hostility, all correlations were in the expected direction (e.g., Marini, 2009; Feldmann, 2001; Spadafora et al., 2020; Farrell et al., 2016; Volk et al., 2016). These significant correlations not only provide construct validity of our scale, but also support the theoretical conceptualization of classroom incivility in youth as a low-level antisocial behavior that may be associated with higher-level antisocial behavior (Marini, 2009; Spadafora et al., 2020). This is also consistent with previous findings with attitudes toward uncivil behavior in the classroom among youth (Farrell et al., 2016; Volk et al., 2016; Spadafora et al., 2020). Our results also highlight the risks to individual well-being via increased hostility and in the case of unintentional incivility, increased anxious and depressed feelings. Future research should further explore these preliminary links, to determine whether engaging in uncivil behavior may post a risk to adolescent psychological well-being, or if poor psychological well-being may lead to engaging in uncivil behaviors. While our effects were not

large, and we cannot assign causality, these data do warrant further exploration regarding the potential risk to emotional and mental well-being that is posed by the perpetration of uncivil behavior.

As noted above, the bivariate and partial correlations with antisocial behavior also highlight distinct differences between intentional and unintentional incivility. For example, the associations with bullying, aggression, coercive strategies and hostility were stronger for intentional than unintentional incivility (see Tables 2, 6). These findings not only further support the theoretical discussion of classroom incivility on a continuum of antisocial behavior increasing in intentionality (Marini, 2009), but this distinction is also in line with previous attitudinal research (Farrell et al., 2016; Spadafora et al., 2020). They suggest that intentional incivility is a more calculated and predatory behavior whereas unintentional incivility may be more reactive and unplanned in nature. Collectively, these associations provide further evidence for the use of intentional and unintentional subscales when measuring engagement in classroom incivility among youth, and future research should continue to explore associations with these two subtypes.

Interestingly, there was a small significant correlation with grades and unintentional incivility. This positive association suggests that while classroom incivility may have negative implications on the overall learning environment (e.g., Hirschy & Braxton, 2004), it does not seem to impede the academic success of the perpetrator. While this is in contrast to what previous research has found in University samples (Laverghetta, 2018; Nordstrom et al., 2009), our findings suggest that in elementary and high school, the students who are strong academically may feel bored in class and perhaps be engaging in unintentionally uncivil behavior as a result. It is also possible that high-achieving students feel more academic stress (Suldo, Shaunessy, & Hardesty, 2008) and engage in this behavior as a way to cope in class. However, it is worth noting that we used self-reported grades in the current study, and therefore, it is also possible that the students who reported higher levels of classroom incivility also over-estimated their overall grade level. Therefore, future research should continue to explore this link between incivility and academic outcomes in adolescents.

Beyond the impact of uncivil behavior on individuals, the impact of that behavior on classmates may be part of the reason why incivility perpetrators were more often nominated by their peers as individuals who engaged in antisocial behavior and received fewer nominations for having prosocial characteristics. First, there were significant, small correlations with both subtypes of incivility and being nominated as someone who engaged in direct bullying, but not indirect bullying (see Table 3). Since uncivil behavior in the classroom consists of overt actions in the classroom (Items in “Appendix 1”), it makes sense that individuals

who report engaging in classroom incivility were nominated as being the bullies engaging in direct bullying actions (e.g., physical and verbal) and not necessarily nominated as the bullies engaging in indirect bullying (consisting of more covert actions; e.g., Wang, Iannotti, & Luk, 2012). The negative associations with classroom incivility and received nominations for prosocial characteristics such as being kind, respected, a fair leader and cooperating with others, demonstrate that perpetrators of classroom incivility do not seem to be perceived by their peers as being preferred social partners, and may be more difficult to get along with in a classroom setting.

## Limitations and Future Directions

Our study was not without limitations. First, the CYCIS was written and conceptualized from a predominantly Western perspective. It is well documented that there are distinct differences in educational expectations in Western and Eastern cultures (e.g., Yeung, Ho, Chan, & Chung, 2019), and therefore, it is possible that actions that are considered uncivil in Western classrooms may not be perceived as uncivil in Eastern classrooms and vice versa. Future research should continue to explore classroom incivility, both in Western classrooms and cross-culturally. It is also possible that there may be differences in how uncivil behavior is perceived depending on school or classroom context. Future research should consider these differences perhaps through the use of multi-level modeling analyses or exploring teacher perceptions through qualitative research.

Next, while a strength of our study was that we utilized both self-reported and peer-reported data, a limitation of our study was that we did not have observational data of uncivil behavior in the classroom. It is possible that there may be differences in perceptions of uncivil behavior in the classroom and therefore may be discrepancies between self-reported and teacher reported classroom incivility. Future research should further explore incivility in the classroom using both teacher and student reported behavior. However, adolescent self-reported antisocial behavior has been shown to be quite valid in previous research (e.g., Book et al., 2012). Further, student grades were self-reported in the present study, and therefore, future research might want to consider using teacher reported or official report card grades to further explore the potential association with classroom incivility. It is also worth noting that overall, the correlations between self-reported classroom incivility and received peer nominations were on the smaller end, and therefore, future research should further investigate these relationships and replicate these findings.

Another potential limitation to our study was that we did not have data on both uncivil behavior and attitudes to be able to make direct comparisons. Given that the items of

our scale were similar to the attitudinal scale (Farrell et al., 2016) we chose to only include the behavioral items in our study in the interest of keeping our study brief enough to be accessible for our age range. However, we are confident in our comparisons to previous work on attitudes toward classroom incivility (Farrell et al., 2016; Spadafora et al., 2016, 2020). It might be important for future research to continue to explore differences in how “wrong” adolescents deem a behavior to be and how often they report engaging in it. Lastly, our data were cross-sectional in nature, and therefore, we cannot make any conclusions regarding temporal precedence based on the current study. Spadafora et al. (2020) found cross-sectional links between bullying behavior and attitudes toward classroom incivility; however, to our knowledge, there has not yet been research exploring the link between child and/or adolescent incivility and bullying longitudinally.

## Implications

Our results have important practical implications. For research, we have added a useful tool to measure classroom incivility in children and youth, which will be important for future research exploring these links between engaging in classroom incivility and engaging in more severe antisocial behavior, and with potential social and emotional risk factors. Practically, our findings highlight the importance of limiting incivility in the classroom before it has the potential to escalate into more antisocial behavior, providing preliminary evidence that engaging in classroom incivility may be associated with other antisocial behavior, antisocial personality traits and negatively associated with receiving nominations for prosocial characteristics. Our data also suggest that incivility is associated with greater thoughts of hostility and, in the case of unintentional incivility, greater feelings of anxiety and/or depression. Incivility therefore poses a potential risk to the well-being of adolescents who engage in it. As noted above, further research should be conducted to determine the causal directionality (or bidirectionality) of these relationships. These results also provide important insight for classroom teachers, as these findings highlight that uncivil behavior might not only impact the learning environment (e.g., Hirschy & Braxton, 2004) but also the psychosocial well-being of the students. Previous research has indicated that teachers who adopt practices focused on improving children’s classroom behaviors improved the number of positive received peer nominations of children in the class (Mikami, Owens, Hudec, Kassab, & Evans, 2020), and therefore, the role of teachers in curbing classroom incivility might be particularly relevant. With regard to assessment of school mental health, the low-intensity nature of our scale could be used to predict or to verify the existence

of more serious, high-intensity behavior that may be more difficult to measure. The fact that many of the behaviors reported in our scale are observable by others (e.g., teachers) offers additional possibilities for developing observer report versions of our scale. Another possible use could be as a screening device for more serious antisocial behavior. Evidence from mental health screening in adolescence suggests that the use of screening questionnaires carries few risks while offering the potential to detect significant behavioral issues (Allen, Kilgus, Burns, & Hodgson, 2019). Therefore, our scale is not only user-friendly due to its low-level nature, but also for its potential use as a screening tool (e.g., detecting more serious antisocial behavior), a validating measure (confirming broader social or classroom challenges) or an outcome measure (as an undesirable behavior itself).

Theoretically, our results are consistent with the conceptualization of classroom incivility on a continuum from unintentional to intentional, and that there may be associations with lower level behavior such as incivility, with higher-level antisocial behavior and poorer individual well-being (e.g., Feldmann, 2001; Marini, 2009). Rather than focusing primarily on highly antisocial behavior like bullying, incivility may be an important theoretical construct to add to school psychologists’ assessment of individual and classroom, well-being. Overall, our data support the notion that the study and measurement of civility doesn’t just matter for work (Pearson & Porath, 2005) or higher education (Katt et al., 2018), but also for the prosocial functioning and well-being of adolescents and their classrooms too.

**Author Contributions** This study was conducted as a part of Natalie Spadafora’s doctoral dissertation. As such, she led the study design, analyses and writing of the manuscript. Dr. Volk edited all drafts of the manuscript and both parties completed data collection.

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**Availability of Data and Material** Due to REB regulations, we are not able to provide public access to our data. Code Availability Syntax for all Mplus and SPSS analyses have been included as a supplementary file.

## Compliance with Ethical Standards

**Conflict of interest** The authors declare that they have no conflict of interest.



## Appendix 1: Classroom In/Civility Measure

How often have you done any of the behavior below?

Rating Scale:

1 = Almost never/never, 2 = rarely, 3 = sometimes, 4 = often, 5 = almost always

1. Packing up books before a lesson is over
2. Making fun of a classmate who answered a question wrong
3. Sending text messages/notes during class
4. Posting mean comments online about classmates
5. Reading, going online, or playing a game during a lesson
6. Calling a classmate names because they did not agree with your opinion
7. Eating during class
8. Spreading rumors about or try to exclude a classmate you dislike
9. Sleeping in class
10. Fighting with another student (physical or verbal)
11. Talking when you shouldn't during class

## Appendix 2: Uncivil Behavior Items by Factor

*Intentionally Uncivil Items:*

Item 2: Making fun of a classmate who answered a question wrong

Item 4: Posting mean comments online about classmates

Item 6: Calling a classmate names because they did not agree with your opinion

Item 8: Spreading rumors about or try to exclude a classmate you dislike

Item 10: Fighting with another student (physical or verbal)

*Unintentionally Uncivil Items:*

Item 1: Packing up books before a lesson is over

Item 3: Sending text messages/notes during class

Item 5: Reading, going online, or playing a game during a lesson

Item 7: Eating during class

Item 9: Sleeping in class

Item 11: Talking when you shouldn't during class

## References

- AlKandari, N. (2011). The level of student incivility: The need of a policy to regulate college student civility. *College Student Journal*, 45(2), 257–268.
- Allen, A. N., Kilgus, S. P., Burns, M. K., & Hodgson, C. (2019). Surveillance of internalizing behaviors: A reliability and validity generalization study of universal screening evidence. *School Mental Health*, 11(2), 194–209.
- Andersson, L., & Pearson, C. (1999). Tit for tat? The spiralling effect of incivility in the workplace. *Academy of Management Review*, 24, 452–471.
- Bantha, T., Sahni, S. P., & Yadav, M. (2020). Identification of enablers for reducing student incivility in classrooms—An exploratory investigation. *International Journal of Higher Education*, 9(2), 193–199.
- Bingöl, T., Sölkpük Turhan, N., Arslan, N., Öztabak, M. U., & Çetintaş, S. (2018). Sınıf İçi Kaba Davranışlar Ölçeğinin Türkçe'ye Uyarlaması. *Sakarya University Journal of Education*, 8(1), 165–176.
- Bjorklund, W. L., & Rehling, D. L. (2009). Student perceptions of classroom incivility. *College Teaching*, 58(1), 15–18.
- Bjorklund, W. L., & Rehling, D. L. (2011). Incivility beyond the classroom walls. *InSight: A Journal of Scholarly Teaching*, 6, 28–36.
- Burke, L. A., Karl, K., Peluchette, J., & Evans, W. R. (2014). Student incivility: A domain review. *Journal of Management Education*, 38(2), 160–191.
- Clark, C. M. (2008). Faculty and student assessment of and experience with incivility in nursing education. *Journal of Nursing Education*, 47(10), 458–465.
- Clark, C. M., Farnsworth, J., & Landrum, R. E. (2009). Development and description of the incivility in nursing education (INE) survey. *Journal of Theory Construction & Testing*, 13(1), 7.
- Costello, Anna B., & Osborne, Jason. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, and Evaluation*, 10(1), 7.
- De Vries, R. E., & Born, M. P. (2013). De Vereenvoudigde HEXACO Persoonlijkheidsvragenlijst en een additioneel interstitieel Proactiviteitsfacet. *Gedrag & Organisatie*, 26(2), 223–245.
- Farrell, A. H., Provenzano, D. A., Spadafora, N., Marini, Z. A., & Volk, A. A. (2016). Measuring adolescent attitudes toward classroom incivility: Exploring differences between intentional and unintentional incivility. *Journal of Psychoeducational Assessment*, 34(6), 577–588.
- Feldmann, L. J. (2001). Classroom civility is another of our instructor responsibilities. *College Teaching*, 49(4), 137–140.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics*. Thousand Oaks: SAGE Publications.
- Goodman, R. (1997). The strengths and difficulties questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, 38(5), 581–586.
- Hartung, C. M., Little, C. S., Allen, E. K., & Page, M. C. (2011). A psychometric comparison of two self-report measures of bullying and victimization: Differences by sex and grade. *School Mental Health*, 3(1), 44–57.
- Hawley, P. H. (2003). Prosocial and coercive configurations of resource control in early adolescence: A case for the well-adapted Machiavellian. *Merrill-Palmer Quarterly*, 49(3), 279–309.
- Hawley, P. H., Little, T. D., & Card, N. A. (2008). The myth of the alpha male: A new look at dominance-related beliefs and behaviors among adolescent males and females. *International Journal of Behavioral Development*, 32(1), 76–88.
- Hirschy, A. S., & Braxton, J. M. (2004). Effects of student classroom incivilities on students. *New Directions for Teaching and Learning*, 99, 67–76.
- Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424–453.

- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55.
- Katt, J., Sivo, S., Miller, A. N., Brown, T., Scott, A., & Neel, S. (2018). Refinement of the Classroom Citizenship Behavior Scale. *Communication Research Reports*, 35(3), 282–291.
- Kline, R. B. (1998). Software review: Software programs for structural equation modeling: Amos, EQS, and LISREL. *Journal of Psychoeducational Assessment*, 16(4), 343–364.
- Laverghetta, A. (2018). The relationship between student anti-intellectualism, academic entitlement, student consumerism, and classroom incivility in a sample of college students. *College Student Journal*, 52(2), 278–282.
- Lee, K., & Ashton, M. C. (2012). Getting mad and getting even: Agreeableness and honesty-humility as predictors of revenge intentions. *Personality and Individual Differences*, 52(5), 596–600.
- Lim, S., Cortina, L. M., & Magley, V. J. (2008). Personal and work-group incivility: Impact on work and health outcomes. *Journal of Applied Psychology*, 93(1), 95.
- Marini, Z. A. (2009). The thing line between civility and incivility: Fostering reflection and self-awareness to create a civil learning community. *Collected Essays on Teaching and Learning*, 2, 61–67.
- Mikami, A. Y., Owens, J. S., Hudec, K. L., Kassab, H., & Evans, S. W. (2020). Classroom strategies designed to reduce child problem behavior and increase peer inclusiveness: Does teacher use predict students' sociometric ratings? *School Mental Health*, 12(2), 250–264.
- Miller, A. N., Katt, J. A., Brown, T., & Sivo, S. A. (2014). The relationship of instructor self-disclosure, nonverbal immediacy, and credibility to student incivility in the college classroom. *Communication Education*, 63(1), 1–16.
- Muthén, L. K., & Muthén, B. O. (1998–2017). *Mplus user's guide* (8th ed.). Los Angeles, CA: Muthén & Muthén.
- Myers, S. A., Goldman, Z. W., Atkinson, J., Ball, H., Carton, S. T., Tindage, M. F., et al. (2016). Student civility in the college classroom: Exploring student use and effects of classroom citizenship behavior. *Communication Education*, 65(1), 64–82.
- Nordstrom, C. R., Bartels, L. K., & Bucy, J. (2009). Predicting and curbing classroom incivility in higher education. *College Student Journal*, 43(1), 74–86.
- Pearson, C. M., & Porath, C. L. (2005). On the nature, consequences and remedies of workplace incivility: No time for “nice”? *Think again. Academy of Management Executive*, 19(1), 7–18.
- Prabhavan, N. (2020). *Victimization by bullying and non-bullying aggression: An evolutionary psychological perspective*. St. Catharines, ON: Brock University.
- Roberson, A. J., & Renshaw, T. L. (2019). Initial development and validation of the Student Wellbeing Teacher-Report Scale. *School Mental Health*, 11(3), 578–599.
- Royce, A. P. (2000). *A survey on academic incivility at Indiana University: Preliminary report*. Bloomington: Center for Survey Research, Indiana University.
- Schniering, C. A., & Rapee, R. M. (2002). Development and validation of a measure of children's automatic thoughts: The Children's Automatic Thoughts Scale. *Behaviour Research and Therapy*, 40, 1091–1109.
- Spadafora, N., Farrell, A. H., Provenzano, D. A., Marini, Z. A., & Volk, A. A. (2016). Temperamental differences and classroom incivility: Exploring the role of individual differences. *Canadian Journal of School Psychology*, 33(1), 44–62.
- Spadafora, N., Frijters, J. C., Molnar, D. S., & Volk, A. A. (2020). Do little annoyances relate to bullying? The links between personality, attitudes towards classroom incivility, and bullying. *The Educational and Developmental Psychologist*, 37(1), 30–38.
- Strassle, C. G., & Verrecchia, P. J. (2019). Faculty perceptions of the seriousness and frequency of classroom incivility. *Journal on Excellence in College Teaching*, 30(1), 187–209.
- Suldo, S. M., Shaunessy, E., & Hardesty, R. (2008). Relationships among stress, coping, and mental health in high-achieving high school students. *Psychology in the Schools*, 45(4), 273–290.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson.
- Volk, A. A., Dane, A. V., & Marini, Z. A. (2016). The relations between incivility and adolescent wellbeing. *Advances in Social Sciences Research Journal*, 3(9), 79–86.
- Wang, J., Iannotti, R. J., & Luk, J. W. (2012). Patterns of adolescent bullying behaviors: Physical, verbal, exclusion, rumor, and cyber. *Journal of School Psychology*, 50(4), 521–534.
- Wheaton, B., Muthén, B., Alwin, D. F., & Summers, G. F. (1977). Assessing reliability and stability in panel models. In D. R. Heise (Ed.), *Sociological methodology 1977* (pp. 84–136). San Francisco: Jossey-Bass.
- Yeung, P. S., Ho, C. S. H., Chan, D. W. O., & Chung, K. K. H. (2019). Writing motivation and performance in Chinese children. *Reading and Writing*, 33, 427–449.

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