

9-19-2019

## The predictive value of school climate and teacher techniques on students' just world beliefs: a comprehensive Brazilian sample

Kendra J. Thomas

Jonathan Santo

Josafa M. da Cunha

Follow this and additional works at: <https://digitalcommons.unomaha.edu/psychfacpub>



Part of the [Psychology Commons](#)

Please take our feedback survey at: [https://unomaha.az1.qualtrics.com/jfe/form/SV\\_8cchtFmpDyGfBLE](https://unomaha.az1.qualtrics.com/jfe/form/SV_8cchtFmpDyGfBLE)

# The predictive value of school climate and teacher techniques on students' just world beliefs: a comprehensive Brazilian sample

Kendra J. Thomas<sup>1</sup> · Jonathan B. Santo<sup>2</sup> · Josafá Moreira da Cunha<sup>3</sup>

Correspondence: Kendra J. Thomas thomaskj@uindy.edu

<sup>1</sup> College of Applied Behavior Science, University of Indianapolis, 1400 E Hanna Ave, Indianapolis, IN 46227, USA

<sup>2</sup> University of Nebraska Omaha, 6001 Dodge Street (347S Arts & Sciences Hall), Omaha, NE 68182, USA

<sup>3</sup> Universidade Federal do Paraná, Rua Rockefeller, 58, Campus Rebouças, Curitiba, PR CEP 80.060-000, Brazil

## Abstract

Substantial research has established the connection between students' beliefs in a just world (BJW) and their perceptions of and behaviors in the school. While much of that research has acknowledged that the relationship between BJW and school variables must be bi-directional, little empirical evidence exists on how the school climate shapes students' perceptions of justice. This study draws from a comprehensive sample of Brazilian students from third through twelfth grade ( $n = 18,514$ ) across 122 public schools in Southern Brazil. Results reveal that school climate variables account for 12.1–19.6% of the variance of students' BJW, with middle school being a time of strongest influence. Perceptions of rule fairness, student–student relationships, and positive and socio-emotional learning techniques were significant predictors across all grade levels. Additional analyses revealed that teachers' positive and socio-emotional techniques can act as a moderator between school climate and students' BJW. The results provide more tangible ways to integrate just world research into the educational context by bridging the gap between school climate research and just world theory. This study provides empirical data for the bidirectionality of BJW and school context and opens the discussion on how the school sets students' future expectations of justice.

**Keywords** School climate, Just world, Teacher techniques, Authoritative, Socio- emotional, Justice

## 1 Introduction

Schools are powerful socializing agents and have the power to influence students' worldviews and expectations of fairness. It is well established that students' perceptions of justice influence their performance and well-being at school (Correia and Dalbert 2007; Donat et al. 2016; Peter et al. 2012, 2013). However, how the school shapes students' understandings of justice is discussed in theory, but has not been empirically analyzed on a large scale. Most research on belief in a just world (BJW) in the schools has hand-picked a few aspects of school climate such as school fairness, or teacher justice, to see how BJW predicts those perceptions (e.g. Donat et al. 2018b; Peter and Dalbert 2010; Thomas and Mucherah 2018). However, to our knowledge, there has not been a large-scale study that has gathered information on BJW as well as a full school climate school profile. The purpose of this study is to understand which, if any, school climate dimensions predict students' BJW. This study enhances the understanding of contextual influencers on BJW development while bridging the gap between BJW and school climate research. Additionally, there is little research on BJW with a younger student sample. Most research is in high school, and most is from a European context such as Germany (Dalbert and Stoeber 2005; Donat et al. 2016; Peter and Dalbert 2010) and Portugal (Correia and Dalbert 2007, 2008). The present study adds to the literature by making a case for how the school can influence students' perceptions of justice and demonstrate these relationships in a large Brazilian sample from elementary to high school, furthering the reach of contemporary theories.

### 1.1 BJW: school context, origins, and development

According to just world theory (Lerner 1980), people have a need to believe that the world is fair and this belief is a motivating factor in much of human behavior and rationalization. BJW has been widely studied in developmental and educational psychology as a personal resource, a way to promote an internal sense of control, trust, and safety when faced with the unknown. When people have a high BJW, they believe they will be treated fairly and will receive what they deserve. Research has long differentiated between a general BJW (belief that the world at large is fair) and a personal BJW (PBJW; belief that one's own reality is fair)

(Lipkus et al. 1996; Dalbert 1999). The former has been linked with harsh social attitudes such as blaming the victim in order to cognitively establish justice and thus diminish the threat and cognitive dissonance that injustice poses (Dalbert 1999; Sutton and Douglas 2005). The latter is primarily studied in developmental and educational psychology as a useful individual difference that can help individuals feel safe and in control of their realities.

The most common research model proposed in the literature is that some measure of school fairness/justice mediates the relationship between PBJW and a school-based outcome. For example, research has found that students' PBJW predicted their judgments of teacher justice (Correia and Dalbert 2007; Dalbert and Stoeber 2005; Donat et al. 2012, 2016, 2017, 2018b; Peter and Dalbert 2010; Peter et al. 2012, 2013), which in turn predicted less bullying (Donat et al. 2012), less school distress (Correia and Dalbert 2007; Peter et al. 2013), better grades (Peter et al. 2012), less school refusal (Donat et al. 2017), higher well-being (Donat et al. 2016), positive attitudes toward school (Donat et al. 2016), less social problems (Donat et al. 2016) and better classroom climate assessments (Peter and Dalbert 2010). PBJW has predicted higher grades and better justice attributions of grades (Dalbert and Stoeber 2005), greater life satisfaction (Correia and Dalbert 2007), higher self-esteem and greater support for victims of bullying (Fox et al. 2010), less self-reported bullying behavior (Correia and Dalbert 2008; Donat et al. 2018a), and less feelings of exclusion (Umlauft and Dalbert 2017). Students' evaluations of school fairness have also been used as partial mediator between PBJW and student conduct (Thomas and Mucherah 2018). The current literature supports the understanding that PBJW is a personal resource that helps students expect to be treated fairly within the school. A high PBJW outlook makes students more optimistic and helps them assimilate experiences, abide by the social order, and feel a sense of belonging (Peter et al. 2013).

All of the research cited above has followed the model that students' PBJW is an individual characteristic that students bring to school which in turn influences their perception of the school climate and their teachers' behaviors. This model emanates from the understanding that students are not a blank slate, but bring expectations that influence their perceptions and interpretations. While this is true, at some point there must be a bidirectional

relationship where the school also shapes students' PBJW. Researchers frequently acknowledge this reality in the implications section of the published articles. Authors frequently recommend that school administrators and teachers be mindful of how their behavior could be influencing students' worldviews of justice. For example, Correia and Dalbert (2007) suggested that the school is a prime agent in strengthening or damaging students' trust in justice. Peter and Dalbert (2010) concluded that schools should be a just environment so students can develop a strong BJW. Donat et al. (2012, 2018a, b) state that experiences of teacher justice (or injustice) are assimilated into the developing BJW. They propose that, with age, contexts outside of the family are more likely to influence adolescents' BJW (Donat et al. 2018a, b). Another article acknowledged that ongoing experiences with injustice would inevitably weaken PBJW resulting in a worse coping ability (Peter et al. 2012). However, none of these articles looked at PBJW as an outcome variable, instead, all of them put PBJW as one of the first variables in the model.

While the literature acknowledges that, at some point, the relationship between BJW and school factors becomes bi-directional, there is not much empirical work that proposes a model where PBJW is an outcome variable. Most articles reference one relatively small longitudinal study published in 2006. Dalbert and Stoeber (2006) conducted a 5 to 8-month longitudinal analysis with German adolescents that revealed that a just school climate and a just family climate individually influenced PBJW. One widely cited study demonstrated a strong relationship between a just family climate and PBJW (Dalbert and Radant 2004), leading to the understanding that individuals' PBJW likely originates from their experiences of justice within their family life. Children whose parents live together tend to have higher PBJW compared with those raised in one-parent households (Sallay and Dalbert 2004). A more recent study supports that claim by demonstrating that parental warmth at age 13 predicted PBJW at age 15, and PBJW at age 15 was also predicted by how much the adolescents trusted their parents (Umemura and Serek 2016). While these studies are promising leads of what shapes BJW, more evidence is needed concerning what aspects of the school climate are predictive of students' PBJW.

The current study does not negate any of the previous findings regarding how PBJW

influences students' school perceptions and interactions. That relationship is well-investigated and well-supported. However, the relationship is likely bi-directional and there is little to no research investigating the other direction. Evidence suggests that the trajectory of development may be different across school types (Thomas and Napolitano 2017) or school tracks (Dalbert 2001), indicating the school context may shape BJW. If a student experiences a profound bullying experience or, alternatively, has a really positive adult role model in the school, these experiences may shape their expectations of justice in the future. As evidenced in the cited articles above, authors have frequently written discussion sections implying that BJW is an outcome, not just a predictor. It is challenging to draft any real-world implications without writing about how students' experiences in the school will also influence their expectations of justice.

Most studies cited in this literature review remind the reader that justice is a subjective experience and that teachers and administrators must be mindful of how their students are interpreting their acts and rule enforcement (Donat et al. 2017, 2018a, b; Peter and Dalbert 2010). While that vague implication is the most empirically-sound argument to be made from the subjective construct of *teacher justice*, it is not tangible enough to generate measurable change that could strengthen students' PBJW. Peter and Dalbert (2010) have already called for future studies to understand the origin of the relationship between BJW and school climate. This study attempts to respond to this call with a cross-sectional study design.

Some BJW researchers have tried to draft more specific implications to make the research more applicable to educators. Researchers have suggested that justice could be fostered by opening up more discussion and encouraging students to express their perspectives (Donat et al. 2018a, b), or by treating students with more dignity, civility and respect to help students develop emotional stability (Donat et al. 2017). While these are theoretically appropriate, the research did not specifically assess these aspects of school climate and did not measure their prediction effect on PBJW. One study called for future research designs to seek to understand what contextual characteristics strengthen or weaken students' BJW. School climate is a well-established research domain that has generated

numerous assessments and programs to improve education. It is necessary to tie BJW educational research to the current school climate literature in order to speak a language that many educational researchers already understand, as well as address more specific school dimensions when implicating development of justice perceptions. The following section will outline some recent developments in school climate literature and outline some of its sub-categories.

## 1.2 School climate

School climate is a multidimensional term that encompasses many facets of the school environment such as the norms, goals values, relationships, teaching and learning practices and organizational structures (National School Climate Council 2007). There are many well-validated comprehensive measures available and each one has specific sub-scales. Many of these have been developed based on Baumrind's authoritative discipline theory (Baumrind 1971; Bear et al. 2014) which divides authority styles based on their levels of responsiveness and demandingness. According to Baumrind's model, authorities must be both highly responsive and highly demanding for optimal development of children/students. While originally developed as a parenting typology, school climate research has found fruitfully applied this approach to educational contexts, especially within the authoritative school climate theory (Konold et al. 2014; Amaral et al. 2019). Within the authoritative school climate literature, these dimensions are also referred to as support (responsiveness) and disciplinary structure (demandingness) (Gregory et al. 2010).

Support refers to the interpersonal relationships with adults and students' felt sense of respect and social care. Structure involves the clarity of rules, their enforcement, and the sense of safety within the school. Recent research has emphasized the benefits of an authoritative school climate linking it with lower exposure to violence and victimization (Fisher et al. 2017; Gregory et al. 2010; Konold et al. 2017; Amaral et al. 2019), increased student engagement (Cornell et al. 2016; Konold et al. 2017), and higher sense of safety (Gregory et al. 2010), and higher academic success (Cornell et al. 2016). Even after controlling for parental education level, race, gender, grade, and school demographics, schools with an authoritative climate had

lower levels of drug and alcohol use, bullying, gang membership, fights, and suicidal thoughts and behavior (Cornell and Huang 2016).

The current study measures school climate utilizing the Delaware School Climate Scale (DSCS) (Bear et al. 2014) which was also based on Baumrind's authoritative discipline theory. The following scales are embedded within the dimension of *disciplinary structure*: clarity of expectations, fairness of rules, and safety. Research has demonstrated that clear rules and boundaries enable the development of student resilience (Riekie et al. 2016). School safety and structure is a strong predictor of school disorder and is negatively related to victimization, gang violence and drug availability (Bryson and Childs 2018). Safety is theoretically linked with justice perceptions because a high PBJW enables a high sense of internal locus of control and sense of safety from random injustices (Dalbert 2009). Past research on PBJW in the schools has mentioned the importance of having clear and fair rules (Thomas and Mucherah 2018), but, to date, research has not used the full and detailed measure of school climate to adequately understand its relationship to PBJW.

Within the DSCS *support* dimensions, lie the following sub-scales: respect for diversity, teacher–student relationships, and student–student relationships. Bryson and Childs (2018) recently documented how a school climate's level of respect for diversity can help combat bullying within the school, a phenomenon that is well- linked to students' PBJW (Correia and Dalbert 2008; Donat et al. 2012, 2018a, b; Fox et al. 2010). Student–student relationships are important piece in school climate support dimensions. This peer-relationship construct has been linked to stronger academic initiative (Danielsen et al. 2010), lower levels of relational aggression (Elsaesser et al. 2013), and negatively predictive of class participation and school avoidance (Buhs et al. 2006). Lastly, teacher–student relationships are predictive of school engagement (Martin and Collie 2018) and lower student dropout rates (Barlie et al. 2012), while also moderating the ill-effects of victimization (Alexander et al. 2011). Additionally, higher teacher emotional support is associated with lower student emotional and behavioral problems (Yeung and Leadbeater 2010). Similarly, PBJW literature has repeatedly measured teacher justice and linked it to both PBJW and numerous outcomes as outlined in the literature review above. Relationships between students and teachers are often cited in PBJW



educational research as the primary way students subjectively experience the justice of their teachers' behavior toward them personally (Dalbert and Stoeber 2006; Donat et al. 2017). The literature often suggests that, to increase teacher justice perceptions, teachers emphasize that students are accepted and belong to the group (Donat et al. 2012, 2017, 2018a, b). However, the instruments used in previous research have not directly measured teacher–student relationships.

When considering the approaches used by teachers to manage students' behaviors, the Delaware School Climate instrument also has three scales to measure the techniques teachers use: positive; punitive; and socio-emotional learning (SEL). Positive behavioral techniques use praises, recognition, and rewards to stimulate desired behaviors (Bear et al. 2014). These types of techniques have been linked with less suspensions, expulsions and disciplinary referrals (McIntosh et al. 2010) and are often considered much more effective than punitive techniques that utilize punishment, student removal, verbal reprimands or shaming to shape behavior (Bear et al. 2014). SEL techniques focus on teaching students how to handle their emotions and building social skills such as perspective-taking and empathy (Bear et al. 2014; Elias and Schwab 2006). SEL techniques have been found to be associated with fewer discipline referrals and higher attendance and lower dropout rates (Freeman et al. 2016). Due to its empirical evidence, many schools have adopted programs to implement SEL techniques and a recent meta-analysis of 213 school programs found that these interventions were associated with positive social behaviors and attitudes, fewer conduct problems and lower levels of emotional distress (Durlak et al. 2011).

The techniques and school climate scales that are included in the current study will help provide a clearer understanding of what teacher behaviors and school context variables predict stronger or weaker PBJW. Whereas in the past school implications on PBJW research have relied on more theoretical and creative abstractions, this study will allow more empirically-based targeted advice for schools.

### **1.3 Current study**

The current study has two main focuses. The first is to understand which aspects of

school climate are predictive of PBJW and different developmental levels. While this study does not attempt to establish developmental trajectories, it is important to split the results by elementary, middle, and high school participants to allow for developmental differences. The results are also split in the first analysis to understand if, in line with prior theoretical suggestions, PBJW is more susceptible to influence in adolescence compared with childhood (when they are theoretically understood to be more influenced by home environment).

The second focus is to understand the complex relationship between the support and disciplinary structure dimensions of school climate, teacher techniques, and PBJW. School environment can influence teachers' management techniques (Dur-lak et al. 2011), and this study seeks to understand if teacher techniques (positive, punitive, and SEL) moderate the relationship between school climate variables and PBJW. This would thus allow for more clear implications for what teachers can do within a complex school climate to moderate their students' developing perceptions of justice.

## **2 Method**

### **2.1 Procedure**

As a part of a larger initiative, aimed at preventing peer victimization in schools, school climate surveys were conducted in 122 schools. The study was approved by the Research Ethics Committee at the Federal University of Parana. Written informed consent from the schools' principals was obtained prior to data collection. Oral assent process was used with the students with a standardized script before administration of the classroom survey. Students who did not assent were given an alternative activity. All data were collected at schools during class time, the duration of data collection was approximately 40 min. Following data collection, forms were processed and a short summary of school level descriptive results was provided to schools, which subsequently received support on interpreting these preliminary data to understand and improve their school climate. Within the Brazilian education system, compulsory education is divided in preschool, Fundamental education (1st–5th grade), Fundamental II education (6th–9th grade), and high school (10th–12th grade). This study respects those educational divides, but to facilitate international comprehension, these will be

referred to as elementary, middle, and high school respectively. There is no conflict of interest to report in this study.

## 2.2 Measures

This study includes six subscales of the original DSCS, the three support scales (student–student relationships, teacher–student relationships, and respect for diversity), the three structure scales (clarity of expectations, fairness of rules, and school safety), and the three teacher technique scales (punitive, positive, and socio-emotional learning). These have been previously translated and validated for a Brazilian student sample (Bear et al. 2016). The personal belief in a just world scale (Dalbert 1999) was also included and has been previously used in Brazilian adolescent samples (Thomas and Napolitano 2017; Thomas et al. 2019). All items were answered on a four-point Likert scale ranging from strongly disagree to strongly agree. See Table 1 for the number of items per scale, sample items, and reliability analysis.

The only scale that was below an acceptable threshold ( $< 0.60$ ) was the punitive technique scale. Because of the low reliability, a factor analysis was conducted on all three techniques to verify the expected three-factor structure. A scree plot did reveal that the three-factor solution best fit the data and all of the punitive technique items loaded on one construct with a loading  $> 0.40$ , which is deemed acceptable, particularly noting the large sample size (Field 2000), and the items did not cross-load on the other factors. The factor analysis was a follow-up analysis and not a part of the original plan because this instrument has been previously validated on a Brazilian sample (Holst et al. 2016). For further investigation, the reliability analysis was separated by school ages and its reliability scores were  $\alpha = 0.558$  in elementary school,  $\alpha = 0.563$  in middle school, and  $\alpha = 0.626$  in high school. Deleting a single item would not have benefited the reliability coefficients in any of the analysis. The low reliability of this scale indicates that results should be interpreted cautiously regarding this construct, particularly in elementary and middle school, and further work should be done to develop this scale.

## 2.3 Participants

A total of 18,514 students between elementary ( $n = 3875$ ), middle ( $n = 8221$ ), and high school ( $n = 6418$ ), completed the survey across 122 schools in southern Brazil. Approximately half self-identified as White (49.52%), and male (49.60%). The demographics of the student sample mirrored the demographics of the state population. Students ages ranged from seven to 20 years old ( $M = 13.09$ ;  $SD = 2.77$ ).

**Table 1** Scales and reliability analysis

Scale	Items	Sample item	Cronbach's $\alpha$
Clarity of expectation	4	It is clear how students are expected to act	0.661
Fairness of rules	4	The consequences of breaking rules are fair	0.746
School safety	3	Students feel safe	0.841
Respect for diversity	5	Students respect others who are different.	0.659
Student–student relationships	4	Students treat each other with respect	0.782
Teacher–student relationships	4	Teachers care about their students	0.795
Punitive techniques	5	Students are often sent out of class for breaking rules	0.597
Positive techniques	6	Students are often given rewards for being good	0.832
SEL techniques	6	Students are taught to understand how others think and feel	0.735
Personal belief in a just world	7	I usually get what I deserve	0.775

## 3 Results

### 3.1 Focus 1: School climate predicting PBJW

We conducted a hierarchical multiple regression to understand which school climate variables were most predictive of students' PBJW. Gender and age were included as covariates in the first model. This was an exploratory analysis to determine which dimensions of school climate variables predict PBJW; therefore, all school climate variables were entered simultaneously. We split the output by elementary, middle, and high schools, in order to allow for developmental differences and understand potential differences in predictive effects. Results revealed that rule fairness, student–student relationships, positive behavioral

techniques, and socio-emotional learning techniques were significant predictors across all grade levels (see Table 2). Clarity of expectations, respect for diversity, and teacher–student relationships were predictors in middle and high school. School safety and punitive technique were only significant predictors among middle school students.

### **3.2 Focus 2: Support, structure, techniques, and PBJW**

Respecting the theoretical basis of support and structure in school climate research, we investigated how these dimensions interact with management techniques and relate to PBJW. The goal is to determine if there are predictable ways that schools and students differ in PBJW based on classroom climate variables. For this focus, an intra-correlations coefficients analysis was conducted to determine the best way to nest the data. Then a latent class analysis allowed us to determine four different groups of schools based on their levels of support and structure (see Fig. 1). These groups were then used to differentiate teacher management strategies on students' PBJW.

### **3.3 Preliminary analysis: intra-correlation coefficients**

So as to best tailor the analyses on the class structure and support variables, we began by examining the proportion of variability in each at the individual, classroom and school level using intra-class correlations. As expected, most of the variability in the clarity, fairness, safety, and respect for diversity variables was at the individual level (see Table 3). Other than for school safety, there was more classroom level variability than school level variability. Given this, we felt justified nesting individuals within classrooms, but not school.

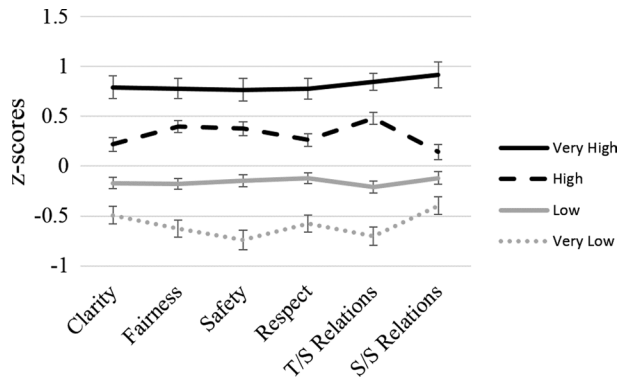
### **3.4 Multi-level analyses**

Multi-level analyses of PBJW began with an unconditional model with only the dependent variable. The intra-class correlation revealed that 86.67% of the variability was at the individual level and the remaining 13.33% at the classroom level. This reflected a significant portion of classroom level variability ( $X^2_{(824)} = 3184.48, p < .05$ ).

**Table 2** Multiple regression predicting students' personal beliefs in a just world

	Elementary school			Middle school			High school		
	B	SE	Beta	B	SE	Beta	B	SE	Beta
<i>Model 1</i>									
Gender	0.037	0.033	0.020	0.085	0.021	0.047***	0.157	0.022	0.094***
Age	0.004	0.004	0.016	-0.023	0.003	-0.088***	-0.018	0.004	-0.065***
<i>F</i>	1.027			35.007***			38.230***		
Adjusted <i>R</i> <sup>2</sup>	0.000			0.009			0.012		
<i>Model 2</i>									
Gender	0.060	0.031	0.033	0.059	0.019	0.033**	0.098	0.021	0.058***
Age	0.003	0.024	-0.018	-0.001	0.003	-0.005	-0.009	0.003	-0.031*
Clarity of expectations	-0.019	0.024	-0.018	0.052	0.014	0.048***	0.036	0.015	0.033*
Rule fairness	0.123	0.025	0.113***	0.099	0.014	0.101***	0.119	0.015	0.121***
School safety	0.026	0.022	0.027	0.01	0.011	0.011*	-0.001	0.011	-0.001
Respect for diversity	0.022	0.029	0.019	0.043	0.018	0.035**	0.048	0.019	0.040*
Teacher student relationships	0.048	0.03	0.04	0.04	0.015	0.041***	0.037	0.016	0.038*
Student-student relationships	0.035	0.017	0.044*	0.081	0.012	0.091***	0.108	0.013	0.121***
Punitive techniques	-0.017	0.016	-0.018	-0.025	0.012	-0.023*	-0.024	0.012	-0.024
Positive behavioral techniques	0.065	0.023	0.063**	0.092	0.014	0.095***	0.128	0.015	0.126***
Socio-emotional learning techniques	0.209	0.024	0.195***	0.199	0.015	0.188***	0.087	0.016	0.085***
<i>F</i>	38.303***			159.814***			99.361***		
Adjusted <i>R</i> <sup>2</sup>	0.121			0.196			0.155		

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ ; male = 1



**Fig. 1** Differentiating four groups of schools based on the dimensions of support and structure

**Table 3** Intraclass-correlation coefficients for the classroom structure and support variables

Variables	Ind. (level 1) (%)	Class (level 2) (%)	School (level 3) (%)
Structure—clarity	83.0	8.7	8.3
Structure—fairness	77.4	13.8	8.8
Structure—safety	71.9	10.9	17.2
Support—respect for diversity	83.2	9.4	7.4
Support—teacher—student rel.	14.9	69.9	15.1
Support—student—student rel.	79.8	10.6	9.6

Next, teacher socio-emotional learning, punitive, and positive techniques were added as correlates of PBJW. Since there is not yet a well-validated way of determining the amount of variability accounted for in a multi-level analysis (comparable to an  $R^2$ ), PBJW was standardized so that the coefficients could be compared to help determine the strength of the variables. As expected, teacher punitive behavior ( $b = -0.06$ ,  $SE = 0.01$ ,  $t_{(822)} = 6.58$ ,  $p < .05$ ) was negatively associated with PBJW while positive behavior ( $b = 0.17$ ,  $SE = 0.01$ ,  $t_{(822)} = 13.91$ ,  $p < .05$ ) and socio-emotional learning ( $b = 0.22$ ,  $SE = 0.01$ ,  $t_{(822)} = 19.36$ ,  $p < .05$ ) were positively associated. All told, teacher techniques reduced prediction error in PBJW by 14.33%, significantly improving the model ( $\Delta\chi^2_{(9)} = 3432.76$ ,  $p < .05$ ). Moreover, each of the effects in addition to PBJW overall varied significantly at the level of the classroom as well ( $\Delta\chi^2_{(794)} = 889.83-1512.84$ ,  $p < .05$ ).

Finally, we tested for differences in the associations of teacher punitive behavior, positive behavior and socio-emotional learning with PBJW as a function of the classroom teacher structure and support groups. Using the orthogonal contrasts, we added them one at a time for meaningful reduction in prediction error and significant improvements to the models. A number of effects emerged. First, there were mean differences in PBJW across the classroom groups. Not surprisingly, classes that were above average in structure and support reported higher PBJW ( $b = 0.06$ ,  $SE = 0.04$ ,  $t_{(819)} = 5.60$ ,  $p < .05$ ). Moreover, very low classes reported significantly less PBJW than low classes ( $b = -0.05$ ,  $SE = 0.02$ ,  $t_{(819)} = 2.50$ ,  $p < .05$ ). The very high classes showed more PBJW than high classes, but this effect was not statistically significant ( $b = 0.08$ ,  $SE = 0.04$ ,  $t_{(819)} = 1.52$ ,  $p > .05$ ). All told, the effects reduced prediction error in the estimation of PBJW by 8.95%, significantly improving the models ( $\Delta\chi^2_{(3)} = 58.56$ ,  $p < .05$ ).

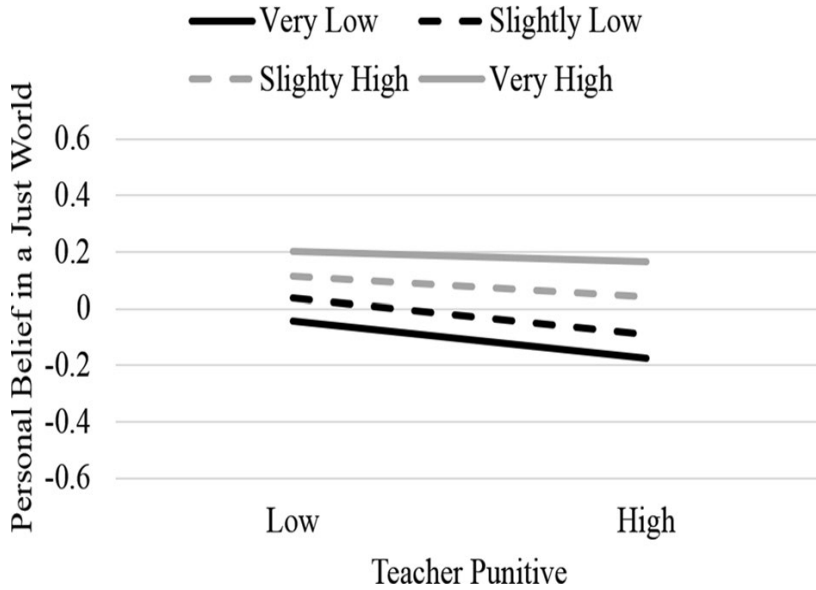
Analyzing the effect of teacher punitive behavior (see Fig. 2), the negative association with PBJW was marginally weaker among the high and very classes compared to the low and very low classes ( $b = 0.01$ ,  $SE = 0.01$ ,  $t_{(819)} = 1.82$ ,  $p = .07$ ). However, this effect did not reduce prediction error in the model appreciably and did not significantly improve the model ( $\Delta\chi^2_{(1)} = 1.66$ ,  $p = .20$ ).

The differences in the effect of positive techniques on the other hand were less equivocal. Here, there was a weaker effect among the high and very classes compared to the low and very low classes ( $b = -0.02$ ,  $SE = 0.01$ ,  $t_{(819)} = 2.06$ ,  $p < .05$ ). This was further qualified by the difference between the high and very high classes ( $b = -0.09$ ,  $SE = 0.04$ ,  $t_{(819)} = 2.13$ ,  $p < .05$ ). As shown in Fig. 3, among the high classes, students' PBJW is already more elevated such that the effect of positive teacher techniques is less impactful. This is even more apparent in the very high classes where, even when teacher positive techniques are low, students show high PBJW. These contrasts only reduced prediction error by 1.16%, not significantly improving the models ( $\Delta\chi^2_{(3)} = 2.89$ ,  $p > .05$ ).

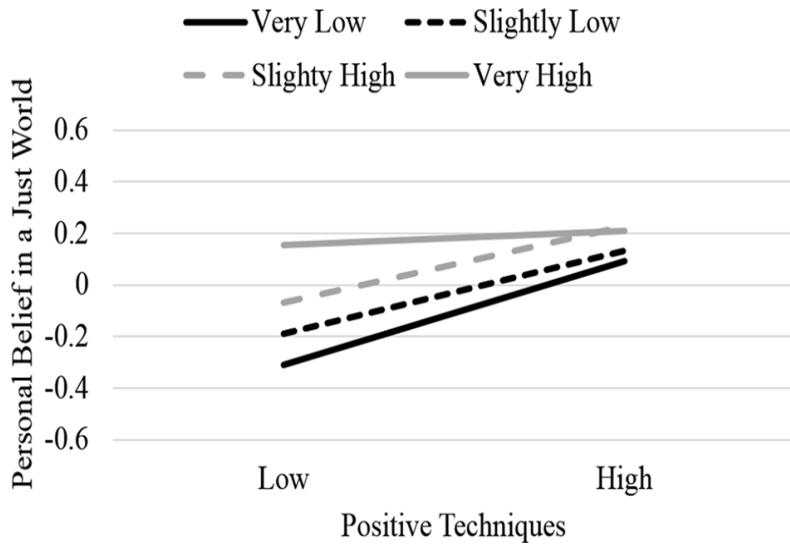
Lastly, the effect of socio-emotional learning also differed between the high and very classes compared to the low and very low classes ( $b = 0.02$ ,  $SE = 0.01$ ,  $t_{(819)} = 2.06$ ,  $p < .05$ ). To explain, socio-emotional learning is associated with higher PBJW, but this effect is stronger



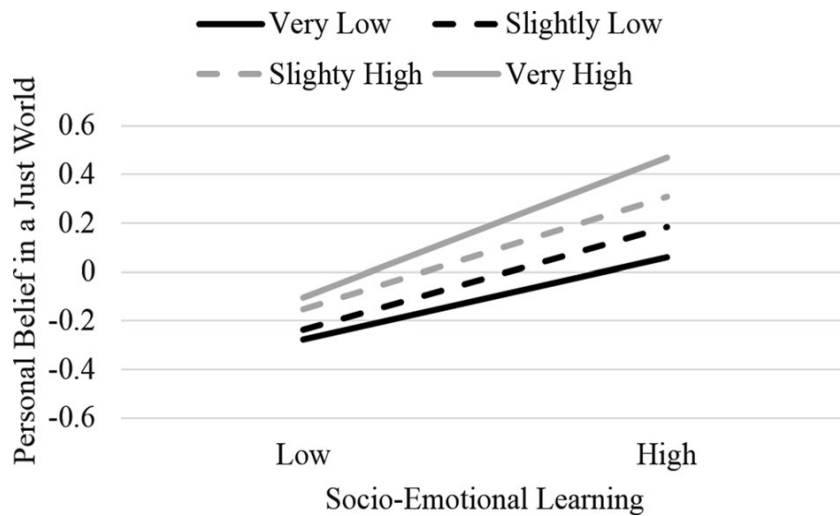
among classes higher in structure and support (see Fig. 4). All told, the contrasts reduced prediction error in the effect of socio-emotional learning by 6.03%, significantly improving the models ( $\Delta\chi^2_{(3)} = 10.29, p < .05$ ).



**Fig. 2** Moderation of latent class groups and teacher punitiveness techniques on PBJW



**Fig. 3** Moderation of latent class groups and teacher positive techniques on PBJW



**Fig. 4** Moderation of latent class groups and socio-emotional learning techniques on PBJW

## 4 Discussion

### 4.1 Predicting PBJW

The first focus of this paper was to understand what aspects of school climate are predictive of PBJW and, how these might differ across developmental periods. In line with previous theory, elementary school climate evaluations did not account for as much variance in PBJW as did middle or high school. This is in line with previous literature (Dalbert and Radant 2004; Donat et al. 2018a, b; Peter et al. 2012) indicating that the family may be a larger influencer in childhood, while school takes an increasing role in later educational stages. Although the effect size was smaller in elementary school, it is still notable, particularly because there is little research on elementary school students' PBJW, and how the school may shape it. This study demonstrates that it is possible for young students to self-report their concept of justice at a younger age than we are currently studying and more studies could be conducted understanding how the school is socializing their justice beliefs earlier.

What was surprising was that middle school climate evaluations were stronger predictors than high school, indicating that middle school is a particularly sensitive period for school to influence PBJW. While a lot of B JW research is being conducted in high schools, this study is evidence that more resources should be devoted to understanding how middle school experiences are impacting their worldviews of justice. Perhaps the reason that high school

climate does not have as strong of an effect size compared to middle school is because, as adolescents age, they are exposed to a broader context and societal issues such as their awareness of current events, and friends outside of school become a stronger predictor of their PBJW. Some research on high school students have pointed to other factors that influence their BJW, such as unemployment (Adoric 2004; Dzuka and Dalbert 2002), work- place fairness and stress (Adoric 2004; Sallay 2004; Otto and Schmidt 2007), higher education prospects (Adoric 2004), personal and professional goals (Dette et al. 2004) and confidence in the future (Sutton and Winnard 2007).

Across all models, rule fairness, student–student relationships, positive-behavioral techniques, and socio-emotional learning techniques were the strongest predictors of PBJW. In elementary and in middle school, the strongest predictor was socio-emotional learning techniques. This finding has powerful practical implications for educators and researchers. In prior studies, most discussion sections center around the importance of educators to be mindful of how students are interpreting their rule enforcement actions, since justice is a subjective experience (Donat et al. 2017, 2018a, b; Peter and Dalbert 2010). This study allows us to be more specific in the practical implications. Teachers who actively employ socioemotional learning techniques may be establishing students’ personal perceptions of justice and empowering students to take control of and responsibility over their lives.

Relational variables were strong predictors in the models. Student–student relationships had a steadily stronger predictive value from elementary to high school, suggesting that peer relationships increase in influence of PBJW throughout adolescence. Teacher–student relationships are predictive of students’ BJW in middle and high school. How teachers related to students also can be reflective of one’s standing in and belongingness to the group (Lind and Tyler 1988) and this has been shown to be closely connected to students’ BJW (Dalbert 2004).

All told, these findings provide more tangible implications to educators and administrators who desire to help foster a sense of justice and predictability in their students’ lives. When students believe they will be treated fairly and given what they deserve, they are more likely work hard because they believe they will be compensated appropriately. As mentioned in the literature review, PBJW is associated with higher grades (Dalbert and Stoeber

2005), report higher well-being, engage in anti-bullying behaviors (Correia and Dalbert 2008; Fox et al. 2010; Donat et al. 2018a, b), follow school rules (Thomas and Mucherah 2018), have higher growth mind-set (Thomas et al. 2019) and have less feelings of exclusion (Umlauf and Dalbert 2017). Teachers and administrators can help promote these indirectly by actively teaching children socio-emotional techniques to handle conflict, promoting strong relationships with students and among peers, and taking seriously students' complaints about the fairness of rules.

#### **4.2 Techniques moderating the effects of school climate on PBJW**

The second focus of this paper revealed nuanced relationships between school climate, teacher management techniques, and PBJW. First, through an LCA, structure and support variables were successfully used to identify natural clusters of classes in the sample. This analysis revealed four groups with increasing levels of authoritarian climate. Based on these groups, we learned that teachers' classroom management behaviors were associated with students' PBJW in predictable ways, but these associations varied at the classroom level.

Across all groups, those with higher authoritarian climate (higher structure and support), reported higher levels of PBJW, further illustrating how school climate may influence students' PBJW. However, teacher techniques moderated this predictive relationship, at times increasing its effectiveness, or buffering against its potentially negative effect. For example, punitive techniques had a negative relationship with students' PBJW, but classes higher in authoritarian climate very weakly buffered this effect. In contrast, even if schools had a worse school climate (lower support and structure), students still maintained a higher PBJW if their teachers applied positive management techniques. And in schools that had a highly authoritarian culture, their PBJW was high even if their teachers did not employ positive management techniques. This seems to indicate that both the school and the teacher can help buffer the negative effects of the other on one's PBJW. Socio-emotional learning techniques had similar positive effects, but more accentuated than the other two techniques. Children in classes with both high structure and support, who also report high levels of socio-emotional techniques, report even higher levels of PBJW.

When students are continuously exposed to a school context that is not responsive to their needs, and without a clear structure and predictable and consistent rules, they are at risk of developing a chronic expectation of personal injustice. If students do not expect to be treated fairly and get what they deserve, they are less likely to be motivated to work hard for long-term goals, and feel more easily threatened because they are more prone to thoughts of unfair treatment and threats of sudden injustices. This study can provide hope by demonstrating that, even if students are in a negative (low authoritative) school climate, if they have a teacher who utilizes many positive and SEL techniques, the teacher may be able to buffer the negative effects of the school. This finding provides a tangible guide for educators who wish to apply the educational research of PBJW to their classroom contexts.

## **5 Limitations, strengths, and future directions**

While this study does make some tentative developmental inferences based on differences in elementary, middle school, and high school, longitudinal studies must be conducted to determine temporal precedence and validate a causal relationship between school climate and PBJW. Future studies should especially target its development in middle school, as that appeared to be a particularly sensitive period for adolescents to be influenced by the school context.

Much of the literature on this topic has been set in European schools with predominantly middle to upper class students. This study broadens the scope of the literature by conducting a large-scale study in a traditionally under-studied population. It should be noted that this study only included students from public schools in southern Brazil. Therefore, this analysis does not include many affluent or middle- upper class students, since many families of higher socio-economic statuses send their children to private institutions.

This study used a well-known American school climate survey that had been previously validated in a Brazilian sample. However, this is not an exhaustive list of all the dimensions of school climate and it is possible that other school climate dimensions may shape PBJW. Additionally, the punitive technique scale had a low Cronbach's alpha in this sample. This may be because many of the surveys were administered by the teachers and these items may be

particularly sensitive to provide accurate information in front of the teachers. This may be why it was not a strong predictor in the models. Further research should work on a stronger measurement in this population and continue to research the effects of punitive techniques on students' perceptions of justice.

To our knowledge, this is the first study that shows that PBJW can vary at the classroom level, and they reveal a powerful picture on how school context can shape students' perceptions of justice. The results of this study provide a clearer picture for educators and researchers to understand how school climate contributes to students' justice perceptions. It is meant to help bridge the gap between school climate research, and the literature on just world beliefs in hopes of making the implications more tangible and stimulate further research.

**Funding** Funding was provided through Edital 01/2017 SECADI/MEC.

## References

- Adoric, V. C. (2004). The Belief in a just world and young adults' ways of coping with unemployment and the job search. In C. Dalbert & H. Sallay (Eds.), *Justice motive in adolescence and young adult- hood: Origins and consequences* (pp. 190–214). New York: Routledge.
- Alexander, M. M., Santo, J. B., Da Cunha, J., Weber, L., & Russell, S. T. (2011). Effects of homophobic versus nonhomophobic victimization on school commitment and the moderating effect of teacher attitudes in Brazilian public schools. *Journal of LGBT Youth, 8*(4), 289–308.
- Amaral, H. T., da Cunha, J. M., & Santo, J. B. (2019). Authoritative school climate and peer victimization among Brazilian students. *Psico, 50*(1), 29275. <https://doi.org/10.15448/1980-8623.2019.1.29275>.
- Barlie, J. P., Donohue, D. K., Anthony, E. R., Baker, A. M., Weaver, S. R., & Henrich, C. C. (2012). Teacher–student relationship climate and school outcomes: Implications for educational policy initiatives. *Journal of Youth and Adolescence, 41*, 256–276.

<https://doi.org/10.1007/s10964-011-9652-8>.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, 4(1), 1–103. <https://doi.org/10.1037/h0030372>.

Bear, G., Yang, C., Mantz, L., Pasipanodya, E., Hearn, S., & Boyer, D. (2014). *Technical Manual for Delaware school survey: Scales of school climate, bullying victimization, student engagement, and positive, punitive, and social emotional learning techniques*. Delaware Positive Behavior Support (DE-PBS) and School Climate Transformation Projects.

Bear, G. G., Holst, B., Lisboa, C., Chen, D., Yang, C., & Ghen, F. F. (2016). A Brazilian Portuguese survey of school climate: Evidence of validity and reliability. *International Journal of School and Educational Psychology*, 4(3), 165–178. <https://doi.org/10.1080/21683603.2015.1094430>.

Bryson, S. L., & Childs, K. K. (2018). Racial and ethnic differences in the relationship between school climate and disorder. *School Psychology Review*, 47(3), 258–274. <https://doi.org/10.17105/SPR-2018-0016.V47-3>.

Buhs, E. S., Ladd, G. W., & Herald, S. L. (2006). Peer exclusion and victimization: Processes that mediate the relation between peer group rejection and children's classroom engagement and achievement. *Journal of Educational Psychology*, 98(1), 1–13. <https://doi.org/10.1037/0022-0663.98.1.1>.

Cornell, D., & Huang, F. (2016). Authoritative school climate and high school student risk behavior: A cross-sectional multi-level analysis of student self-reports. *Journal of Youth and Adolescence*, 45, 2246–2259. <https://doi.org/10.1007/s10964-016-0424-3>.

Cornell, D., Shukla, K., & Konold, T. R. (2016). Authoritative school climate and student academic engagement, grades, and aspirations in middle and high schools. *AERA Open*. <https://doi.org/10.1177/2332858416633184>.

Correia, I., & Dalbert, C. (2007). Belief in a just world, justice concerns, and well-being at Portuguese schools. *European Journal of Psychology of Education*, 12(4), 421–437. <https://doi.org/10.1007/BF03173464>.

Correia, I., & Dalbert, C. (2008). School bullying: Belief in a personal just world of bullies, victims, and defenders. *European Psychologist*, 13(4), 248–254.

<https://doi.org/10.1027/1016-9040.13.4.248>.

Dalbert, C. (1999). The world is more just for me than generally: About the personal belief in a just world scale's validity. *Social Justice Research, 12*(2), 79–98.

<https://doi.org/10.1023/A:1022091609047>.

Dalbert, C. (2001). *The justice motive as a personal resource: Dealing with challenges and critical life events*. New York, NY: Kluwer Academic/Plenum Publishers.

<https://doi.org/10.1007/978-1-4757-3383-9>.

Dalbert, C. (2004). The implications and function of just and unjust experiences in school. In C. Dalbert & H. Sallay (Eds.), *Justice motive in adolescence and young adulthood: Origins and consequences* (pp. 117–134). New York: Routledge.

Dalbert, C. (2009). Belief in a just world. In M. R. Leary & R. H. Hoyle (Eds.), *Handbook of individual differences in social behavior* (pp. 288–297). New York: Guilford Publications.

Dalbert, C., & Radant, M. (2004). Parenting and young adolescents' belief in a just world. In C. Dalbert & H. Sallay (Eds.), *The justice motive in adolescence and young adulthood: Origins and consequences* (pp. 11–25). London, UK: Routledge.

Dalbert, C., & Stoeber, J. (2005). The belief in a just world and distress at school. *Social Psychology of Education, 8*, 123–135. <https://doi.org/10.1007/s11218-005-1835-2>.

Dalbert, C., & Stoeber, J. (2006). The personal belief in a just world and domain-specific beliefs about justice at school and in the family: A longitudinal study with adolescents. *International Journal of Behavioral Development, 30*(3), 200–207.

Danielsen, A. G., Wium, N., Wilhelmsen, B. U., & Wold, B. (2010). Perceived support provided by teachers and classmates and students' self-reported academic initiative. *Journal of School Psychology, 48*(3), 247–267. <https://doi.org/10.1016/j.jsp.2010.02.002>.

Dette, D., Stoeber, J., & Dalbert, C. (2004). Belief in a just world and adolescents' vocational and social goals. In C. Dalbert & H. Sallay (Eds.), *Justice motive in adolescence and young adulthood: Origins and consequences* (pp. 231–247). New York: Routledge.

Donat, M., Gallschutz, C., & Dalbert, C. (2017). The relation between students' justice experiences and their school refusal behavior. *Social Psychology of Education, 21*, 447–475. <https://doi.org/10.1007/s11218-017-9423-9>.



- Donat, M., Knigge, M., & Dalbert, C. (2018a). Being a good or a just teacher: Which experiences of teachers' behavior can be more predictive of school bullying? *Aggressive Behavior*, *44*(1), 29–39.
- Donat, M., Peter, K., Dalbert, C., & Kamble, S. V. (2016). The meaning of students' personal belief in a just world for positive and negative aspects of school-specific well-being. *Social Justice Research*, *29*, 73–102. <https://doi.org/10.1007/s11211-015-0247-5>.
- Donat, M., Umlauft, S., Dalbert, C., & Kamble, S. V. (2012). Belief in a just world, teacher justice, and bullying behavior. *Aggressive Behavior*, *38*(3), 185–193. <https://doi.org/10.1002/ab.21421>.
- Donat, M., Wolgast, A., & Dalbert, C. (2018b). Belief in a just world as a resource of victimized students. *Social Justice Research*, *31*(2), 133–151. <https://doi.org/10.1007/s11211-018-0307-8>.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, *82*(1), 405–432. <https://doi.org/10.1111/j.1467-8624.2010.01564.x>.
- Dzuka, J., & Dalbert, C. (2002). Mental health and personality of Slovak unemployed adolescents: The impact of belief in a just world. *Journal of Applied Social Psychology*, *32*(4), 732–75. <https://doi.org/10.1111/j.1559-1816.2002.tb00240.x>.
- Elias, M. J., & Schwab, Y. (2006). From compliance to responsibility: Social and emotional learning and classroom management. In C. M. Everton & C. S. Weinstein (Eds.), *Handbook of classroom management*. New York: Routledge.
- Elsaesser, C., Gorman-Smith, D., & Henry, D. (2013). The role of the school environment in relational aggression and victimization. *Journal of Youth and Adolescence*, *42*(2), 235–249. <https://doi.org/10.1007/s10964-012-9839-7>.
- Field, A. P. (2000). *Discovering statistics using SPSS for Windows: Advanced techniques for the beginner*. London: Sage.
- Fisher, B. W., Viano, S., Chris Curran, F., Alvin Pearman, F., & Gardella, J. H. (2017). Students' feelings of safety, exposure to violence and victimization, and authoritative school

- climate. *American Journal of Criminal Justice*, 15, 133–157.  
<https://doi.org/10.1007/s12103-017-9406-6>.
- Fox, C. L., Elder, T., Gater, J., & Johnson, E. (2010). The association between adolescents' belief in a just world and their attitudes to victims of bullying. *British Journal of Educational Psychology*, 80(2), 183–198. <https://doi.org/10.1348/000709909X479105>.
- Freeman, J., Simonsen, B., McCoach, B., Sugai, G., Lombardi, A., & Horner, R. (2016). Relationship between school-wide positive behavior interventions and supports and academic attendance and behavior outcomes in high schools. *Journal of Positive Behavior Interventions*, 18(1), 41–51. <https://doi.org/10.1177/1098300715580992>.
- Gregory, A., Cornell, D., Fan, X., Sheras, P., Shih, T., & Huang, F. (2010). Authoritative school discipline: High school practices associated with lower bullying and victimization. *Journal of Educational Psychology*, 102(2), 483–496. <https://doi.org/10.1037/a0018562>.
- Konold, T., Cornell, D., Huang, F., Meyer, P., Lacey, A., Nekvasil, E., et al. (2014). Multilevel multi-informant structure of the Authoritative School Climate Survey. *School Psychology Quarterly*, 29(3), 238. <https://doi.org/10.1037/spq0000062>.
- Konold, T., Cornell, D., Shukla, K., & Huang, F. (2017). Racial/ethnic differences in perceptions of school climate and its association with student engagement and peer aggression. *Journal of Youth and Adolescence*, 46(6), 1289–1303. <https://doi.org/10.1007/s10964-016-0576-1>.
- Lerner, M. J. (1980). *The belief in a just world: A fundamental delusion*. New York, NY: Plenum Press.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum Press.
- Lipkus, I. M., Dalbert, C., & Siegler, I. C. (1996). The importance of distinguishing the belief in a just world for self versus for others: Implications for psychological well-being. *Personality and Social Psychology Bulletin*, 22(7), 666–677.  
<https://doi.org/10.1177/0146167296227002>.
- Martin, A. J., & Collie, R. J. (2018). Teacher–student relationships and students' engagement in high school: Does the number of negative and positive relationships with teachers matter? *Journal of Educational Psychology*. <https://doi.org/10.1037/edu0000317>.

- McIntosh, K., Filter, K. J., Bennett, J. L., Ryan, C., & Sugai, G. (2010). Principles of sustainable prevention: Designing scale-up of school-wide positive behavior support to promote durable systems. *Psychology in the Schools, 47*(1), 5–21. <https://doi.org/10.1002/pits.20448>.
- National School Climate Council. (2007). *National School Climate Standards: Benchmarks to promote effective teaching, learning and comprehensive school improvement*. Retrieved January 2019 from <https://www.schoolclimate.org/themes/schoolclimate/assets/pdf/policy/school-climate-standards.pdf>.
- Otto, K., & Schmidt, S. (2007). Dealing with stress in the workplace: Compensatory effects of belief in a just world. *European Psychologist, 12*, 253–260.
- Peter, F., & Dalbert, C. (2010). Do my teachers treat me justly? Implications of students' justice experience for class climate experience. *Contemporary Educational Psychology, 35*, 297–305.
- Peter, F., Dalbert, C., Kloeckner, N., & Radant, M. (2013). Personal belief in a just world, experience of teacher justice, and school distress in different class contexts. *European Journal of Psychology of Education, 28*(4), 1221–1235.
- Peter, F., Kloeckner, N., Dalbert, C., & Radant, M. (2012). Belief in a just world, teacher justice, and student achievement: A multilevel study. *Learning and Individual Differences, 22*(1), 55–63.
- Riekie, H., Aldridge, J. M., & Afari, E. (2016). The role of the school climate in high school students' mental health and identity formation: A South Australian study. *British Educational Research Journal, 43*(1), 95–123. <https://doi.org/10.1002/berj.3254>.
- Sallay, H. (2004). Belief in a just world as a resource for unemployed young adults. In C. Dalbert & H. Sallay (Eds.), *Justice motive in adolescence and young adulthood: Origins and consequences* (pp. 117–134). New York: Routledge.
- Sallay, H., & Dalbert, C. (2004). The development of the belief in a just world: The impact of being raised in a one-parent or an intact family. In C. Dalbert & H. Sallay (Eds.), *Justice motive in adolescence and young adulthood: Origins and consequences* (pp. 11–25). New

York: Routledge.

- Sutton, R. M., & Douglas, K. M. (2005). Justice for all, or just for me? More evidence of the importance of the self-other distinction in just-world beliefs. *Personality and Individual Differences, 39*(3), 637–645. <https://doi.org/10.1016/j.paid.2005.02.010>.
- Sutton, R. M., & Winnard, E. J. (2007). Looking ahead through lenses of justice: The relevance of just- world beliefs to intentions and confidence in the future. *British Journal of Social Psychology, 46*(3), 649–666. <https://doi.org/10.1348/01466606x166220>.
- Thomas, K. J., Cunha, J., Americo de Souza, D., & Santo, J. (2019). Fairness, trust, and school climate as foundational to growth mindset: A study among Brazilian children and adolescents. *Educational Psychology*. <https://doi.org/10.1080/01443410.2018.1549726>.
- Thomas, K. J., & Mucherah, W. M. (2018). Brazilian adolescents' just world beliefs and its relationships with school fairness, student conduct, and legal authorities. *Social Justice Research, 31*(1), 41–60.
- Thomas, K. J., & Napolitano, P. (2017). Educational privilege: The role of school context in the development of just world beliefs. *International Journal of Psychology, 52*(S1), 106–113. <https://doi.org/10.1002/ijop.12382>.
- Umemura, T., & Serek, J. (2016). Different developmental pathways from parental warmth to adolescents' trust in peers and politicians: Mediating roles of adolescent-parent attachment and belief in a just world. *Social Justice Research, 29*, 186–205. <https://doi.org/10.1007/s11211-016-0258-x>.
- Umlauft, S., & Dalbert, C. (2017). Justice experiences and feelings of exclusion. *Social Psychology of Education, 20*, 565–587. <https://doi.org/10.1007/s11218-017-9387-9>.
- Yeung, R., & Leadbeater, B. (2010). Adults make a difference: The protective effects of parent and behavioral problems of peer-victimized adolescents. *Journal of Community Psychology, 38*(1), 80–98.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

**Kendra J. Thomas, Ph.D.** is an assistant professor of psychology at the University of Indianapolis in the United States focusing on human development and educational psychology. She has a Ph.D. in educational psychology from Ball State University. Her research interests are perceptions of fairness and justice throughout adolescence and across cultures. She also studies interventions in early childhood development and adolescence, and socioemotional development in schools.

**Jonathan B. Santo, Ph.D.** is an associate professor of psychology at the University of Nebraska at Omaha in the United States specializing in adolescent development, cross-cultural psychology, and statistics. He has a Ph.D. in psychology from Concordia University in Montreal, Quebec, Canada. Dr. Santo's dissertation was titled "Adolescent Self-Concept, Peer Relations, and Context: An Ecological Systems Theory Approach" and his research interests include adolescent identity development, moderators of the depressive effects of peer victimization, and cross-cultural differences in peer relations. He is the co-editor of the *Journal of Latino/Latin-American Studies*.

**Josafá Moreira da Cunha, Ph.D.** is a professor of psychology at the Federal University of Paraná, in Brazil. He specializes in educational psychology and his primary research interests are in school climate, discrimination, teacher–student relationships, peer victimization, and positive peer relationships. He has served as an elected official in the Society for Research of Adolescence (2012–2016), and the International Society for the Study of Behavioral Development (2014–2018).