

## PARENTAL LEGITIMACY, PROCEDURAL JUSTICE, AND COMPLIANCE WITH PARENTAL RULES AMONG BRAZILIAN PREADOLESCENTS

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**Abstract:** The purpose of this study is to capture a snapshot of the lives of Brazilian preadolescents and gain a deeper understanding of the variables that influence compliance with parental rules. This analysis draws from the São Paulo Legal Socialization Study, a cohort study ( $N = 800$ ; age = 11 years) from public and private schools. Descriptive statistics provide a perspective on normative Brazilian parenting practices and preadolescents' perceptions of parental legitimacy across multiple domains. Hierarchical linear modeling revealed that procedural justice, global legitimacy, issue-specific legitimacy, and disciplinary techniques all significantly predicted compliance across issues and between preadolescents. Parents who used constructive disciplinary practices paired with procedural justice practices were more likely to be perceived as legitimate authorities and to have their preadolescent children comply with their rules. Our findings broaden the literature on constructive parenting practices in preadolescence, and allow for greater generalizability of current Western research to a diverse metropolitan setting in Brazil.

**Keywords:** parenting, early adolescence, preadolescence, procedural justice, legitimacy, disciplinary style

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The transition from childhood to adolescence is marked by an increased desire for autonomy (Steinberg & Silverberg, 1986; Zimmer-Gembeck & Collins, 2003) and more nuanced contextual thoughts about the role of authorities, including parents (Smetana, 1999). During late childhood and early adolescence, individuals develop more complex notions about authorities and begin to differentiate areas in which they will submit to authority and areas over which they take ownership. This period can be a time of intense autonomy negotiation and renegotiation. Adolescent compliance with family rules varies across different domains, with stronger adherence in areas of safety (Darling, Cumsille, & Peña-Alampay, 2005) and morality (Smetana, 1995), compared to issues perceived as private and personal (Milnitsky-Sapiro, Turiel, & Nucci, 2006; Nucci, Camino, & Milnitsky-Sapiro, 1996). However, their compliance (obedience and adherence to rules) is also influenced by variables within parents' control. Prior research in adolescent development has revealed that the presence, monitoring, and enforcement of rules are predictors of compliance (Darling, Cumsille, & Martinez, 2007). This study is a detailed analysis of these issues in a preadolescent Brazilian sample.

The purpose of this study is to capture a snapshot of Brazilian preadolescents to gain a deeper understanding of how certain parental practices can contribute to some young people being more compliant than others, and can affect what specific issues they are more likely to be compliant about. Preadolescents' reports of parents' disciplinary practices and procedural justice levels, and of their perceptions of parental legitimacy, are expected to predict their self-reported compliance with household rules. This research provides a data point on an under-researched population, filling a gap in the literature on procedural justice and legitimacy in preadolescence.

### *Parenting*

There is substantial research on authoritative parenting and the importance of both developmentally appropriate demandingness and sufficient warmth and support (Bartholomeu, Montiel, Fiamenghi, & Machado, 2016; Baumrind, 1971; Baumrind, 1991; Gunnoe, Hetherington, & Reiss, 1999; Pinquart, 2016; Smetana, 2017; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). Some prominent researchers have even gone so far as to say that there is enough evidence to support the use of authoritative parenting that research efforts should be directed to other areas (Steinberg, 2001). While there is plenty of research on the benefits of authoritative parenting, there is still much to explore with regard to parenting practices, particularly within specific developmental and cultural contexts. Darling and Steinberg (1993) differentiate between parenting style and parenting practices. Parenting style creates an overarching emotional climate; it can be aptly described as a constellation of parental attitudes. Parenting practices are specific behaviors defined by socialization goals. They operate in particular domains and are aimed at defined developmental outcomes (Darling & Steinberg, 1993). This distinction between parenting practices and parenting styles signals the value of specialized investigations of parenting practices in specific developmental periods and sociocultural contexts. This study will focus on parenting

practices of procedural justice and rule enforcement in Brazilian preadolescents to understand how these practices predict compliance.

Parenting practices can either pave the way for adolescents to see their parents as legitimate sources of authority, or undermine and delegitimize their authority. Evidence has recently emerged from the literature showing that the authoritative parenting style creates a relationship that is conducive to adolescents granting legitimacy to their parents (Trinkner, Cohn, Rebellon, & Van Gundy, 2012). Accordingly, when adolescents perceive their parents as both responsive and demanding (characteristics of authoritative parenting) they are more likely to see them as legitimate authorities and thus are more likely to comply with their expectations (Mellado, Cumsille, & Martínez, 2018; Trinkner et al., 2012). This may be because authoritative parents are more likely to rationalize rules based on principles of equality and social relationships (Leman, 2005; Trinkner et al., 2012). The present study adds to the discussion of parenting legitimacy and compliance by looking at this phenomenon in preadolescents and bringing specific disciplinary practices into the empirical conversation.

We suggest that age-appropriate considerations must also be taken into account when analyzing parenting practices and research should always be seen within the developmental context of its participants. As individuals transition from childhood to adolescence, they become more sensitive and aware of how adults exert authority (Cumsille, Flaherty, Darling, & Martinez, 2006; Larzelere & Kuhn, 2005; Smetana, Ahmad, & Wray-Lake, 2015). In addition, the effectiveness of disciplinary methods varies by age range (Larzelere & Kuhn, 2005; Paikoff, Collins, & Laursen, 1988). Research on middle school children reveals their sensitivity to, and their ability to assess the effectiveness of, different parenting practices is greater than in elementary school children (Paikoff et al., 1988). The transition from childhood to adolescence is marked by maturation from convention-based reasoning to a more sophisticated way of questioning parental authority (Darling, Cumsille, & Martinez, 2008; Smetana et al., 2015; Smetana, Wong, Ball, & Yau, 2014; Turiel, 1978). Early adolescence is a time when individuals experience an increased drive to differentiate themselves from their parents and take ownership of their lives; this study will further knowledge of the effectiveness of specific parenting practices and preadolescent perceptions of those practices.

Researchers have highlighted the importance of acknowledging cultural norms and customs when investigating parenting and disciplinary practices (Darling & Steinberg, 1993; Locke & Prinz, 2002). Parenting practices carry inherent cultural assumptions (e.g., authority, independence) and are driven by interaction with society (e.g., education system, involvement of other authority figures, neighborhood safety). Careful measures have been taken in this study to adhere to Brazilian practices and contexts defined by Brazilian psychologists and sociologists. More detail will be given in the Method section, but it is important to remember that, although the majority of the research cited was conducted in North America and from an American perspective, this study has taken careful steps to ensure these concepts are measured and defined appropriately within the Brazilian context.

### ***Parental Disciplinary Practices***

There is a high degree of consensus among researchers about effective and ineffective approaches to parental discipline. Studies show that spanking, name-calling, offending, threatening, and other forms of harsh discipline are unconstructive, and tend to generate undesirable future behavior (Bartholomeu et al., 2016; Gershoff & Grogan-Kaylor, 2016; Gershoff, 2002; Gershoff et al., 2010; Kremer, Smith, & Lawrence, 2010; Locke & Prinz, 2002; McKee et al., 2007; Straus & Donnelly, 1993). Although physical punishment may enforce immediate compliance, in the long term it undermines children's trust in parents and their willingness to obey (Gershoff, 2002). Harsh verbal discipline, such as screaming, cursing, threatening, or name-calling, and harsh physical punishment are associated with higher levels of child externalizing disorders (Gershoff et al., 2010; McKee et al., 2007). The most constructive parenting practices include taking away privileges (Locke & Prinz, 2002; McKee et al., 2007), making clear rules and requests, direct reinforcement of appropriate behavior, and application of reasoning and induction (Kremer et al., 2010; Locke & Prinz, 2002).

As in the studies cited above, a cross-cultural study by Gershoff and colleagues (2010) comparing discipline techniques across six different countries found negative outcomes from harsh verbal and physical discipline and shaming. Research in Brazil has also established these patterns and outcomes for constructive and unconstructive forms of discipline (Cardia, 2010; de Paula Gebara et al., 2017; Gomes & Azevedo, 2014). For this reason, in this study these forms of discipline will be categorized as constructive or unconstructive. In addition, some research has also found that families with lower socioeconomic status (SES) tend to report higher incidences of unconstructive discipline (Najman et al., 1994; Straus & Stewart, 1999), a trend that is also noted in Brazil (de Paula Gebara et al., 2017). For this reason, demographic factors will also be taken into account in research analyses.

### ***Procedural Justice and Legitimacy***

This study not only looks at how parents are disciplining their preadolescents, but also at preadolescents' perceptions both of how fairly they are being treated (procedural justice), and of whether their parents are legitimate sources of authority in the areas in which they exert power. Within criminology, social psychology, and sociology research, procedural justice is widely regarded as a necessary construct for voluntary submission to authorities. Procedural justice is marked by the perception that authorities will listen to the individual, will be unbiased and respectful, and will govern with benevolence (Fagan & Tyler, 2005; Tyler, 1990). When individuals perceive legal authorities to be respectful and unbiased, they are much more likely to perceive them to be legitimate sources of authority and to comply with their rules and requests (Fagan & Tyler, 2005; Piquero, Fagan, Mulvey, Steinberg, & Odgers, 2005; Tyler, 1990; Tyler, Goff, & McCoun, 2015).

Recent work has extended this finding to familial settings and found consistent results (Trinkner & Cohn, 2014). Perception of parental procedural justice significantly predicted the

legitimacy that adolescents in the 11th grade attributed to their parents and indirectly predicted compliance with parents, mediated through the legitimacy of parental authority (Trinkner & Cohn, 2014). Research among middle school students found higher procedural justice within the family to be correlated with lower incidence of bullying (Brubacher, Fondacaro, Brank, Brown, & Miller, 2009). However, the research analyzing procedural justice in non-legal settings is still sparse and very little has been conducted in a preadolescent sample. Parenting with procedural justice means allowing children and adolescents to tell their side of the story, listening to them before making quick judgements, and speaking respectfully and impartially. The current study tests to see if these procedural justice practices, combined with constructive discipline practices, can foster a family climate in which there is greater voluntary compliance with household rules because preadolescents have granted their parents legitimacy.

When adolescents perceive their parents to be legitimate sources of authority over their lives, they are less likely to engage in rule-violating behavior (Smetana, 1999; Trinkner & Cohn, 2014). Research has recently identified authoritative parenting (parents are both demanding and warm; Baumrind, 1971) as a possible mechanism for establishing legitimacy: youth who see their parents as authoritative grant greater legitimacy and report more obedience (Darling et al., 2005). Authoritarian parenting (parents are demanding but not warm; Baumrind, 1971) is negatively related to parental legitimacy (Trinkner et al., 2012). Adolescents who believe their parents are not legitimate sources of authority are more likely to be motivated to comply for pragmatic reasons — to avoid punishment — but adolescents who believe parents have legitimate authority are more likely to report affective reasons to obey parents — to preserve their relationship (Darling, Hames, & Cumsille, 2000).

Adolescents' perception of parental legitimacy is an important marker of their willingness to be socialized by their parents (Darling et al., 2007). Adolescents from authoritarian homes are more likely to resist their parents' socialization (Trinkner et al., 2012). Younger children have less freedom to resist their parents' socialization efforts, but the transition to adolescence gives them a stronger voice to either actively welcome their parents' influence, or move away from it. While we know that parenting style influences legitimacy and compliance, we should further investigate how specific and culturally relevant parenting practices of procedural justice and discipline can influence compliance in preadolescence.

Longitudinal research among adolescents has revealed a steep decline in parental legitimacy and obligation to obey in early adolescence both in Chile (Darling et al., 2008) and in the United States (Kuhn & Laird, 2011). This developmental period is important because of the influence that cognitive development has on perceptions of the legitimacy of authority. In early adolescence, children begin differentiating between legitimate and illegitimate authorities and claim greater independence and decision making power (Baumrind, 1991). Researchers have emphasized the importance of studying this process more extensively in younger adolescents, yet most work is still focused on high school students (Trinkner & Cohn, 2014). Work must also be done in a variety of cultures, since power distance (the extent to which the less powerful accept

the unequal distribution of power) and compliance with authority are quite sensitive to cultural norms (Darling et al., 2005; Smetana et al., 2017). The association between parenting socialization methods and adolescents' developmental outcomes varies across cultural contexts (Martínez, García, & Yubero, 2007). The purpose of this study is not to compare cultures, but its focus on preadolescents in a diverse Brazilian metropolis will add a data point to the literature on procedural justice and legitimacy between childhood and adolescence.

Legitimacy of authority can be assessed at a global level (general perception of parental authority as legitimate or not), yet it can also be measured at an issue-specific level (some domains are legitimately under parental authority while others are not). For example, issues that adolescents consider to be of a personal and private nature are less likely to be deemed as under their parents' jurisdiction (Baumrind, 1991; Cumsille et al., 2006; Martinez, Perez, & Cumsille, 2014; Nucci et al., 1996; Smetana et al., 2015). Issues that are within a moral domain are more likely to be attributed legitimacy than are issues of personal relationships and issues relating to social conformity (Smetana, 1995; Smetana et al., 2014). When adolescents believe the issue to be within the sphere of legitimate parental authority, they are much more likely to report obeying the corresponding rule (Darling et al., 2007). Early adolescence is a time of increased cognitive sophistication in which the negotiation of power becomes domain specific; thus, it is important to assess legitimacy both at a global and an issue-specific level. A recent study (Trinkner et al., 2012) stated the need to assess legitimacy on an issue-by-issue basis and conduct multilevel modeling to examine the effects of parental legitimacy both specifically and globally. The current study is targeted to address this gap.

Researchers have also noted a relevant difference between SES groups, with middle- and upper-class children differentiating between personal issues earlier than their lower-class peers (Martinez et al., 2014; Milnitsky-Sapiro et al., 2006; Nucci et al., 1996). Lower-SES adolescents tend to grant more authority to parents than those in middle- to high-SES households (Martinez et al., 2014; Smetana et al., 2015). The current study will incorporate demographic variables into the model in order to account for their effects across the sample.

### ***The Brazilian Context***

Brazil is a rich country but with vast economic inequalities that make it a very suitable place to study how youth transition from childhood to adolescence in a complex society. However, Brazil's economic and social disparities present certain research challenges. One challenge is obtaining access to various demographic groups. In a recent study, 60% of adolescents between the ages of 15 and 17 were not in school (Bermudez, 2017), even though by law they must receive an education. Therefore, any school-based study on older adolescents will be skewed to a more privileged sample. One of the reasons this study is tailored to preadolescents is because 90.5% of 6- to 14-year-olds are in school (Bermudez, 2017). Therefore, it is much more realistic to gain a representative sample of Brazilian preadolescents through a school sample compared to older adolescents. Another challenge is that many middle-school students are still deemed *functional*

*analphabets*, indicating that although they can technically read, they cannot understand a simple text (Instituto Paulo Montenegro, 2012). Therefore, it is difficult to conduct a self-administered survey in a truly demographically diverse sample. Steps were taken throughout the research design process to minimize these problems and construct a reliable study on a challenging population. These steps are outlined in the Development of the Measure section below.

### ***The Current Study***

The current study investigates what legitimacy and issue-specific compliance looks like in preadolescence in a diverse Brazilian sample. The study draws from the database of the São Paulo Legal Socialization Study (SPLSS) developed by the Center for the Study of Violence of the University of São Paulo (NEV-USP). The study collected data among preadolescents from São Paulo city. With a population of almost 12 million and a reputation as an emerging global city (Sassen, 2005), São Paulo is best known for its role as a South American economic and financial capital. It is a heterogeneous and complex urban environment with one of the widest income inequalities of the world's largest cities (UN-Habitat, 2010).

The analysis encompasses questions of parental procedural justice practices and preadolescent judgements of legitimacy to understand their relationship with compliance with rules about specific issues in preadolescence. Part of the importance of the current work is that it studies normative development in preadolescence. Many studies on legitimacy and procedural justice focus on older adolescents or draw from juvenile delinquency samples (Piquero et al., 2005). This is a diverse sample of Brazilian preadolescents and can provide much insight into how parenting disciplinary practices, procedural justice, and legitimacy beliefs influence preadolescent individuals.

### ***Research Questions and Hypotheses***

1. What issues do parents of preadolescents in Brazil have rules about, and are these rules perceived by their children as legitimate?

A descriptive analysis will reveal the trends in preadolescence and how the rules vary across a variety of issues. We hypothesize that, already at age 11, there will be some variability between issues, with rules relating to issues of a moral or safety-related nature perceived as more legitimate.

2. What is the profile of Brazilian parents' disciplinary procedures, and does it differ across economic lines?

A descriptive analysis will reveal the national trends and popularity of certain practices across demographic indicators. We hypothesize that those in lower income levels will report higher incidences of harsher disciplinary methods.

3. Do disciplinary practices, procedural justice, and legitimacy beliefs predict preadolescent compliance on specific issues?



A hierarchical linear model will assess preadolescent compliance across specific issues to understand its strongest predictors. We hypothesize that parental variables of procedural justice, disciplinary practices used to enforce the rules, and global legitimacy will help predict which preadolescents will be more compliant with their parents' rules. We expect that constructive disciplinary methods (privilege withdrawal and verbal correction) will positively predict legitimacy, and unconstructive discipline (harsh verbal or physical punishments, threats) will negatively predict legitimacy. We also hypothesize that their judgement of the legitimacy of specific issues will significantly predict which rules they report being more willing to obey.

## **Method**

### ***Development of the Instrument***

Research on parenting practices must take careful steps to minimize measurement biases and maximize cultural appropriateness when investigating various discipline techniques (Darling & Steinberg, 1993; Locke & Prinz, 2002). In line with this understanding, the SPLSS research team created a data collection instrument based on their extensive literature review, their fieldwork at schools in São Paulo, and an analysis of the previous instrument used by the New Hampshire Youth Study (NHYS; Cohn, Trinkner, Rebellon, Van Gundy, & Cole, 2012). The SPLSS research team consisted of sociologists and psychologists specializing in criminology and human development. In addition, the team consulted with a Brazilian child psychologist, and American educational and social psychologists. This research respects the differences of the Brazilian system and has been adapted accordingly based on work from various researchers.

The SPLSS was initially developed based on fieldwork conducted in São Paulo through ethnographic observations and semi-structured interviews to better understand Brazilian preadolescents (Rodrigues, Gomes, Veiga, Brito, & Oliveira, 2017; Silva & Rodrigues, 2017). This exploratory step was based on theoretical and methodological studies that addressed moral and legal socialization of preadolescents (Fagan & Tyler, 2005; Tyler & Trinkner, 2017). In the fieldwork, the researchers conducted several semi-structured interviews with demographically distinct preadolescents (11 years old) and explored their views on concepts of rules and laws, legitimacy, procedural justice, trust, exposure to violence, and rule-breaking behavior. These concepts appear in different research studies in the United States, Chile, and the Philippines (Darling et al., 2008; Darling et al., 2005; Jeleniewski, 2014; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014; Trinkner et al., 2012); however, not all of these studies focus on preadolescents. Furthermore, the existing instruments were designed and implemented largely in other countries (primarily in the northern hemisphere). This study attempts to bridge the gap in the literature and add data to understand the themes of legitimacy and justice in a Brazilian preadolescent sample. For the current study, we adapted the instruments to take into account the age and diversity of the population in different regions of the city of São Paulo.

The ethnographic observations and semi-structured interviews facilitated the construction of the quantitative questionnaire. A pilot study with the questionnaire highlighted the difference between students from public and private schools: the public school students had a much harder time articulating their perspectives, grasping abstract notions, and completing the survey independently. It became clear that a self-administered survey was not the best way to research parenting practices in Brazil. Self-administered surveys are common in studies with older children and young adolescents, and have had some positive results, but would inhibit our ability to collect data from the diverse group of Brazilian youth targeted by our study. Therefore, the data were collected by individually applying the quantitative instrument through personal interviews to ensure that even students from poor neighborhoods would understand the questions as intended.

For administrative and political purposes, the city of São Paulo is divided into nearly 100 districts. Once the first version of the questionnaire had been constructed, it was piloted in different districts to test it with a variety of demographic characteristics and so ensure that it was understandable across a diverse sample. In total, 12 pilot interviews were conducted. The first was held at the research center (NEV) and was designed to check understanding of concepts by the interviewees. After conducting the initial interviews, there was another discussion round for changing words, removing some repetitive ideas, and clarifying the questions.

Interviews were also conducted across schools (one public, two private) in order to evaluate the construct validity of the questions in each setting. Pilot study data were analyzed to determine whether participants had understood and correctly filled out the survey, and to assess the relevance of the questions. This step revealed some redundant and some developmentally inappropriate questions; such questions were removed and some others were restructured in order to reduce the number of questions and shorten the interview (Rodrigues & Gomes, in press).

Both the exploratory study and the pilot interviews used many different scales, such as the agreement statement and the 5-point scale. In many cases, these preadolescents (particularly those from disadvantaged backgrounds) had difficulty understanding the questions. To maximize comprehensibility, a dichotomous scale (yes/no) was adopted for most questions. This was deemed the most suitable option for the research population, given its age, diversity, and socioeconomic challenges (Chambers & Johnston, 2002; Davis-Kean & Sandler, 2001; Rodrigues & Gomes, in press). This also helped minimize the interpretation bias of the administrator.

After the pilot study, a consultant from an Ivy League American university made a final review and the questionnaire was converted to the software Survey-To-Go to allow the use of tablets by the interviewers. This method minimized errors of commission and omission and facilitated the systematization of the data into a database. Each participant completed the questionnaire with the help of a research assistant who read the questions aloud to guarantee that each item was understood. Each interview took 25 to 30 minutes to complete. Data collection took place from May to September 2016. The survey has been validated in this Brazilian sample of

preadolescents; more detailed results will appear in a forthcoming publication (Rodrigues & Gomes, in press). A specific breakdown of the measurement of each construct follows.

### *Measurement*

**Global legitimacy:** This concept is based on work in psychology (Darling et al., 2008; Laupa, 1991; Laupa & Turiel, 1993) and criminology (Fagan & Tyler, 2005; Trinkner & Cohn, 2014). It was measured through two items: “Do you agree your parents have the right to make the rules?” (0 = no, 1 = yes; Jeleniewski, 2014; Tisak, Tisak, & Rogers, 1994), and “Must you obey your parents even when you do not agree with their decisions?” (0 = no, 1 = yes; Darling et al., 2008; Fagan & Tyler, 2005; Trinkner & Cohn, 2014). Items were added together for a composite score of 0 to 2, with higher scores indicating higher legitimacy.

**Issue-specific legitimacy:** Ten different issues (e.g., clean the room, tell the truth) were identified through the literature (Cohn et al., 2012; Darling et al., 2008) and field work to be most relevant to Brazilian preadolescents (see Table 2). For each issue, participants were asked if it was a house rule (0 = no, 1 = yes), if they believed the rule was within their parents’ legitimate domain (0 = no, 1 = yes), and if they obeyed the rule (0 = never, 1 = sometimes, 2 = always). The design of asking three questions for each item and use of the 3-point Likert scale was adapted from the Social Disclosure Questionnaire (Darling et al., 2007; Darling et al., 2008). The 10 issues were chosen based on the NHYS III (Cohn et al., 2012), the local focus groups, and pilot interviews.

**Parenting practices — procedural justice:** The core principles of procedural justice are voice, neutrality, equity, and respect (Fagan & Tyler, 2005; Jeleniewski, 2014; Trinkner & Cohn, 2014). We asked participants to think of situations when they had violated family rules, and asked if the following statements were true about their parents (0 = never, 1 = sometimes, 2 = yes): “They would give you the opportunity to express your side of the story”; “They would explain why they are reprimanding you”; “They would listen to all sides of the story, before making any decision”; and, “They would talk to you politely.” These items were summed; the computed score of procedural justice ranged from 0 (“no” to all items) to 8 (“yes” to all items).

**Parenting practices — discipline:** Based on the literature review and field work of culturally prevalent disciplinary methods (Bartholomeu et al., 2016; Gershoff & Grogan-Kaylor, 2016; Gershoff et al., 2010; Paikoff et al., 1988; Rodrigues & Gomes, in press), participants were asked to state if their parents used the following discipline methods (0 = no, 1 = yes): verbal reprimand (call attention, lecture); harsh verbal reprimand (yell, offend, call names); media withdrawal (no computer, cell phone, TV, video games); social withdrawal (cannot leave the house or play with friends); physical punishment (hitting); or threatening comments. These items were based on the work of Brazilian psychologists (Martinez et al., 2007; Teixeira, Oliveira, & Wottrich, 2006). Following previous work (McKee et al., 2007), these items were added up to compute a total score for constructive discipline (verbally reprimand, media withdrawal, social withdrawal) and unconstructive discipline (harsh verbal reprimand, physical punishment, threats). The

constructive and unconstructive methods were summed independently and both scores ranged from 0 (responded “no” to all) to 3 (responded “yes” to all).

### ***Procedure***

The Probability Proportional to Size (PPS) method was applied in order to create a stratified sample from the school population. The selection was based on the 2014 school census and random selection of schools. If schools refused, another PPS was run in order to replace the dropped schools generating another list of schools to be contacted. Within schools, participants were selected based on random sampling and parental consent forms. Students were informed about the project in their classrooms and received a letter of consent describing the study to take home and return to school. The letter asked parents to sign the consent form and to complete demographic information (e.g., economic bracket). Approximately 2,560 letters were sent home to families and 35% of parents returned the forms. The demographics of the final sample resemble those of the population of São Paulo so we consider the sample to be representative of the city. All study procedures were approved by the National Ethical Committee, by the Public Education Departments (state and city), and the private school boards. The survey took place from May to September 2016. Participants were individually interviewed at the school and were awarded R\$40 (approximately US\$15) for their participation.

### ***Participants***

The sample included 800 sixth-grade students (400 boys, 400 girls, age = 11 years, birth cohort 2005). All students were residents of São Paulo, the largest city of Brazil. The city area comprises about 12 million inhabitants with an average per capita income of approximately US\$5,100 per year (IBGE, 2016). Although São Paulo is the main financial center of the country, it has high rates of violence, social inequalities, and a persistent authoritarian culture (Cerqueira et al., 2016; Pinheiro, 2002), which intensifies the need for further research on parenting practices and child and adolescent development.

To ensure that the heterogeneity of São Paulo was adequately represented, the sample was composed of students from public (59%) and private (41%) schools; this proportion accords with the National School Census of 2014 (INEP, 2014). The city districts in the sample were chosen using the PPS method. The racial composition was: 47% White, 12% Black, 27% mixed race, 9% other, 7% not specified. This is similar to census data for São Paulo (Fórum de Desenvolvimento Econômico Inclusivo, 2010). Participants represented a range of socioeconomic backgrounds, which was measured in terms of the equivalent amount of monthly minimum wages. This is a standard method of assessing economic brackets in Brazil and is the basis for policies and research on economic disparities (Agenor & Canuto, 2015; Correa-Faria, Paiva, Pordeus, & Ramos-Jorge, 2015; Nogueira et al., 2016). The minimum amount is set by the Federal Government for the salary of regular workers in Brazil, approximately US\$260 monthly. See Table 1 for the breakdown across economic brackets.

Table 1 *Breakdown across Economic Brackets*

Up to 1 minimum wage/month	Between 1 and 2	Between 2 and 5	Between 5 and 10	Between 10 and 20	More than 20	No answer
17.63%	28.13%	22.50%	13.00%	6.38%	2.63%	9.75%

### *Analysis*

To answer the first and second research questions (RQ1: What issues do parents of preadolescents in Brazil have rules about, and are these perceived as legitimate?; RQ2: What is the profile of Brazilian parents' disciplinary procedures, and does it differ across economic lines?), frequencies and descriptive statistics were used to profile preadolescents growing up in the metropolis of São Paulo. A correlational analysis was performed to establish the frequency of unconstructive discipline across income levels.

In line with Darling and colleagues' (2007) work on understanding adolescent compliance across multiple issues, this study utilized hierarchical linear modeling (HLM) to statistically nest multiple issues (e.g., clean room, control media, dating) within participants. Although it is typical to use persons as the lowest level of analysis, it is also appropriate to use measurement points within an individual to determine particular time-specific or issue-specific outcomes (Raudenbush & Bryk, 2002). This is an appropriate method for longitudinal data, when the same person answers the items multiple times (Raudenbush & Bryk, 2002) and has been previously used to analyze multiple variables within the same person — such as how one adolescent complies across multiple issues (Darling et al., 2007). This method allows for the inclusion of level 1 issue-specific variables (such as the legitimacy of multiple issues), and, in a more global analysis, level 2 adolescent-level variables (such as perceived parental procedural justice). The issue-specific variable (legitimacy of that issue) predicts whether an adolescent will comply with some issues over others (within-person variability), and the adolescent-level variables (i.e., parenting variables) help explain what makes some preadolescents more compliant than others (between-person variability). This analysis sheds light on how much the legitimacy of the specific rule (level 1 variable) is important and how relevant broader parenting variables (level 2 variables) are to compliance in preadolescence.

Four nested models were analyzed with the software package R to understand whether the progressive addition of variables significantly improved the model fit. The null model (without any predictors) was run first to establish a baseline for use when comparing subsequent models. Then, only the demographic variables (income and type of school) were included to control for their effects. The third model included only parenting practices (procedural justice, discipline). The final model included both parenting practices and participants' perceptions of parental legitimacy (global legitimacy and domain-specific legitimacy). The final model was also conducted with random slopes to see if the model fit would significantly improve if the strength of the relationship between legitimacy and compliance was allowed to vary between issues. A chi-

squared analysis was used to understand if the addition of variables at each point significantly improved the model fit. These practices are within the guidelines of HLM (Raudenbush & Bryk, 2002).

## Results

### *What Issues do Brazilian Parents have Rules about, and How Legitimate do Preadolescents Perceive these Issues to be?*

Over 90% of early adolescents reported their parents had rules against lying, swearing, and drinking and smoking. Between 75% and 87% reported that their parents had rules that controlled their schedule, media usage, and friend relationships, and had rules about cleaning their room and fighting with siblings. The least popular rule-bound issues were in the areas of dating (56.3%) and playing in the streets (43.5%). See Table 2.

Table 2 *Frequency of Parental Rules and Legitimacy Beliefs Across Issues*

Issue	Household rule	Legitimacy
<b>Require you to clean and organize your bedroom</b>	80.3%	94.1%
<b>Control your curfew, sleep schedule, homework, and usage of the computer/TV/cell phone</b>	75.9%	94.1%
<b>Control the music you hear, video games you play, and what you watch on the TV/internet</b>	75.8%	90.1%
<b>Do not allow you to fight with your siblings*</b>	83.1%	90.2%
<b>Do not allow you to play in the streets</b>	43.5%	74.9%
<b>Demand you always tell the truth</b>	97.3%	97.5%
<b>Do not allow you to say cuss words</b>	94.0%	97.8%
<b>Do not allow you to date</b>	56.3%	71.3%
<b>Do not allow you to drink and smoke</b>	98.6%	99.1%
<b>Control who you hang out with</b>	87.1%	93.3%

\*Excludes 135 students without siblings. The percentage reflects the valid percent of the reduced sample ( $n = 665$ ).

When asked about the frequency of compliance across issues, most reported consistent obedience, but there were some issue-related differences. Participants reported obeying less often in the areas of cleaning their rooms, fighting with their siblings, controlling their schedule (curfew, sleep, media usage, homework), and truth-telling. They were most likely to report consistently obeying in the areas of controlling friends, dating, playing in the streets, and drinking and smoking. See Figure 1.

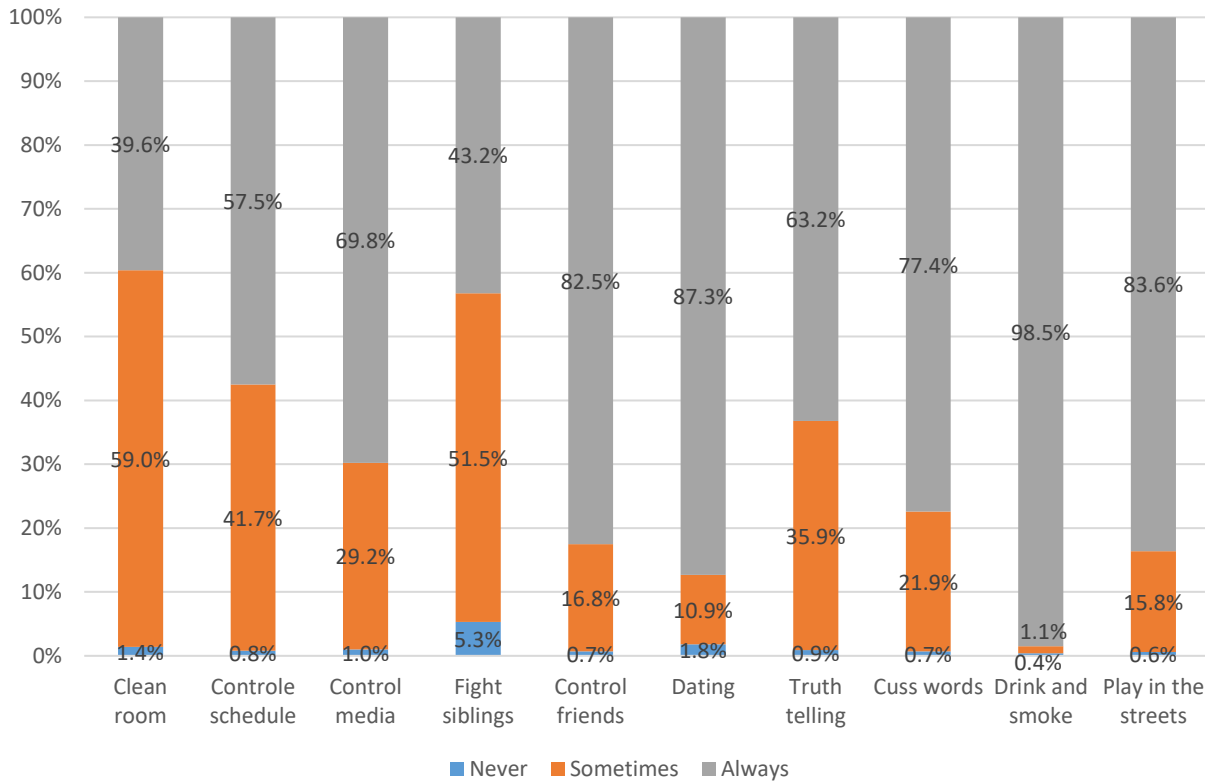


Figure 1. Frequency of compliance across issues.

***What is the Profile of Brazilian Parents’ Disciplinary Procedures, and does it Differ Across Economic and Racial Groups?***

A frequency analysis revealed that almost all participants said that their parents verbally reprimanded them when they violated the rules (96.1%). The second most common disciplinary tactic was withdrawing media privileges (74.9%), followed by withdrawing social privileges (48.3%), and threatening punishment (47.6%). A minority of students reported that their parents enforced corporal punishment (18.5%) or shouted at and verbally offended them (15.4%).

Two variables were created compiling the number of constructive discipline practices (verbal reprimand, media privilege withdrawal, social privilege withdrawal) and unconstructive discipline practices (threaten, corporal punishment, shout or verbally offend). A correlational analysis between income levels and constructive and unconstructive discipline revealed that there is a mild significant correlation between both tactics. Both unconstructive discipline ( $r = -.132, p < .001$ ) and constructive discipline ( $r = -.177, p < .001$ ) were less common among higher income families.

**What Influences Compliance Reporting in a Specific Domain?**

The HLM allowed us to include the issue-specific variable of legitimacy (level 1 predictor within preadolescents), along with level 2 predictors of parenting (between preadolescents). We hypothesized that preadolescents' predictions of legitimacy would be a significant predictor of their compliance between issues. We also hypothesized that the way the parent disciplines, the level of procedural justice in the parenting, and the global legitimacy that preadolescents give to parents would significantly predict their compliance on specific issues. See Table 3 for all models.

Table 3 Results from the HLM Predicting Adolescent Compliance of Specific Issues

Variable	Null Model		Model 1 (Demographics)		Model 2 (Parenting)		Model 3 (Parenting + Beliefs)	
	Coeff.	t	Coeff.	t	Coeff.	t	Coeff.	t
<b>Fixed effects</b>								
<b>Between person</b>								
Intercept	1.689	191.8**	1.706	75.827**	1.497	21.328**	1.003	8.260**
Family income			-.007	-.723	-.013	-1.306	-1.188	-1.246
School type			.009	.343	.005	.209	3.430	.137
Procedural justice					.037	4.498**	3.166	3.949**
Constructive discipline					-.008	-.641	-7.844	-.651
Unconstructive discipline					-.040	-3.762**	-4.083	-3.888**
Global legitimacy							1.354	2.668*
<b>Within person</b>								
Legitimacy of issue							2.739	7.798**
<b>Random effects</b>								
Error	.204		.204		.204		.202	
Random intercepts	.035		.033		.030		.028	
<b>Model comparisons</b>								
AIC	8410.5		7577.2		7538.1		7464.3	
BIC	8430.7		7610.3		7591.1		7530.6	
Deviance	8404.5		7567.2		7522.1		7444.3	

Note. School type is coded 0 = public, 1 = private.

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

The null model provided a baseline with which to compare other models. Model 1 included only demographic variables of income and type of school; neither were significant in predicting issue-specific compliance. Model 2 included parenting practices of constructive discipline (call



attention verbally, withdraw media, grounding), unconstructive discipline (yell, offend, hit, threaten), and procedural justice. Model 2 revealed that there is a significant and positive effect of procedural justice, indicating that the more preadolescents perceived their parents to treat them with respect and impartiality, the more likely they were to report compliance. There was no significant effect for constructive discipline, but unconstructive discipline had a significant negative effect. This indicates that students who reported that their parents yelled at, hit, or threatened them were less likely to report compliant behavior.

Model 3 added early adolescents' beliefs about their parents' authority legitimacy both in general and for specific issues. Results revealed a significant positive effect of legitimacy. Preadolescents who reported their parents to be broadly legitimate sources of authority, and who believed the specific issue was within their parents' legitimate domain, were more likely to report compliance.

Because the models were nested within each other, we conducted a chi-squared test for deviance to compare the models. The deviance represents the lack of fit between the model and the data. Each successive model was a significantly better fit, indicating that, already at age 11, a model including the legitimacy of the parents' authority is a significantly better fit than a model including only parenting variables. We also ran the same Model 3, but allowed the slopes to vary across items, which significantly lowered the deviance ( $D = 7429.0$ ) and improved model fit ( $\chi^2 = 15.29$ ,  $p < .001$ ). This indicates that the strength of the relationship between legitimacy and compliance varies across issues.

## Discussion

Overall, preadolescents' opinions of legitimacy varied across domains indicating a sophistication of opinion in their perceptions of authority. Research has documented that adolescence is a time of increased critical thinking about the domains of authority (Turiel, 1978). According to Darling and colleagues (2007), granting legitimacy to parents' authority is an indicator of adolescent willingness to be socialized by parents. At age 11, these participants have already begun to differentiate some domains as more or less legitimate than others and have begun taking control of the socialization they accept from their parents.

As a whole, the participants perceived themselves as individuals who typically conformed to their parents' guidelines and accepted their socialization. Compliance reporting was predominant with almost all answers in the "sometimes" or "always" category. The domains of highest reported compliance were in social matters (control of friendships, dating) and safety-related areas (drinking and smoking, playing in the streets). Consistent with prior research, the domains with the highest legitimacy were in the areas of morality (truth-telling and swearing) and safety (drinking and smoking; Darling et al., 2005; Smetana, 1995; Smetana et al., 2015). Consistent with prior research (Martinez et al., 2014; Milnitsky-Sapiro et al., 2006; Nucci et al., 1996), preadolescents in lower SES households were more likely to report usage of harsher

parental disciplinary practices. However, although there was correlational significance, this was controlled for in the HLM analysis and it did not yield a meaningful difference in the models.

Our research demonstrates that the kinds of measure that parents use to enforce the rules play an important role in establishing compliance with issue-specific rules. While the direction of the relationship between consequences and obedience was as expected, only unconstructive consequences significantly predicted compliance at age 11. Constructive consequences were not significant, but the effect was in the expected direction. The descriptive statistics indicated that the lack of significance could be due to a ceiling effect of reported constructive consequences, meaning that because the responses were too high across all participants, there was less variability in constructive consequence disclosure.

Parents' disciplinary practices and the procedural justice they established significantly predicted preadolescent compliance. While parents may resort to unconstructive discipline methods out of exasperation or in an increased attempt to gain their child's compliance, results from this study indicate that the use of threats or harsh verbal or corporal punishment only decreases the probability of compliance at this age. This study emphasizes the importance of explicitly communicating procedural justice practices such as allowing preadolescents to state their perspective and feel respected in conversations. Parents can indirectly encourage compliance by giving their children a chance to tell their side of the story, explaining the rationale behind the rules and consequences, and speaking to them respectfully. This can be most effective while paired with the usage of constructive disciplinary techniques such as removing privileges.

This study further broadens the application of legitimacy and procedural justice findings — traditionally investigated within legal authority research (Tyler, 1990; Fagan & Tyler 2005) — to familial authorities and emphasizes the importance of justice and legitimacy perceptions in preadolescence. One prior study found that global legitimacy beliefs were not associated with higher obedience scores, which were predicted by issue-specific legitimacy only (Darling et al., 2007). There are a few reasons why the current study may have provided a different picture. First, global legitimacy in the current study was measured by broadly worded questions about preadolescents' agreement over their parents' authority and deference to that authority, while in the prior study it was measured as a composite score of all the specific legitimacy questions. In addition, Darling and colleagues' (2007) participants were predominantly adolescents in high school, while our study was conducted with a younger sample. Our more generalized measure of authority legitimacy might access an internal working model for deference to authorities that is stronger in preadolescence than in later years. Asking the general question, instead of averaging the specific questions, may access a different construct, especially for a younger sample. Future work should consider the importance of both global and issue-specific legitimacy, because these constructs may be distinct. Issue-specific questions are more fluid throughout adolescence, with adolescents increasingly desiring autonomy and renegotiating what rules are legitimately within their parents' domain. A more global question may connect with a deeper sense of authority and legitimacy.

The most important predictor of compliance on specific issues (within preadolescents) was the perceived legitimacy of parental authority within the domain. For example, if a participant believed that their parent was legitimately in charge of controlling their media usage, they were much more likely to comply with rules in that area. This is consistent with prior research (Darling et al., 2007) and provides some evidence to further generalize previous findings to preadolescents as well as to an urban South American context.

### **Conclusion**

The findings of this study reveal that individuals in preadolescence are already making domain-specific judgements and are much more likely to report compliance if they perceive their parents' authority to be legitimate, if they perceive the issue to be within their parents' domain of legitimacy, and if their parents treat them with respect and impartiality. Parents who use unconstructive discipline negatively influence the likelihood of compliance. Preadolescence marks the beginning of the time when individuals are exploring increased autonomy and drawing boundaries in authority domains. Parents who wish to establish respectful compliant relationships with their preadolescents should be explicit about their procedural justice practices, prioritize the issues they enforce, and refrain from utilizing unconstructive methods of discipline.

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