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Why Do Children and Adults Think Other People Punish?

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Past research has demonstrated that both consequentialist motives (such as deterrence) and deontological motives (such as “just deserts”) underlie children’s and adults’ punitive behavior. But what motives do we ascribe to others who pursue punishment? The present work explores this question by assessing which punitive motives children (6- and 7-year-olds, $n = 100$; 67% White; 55% female) and adults ($n = 100$; 76% White; 35% female) attribute to individuals who witnessed and punished a transgression (third-party punishment). Beyond this, we varied the social role of the punisher (a teacher, an adult visiting a school, a fellow peer) to examine whether motivational ascriptions vary depending on social context. Across these contexts, children endorsed a variety of punishment motives but consistently rejected the notion that individuals punish for the purpose of inflicting suffering. Adults—like children—prioritized consequentialist motives but, in more personal contexts (involving a child punishing their peer), considered “just deserts” a more plausible motive. These findings speak to developmental and contextual variation in individuals’ theories about punitive motives and provide insight into how individuals understand and respond to punishment in everyday life.

Keywords: development, punishment, social context, social cognition

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Punishment is prevalent in our social lives (Hofmann et al., 2018; Molho et al., 2020). Adults and children alike face consequences for bad behavior in a variety of contexts. For example, a police officer may fine someone for driving too quickly on the highway; a boss may fire an employee for treating customers rudely; a parent may send a child to timeout for bullying a sibling; or, a college student may report their roommate for cheating on an

exam. Indeed, punishment—for better or worse—is an essential way in which we respond to wrongdoing.

In line with these examples, research has examined whether children and adults will punish others even when they are unaffected—so-called, third-party punishment (e.g., Marshall & McAuliffe, 2022; Henrich et al., 2006). This work reveals that both children and adults are willing to engage in third-party punishment and do so even when it requires a personal cost. For example, young children will sacrifice a valuable resource (i.e., time playing on an iPad) to punish someone who ruins someone else’s artwork (Yudkin et al., 2020) or someone who acts selfishly (House et al., 2020; McAuliffe et al., 2015). Adults too across a variety of different societies will spend money to ensure a selfish individual is punished (Henrich et al., 2006).

Why do people punish in third-party contexts? Philosophical theories of justice posit two main motivations underlying such punishment (e.g., Vidmar & Miller, 1980): Punishment motives can be characterized as deontological—as having to do with fairness and justice (e.g., “just deserts”; Kant, 2011); a wrongdoer receives punishment because they deserve it as a result of their misdeeds. Alternatively, punitive motives can be characterized as consequentialist (Bentham, 1789/2000)—as intended to bring about some positive future consequence; a wrongdoer receives punishment because doing so will prevent them, or other individuals, from misbehaving in the future. In everyday life, most punishment satisfies both concerns. For instance, if a judge sentences an embezzler to jail, the punishment ensures the criminal receives what they deserve for having broken the law and also allows for positive future outcomes, such as potentially preventing the embezzler from continuing to harm others.

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All data is available on Open Science Framework at: <https://osf.io/b8n9e/>. The studies presented were not preregistered.

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Building on these philosophical distinctions, research has investigated whether children and adults punish for deontological reasons, consequentialist ones, or a combination of the two (e.g., Crockett et al., 2014; Marshall et al., 2021; Twardawski & Hilbig, 2020). These studies find that both children and adults punish antisocial others in circumstances where punishment only serves to inflict harm on the transgressor (i.e., deontological motives) and also when doing so can teach a transgressor a lesson (i.e., consequentialist motives; Carlsmith et al., 2002; Crockett et al., 2014; Goodwin & Gromet, 2014; Keller et al., 2010; Marshall et al., 2021; Morris et al., 2017; Nadelhoffer et al., 2013; Nikiforakis & Normann, 2008; Ouss & Pysakhovich, 2015). In sum, when it comes to punishment behavior, children and adults are “naïve pluralists”—they punish for both consequentialist and deontological reasons.

While this past research examines punishment behavior, it does not generate a full picture of third-party punishment from childhood into adulthood. If we want to fully understand punishment as a psychological phenomenon, we should not only assess the circumstances under which adults and children punish but also explore how they reason about punishment when they witness it. After all, although people do punish in everyday life (Hofmann et al., 2018; Molho et al., 2020), we more frequently witness punishment through direct experience, word-of-mouth, social media, or the news (Bock, 2021). To this end, the present work seeks to examine a less well-explored component of punishment—people’s intuitive theories of why other individuals punish. Do children and adults think that individuals punish others for deontological reasons, consequentialist ones, or a combination of both?

Children’s and Adults’ Conceptualization of Punishment

Although little work has focused directly on the motives adults and children ascribe to punishers, there is ample work examining adults’ and children’s understanding of punishment more broadly. When it comes to adults’ judgments, they expect individuals who witness wrongdoing (especially individuals who are in a position of authority, such as teachers and parents) to pursue punishment and also, in at least some circumstances, consider such bystanders obligated to do so (Marshall, Mermin-Bunnell, et al., 2020). Adults also negatively judge those who fail to appropriately punish their peers (Martin et al., 2019). Finally, adults’ judgments of deserved punishment appear less sensitive to intentionality and are instead tied to the severity of a particular wrongdoing (e.g., Cushman, 2008; Young & Saxe, 2011).

More related to the question of why we think other people punish, studies have explored adults’ prescriptive judgments of punishment—why and when people should punish. For instance, adults generally think others should pursue punishment for consequentialist reasons and not for retributive ones (Carlsmith, 2008; Carlsmith et al., 2002; see Carlsmith & Darley, 2008 for a review). That is, adults in the United States think that punishment should be pursued to prevent future wrongdoing, although their own behavior often does not follow suit.

When it comes to children’s intuitions, developmental research has documented that children are generally “assessors of punishment” (Marshall & McAuliffe, 2022). For example, infants expect certain individuals, such as ingroup members and people in a position of authority, to punish transgressors (Ting et al., 2019; Stavans &

Baillargeon, 2019). Further, toddlers around the age of 21 months also expect those who fail to defend others to receive punishment themselves (Geraci, 2021; Geraci & Surian, 2021). Beyond toddlerhood, children also hold particular expectations about bystanders. Four-year-olds expect individuals, especially people in positions of authority (i.e., teachers), to punish wrongdoers (Marshall, Mermin-Bunnell, et al., 2020)—a distinction that children make more at older ages than younger ones. Children also indicate that wrongdoers (e.g., individuals who steal from others) should “get in trouble” or receive “punishment” for their behavior (Barchard & Atkins, 1991; Cushman et al., 2013; Killen et al., 2011; Smetana, 1981; Smith & Warneken, 2016; Van de Vondervoort & Hamlin, 2017).

Beyond expectations, there is also developmental work finding that children evaluate those who pursue punishment positively. For example, children prefer those who verbally intervene (“You’re not supposed to do that”) and those who recruit other people to respond directly to transgression (i.e., tattling; Chiu Loke et al., 2011; Chiu Loke et al., 2014; Vaish et al., 2016) compared with those who do nothing in response to wrongdoing. Further, children as young as four show broad acceptability of more direct forms of punishment, such as “time-outs” and removing privileges or resources, in response to a variety of transgressors (Catron & Masters, 1993; Lee & Warneken, 2020; Vittrup & Holden, 2010).

Most related to the current research, work has examined children’s and adults’ prescriptive attitudes about why wrongdoers should receive punishment. For example, children generally endorse consequentialist reasons for punishment (wrongdoers should be punished because it teaches a lesson or because it changes their behavior) more so than deontological ones (wrongdoers should be punished because it is the right thing to do or because a transgressor deserves to feel sad; Marshall et al., 2021). Similarly, children think physical punishment is justified because it reduces future bad behavior (i.e., “physical punishment is used to correct children who go wrong . . . If it is not used, children will grow up to become corrupt adults”; Twum-Danso Imoh, 2013, p. 479). Other research corroborates this finding, documenting that children (more so than adults) judge “mean” individuals as becoming “nicer” after punishment (Dunlea & Heiphetz, 2021). Additional work too has found that children expect punishment to deter the transgressor from future misbehavior (Bregant et al., 2016) and these beliefs become stronger with age (Stern & Peterson, 1999). These studies are important, but they generally examine prescriptive judgments (why people should punish); they do not examine why children and adults think individuals are motivated to punish, which is the topic of the studies reported below.

The Present Study

With this background in mind, the present study seeks to broadly examine which motives children and adults ascribe to those who pursue punishment. Do they think others punish wrongdoers for deontological reasons, consequentialist ones, or a combination of both? To do so, we measured children’s and adults’ endorsement of punitive motives across a variety of social contexts. Specifically, we included situations where the punisher was either an institutional adult (a teacher), a noninstitutional adult (an adult visiting the school), or a noninstitutional peer (another student at the school). By exploring people’s intuitions about punitive motives across different social situations, we can respond to the

concern that moral psychology too often focuses on intuitions about strangers while neglecting intuitions about closer personal relationships (e.g., Bloom, 2011; Hester & Gray, 2020; Schein, 2020).

Theoretical Implications

Investigating why we think others pursue punishment is important for several reasons. First, and most broadly, a rich literature in social and developmental psychology has examined individuals' perceptions of individual people (person perception, theory of mind, "ordinary person-ology"; e.g., Gilbert, 1998; Miller & Aloise, 1989; Ruble & Dweck, 1995) and their theories about social roles and groups ("naïve sociology"; e.g., Rhodes, 2012; Rhodes & Wellman, 2017). This work studies people's inferences about other's emotions, intentions, and desires, and, in some cases, the downstream consequences of these theories on behavior. Simultaneously, ample research has examined adults' and children's moral judgments in general (e.g., Graham et al., 2009; Greene & Haidt, 2002; Haidt, 2001; Piaget, 2013). Studies have brought together these two areas of inquiry by, for example, examining how individuals' capacity for theory of mind shapes moral judgment (e.g., Young et al., 2007). Building on these many research traditions, the current study investigates what sorts of motivations children and adults ascribe to other individuals. In particular, the present work can provide insight into children's naïve theories about why other individuals engage in a particular moral behavior, punishment.

Second, the present work contributes to our understanding of how social contextual factors influence both children's and adults' moral judgment (e.g., Bloom, 2011; Hester & Gray, 2020; Schein, 2020). Specifically, we examine whether individuals' motivational ascriptions differ across different social contexts, including situations where the punisher is a teacher, an adult visiting the school, or another student at the school. There are several reasons to expect social context to make a difference. For example, Fiske and Rai (2014) theorize that people should expect institutional entities to adhere to impartial, consequentialist principles when punishing, but should expect those who do not occupy such roles, such as schoolmates, colleagues, and peers, to punish for more deontological reasons. In terms of development, older children may be more sensitive to social context compared to younger children, who are less inclined to consider social context when making moral judgments in some contexts, such as determining prosocial obligation (Dahl et al., 2020; Geraci et al., 2021; Marshall, Mermin-Bunnell, et al., 2020; Marshall, Wynn, et al., 2020; Marshall et al., 2022; Miller et al., 1990).

Developmental Justification and Age-Related Mechanisms

Why examine both adults' and children's intuitive theory of punitive motives? The present work adopts a developmental perspective to shed light on the extent to which adults' reasoning about punitive motives is similar to that of children's. By doing so, we can reveal the extent to which adults' mature theories about punishment are grounded in early social cognition as opposed to shaped by culture and experience. Importantly, a number of factors suggest that adults' and children's theories on punitive motives may differ in meaningful ways.

From a social learning standpoint, children (unlike adults) generally experience pedagogical punishment—punishment enacted by caregivers (such as parents and teachers) who want children to

reform their behavior. This punishment is typically consequentialist, and not deontological—parents and teachers do not typically inflict harm and suffering solely because they think that the child deserves it (Nussbaum, 2017). In addition, children may also learn about punishment through TV shows and books, which tend to emphasize more consequentialist motives for punishment rather than retributive ones (Gutbier, 2014). As a result, children's early intuitions about punitive motives may be geared toward consequentialist justifications more so than adults'.

Beyond social learning, there are several social-cognitive reasons to suspect age-related differences in punitive motives. First, young children are more inclined to judge negative actions (e.g., refusing to share one's toy blocks) as driven by instrumental motives (e.g., "Jack needs blocks to build a larger castle") than social or psychological motives (e.g., "Jack does not want to be friend with Bobby," "Jack wants Bobby to feel sad"; Pillow & Lovett, 2020). This finding suggests that children, relative to adults, may be more inclined to attribute instrumental motives to punishment (e.g., change the punisher's future behavior) than social or psychological ones (e.g., restoring the social relationship, hurting the punisher's feelings).

Second, younger children are more inclined than older children and adults to use single rules or principles when making social and moral judgments (e.g., Berndt & Berndt, 1975; Walden, 1982). For example, a large body of work finds that young children's judgments about punishment are tied to the outcome of wrongdoing (i.e., resulting harm) rather than if the wrongdoing was intentional or accidental (e.g., Cushman et al., 2013). Additionally, younger children (~4-year-olds) are less inclined to take social role (i.e., authority figure vs. peer) into account when determining whether a third-party is obligated to respond to wrongdoing than older children (~7-year-olds) and adults (Marshall, Mermin-Bunnell, et al., 2020). These findings suggest that children in the present studies may ascribe consistent punishment motives across social roles (e.g., peers, parents, teachers) compared with adults, who may be more inclined to consider multiple elements of the context.

Third, children may judge punishers as driven by more "positive" concerns, as children perceive individuals more positively than adults (e.g., Heyman & Giles, 2004) and are generally more optimistic (e.g., Boseovski & Lee, 2006; Lockhart et al., 2009; see Boseovski, 2010 for a review). At the same time, however, young children's tendency to respond in less socially desirable ways than adults (e.g., Dunham et al., 2008; Raabe & Beelmann, 2011), may make them more willing to ascribe "just deserts" motives that specifically reference negative outcomes (e.g., suffering).

In sum, children's notions of punitive motives may differ from adults for social learning reasons, such as experiencing punishment in limited pedagogical contexts, or social-cognitive reasons, such as heightened propensity to endorse instrumental motives for moral behavior.

Method

Participants

The study involved two between-subjects factors—social role (teacher, adult, peer) and age group (children, adult)—and one within-subjects factor—motive type (deterrence, rehabilitative, expressive, just deserts, restorative, procedural, weather, hunger). We

initially conceived of the social role conditions as separate studies and therefore collected data sequentially rather than randomly assigning participants to one of the three social role conditions; we decided to report the three studies as separate conditions here for ease of understanding and for brevity.¹

We tested 200 total participants (approximately 30 participants per condition per age group). The sample size was determined out of convenience; that is, we first tested children at a school and worked with as many students as possible whose parents provided consent, and we then proceeded to maintain that sample size for the remainder of the data collection. Because we collected this data before preregistration was standard practice in the lab, the present study was not preregistered. All participants were tested in accordance with our IRB approved research protocol at Yale University (“The Development of Social and Moral Reasoning”; Protocol #: 1302011578). Children were tested in-person and adults were tested on Amazon Mechanical Turk (MTurk).

For children, we tested 100 6- to 7-year-olds ($M_{\text{age}} = 6.98$, $SD_{\text{age}} = .52$)—30 children in the teacher condition, 31 in the adult condition, and 39 in the peer condition. We selected this age range because research has found that children around this age reliably engage in third-party punishment and also do so for both deontological and consequentialist reasons (Marshall et al., 2021; McAuliffe et al., 2015). A sensitivity power analysis calculated using G*Power revealed that the total sample provided us with 95% power to detect a small effect of Motive type (Cohen’s $f = .12$). The sample included 55 females and was majority White (67%) with the remaining participants reporting Black (11%), Asian (8%), Hispanic (5%), or unknown (9%). Participants were recruited in various locations, including a local natural history museum ($n = 52$), an elementary school ($n = 30$), and in the laboratory ($n = 18$). The administration of the study was identical across all testing locations. Although we were not able to collect any other demographic variables from our sample, we suspect the majority of participants were from middle- to upper-class socioeconomic backgrounds given the locations where we collected data.

For adults, we tested 100 participants ($M_{\text{age}} = 33.67$, $SD_{\text{age}} = 10.81$) on MTurk. This included 30 adults in the teacher condition, 36 adults in the adult condition, and 34 adults in the peer condition. The overall sample included 35 females (65 males) and was majority White (76%) with the remaining participants reporting Asian (16%), Black (2%), Hispanic (2%), or Other (1%).

Procedure and Materials

An experimenter read two stories in counterbalanced order to child participants. Adult participants, because they were tested online, read all the materials themselves. For both child and adult participants, the gender of the characters depicted in the stories matched the gender of the participant. Of the two stories, one story featured a character who had teased another child (playground story) and the other featured a character who pushed another child (hallway story).

Participants first learned about a transgressor, a victim, and an onlooker (verbatim materials are available on Open Science Framework: <https://osf.io/b8n9e/>). Specifically, in the playground story, participants were told: “One day, [the transgressor] teased [the victim] in the hallway. [The victim] was very, very sad. [The teacher/a grown-up visiting the school/another kid at the school]

saw [the transgressor] tease [the victim].” In the hallway story, participants learned, “One day, [the transgressor] pushed [the victim] down the slide. [The victim] was very, very sad. [The teacher/a grown-up visiting the school/another kid at the school] saw [the transgressor] push [the victim] down the slide.” Each story was accompanied by an image of either a child pushing another child down a slide (in the playground story) or a child teasing another child in a school hallway (in the hallway story). In each case, the image only depicted the transgressor and victim and did not depict the onlooker; we did so because we did not want varying visual characteristics of the onlooker to potentially impact results across the conditions.

Thereafter, participants were told that the onlooker wanted the transgressor to be punished and pursued punishment. Because punishment is often pursued in different ways depending on social context (Marshall, Mermin-Bunnell, et al., 2020), how we described punishment slightly varied between the teacher condition and the other two conditions (adult, peer). For the teacher condition, participants were told that the teacher punished the transgressor (direct punishment).² For the other conditions (adult, peer), participants were told that the onlooker (“grown-up visiting the school”, “another kid at school”) wanted the transgressor to be punished and pursued punishment via tattling (“the [grown-up/other kid at school] told one of the teachers what happened”). Although these variations introduce differences between conditions, we reasoned it was more important to describe punishment as it actually happens in real-life and avoid describing punishment in an unusual or atypical way (e.g., “another kid at school punished [the transgressor]”).

Finally, we measured participants’ endorsement of eight different punitive motivations. Because the phrasing of punishment differed slightly across social role conditions (direct vs. punishment via tattling) for reasons described above, the endorsement question varied between the teacher condition and the other two conditions (adult, peer). Specifically, in the teacher condition, we asked, “Do you think the teacher punished [the transgressor] because [specific motive]? Yes or no?” In the adult and peer conditions, we asked, “Do you think the [grown-up/other kid] wanted [the transgressor] to be punished because [specific motive]? Yes or no?” Depending on whether the participant indicated “yes” or “no”, we followed up by asking: “Do you (not) think that a teeny bit, a little bit, or a lot?” For adult participants, we included an additional comprehension check that instructed participants to write the word “other” in a box presented. Two adult participants incorrectly responded to

¹ Because the studies were conducted sequentially, there are some small variations (described in the Method section) between the conditions as we refined the design. On the whole, we do not view these changes as problematic, considering we do not find considerable effects of Social Role within children (see Results section).

² In the teacher condition only, we first asked participants whether they thought the teacher would punish the student (expectation judgments). Regardless of their response, we then stipulated to participants that the teacher did pursue punishment. Although this does make it that the teacher condition in particular varied from the other two conditions, we do not think this is problematic primarily because we find no differences among the social role conditions in children, suggesting that including the expectation question in the teacher condition did not alter child participants’ responses. For adults, we do find effects of social role, but these effects also largely emerge between the Adult and Peer conditions where the components of the design do not differ (Supplemental Table 1).

Table 1
Specific Motives Presented to Participants

Consequentialist-Oriented explanations	Deontological-Oriented explanations	Control explanations
Deterrence: [the punisher] wants to make sure other kids do not push each other	Just Deserts: [the punisher] thinks [the transgressor] deserves something bad to happen to them	Weather: [the punisher] think it's sunny outside
Rehabilitation: [the punisher] wants [the transgressor] to learn how to be a better person	Restorative3: [the punisher] wants the boys (girls) [the transgressor and victim] to make up	Hungry: [the punisher] is hungry
Expressive: [the punisher] wants to let everyone else know that pushing people is bad	Procedural: [the punisher] thought the rules were important to follow	

Note. Motivations were randomly presented to participants with the exception that a control explanation was always asked first to introduce the possibility that participants could respond “no” at the beginning of the experiment. If participants responded “yes,” however, they were not correct.

this item; none of the reported results change if these participants are excluded.

With respect to specific motives, we assessed eight different possibilities (see Table 1) derived from different philosophical theories of justice (Sabbagh & Schmitt, 2016). These explanations included three consequentialist-oriented explanations. One referenced deterring others from engaging in bad behavior (deterrence); one referenced teaching an antisocial other a lesson (rehabilitative); and, one referenced informing others about what is appropriate (expressive). We also included three deontological-oriented explanations. One referenced deserved suffering (“just deserts”); one referenced restoring the relationships between the transgressor and victim (restorative);³ and, one referenced the importance of following rules (procedural). Finally, we also included two control items which referenced the weather or the punisher’s hunger as a justification for the pursuit of punishment. We always presented one of the two control explanations first to familiarize participants to the scale and then randomized the presentation of the remaining seven explanations.

Results

Our main analyses focused on three predictors: age group (children, adults; between-subjects), social role (teacher, adult, peer; between-subjects), and motive type (deterrence, rehabilitative, expressive, just deserts, restorative, procedural; within-subjects). All data are publicly available on the OSF web page: <https://osf.io/b8n9e/>. Endorsement of the punitive motives functioned as the outcome variable ($-2.5 = no, a lot$; $-1.5 = no, a little bit$; $-5 = no, a teeny bit$; $.5 = yes, a teeny bit$; $1.5 = yes, a little bit$; $2.5 = yes, a lot$).

We examined children’s and adults’ endorsement of punitive motives across the different social role (teacher, adult, peer) conditions. To do so, we conducted a repeated measures ANOVA with motive type (deterrence, rehabilitative, expressive, just deserts, restorative, procedural)⁴ as a within-subjects factor and age group (child, adult) and social role (teacher, adult, peer) as between-subjects factors.⁵ We found a Motive Type \times Age Group \times Social Role interaction, $F(10, 378) = 2.27, p = .014, \eta_p^2 = .057$.

To unpack this interaction, we investigated the Motive Type \times Social Role interaction for each age group (children and adults). For children, we did not find a Motive Type \times Social Role interaction, $F(10, 186) = 1.29, p = .239, \eta_p^2 = .065$. As a result, we collapsed across Social Role and found a main effect of explanation type, $F(5, 95) = 27.56, p < .001, \eta_p^2 = .592$. Pairwise comparisons revealed that children in general endorsed all explanations more

than the “just deserts” one (all $ps < .001$; Bonferroni adjusted); no other pairwise comparisons were significant (Figure 1; Table 2).

Unlike children, for adults, we found a Motive Type \times Social Role interaction, $F(10, 184) = 4.27, p < .001, \eta_p^2 = .188$. To better understand this interaction, we examined the simple effect of social role for each motive type. We did not find an effect of social role for the deterrence motive, $F(2, 96) = 1.36, p = .262, \eta_p^2 = .028$, or the expressive motive, $F(2, 96) = 2.16, p = .122, \eta_p^2 = .043$. We did, however, find an effect of social role for the rehabilitative motive, $F(2, 96) = 8.89, p < .001, \eta_p^2 = .156$, the “just deserts” motive, $F(2, 96) = 11.10, p < .001, \eta_p^2 = .188$, the restorative motive, $F(2, 96) = 7.92, p = .001, \eta_p^2 = .142$, and the procedural one, $F(2, 96) = 5.13, p = .008, \eta_p^2 = .096$. For the rehabilitative, restorative, and the procedural motives, participants’ endorsement of each type of motive decreased as the potential punisher shifted from teacher to peer. The opposite was true for the “just desert” motive; participants’ endorsement increased as the potential punisher shifted from teacher to peer (Figure 1; Table 2). See Table 2 for means and standard deviations and Supplemental Table 1 for pairwise comparisons.

General Discussion

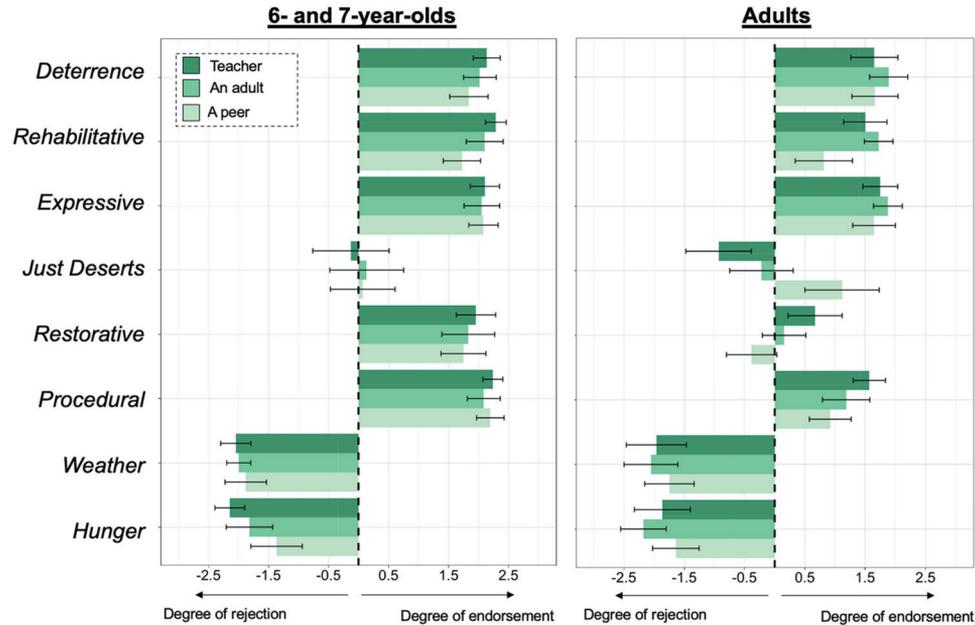
In the present work, we found that children attribute both consequentialist motives, such as deterrence (“wanting to make sure other kids do not push each other”), and also deontological ones, such as procedural justice (“thinking the rules were important to follow”) to individuals who pursue punishment. Interestingly, however, children specifically rejected the notion that punishment is motivated by a desire to inflict suffering (i.e., “just deserts”;

³ We initially conceived of this explanation as deontological because it referenced re-establishing a broken relationship without reference to the potential future benefits of that relationship. For example, adults reason that punishment can promote forgiveness, which can then help to restore the relationship between the transgressor and victim (Strelan, 2017). In hindsight, though, we recognize that this explanation is underspecified and could be endorsed for deontological reasons (restoring a broken relationship) or for consequentialist ones (restoring a broken relationship so it can thrive into the future). For these reasons, this particular explanation could be conceived of as either deontological or consequentialist. Either way, its categorization does not impact the interpretation of our main findings.

⁴ Child and adults participants overwhelmingly rejected the control motives; see Figure 1 and supplemental online material.

⁵ We also conducted this same analysis but with scenario (playground, hallway) as a within-subjects factor and did not find an interaction between Motive Type \times Age Group \times Social Role \times Scenario, $p = .907$. For this reason, we collapsed across scenario.

Figure 1
Participants' Endorsement of Different Punitive Motives as a Function of Social Role (Teacher, Adult, Peer) and Age Group (Children, Adults)



Note. Error bars are 95% confidence intervals. See the online article for the color version of this figure.

“thinking transgressors deserves something bad to happen to them”). Furthermore, children did not calibrate their endorsement of the included motivations depending on social context—they ascribed the same motives to punishers regardless of the social relationships among the involved parties. Adults, in contrast, varied which motivations they deemed plausible depending on the social context. Most notably, adults did not endorse “just deserts” for institutional situations (such as when a teacher pursues punishment)—but they did strongly endorse this motivation for peer punishment.

These results contribute to a rich literature in social and developmental psychology that has examined individuals’ perceptions of others (e.g., “ordinary person-ology”; Gilbert, 1998) and individuals’ intuitive sociological theories (e.g., Rhodes, 2012; Rhodes & Wellman, 2017). For example, our findings suggest that children are willing to attribute a variety of different punitive motives to those who pursue punishment. This result aligns with other work indicating that children recognize that social behaviors may be driven not by a single motive but instead by a suite of different concerns (Pillow & Lovett, 2020). Additionally, the findings indicate that children are less prone than adults to modulate which motives they endorse as a function of social context. This result coheres with other research indicating that children’s social judgments are less influenced by social context than adults’ (e.g., Geraci et al., 2021; Marshall et al., 2022).

Relevant Theoretical Questions

Our findings raise a variety of developmental and social psychological questions. The first question is why children endorsed

consequentialist and deontological motives but rejected the “just deserts” motive. As indicated in the Introduction, children’s own experience with punishment may provide one explanation. That is, children in our studies likely experience punishment in explicitly pedagogical settings. Nussbaum (2017) explains this possibility nicely: “(Parents) usually avoid retributive payback. They rarely think (today at least), ‘now you have to suffer for what you have done,’ as if that by itself was a fitting response. Instead, they ask themselves what sort of reaction will produce future improvement in the child.” Children may rely on these early experiences with authority figures to construct an intuitive theory of punishment that they then apply (perhaps erroneously) to a variety of situations.

Beyond children’s own experiences with punishment, it is possible that children’s theories of punitive motives are shaped by their exposure to TV and books. Some analyses indicate that children’s storybook content tends to emphasize more consequentialist motives for punishment rather than retributive ones. For instance, an examination of children’s book content finds that, unlike before 1960 where punishment was typically portrayed via spanking and corporal violence, most children’s books written after 1960 discussed punishment in terms of discipline and emphasized restoration rather than suffering (Gutierrez, 2014). In this way, it is possible that—when children learn about punishment—they learn about it in a way that places emphasis on punishment as a way to promote positive societal outcomes, such as social harmony and norm adherence, rather than as a way to harm individuals for their misdeeds.

If children’s punitive motives depend on their everyday experiences of punishment, then children from various cultural backgrounds who experience punishment differently may vary in their willingness to endorse certain motives. We know, after all, that

Table 2
Means and Standard Deviations (in Parentheses) of Participants' Endorsement of Different 317 Motives Across Social Role Conditions (Teacher, Adult, Peer)

Motive type	Main effect			Teacher			Adult			Peer		
	Child	Adult	Total									
Deterrence	1.99 (0.76)	1.74 (1.20)	1.86 (1.01)	2.13 (0.61)	1.77 (1.07)	1.95 (0.89)	1.98 (0.66)	1.96 (1.17)	1.97 (0.96)	1.87 (0.92)	1.48 (1.32)	1.69 (1.13)
Rehabilitative	2.01 (0.92)	1.35 (1.30)	1.68 (1.17)	2.28 (0.49)	1.62 (0.99)	1.95 (0.84)	2.06 (0.86)	1.79 (0.97)	1.92 (0.93)	1.76 (1.14)	0.64 (1.57)	1.24 (1.46)
Expressive	2.08 (0.70)	1.76 (1.02)	1.92 (0.88)	2.10 (0.61)	1.87 (0.87)	1.98 (0.75)	2.02 (0.84)	1.94 (0.97)	1.98 (0.91)	2.12 (0.64)	1.47 (1.15)	1.82 (0.96)
Just deserts	0.03 (1.77)	0.01 (1.65)	0.02 (1.70)	-0.13 (1.70)	-0.82 (1.45)	-0.48 (1.61)	0.10 (1.81)	-0.15 (1.50)	-0.04 (1.64)	0.10 (1.82)	0.94 (1.54)	0.49 (1.74)
Restorative	1.84 (1.16)	0.13 (1.44)	0.99 (1.56)	1.95 (0.99)	0.78 (1.34)	1.37 (1.31)	1.79 (1.28)	0.22 (1.30)	0.95 (1.51)	1.78 (1.20)	-0.56 (1.41)	0.71 (1.74)
Procedural	2.18 (0.64)	1.21 (1.22)	1.70 (1.08)	2.23 (0.49)	1.68 (0.79)	1.96 (0.71)	2.05 (0.76)	1.25 (1.35)	1.62 (1.18)	2.23 (0.65)	0.74 (1.23)	1.55 (1.21)
Weather	-1.97 (0.80)	-1.92 (1.12)	-1.94 (0.97)	-2.05 (0.63)	-1.85 (1.15)	-1.95 (0.93)	-2.03 (0.58)	-1.99 (1.07)	-2.01 (0.87)	-1.85 (1.04)	-1.92 (1.17)	-1.88 (1.09)
Hunger	-1.74 (1.18)	-1.90 (1.04)	-1.82 (1.11)	-2.15 (0.66)	-1.75 (1.07)	-1.95 (0.91)	-1.85 (0.99)	-2.11 (0.85)	-1.99 (0.92)	-1.33 (1.48)	-1.82 (1.18)	-1.56 (1.36)

Note. Motivations were randomly presented to participants with the exception that a control explanation was always asked first to introduce the possibility that participants could respond “no” at the beginning of the experiment. If participants responded “yes,” however, they were not correct.

cultures of punishment vary considerably across dissimilar societies (e.g., Kleinfeld, 2016; Sanders & Hamilton, 1992) and that social factors shape the types of punishment children experience themselves (e.g., Grogan-Kaylor & Otis, 2007). In line with this hypothesis, recent work has found that children in disparate cultures reason differently about punishment. That is, they reference different types of punishment when asked to spontaneously describe punishment, with children from the United States tending to mention reprimanding or getting sent to time out and children from other cultures (such as India and Uganda) mentioning harsher punishments like corporal punishment (Marshall et al., 2022).

More general social-cognitive factors may also help explain differences between children’s and adults’ punitive motives. For example, children (compared to adults) are inclined to attribute instrumental motives rather than social (goals that affect individuals’ relationships) or psychological ones (goals that influence individuals’ mental states) to those who engage in negative actions (Pillow & Lovett, 2020; Pillow et al., 2008). Although consequentialist and deontological explanations for punishment do not necessarily fit cleanly into the instrumental, social, and psychological categories, it is possible that children broadly view consequentialist explanations as more instrumental, transparent, and straight-forward and view deontological explanations (especially “just deserts”) as more psychological. As a result, this more general perspective on motive attribution might lead children to reject deontological explanations.

An additional possibility relates to valence. Though we phrased the “just desert” motive to capture a specific philosophical perspective on punishment, this explanation is more negative relative to both the consequentialist motives (e.g., deterrence) and the other deontological ones (e.g., procedure, restorative)—more negative in the superficial sense that it does not mention any positive outcomes other than the (presumed) goodness of making the perpetrator suffer. This feature of the “just deserts” motive is not easily fixed—by their very nature, “just deserts” punishment focuses exclusively on the transgressor’s suffering, whereas other notions of punishment have a feature that is positive in its own right, such as improving society or following rules. If it were possible to phrase “just deserts” in a more positive way, we suspect that children may be more likely to endorse such an explanation, considering they do endorse other deontological explanations that reference more positive aspects of morality such as rule following and procedural justice. The possibility that valence is swaying children’s attributions aligns with other research that finds children tend to emphasize positive qualities about individuals compared to adults (e.g., Heyman & Giles, 2004) and are generally more optimistic (see Boseovski, 2010 for a review).

Another question the present findings raises is why children do not appear to modify which motives they ascribe to punishers depending on social context. Indeed, as discussed in the Introduction, the present study is not the first to find that children’s judgments are less sensitive to social context at a younger age. For example, children at younger ages appear less inclined to take social relational factors into account when making moral judgments about obligations to help (Dahl et al., 2020; Marshall et al., 2019; Marshall, Mermin-Bunnell, et al., 2020; Marshall, Wynn, et al., 2020; Marshall et al., 2022; Miller et al., 1990) and when deciding how to allocate rewards and punishments between helpers and nonhelpers (Geraci et al., 2021). More generally, research

indicates that younger children are more likely to rely on a single principle when making social and moral judgments (Berndt & Berndt, 1975; Walden, 1982). Indeed, younger children are more likely to judge punishment based on outcome alone (without considering intentionality; e.g., Cushman et al., 2013) and are also more inclined to endorse punishing an entire classroom for a single child's misdeeds (Smith & Warneken, 2016).

One potential explanation for this relative lack of sensitivity to context relates to children's cognitive functioning more generally (e.g., Zelazo et al., 1996). For example, a greater capacity for complex reasoning and attention should be required to hold multiple social factors in mind at once and to reason about how such social roles differentially impact people's punishment motives. Alternatively, children might have different beliefs about punishment than adults. As discussed above, children's experiences with punishment (or lack thereof) may lead them to a limited appreciation of the range of punishment motives that different types of people possess.

Limitations and Final Considerations

We end on a few limitations and final considerations. First, the samples tested here are small. We were only powered to detect a large effect (Cohen's $f = .40$) of social role. This issue is most relevant for the child sample in which we did not find any effect of social role. Given our sample size, our findings thus indicate that an effect of social role either does not exist or is of small or medium size.

Second, there may be contexts where judgments about punishment differ from the patterns illustrated here. For example, children may be more willing to endorse "just deserts" motives in situations where the punisher pursues more aggressive punishment (e.g., corporal punishment; Marshall et al., 2019). Additionally, there may be situations where adults do not think peer punishment is motivated by a desire to punish for the purpose of inflicting suffering. For example, adults in our study were judging whether child peers—not adult peers—were motivated by "just deserts" concerns. Perhaps adults would make different judgments when considering the motivations of adult peers punishing other adult peers.

Third, our findings are limited in their generalizability and developmental scope. As mentioned above, the present findings may be constrained by the demographic characteristics of our sample. We attempted to provide preliminary insight into whether demographic characteristics may influence the present findings by assessing whether ethnicity may moderate the present effects but were unable to conduct such an analysis as a result of low sample sizes. As a result, future research should examine how cultural context shapes children's early theories about punishment by testing more diverse samples in the United States and in other countries. Relatedly, we only tested a limited age range in our work (6- to 7-year-olds). Although we chose this age range because children readily engage in retributive and consequentialist punishment themselves at this age (Marshall et al., 2021), it would be useful to test a larger age range of children to see at what ages children begin to take social context into account when ascribing punitive motives.

Finally, in the present study, we supplied participants with potential motives for punishment rather than measuring their spontaneous explanations. We did so because we thought providing participants with explanations provided allowed for the best test of whether children endorsed certain motives over others. Indeed, it

is plausible that children's explicit reasoning about punishment is constrained by their language capacities. Nonetheless, future research should consider measuring children's and adults' reasoning about punitive motives using open-ended questions (e.g., Stern & Peterson, 1999).

Conclusion

In summary, the present study examines children's and adults' theory of punitive motives. Children endorsed consequentialist motives (such as deterrence) and deontological ones (such as following the rules) but rejected the possibility that individuals pursue punishment to inflict suffering ("just deserts"). Notably, children applied these motives to all punishers regardless of the social context. Adults, in contrast, varied which motivations they deemed plausible depending on the social context. For example, adults did not endorse "just deserts" for institutional situations (such as when a teacher pursues punishment)—but they did strongly endorse this motivation for peer punishment. Together, these findings provide initial insight into how children and adults make sense of an important, universal, and very human activity—the punishment of wrongdoers.

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