Children Deny that God Could Change Morality

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Abstract

Can moral rules change? We tested 129 children from the United States to investigate their beliefs about whether God could change widely shared moral propositions (e.g., “it’s not okay to call someone a mean name”), controversial moral propositions (e.g., “it’s not okay to tell a small lie to help someone feel happy”), and physical propositions (e.g., “fire is hotter than snow”). We observed an emerging tendency to report that God's ability to change morality is limited, suggesting that children across development find some widely shared aspects of morality to be impossible to change. Some beliefs did shift over development, however: 4- to 6-year-olds did not distinguish among God’s ability to change widely shared moral, controversial moral, and physical propositions, whereas 7- to 9-year-olds became increasingly confident that God could change physical and controversial moral propositions. Critically, however, younger children and older children alike reported that widely shared aspects of morality could not be altered. According to participants, not even God could change fundamental moral principles.

Keywords: cognitive science of religion, morality, social cognitive development

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Over two millennia ago, Socrates challenged Euthyphro to explain whether "the pious [is] loved by the gods because it's pious, or is it pious because it is loved" (Plato, trans. Woods & Pack, p. 8). With this question, Socrates captured a tension within people's moral and religious commitments. On the one hand, at least some aspects of morality seem absolute. Killing someone for no reason appears morally wrong, no matter whether God exists or whether God says otherwise. On the other hand, several major religions dictate that God determines right from wrong (Quinn, 2013). This view, called "Divine Command Theory," brings with it an unsightly conclusion: God could have made morality, including seemingly "absolute" aspects of morality, entirely differently (Murphy, 2019). Instead of killing someone for no reason being morally wrong, God could have made this behavior morally right. This idea violates commonsense intuitions about fundamental aspects of morality (Plato, 2022). The current study examined children's judgments about whether God could change morality in ways that challenge widespread moral beliefs.

As early as 3 years of age, children reliably distinguish moral norms from social conventions (Yoo & Smetana, 2022). Morality consists of basic principles surrounding justice, welfare, and rights—that hitting is wrong, for example, no matter what an authority figure says (e.g., Helwig & Turiel, 2002; Smetana, 2013; Yoo & Smetana, 2022). Several avenues of research suggest that children and adults may believe that some moral transgressions—such as those that violate these most basic moral principles—are forever morally wrong. Here, we examine evidence from four such avenues: (1) cognitive science of religion, (2) authority independence, (3) intuitive metaethics, and (4) the psychology of possibility.

Cognitive Science of Religion

Many religions describe God as "omnipotent" or "all-powerful" (Kohler, 1918; Rudavsky, 1985). An all-powerful God presumably has the power to change anything, including morality. A majority of United States residents who believe in God also believe that God determines what happens in their lives most or all of the time and that God is capable of directing or changing anything; indeed, 75% of Christians in the United States explicitly describe God as all-powerful (Fahmy, 2018). It seems plausible that characterizing God as all-powerful may lend itself to the belief that God can alter even core aspects of morality. For this reason, we asked participants about what they thought God could do as a proxy for what they thought was possible.

Consider an example. If someone believes that God could actually change the world so that two people who each brought two apples to a picnic would have five apples altogether, it follows that this person also believes that it is possible for mathematics to change such that 2 + 2 could equal 5. If one thinks that altering the world in this way is impossible, then this view should constrain their beliefs—they should report that not even God could make such an alteration. This approach mirrors existing developmental methods for assessing children's beliefs about possibility, such as inquiring whether an event would "require magic" to occur (Shtulman & Phillips, 2018).

Prior research on the cognitive science of religion implies one potential developmental mechanism underlying children's beliefs about God and possibility: As children become increasingly exposed to religious socialization, they may come to learn the "theologically correct" view (Barrett, 1999)—for instance, that God is all-powerful and the source of morality (as posited in Divine Command Theory; Quinn, 2013). Given that children become more

familiar with religious concepts over time (Cui et al., 2020), these learned beliefs about God may give rise to thinking that God could change morality in any and all ways. This “socialization” account would suggest that, with age and religious exposure, children should become increasingly open to the possibility that God could change anything. God could alter aspects of the natural world and of morality.

Alternatively, children and adults may naturally deny these kinds of supernatural capacities to God. Despite endorsing that God is not subject to typical human physical and psychological constraints (e.g., agreeing that God can be in two places at the same time), a sample of adults from a variety of faiths inadvertently depicted God as subject to these same human limitations (Barrett & Keil, 1996). Children also appear to demonstrate this pattern, suggesting an early emerging tendency to represent God’s mind similarly to human minds. For instance, preschoolers commonly attribute limited knowledge to God, concluding that factors that limit human knowledge (e.g., not being able to see the contents of a box) would also limit God's knowledge (see Lane & Harris, 2014, for a review).

Of most relevance to the current work is past research showing that children view God's moral characteristics as similar to their own and other humans'. In one line of research (Heiphetz et al., 2018), 5- to 8-year-olds attributed the same moral beliefs to God, themselves, and another person, reporting that God would find particular behaviors wrong when children themselves found those behaviors wrong (and that God would approve of behaviors if children themselves approved of them). In a related study (Payir & Heiphetz, 2022), 4- to 7-year-olds reported that God would respond to transgressions similarly to how the participants themselves thought they would respond.

Though children do distinguish between humans and God in some ways—for instance, reporting that God is less embodied than a person (Nyhof & Johnson, 2017)—children in preschool and early elementary school also appear to construe God's moral beliefs and morally relevant behaviors as similar to those of a person. Building on this past work, the current study asked how children conceptualize God's capacity to change morality, as opposed to God's moral beliefs or actions. Perhaps even believers who agree that God is all-powerful still ascribe God with humanlike limitations, such as being incapable of altering morality. Such a result would suggest that lay intuitions do not necessarily conform to official religious teachings and that religious socialization may not be sufficient to alter some God concepts.

Authority Independence

Children and adults may deny God the capacity to alter moral propositions for reasons other than religious socialization. Regardless of what children may learn through moral and religious upbringing, they may still think of some norms as simply inalterable. Such an account raises competing predictions against the religious socialization mechanism described above. For example, in one set of studies, children of varying religious backgrounds identified moral norms, but not religion-specific norms, as authority-independent (Nucci, 1982; Nucci & Turiel, 1993). For instance, they reported that even if God had made a commandment requiring people to steal from one another, stealing would still be immoral. If religious messaging alone could explain the entirety of children's beliefs about what is possible for God, then, presumably, the religious children in the above experiments should have judged moral norms to be authority-dependent.

Recent work by Srinivasan and colleagues (2018) yielded similar results, supporting the potential authority-independence of moral norms. In a sample of Hindu and Muslim children, participants from both religious groups reported that parents, priests, and deities could not alter

moral norms, such as those about hitting. Further, these children believed that religion-specific norms applied only to members of that religion (e.g., Muslim norms applied only to Muslims), whereas moral norms applied to everyone. These data coincide with decades of evidence that children across development distinguish morality from other kinds of norms (e.g., social conventions; Dunlea et al., 2022; Nucci, 2001; Smetana, 2006; Turiel, 1983), viewing moral norms as existing independently of authority figures and applying to all.

For the present work, this would suggest that children across development may maintain a rigid perspective on possibility: If an authority figure (such as God) cannot alter widely shared moral propositions, children may also consider these widely shared aspects of morality to be impossible to change. To our knowledge, no work to date has explored this intersection—identifying the extent to which individuals believe that God can (or cannot) modify different types of moral norms. Further, the ages tested in this body of existing research make it difficult to determine whether children's beliefs about the immutability of morality draw from a decade of socialization and religious upbringing or reflect a relatively early-emerging tendency to think of some aspects of morality as unchangeable. The present project addressed this gap directly.

Intuitive Metaethics

Children's sense of "intuitive metaethics"—their commonsense intuitions about the nature of morality—may also bear on the emergence of these beliefs. Though moral philosophers might ask whether moral standards are objective matters of fact that are universally true across time and space, moral psychologists might instead ask whether people think moral standards are objective. Goodwin and Darley (2008) probed exactly this question and found that adults perceived moral propositions (e.g., "Consciously discriminating against someone on the basis of race is morally wrong") as more objective than social conventions (e.g., "Wearing pajamas and a

bathrobe to a seminar meeting is wrong behavior") and preferences (e.g., "Classical music is better than rock music"). For instance, adults were more likely to report that only one person in a disagreement regarding morality, but multiple people in a disagreement regarding conventions and preferences, could be right. Thus, at least for some adults, morality falls closer to matters of fact than matters of preference (Quinn, 2013).

Indeed, people may even perceive certain moral propositions as nearly as objective (Beebe & Sackris, 2016; Goodwin & Darley, 2008) or potentially more objective (Reinecke & Horne, 2018) than actual scientific facts—an effect that may draw on the inference that certain claims about morality elicit more agreement and are more commonly held than others (e.g., Ayars & Nichols, 2020; Beebe, 2014; Cushman et al., 2017; Goodwin & Darley, 2012; Monroe et al., 2018). Children are especially likely to perceive morality as a matter of fact rather than taste (Nichols & Folds-Bennett, 2003; Schmidt et al., 2017). In one sample, 5 to 9-year-old children all similarly believed that factual statements and moral statements were objective (Wainryb et al., 2004), converging with other empirical work examining children's beliefs about moral objectivity (e.g., that "only one person could be right" about uncontroversial aspects of morality; Heiphetz & Young, 2017). Preschoolers in the above experiment, for example, did not distinguish the objectivity of widely shared moral beliefs and actual facts about the world (e.g., "germs are smaller than people's houses"). Children may represent both kinds of propositions as similarly fundamental to their knowledge about the world.

Taken together, a range of empirical evidence suggests that children's beliefs about the objectivity of morality are robust and may extend into adulthood. Given children's willingness to endorse morality as objective (Nichols & Folds-Bennett, 2003; Schmidt et al., 2017), especially

for widely agreed upon norms (Heiphetz & Young, 2017), children may similarly endorse that morality must be as it is and is unchangeable, even by God.

Psychology of Possibility

The human mind must frequently represent a wide range of possibilities, some involving morality. What would happen if I donated $400 instead of using it to buy a new television? Would it have been better for me to let bygones be bygones as opposed to picking a fight with a loved one? Yet people do not consider all possible actions to the same degree. Adults care about possibilities that are both valuable and probable (Phillips et al., 2019). When choosing a possible means of transportation to the airport, for example, hijacking a neighbor's car does not come to mind. This is because people may, at least initially, represent immoral events as impossible (Phillips & Cushman, 2017). Immoral states-of-affairs are inherently low in value, making them unlikely options when sampling from the full set of possible actions (Phillips et al., 2015, 2019; Phillips & Knobe, 2018). Indeed, people's beliefs about whether an extraordinary event, such as humans bringing an extinct species back to life, is possible correlates with beliefs about whether this event is morally permissible (i.e., morally allowed; Shtulman & Tong, 2013).

Morality seems to affect representations of possibility similarly for children. In fact, not only do preschool-aged children judge immoral events as impossible, but they see impossibilities—like a child floating in the air while playing basketball—as immoral (Shtulman & Phillips, 2018). Conflating immorality, impossibility, and improbability may occur most frequently early in development through the ages of 5 to 6 years (Shtulman, 2009; Shtulman & Carey, 2007; Shtulman & Phillips, 2018). The current work extends these findings, probing the extent to which children believe that morality could be different—particularly in cases that elicit a large degree of consensus. Given that children's beliefs about possibility shift around the age of

6 years (Shtulman & Carey, 2007; Shtulman & Phillips, 2018), we compared children younger and older than this milestone to test for possible age-related differences in perceptions of God's capacity to change morality.

The Importance of a Developmental Approach

The current work integrated and extended the four areas of research highlighted above by examining children's beliefs about whether God can alter morality. Given that children view widely shared moral beliefs as more objective than moral beliefs that elicit disagreement (Heiphetz & Young, 2017), we additionally tested the extent to which judgments about changeability varied by proposition kind (e.g., widely shared moral beliefs versus controversial moral beliefs). This distinction leveraged children's sensitivity towards varying levels of consensus (e.g., Harris et al., 2006; Harris & Corriveau, 2014; Harris & Koenig, 2006). We also prompted children to evaluate whether God could alter physical propositions that consisted of commonly-known natural facts (e.g., "snow is colder than fire"). Given that children as young as 4-years-old demonstrate confidence in scientific statements with high consensus, such as germs existing despite being invisible to the naked eye (Harris et al., 2006), these stimuli allowed us to examine the extent to which children's judgments might vary across moral and nonmoral content.[1]

We tested 4- to 6-year-olds and 7- to 9-year-olds for two primary reasons. First, children between 4 to 6 years of age distinguish widely shared moral norms from controversial moral

[1] To clarify, we do not mean to imply that children use consensus to justify their beliefs (e.g., "hitting is wrong because the majority of people say so"). Rather, children may incorporate statistical information about agreement when evaluating whether something must be as it is (e.g., "most people believe hitting is wrong, so this may be something fundamentally true about the universe").

norms (e.g., being more likely than adults to report that only one person can be right when disagreeing about widely shared moral beliefs; Heiphetz & Young, 2017). Second, though younger children commonly conflate morality and possibility, they begin to acknowledge that immoral events can occur around the age of 6 years (Shtulman & Carey, 2007; Shtulman & Phillips, 2018). Also, as noted earlier, the most similar work on children's beliefs about God's ability to alter morality has focused exclusively on older children and adolescents within specific religious groups (e.g., teenagers from a Catholic high school between the ages 10 and 17 years; Nucci, 1985; Nucci & Turiel, 1993; Srinivasan et al., 2018). Thus, comparing younger and older children provides new insight into whether developmental shifts occur early on in children's evaluations of the malleability of morality.

The current work tested three competing developmental predictions regarding our primary question of interest (i.e., perceived malleability of moral propositions). First, younger children may see morality—and widely shared aspects of morality, in particular—as less malleable than older children. Children and adults both tend to represent immoral events as impossible (e.g., Phillips & Cushman, 2017); however, these effects are strongest among children, particularly those younger than 6 years old (Shtulman & Phillips, 2018). Further, children's moral beliefs can develop in tandem with their experiences—for example, by learning about the complexities of morality in everyday life (e.g., having disagreements about moral issues with others, feeling conflicted in making moral choices; Starmans & Bloom, 2016). Perhaps younger children have strong convictions about the immutability of morality (e.g., thinking that immoral events are impossible, that only one person can be right in moral disagreements of any kind, and that morality must be as it is), but these convictions diminish with age.

Second, younger children could judge morality to be more malleable than older children. More than 70 percent of American adults identify as Christian (Pew Research Center, 2015), and more than half of American adults conceptualize God as “described in the Bible” (Fahmy, 2018). By 9 years of age, even children reared by secular parents are familiar with religious concepts such as angels, heaven, and God (Cui et al., 2020). If children become increasingly socialized to think of God as morally perfect, perhaps this constrains their beliefs about what God could do. For example, it could be especially impossible for God to change widely shared aspects of morality, because making such a change would itself be immoral. Such a mechanism would suggest that, with age, children become increasingly hesitant to think that God could alter widely shared moral norms.

Finally, a difference may not emerge between younger and older children’s beliefs concerning whether morality could be otherwise. From toddlerhood onward, humans reliably distinguish moral norms from conventions (Aharoni et al., 2012; Nucci et al., 1983; Smetana, 1981). There are also similarities in how preschoolers, elementary-schoolers, and adults represent widespread moral norms (e.g., as matters of fact; Heiphetz & Young, 2017; Wainryb et al., 2004). Perhaps these similarities extend further, such that people of any age consider moral norms—and widely shared moral norms, in particular—as authority-independent and immutable.

Empirical support exists for each of these primary developmental predictions. With this in mind, we chose to not preregister any directional hypotheses. We did, however, preregister our study procedure and analysis plan.

Method

Our preregistration, materials, data, and analysis script are available at https://osf.io/d5wrs/?view_only=e6a46a135c1c4a14b563bdee759eaa00.

Participants

Prior work on distinctions between widely shared and controversial moral beliefs (Heiphetz & Young, 2017) and children's reasoning about possibility (Shtulman & Phillips, 2018) demonstrated medium-to-large effect sizes. To be conservative, we estimated an effect of $f = .25$. Using other standard parameters ($\alpha = .05$, $\beta = .95$), a power analysis determined that we needed to collect data from at least 124 4- to 9-year-olds. We over-scheduled participants to account for possible exclusions and ultimately collected data from 139 children. Data collection took place online via live Zoom video conference between the child and experimenter. We did not begin analysis until finishing data collection. One 3-year-old and one 10-year-old were accidentally included in data collection, and we removed their responses prior to analysis. We also removed a datapoint for one item from one participant and data for two items from another participant due to experimenter error, as well as data from eight entire participants (two due to parent interference, one due to experimenter error, five due to missing age data). Including these data did not affect any of the findings reported below.

These exclusions left 129 children in our final sample ($M_{age} = 6.52$ years, $SD_{age} = 1.68$ years; 60 male, 69 female). We also obtained some insight into parent religiosity. Though some parents declined to provide religious information, we collected religious demographic information for at least one parent for about half of the sample: 2 parents self-identified as Agnostic, 8 as Atheist, 4 as Buddhist, 26 as Catholic, 32 as Protestant, 1 as Hindu, 1 as Muslim, 15 as Jewish, 2 as Mormon, 1 as Pagan, and 1 as Sikh. We recruited participants from an existing database and from Facebook advertising. Each child received a $5 gift card to a popular online retailer upon completion of the experiment.

Materials and Procedure

This experiment was entirely within-subjects at the vignette level. Participants responded to six vignettes in total in counterbalanced order (see https://osf.io/d5wrs/?view_only=e6a46a135c1c4a14b563bdee759eaa00). The gender of the target characters was counterbalanced across participants, and each participant responded to an equal number of male and female stimuli. All vignettes began with a story about two characters who disagreed about a proposition concerning widely shared moral content (e.g., whether stomping on a person's foot is morally wrong), controversial moral content (e.g., whether stealing to feed a hungry person is morally wrong), or physical content (e.g., whether germs are smaller than houses). Participants then indicated the character with whom they agreed. Below are examples from each proposition kind.

> *Widely shared moral:* "This person thinks that it is **okay** to stomp on someone's foot really hard. This person thinks that it is **not okay** to stomp on someone's foot really hard. Which person do you agree with more?"
>
> *Controversial moral:* "This person thinks that it is **okay** to steal food to feed someone who is hungry. This person thinks that it is **not okay** to steal food to feed someone who is hungry. Which person do you agree with more?"
>
> *Physical:* "This person thinks that germs are **smaller** than people's houses. This person thinks that germs are **bigger** than people's houses. Which person do you agree with more?"

After choosing a character, participants indicated their certainty in the judgment made by the character with whom they agreed (e.g., "How sure are you that it is **okay** to stomp on someone's foot really hard? Not at all sure, just a little sure, kind of sure, or very sure?").

Participants then indicated whether God could make the opposite of their choice become true (e.g., “Do you think that God could make it **not okay** to stomp on someone’s foot really hard? Yes/No”), followed by a second certainty judgment (e.g., “How sure are you that God could/couldn’t do that? Not at all sure, just a little sure, kind of sure, or very sure?”).

For example, if a child indicated that stomping on someone’s foot was *okay* to do, the experimenter then asked whether God could make stomping on someone’s foot *not okay* to do. In this case, the participant would not receive an item asking whether God could make it okay to stomp on someone’s foot, as this option already aligned with their beliefs.

Data Preparation

To create a continuous measure of participants' confidence about whether God could change propositions, we re-coded participant responses. If a participant denied that God could change a proposition in the initial binary item and then indicated that they were “very sure” in the following certainty item, we coded this as “1.” We coded being “kind of sure” that God could not change a proposition as “2,” being “a little sure” that God could not change a proposition as “3,” and so on. This approach created a continuous score between 1 and 8 gauging participant certainty in God’s ability to change (or to not change) a given proposition. This measure and data preparation process is consistent with existing research on children’s confidence in their judgments (Dunlea et al., 2022; Harris et al., 2006; Lesage & Richert, 2021).

Results

To begin, we confirmed that our widely shared and controversial moral propositions were, in fact, widely shared and controversial. Participants overwhelmingly agreed with the target who endorsed widely shared moral beliefs (94% of choices), as opposed to controversial moral propositions (28% agreed that it was okay to tell a small lie to help someone feel better or

to steal food to feed a hungry person, whereas 72% denied that these acts were okay). Participants also typically agreed with the target who endorsed scientifically accurate physical facts (93% of choices).

To examine whether children's certainty in God's ability to alter a proposition varied by the kind of proposition presented, we submitted our data to a 2 (Participant Age: younger vs. older) x 3 (Proposition: widely shared moral vs. controversial moral vs. physical) mixed ANOVA with repeated measures on the second factor. This model did not yield a main effect for Participant Age, $F(1, 127) = 1.38$, $p > .242$, $\eta_p^2 = .01$, but it did yield a main effect for Proposition, $F(2, 254) = 22.30$, $p < .001$, $\eta_p^2 = .15$. Children reported greater confidence that God could change certain kinds of propositions relative to others.

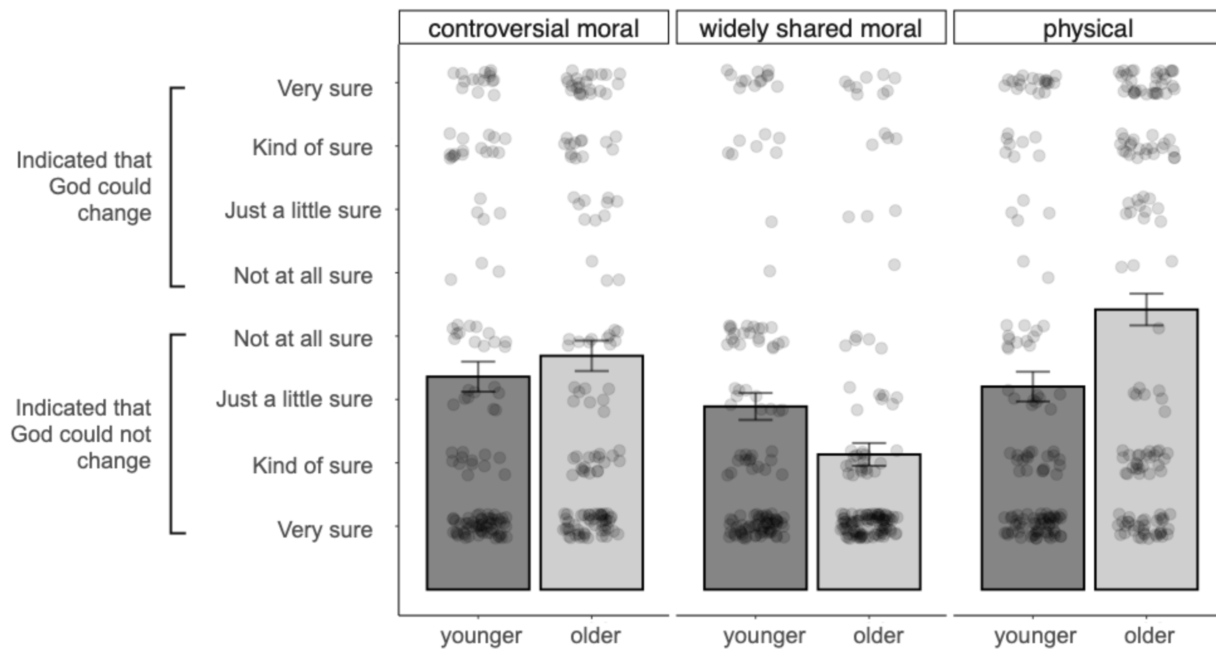
Critically, we also observed a Participant Age x Proposition interaction, $F(2, 254) = 12.06$, $p < .001$, $\eta_p^2 = .09$ (Figure 1), which maintained even when including only children from families with at least one identified religious parent (i.e., not identified as agnostic or atheist), $F(2, 110) = 5.19$, $p < .008$, $\eta_p^2 = .09$. We also verified whether this interaction persisted when treating children's confidence judgments ordinally rather than continuously (Bürkner & Vuorre, 2019). To do so, we conducted an exploratory analysis that was not preregistered by implementing an ordinal Bayesian mixed-effects model using the R package "brms" (Bürkner, 2017). This model yielded a series of interactions between Participant Age and Proposition Kind (with the group of "younger" participants set as the reference category for age, and with "controversial moral propositions" set as the reference category for proposition kind). This result suggests that, even when analyzed ordinally, children's confidence in whether God could change

specific kinds of propositions shifted across development (see Table 1 in the Appendix for further model output and specifications).

To clarify the Participant Age x Proposition interaction further, we conducted two sets of tests. First, we compared certainty that God could change each type of proposition among

Figure 1

Children's Mean Confidence Judgments



Note. Error bars represent +/- standard error. We binned the participants into two age categories: "younger" = ages 4 - 6.99 years, "older" = ages 7 - 9.99 years.

younger children and, separately, among older children. This analysis included six comparisons; therefore, p values needed to be .008 or lower to pass the Bonferroni-adjusted significance threshold. Older children indicated less certainty that God could change widely shared moral propositions as compared with physical propositions, $t(64) = 7.60$, $p < .001$, Cohen's $d = 1.01$, and controversial moral propositions, $t(64) = 5.53$, $p < .001$, Cohen's $d = .69$, which did not

differ from each other, $t(64) = 2.41$, $p < .019$, Cohen's $d = .31$. In contrast, younger children did not distinguish among propositions, *p*s > .033, Cohen's *d*s < .22.

Second, we compared older versus younger children's certainty that God could change each type of proposition. This analysis included three comparisons; therefore, *p* values needed to be .017 or lower to pass the Bonferroni-adjusted significance threshold. Younger children reported greater certainty than older children in denying God's ability to alter the physical world, $t(254.45) = -3.92$, $p < .001$, Cohen's $d = -.49$.[2] However, we did not observe age-based differences for widely shared moral propositions, $t(251.85) = -2.28$, $p = .02$, Cohen's $d = .28$, or controversial moral propositions, $t(254.69) = -1.31$, $p = .19$, Cohen's $d = -.16$. Taken together, these data suggest that children's beliefs about whether God can change morality is developmentally robust—especially in denying that God could change widely shared moral propositions.

Although our preregistered analyses focused on comparing older and younger children's responses to different proposition types, we also conducted exploratory analyses comparing average responses in each condition to the scale's midpoint (4.5). This analysis included six comparisons; therefore, *p* values needed to be .008 or lower to pass the Bonferroni-corrected significance threshold. Younger and older participants indicated, on average, that God could not change widely shared moral propositions (younger: $t(63) = -6.40$, $p < .001$, Cohen's $d = .80$; older: $t(64) = -9.09$, $p < .001$, Cohen's $d = 1.13$), but only younger children's judgments differed from the midpoint for controversial moral propositions (younger: $t(63) = -3.84$, $p < .001$, Cohen's $d = .48$; older: $t(64) = -2.37$, $p = .021$, Cohen's $d = .29$). Additionally, younger children

[2] Due to an adjustment made by the t.test function in R, this paragraph includes non-integer degrees of freedom (correcting for a violation of equal variance between groups).

reported that God could not change physical propositions, $t(63) = -4.83$, $p < .001$, Cohen's $d = .60$. Older children's responses, however, did not differ from the midpoint, $t(64) = .20$, $p = .846$, Cohen's $d = .03$. These results converge with our preregistered tests indicating that children do not view God as capable of changing widely shared aspects of morality. Indeed, younger children and older children alike deny that God could change morality in fundamental ways.

Discussion

Though many aspects of morality are controversial, some are seemingly absolute. In the present data, children's denial that God could alter morality in fundamental ways (e.g., making it morally right to call someone a mean name) emerged as early as 4 years old. Older children similarly denied that widely shared moral norms could change, suggesting that these beliefs appear early and remain consistent over development during the elementary school years. We only observed a shift in children's malleability beliefs outside of the moral domain. With age, children became increasingly confident that God could alter physical phenomena. These findings shed light on the three competing developmental predictions outlined at the start of the paper—that younger children would perceive less malleability than older children, that older children would perceive less malleability than younger children, or that no differences would emerge in children between 4 and 9 years of age. Our data aligned with the third possibility, showing that older and younger children alike denied that God could alter widely shared moral propositions. These results contribute new understanding within four areas of cognitive development: (1) cognitive science of religion, (2) authority independence, (3) intuitive metaethics, and (4) the psychology of possibility.

To begin, we see the present experiment as shedding new light on the downstream effects of religious socialization. Our sample included only children within the United States, providing

a conservative test for our hypotheses. Nine out of ten Americans believe in a "higher power," with over half of believers also endorsing that God exists as described in the bible (Fahmy, 2018). It would be reasonable to predict that such widespread cultural acceptance in a God who is omnipotent and omnibenevolent would scaffold children's potential acceptance that God could do anything, including change morality. Yet our data demonstrate the opposite effect: Despite these cultural messages, the children in our sample denied that God could alter morality at its roots. Nevertheless, it would be valuable for later studies to examine whether the present effects extend across children raised in varying religious traditions and in secular cultures that do not provide strong messages about God's capacities. Such work would speak to questions regarding generalizability across religious groups that our work does not directly address.

In this vein, it also remains unclear whether these effects would generalize across other supernatural targets (e.g., Santa Claus or the tooth fairy; Harris et al., 2006). Cultural narratives portray these agents in less powerful terms than God; for instance, stories about Santa Claus depict an agent with extensive knowledge about children's good and bad behavior, but they do not depict him as omnipotent, omnibenevolent, or even truly omniscient. Given that children in the present sample denied that even an all-powerful God could change moral norms, it seems unlikely that children would ascribe other supernatural agents with these capacities. This idea converges with existing evidence that children and adults alike represent God as having humanlike qualities (e.g., Barrett & Keil, 1996; Payir & Heiphetz, 2022). Through testing children's evaluations of other supernatural targets, however, future research could verify both the (1) robustness of the present effects (e.g., replicability), and (2) extent to which they draw on specific assumptions about God (e.g., as omnibenevolent).

Sampling children across religious backgrounds is beneficial for an additional reason: One may worry that the participants in our study answered the question of whether God *would* change fundamental aspects of morality, even though the question we asked them was whether God *could* make these changes. Could children have thought it was merely implausible, rather than impossible, that an omnibenevolent God would ever make changes in this way? Given the similarity of our method to those used in past research on developmental representations of possibility (e.g., Lesage & Richert, 2021; Shtulman & Carey, 2007), we take participants to have understood the intended phrasing of our items (i.e., as a modal question regarding possibility, rather than a normative question regarding morality). The alternative explanation presented here also seems in tension with children's increasing familiarity with religious material over development, such as learning about an omnibenevolent God (e.g., Cui et al., 2020) and the lack of any robust difference between older and younger children's judgments about widely shared moral content in the present work.

That being said, future research would do well to recruit children across religions (and particularly across religions with varying God concepts) to test this interpretation of the present data. If children from regions more secular than the United States (e.g., Sweden; Gallup International, 2023) had greater confidence that God *could* alter morality, for example, as compared to the children from the United States tested here, then this result would provide some credence to the alternative explanation: Religious children's commitment to considering God as omnibenevolent could constrain their beliefs about whether God could change morality. Collecting open-ended response data, such as children's justifications for their judgments (e.g., "You just said that God *couldn't* make it okay to stomp on someone's foot really hard. Why do you think that?"), would shed further light on the mechanisms underlying their beliefs.

Children's propensity to call on God's qualities (e.g., "God wouldn't do something like that") versus other explanations (e.g., "Stomping on someone's foot couldn't be morally right") may provide insight into mechanisms beneath the present effects. Again, we see the present data as most consistent with the latter mechanism—given that younger and older children maintained similar confidence that God could not change widely shared moral norms, and parent religiosity did not alter the primary effects. We also recognize, however, that our research design limits our ability to speak to this directly. Work that intentionally samples children across religions, gauges participant religiosity, tests their beliefs in specific aspects of God (e.g., omnibenevolence), and collects open-ended response data could build on the current research to better address these possibilities.

The present study also extends scientific understanding of how moral norms are representationally distinct from other norms (e.g., in terms of authority independence; Nucci, 1982; Nucci & Turiel, 1993). A wealth of research demonstrates that even preschoolers distinguish moral norms (which regard harm, fairness, and rights) from social conventions (which regard rules, customs, and social coordination; e.g., Dunlea et al., 2022; Helwig & Turiel, 2002; Nucci & Turiel, 1993; Smetana, 1981; 2013). For instance, children report that it would be okay to wear pajamas to school if their teacher said that this behavior was okay, but permission from an authority figure would not make it okay to engage in moral violations like bullying a classmate (Smetana, 1981).

Our data further this distinction, illustrating both the early emergence and developmental robustness of children's beliefs that some moral norms—such as those that are widely shared—are particularly inalterable. Existing research has probed three phenomena relevant to this effect: (1) young children's beliefs about the inalterability of moral norms (as opposed to social

conventions; e.g., Smetana, 1981), (2) emerging beliefs about the objectivity of widely shared versus controversial moral norms (e.g., Heiphetz & Young, 2017), and (3) older children and adolescents' beliefs about God's inability to alter moral norms (e.g., Nucci & Turiel, 1993). The present research integrated and extended these three lines of work. We see the insights for this existing literature as two-fold: Though children consider moral norms, on the whole, as authority-independent, they also find widely shared moral norms particularly resistant to alteration. Further, we demonstrate that the propensity to view moral norms as unalterable by God emerges well before adolescence—an extension of prior work sampling children between ages 9 – 15 (Srinivasan et al., 2018), and children between ages 10 – 16 (Nucci & Turiel, 1993). Even by the age of 4 years, children robustly deny that widely shared moral propositions could differ from the way that they are.

On their face, our data also appear to suggest that children—like adults (Ayars & Nichols, 2020; Beebe, 2014; Cushman et al., 2017)—leverage an understanding of consensus when evaluating the alterability and objectivity of morality. This effect contrasts with the pattern observed for children's evaluations of physical phenomena, though, which also elicit a high degree of consensus. (Indeed, children in our sample overwhelmingly agreed with one another about physical statements, like snow being colder than fire.) It seems unlikely, then, that participants were merely drawing on consensus information when determining whether changes to a given proposition were possible.

Our data also bring deeper understanding to intuitive metaethics. For instance, Heiphetz and Young (2017) found that 4- to 6-year-olds and adults judged widely shared moral beliefs as akin to facts, reporting that only one person could be right in a disagreement about both topics. Similarly, in the current work, 4- to 9-year-olds reported a relatively high degree of certainty that

God could not change widely shared moral propositions. This result indicates that children may perceive widely shared moral beliefs as objective in multiple ways: Not only do they report that only one person could be right in a disagreement, which reflects a common conceptualization of moral objectivity (e.g., Goodwin & Darley, 2008; Sarkissian et al., 2011; Wainryb et al., 2004), but they also reject that even an ostensibly all-powerful being could change these moral norms. We take this finding as evidence that children's objectivism regarding widely shared moral claims emerges early and may even persist into adulthood (Heiphetz & Young, 2017; Reinecke & Horne, 2018).

The current findings also converge with a well-documented tendency for morality to shape non-moral cognition (Knobe, 2010), including the psychology of possibility (Phillips & Cushman, 2017). These normative effects prove wide in scope. People's moral attitudes color their judgments concerning intentionality (Knobe, 2003), causality (Knobe & Fraser, 2008), possibility (Phillips & Cushman, 2017), and personal identity (Strohminger & Nichols, 2014), amongst other psychological phenomena. It may be that representing widely shared moral propositions (which contain stronger normative content than controversial moral or physical propositions) engages this domain-general mechanism, constraining the modal capacity to consider them being otherwise (Phillips & Cushman, 2017; Shtulman & Phillips, 2018). This is to say that children might represent not only *violations* of moral norms—but also potential *changes* to them—as immoral and impossible.

Conclusion

The current research offers evidence that children deny God's ability to alter widely shared moral propositions. As children age, they appear to become more certain that God could alter physical and perhaps even controversial moral propositions, but their beliefs about the

immutability of widely shared moral propositions persist. The present data address how early-emerging, fundamental moral commitments shape children's representations of possibility consistently over the course of development.

Appendix

Table 1
Ordinal Bayesian Model Output

Population-Level Effects	Estimate	Est.Error	l-95% CI	u-95% CI
Intercept[1]	-0.34	.22	-0.75	0.09
Intercept[2]	0.26	.22	-0.15	0.71
Intercept[3]	0.55	.22	0.12	1.00
Intercept[4]	0.93	.22	0.50	1.38
Intercept[5]	1.02	.22	0.59	1.47
Intercept[6]	1.24	.22	0.82	1.70
Intercept[7]	1.84	.23	1.41	2.31
age_older	0.33	.30	-0.24	0.92
kind_widelysharedmoral	-0.23	.20	-0.61	0.17
kindphysical	-0.01	.20	-0.39	0.38
age_older:kindwidelysharedmoral	-1.01	.29	-1.58	-0.45
age_older:kindphysical	0.46	.28	-0.08	1.02

Note: This table displays population-level effects from the following model:

```
brm(formula = confidence_ordinal ~ 1 + age_cat * kind +
(1|Subject_Number) + (1 | Subject_Number:kind), data =
model_data, family = cumulative("probit"))
```

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