Children’s and Adults' Perceptions of Religious and Secular Interventions for Incarcerated Individuals in the United States

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Abstract

Religious involvement is prevalent in prisons, a context where questions of moral redemption are particularly salient. We probed the developmental origins of adults' perceptions that religion might lead to redemption following transgressions. Six- to 8-year-olds (*n*=50 United States residents) and adults (*n*=53 United States residents) learned about incarcerated characters who had taken religion classes, art classes, or life classes (about right and wrong) while imprisoned. They then rated agreement with statements assessing attitudes toward the incarcerated individuals, the effectiveness of each character’s time in prison, and their likelihood of recidivism. Children were more likely than adults to report that classes, in general, would effectively rehabilitate incarcerated individuals. However, participants of all ages reported more positive attitudes toward people who took religion classes and life classes rather than art classes. Further, participants of all ages reported that people who took art classes, versus religion or life classes, would be more likely to continue transgressing. These findings highlight the important role that religious and secular learning play in perceptions of redemption across development.

Keywords: child development, incarceration, morality, punishment, religion
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1. Introduction

In the popular Amazon TV Show *The Boys*, a superhero by the name of "The Deep" faces removal from his superhero group due to criminal allegations. In an attempt to return from his indefinite suspension, The Deep turns to religion in the hope of becoming a better person. Throughout the show, he consistently presents the message that his religion has shown him the error of his ways and has given him a newfound respect for others. While some people praise The Deep for his transformation, not everybody believes that religion has changed him so profoundly. Some think that although he says the right things, his true nature has not changed. This storyline exemplifies contrasting views that people may hold about the capacity of religion to redeem.

The main goal of the current work was to ask how people think about religious paths to moral redemption—i.e., to becoming a better person after having transgressed (Dunlop, 2022; McAdams, 2006). People in the United States often use redemptive narratives to understand the social world, telling stories that emphasize people's capacity for growth and change. These narratives emerge when people consider important experiences such as the dissolution of a romantic relationship (e.g., they may highlight ways that their break-up was for the best and helped them become a better partner the next time around) and addiction (e.g., they may note that programs like Alcoholics Anonymous led to moral improvement; Dunlop & Tracy, 2013; McAdams, 2006; Slotter & Ward, 2015). Building on this work, we investigated children's and adults' perceptions of others' capacity for redemption in the context of the legal system.
Specifically, we probed the extent to which children and adults view religion as a source of redemption in the lives of incarcerated individuals.

People who recover from hardship often cite a connection with God as a prominent reason for the change in their life, claiming that religious involvement has helped to guide their moral compass (McAdams, 2006). Additionally, both children and adults around the world typically hold relatively positive views of religious individuals and relatively negative views of atheists (Brown-Iannuzzi et al., 2018; Ellison, 1992; Gervais et al., 2017; Heiphetz et al., 2015; Humanists International, 2022). However, it is not yet clear whether individuals believe religion to be an effective way to become a better person. To address this topic, we examined the development of attitudes towards religious and secular interventions for people whom society perceives, rightly or wrongly, to have committed some of the worst transgressions imaginable—incarcerated individuals. We conducted our research in the United States, which incarcerates a high proportion of its residents (Alexander, 2012; Carson, 2022; Mears & Cochran, 2014) and where questions of moral improvement after incarceration are therefore especially relevant to many people.

1.1. Redemption, Incarceration, and Religion

One function of incarceration is to decrease the chance that a person who previously violated the law will do so again, such as through deterrence or incapacitation (Brooks, 2012). However, recidivism is common in the United States. For example, a study examining over 90,000 people released from custody across 34 states found that 62% were arrested again after three years and 39% were imprisoned; after five years, these numbers rose to 71% and 46%, respectively (Durose & Antenangeli, 2021). The legal system itself encourages some of this recidivism. For instance, people on parole can be arrested for failing to maintain employment or
to pay certain costs, yet employers often hesitate to hire people with criminal records (Alexander, 2012; Pager, 2007; Western, 2018). Thus, people may turn to illegal activity—sometimes the same activity that led to their incarceration in the first place—to meet their parole obligations. At a structural level, solutions to this problem could involve actions such as restructuring parole or creating incentives for hiring people who have served time in jails and prisons. However, laypeople often think at an individual rather than structural level (Dunlea & Heiphetz, 2021; Lopez et al., 2002; Rucker & Richeson, 2021). Thus, one common question regarding the legal system asks how to promote moral improvement among incarcerated individuals (Latessa et al., 2020; Weisburd et al., 2017).

In particular, individuals have wondered about the extent to which religion may promote redemption among individuals who have been incarcerated (Ellis, 2020; Flores & Cossyleon, 2017; Schroeder & Frana, 2009). This focus may stem in part from the prevalence of religion in carceral facilities in the United States (Boddie & Funk, 2012; O’Connor & Perreyclear, 2002). It may also stem in part from the fact that ideas concerning redemption play an important role in many religions. For instance, some branches of Islam view humans as naturally good at birth; transgressions can stem from a variety of sources (e.g., the devil), and people can redeem themselves by performing pro-social acts (Sarbah, 2018). Similarly, Judaism emphasizes the importance of repairing one's wrongs in this world before seeking forgiveness from God (i.e., redemption depends in large part on the behaviors one performs after transgressing, Ruttenberg, 2022). In contrast, Christian denominations sometimes posit that people are sinful at birth and that redemption comes through one's belief in Christ, though other denominations emphasize the primary importance of one's actions (Wiley, 2002). Despite the differences in their beliefs, all three of these major religions put forth extensive theological teachings regarding redemption.
Indeed, laypeople often view religious individuals as morally good. Although religion is associated both with morally good and morally bad behaviors (e.g., donations to charity as well as racial discrimination, Bloom, 2012; Purzycki et al., 2018; Lee et al., in press; Pasek et al., 2020; Preston & Ritter, 2013; Whitehead & Perry, 2020), laypeople tend to hold the view that religious people are more moral than their non-religious counterparts. In many cultures around the world, both theists and atheists view immoral behavior as representative of atheists (Gervais et al., 2017). In the United States, more than two in five adults report that it is necessary to believe in God in order to be a good person (Pew Research Center, 2017). Both children and adults base decisions about who is a likeable and moral person on religious cues (Heiphetz & Young, 2019; Johnson et al., 2012).

In addition to viewing religious people as already good, laypeople view religion as redemptive—i.e., as leading to moral improvement. For instance, religious people sometimes perceive that their religious beliefs and practices allow them to rise out of difficult situations and become better people. Ogletree and Blieszner (2022) found that an individual’s religious beliefs were associated with viewing past adversities as opportunities for spiritual growth. Further, the idea of divine forgiveness can promote change following transgression. For instance, in one study with twelve Christian men incarcerated for sexual offenses, participants reported their sense that God had forgiven them and described a link between this forgiveness and their capacity to change in the future (e.g., one participant noted that although "what [he did] is wrong," he is not a "lost cause," Blagden et al., 2020). Of relevance to the current work's focus on the legal system, active participation in religious programming can reduce recidivism to some degree. For instance, in one line of work (Young et al., 1995), a group of incarcerated individuals who participated in a two-week religion-focused seminar in Washington, D.C., had a lower
recidivism rate than a control group of non-seminar participants eight to fourteen years later. In another study using data from New York (Johnson, 2004), 27% of individuals who had attended five or more Bible studies while incarcerated and 46% of individuals who had attended Bible studies fewer than five times had been re-arrested two years after their release. However, this effect declined across time and was no longer significant by eight years after release.

The current work asked about the perceived redemptive power of religion in the context of the legal system. Laypeople commonly associate this system with severe moral transgressions or even infer that people who go to prison are "bad people" (Dunlea & Heiphetz, 2020). We wondered whether children and adults would view religion as effective at redeeming people in this context—one that is designed to inflict severe punishment for transgressions that society has determined are so severe that they merit depriving the people who transgressed of their freedom.

1.2. The Importance of a Developmental Perspective

To investigate how individuals reason about redemption in the context of the legal system, we compared 6- to 8-year-old children and adults. Testing these age ranges was important for two main reasons.

First, our approach allowed us to contribute to literatures on the development of religious and moral cognition. An understanding of religious ideas is already present during the preschool and early elementary school years. Children of this age attribute a variety of mental states (e.g., moral beliefs and factual knowledge) to God (Heiphetz et al., 2018; Lane et al., 2010; Richert et al., 2016; Wolle et al., 2021), distinguish religious beliefs from other categories (e.g., factual beliefs, preferences, secular moral norms; Heiphetz et al., 2014; Nucci & Turiel, 1993; Srinivasan et al., 2019), and see prayer as a method of communicating with God (Richert et al., 2016). Children of this age can also reason about and participate in the legal system: they can
define words such as "jail" and "prison" (Dunlea & Heiphetz, 2020), understand punishment as deterring future instances of the transgression that led to the punishment (Bregant et al., 2016), and take part in legal proceedings (Malloy & Quas, 2009). By asking children about religion in the context of the legal system, the current work integrated these two sub-areas within developmental science and extended knowledge of children's understanding regarding religion's capacity to help people make good on their past wrongs.

Second, comparing 6- to 8-year-olds and adults allowed us to test between two competing hypotheses regarding the development of ideas about redemption. One hypothesis comes from work on psychological essentialism—the often inaccurate, but psychologically powerful, notion that human characteristics arise from internal, innate, immutable "essences" (Gelman, 2003; Medin & Ortony, 1989; Rhodes & Mandalaywala, 2017; Rothbart & Taylor, 1992). For instance, an essentialist notion of morality would posit that some people are born good while others are born bad and that it is not possible to change one's moral characteristics. People who hold this view may believe that redemption is impossible—that someone who has transgressed cannot become a better person. Elementary-schoolers typically report more essentialism than do adults (Diesendruck et al., 2013; Gelman et al., 2007; Heiphetz, 2020) and may therefore be less likely than adults to see incarcerated people as capable of change.

An alternative hypothesis stems from work on optimism, which is also particularly high among young children (Boseovski, 2010). For instance, children are more likely than adults to report that negative characteristics will improve over time (Lockhart et al., 2008) and view their own positive characteristics as especially stable (Diesendruck & Lindenbaum, 2009). Of particular relevance to the current work, 6- to 8-year-olds are more likely than adults to report that people can become nicer after going to prison (Dunlea & Heiphetz, 2021). Thus, in the
current work, children may also be more likely than adults to report that certain behaviors within a prison context (e.g., taking religion classes) can redeem incarcerated individuals. Because the current work asked participants about the redemptive power of several activities that people could perform in prison, the present study also built on past work regarding children's optimism by clarifying whether children view some activities as more redemptive than others.

1.3. The Current Study

The purpose of the current research was to test children’s and adults’ perceptions of incarcerated individuals who have taken either religious or secular paths towards redemption. To address this topic, we asked participants three types of questions. First, we measured attitudes toward individuals who had taken three types of classes during their imprisonment: religious classes about God, secular classes about "life" that taught participants about right and wrong, and art classes. If participants view an individual as redeemed, they should report more positive attitudes than if they do not hold this view. Second, we asked participants how effectively they thought each type of class would rehabilitate an individual. If participants view an individual as redeemed, they should also view that individual's time in prison as effectively serving a rehabilitative function. Third, we probed essentialism directly by measuring the extent to which participants believed that people who were incarcerated had an unchanging criminal essence. We selected art as a control condition because this is a topic about which people can take classes but that does not carry moral connotations. Our conditions therefore allowed us to test four different possibilities: (1) that participants would view learning about religion as especially redemptive, in which case they would respond most positively to individuals who had taken religion classes; (2) that participants would view any class with content perceived to be relevant to morality as redemptive, regardless of whether that class was religious or secular, in which case they would
respond more positively to individuals who had taken religion classes and life classes rather than art classes without differentiating between the two former conditions; (3) that participants would view any kind of learning as redemptive, in which case they would respond positively across all conditions; (4) that participants would view redemption is impossible for incarcerated individuals, in which case they would respond negatively across all conditions.

2. Results

2.1. Preliminary Analyses

We averaged participants’ responses across items measuring attitudes towards the incarcerated individual (α=0.73), views about the effectiveness of the individual's incarceration (α=0.90), and essentialist views of the individual (α=0.72). To determine whether religious affiliation shaped participants' responses, we conducted two sets of tests. First, we compared Christian participants and all other participants. We made this decision because Christians are the dominant religious group in the United States (Pew Research Center, 2015), and members of a dominant group may respond differently from members of minority groups. Second, we compared participants who identified with any religious group and participants who identified as atheist, agnostic, or non-religious. We made this decision because participants who identify with a religion may respond differently to questions about the role of religion in redemption than participants who do not identify with a religion. Three comparisons reached traditional levels of significance. First, Christian adults (m=3.81, sd=.95) perceived God classes as more effective than did non-Christian adults (m=3.24, sd=.89, t(36.33)=2.12, p=.041, Cohen's d=.41), although this effect did not pass the Bonferroni-adjusted significance threshold (p=.008, because we conducted six preliminary analyses). Second, non-religious adults (m=2.90, sd=.76) perceived God classes as less effectively redeeming incarcerated individuals than did religious adults
(m=3.74, sd=.91, t(48)=-3.25, p=.002, Cohen's d=-.97. Third, non-religious children (m=4.63, sd=.46) were more likely than religious children (m=4.02, sd=.93) to perceive individuals who had taken God classes as retaining a criminal essence over time (t(31.60)=2.85, p=.008, Cohen's d=.72). Due to the large number of comparisons and the fact that we did not predict these specific differences a priori, we collapsed across religious affiliation for the remaining analyses.

2.2. Attitudes Toward the Incarcerated Individual

To examine whether attitudes toward incarcerated people varied as a function of how they spent their time in prison, we conducted 2 (Participant Age: child vs. adult) x 3 (Class Topic: art vs. God vs. life) mixed ANOVA with repeated measures on the second factor (Fig. 1). The omnibus ANOVA revealed a main effect of Class Topic (F(2, 202)=12.46, p<.001, η_p^2=.11).

To further probe this effect, we compared each class with each other class, for a total of three comparisons; therefore, uncorrected p values needed to be .017 or lower to pass the Bonferroni-corrected significance threshold. Participants reported less positive attitudes toward individuals who took art classes as compared with religion and life classes (ps≤.002, Cohen’s d≥.32), which did not significantly differ from each other (p=.126, Cohen's d=.15). Neither the main effect of Participant Age nor the Participant Age x Class Topic interaction reached significance (ps≥.323).
Fig. 1. Participants’ average attitudes toward incarcerated individuals. Error bars represent 95% confidence intervals.

2.3. Views Regarding Incarceration's Effectiveness

Next, we investigated perceptions of how effectively incarceration would rehabilitate individuals using a 2 (Participant Age: child vs. adult) x 3 (Class Topic: art vs. God vs. life) mixed ANOVA with repeated measures on the second factor (Fig. 2). The omnibus ANOVA revealed a main effect of Participant Age ($F(1, 101)=94.11, p<.001, \eta_p^2=.48$): children viewed incarceration as more effective than did adults. The omnibus ANOVA also revealed a main effect of Class Topic ($F(1.85, 84.28)=30.13, p<.001, \eta_p^2=.23$). To further probe this effect, we compared each class with each other class, for a total of three comparisons; therefore, $p$ values needed to be .017 or lower to pass the Bonferroni-corrected significance threshold. Participants reported that art classes would be less effective than classes about either God or life ($ps<.001$, Cohen’s $d s \geq .53$), which did not significantly differ from each other ($p=.099$, Cohen’s $d = .17$). The Participant Age x Class Topic interaction did not reach significance ($p=.238$).
Fig. 2. Participants’ average perceptions of the effectiveness of each class type in rehabilitating incarcerated individuals. Error bars represent 95% confidence intervals.

2.4. Beliefs in Incarcerated Individuals' Unchanging Essences

Next, we examined beliefs that incarcerated individuals had an unchanging criminal essence using a 2 (Participant Age: child vs. adult) x 3 (Class Topic: art vs. God vs. life) mixed ANOVA with repeated measures on the second factor (Fig. 3). This analysis revealed a main effect of Class Topic ($F(2, 202)=19.11, p<.001, \eta_p^2=.16$). To further probe this effect, we compared each class with each other class, for a total of three comparisons; therefore, uncorrected $p$ values needed to be .017 or lower to pass the Bonferroni-corrected significance threshold. Participants were more likely to report essentialist views regarding the individual who took art classes rather than religion or life classes ($ps<.001$, Cohen’s $d_s\geq.43$), which did not significantly differ from each other ($p=.742$, Cohen’s $d=.12$). Neither the main effect of Participant Age nor the Participant Age x Class Topic interaction reached significance ($ps\geq.081$).
Fig. 3. Perceptions of how much incarcerated individuals would retain a criminal essence over time. Error bars represent 95% confidence intervals.

2.5. Rankings of Best/Worst Person

As described in the procedure, at the end of the study session, participants indicated which of three incarcerated characters—the person who took art classes, the person who took religion classes, and the person who took life classes—was "the best person" and "the worst person." We rank-ordered these responses such that 1 indicated the "worst person," 2 indicated the person whom participants did not rank as either "best" or "worst," and 3 indicated the "best person" (Fig. 4). We then used Friedman's test to analyze these responses and observed a statistically significant difference in ranking depending on how incarcerated characters spent their time in prison among both children ($\chi^2(2)=24.14, p<0.001$) and adults ($\chi^2(2)=13.33, p=.001$). To further probe these effects, we used Wilcoxon signed-rank tests to compare each character with each other character. This analysis included three comparisons among children and three among adults, for a total of six comparisons; therefore, uncorrected $p$ values needed to be .008 or lower to pass the Bonferroni-corrected significance threshold.
Children assigned the person who took classes about God a higher rank than the person who took classes about art ($p<.001$); no other comparisons among children reached significance ($ps≥.017$). Like children, adults assigned the person who took classes about God a higher rank than the person who took classes about art ($p=.005$). Adults also assigned the person who took classes about life a higher rank than the person who took classes about art ($p=.003$). Adults did not draw a statistically significant distinction between the person who took classes about God and the person who took classes about life ($p=.985$).

![Fig. 4](image.png)

*Fig. 4.* Average ranking of characters who took classes about art, God, and life. Error bars represent 95% confidence intervals.

### 3. Discussion

The main goal of this study was to investigate children’s and adult’s attitudes towards incarcerated individuals who sought redemption through either religious or secular means. We observed one main age-related difference: children generally viewed incarceration as more effective than did adults. We also observed several consistent patterns across age groups. Although children were more optimistic about the effectiveness of classes than were adults, both children and adults did express some optimism. They reported relatively favorable attitudes
toward individuals who had taken classes about God as well as secular morality classes, while individuals who had taken art classes elicited less positive responses. Both children and adults also viewed classes about God and morality more generally as leading to greater moral improvement than art classes, as well as reducing the likelihood that the person who took the classes would continue to commit crimes in the future.

3.1. Theoretical and Translational Implications

These results have several theoretical implications. Most basically, they indicate that people believe that it is indeed possible to achieve moral redemption in both religious and secular ways. Children and adults appear to hold the view that people who put in effort can change for the better. Additionally, while prior work has highlighted favorable impressions of religious individuals among both children and adults (Brown-Iannuzzi et al., 2018; Ellison, 1992; Heiphetz et al., 2015), the current results did not show a difference in evaluations of people who took classes about religion versus people who took classes focusing on morality from a secular perspective. The relatively positive evaluations of people who took religious classes (as compared with, for instance, people who took art classes) suggests that the positivity observed in prior work toward people who are currently religious extends to individuals who are learning about religion for the first time. In other words, participants did not seem to penalize individuals for not having learned about God prior to their incarceration. Rather, they seemed to hold favorable impressions of people who became religiously involved, just as participants in prior work reported positive attitudes toward people who were already religious. However, participants in the current work did not privilege people who obtained a religious education over those who took secular classes about morality, suggesting that neither children nor adults perceive religion as the sole path to redemption.
While the patterns above emerged for both age groups, children, versus adults, viewed incarceration overall as more redemptive. In other words, children viewed classes overall as more effective than did adults at rehabilitating the people who took them. This pattern is consistent with prior work suggesting that children are more optimistic than adults (Boseovski, 2010; Diesendruck & Lindenbaum, 2009; Lockhart et al., 2008) and view punishment as more redemptive than adults do (Dunlea & Heiphetz, 2021). However, it may seem somewhat at odds with prior work showing that children report more essentialism than do adults (Diesendruck et al., 2013; Gelman et al., 2007; Heiphetz, 2020). In the current study, children were not more likely than adults to report that incarcerated individuals would remain bad people or maintain a "criminal essence" across time. Although children in prior work described incarcerated individuals as "bad people" (Dunlea & Heiphetz, 2020), they seem to also have the view that these individuals can experience redemption and show evidence of moral improvement after their incarceration. In a way, children may believe that a person who has been incarcerated can become a different person—a better person—after leaving prison. This view is in line with some religious understandings of what it means to be redeemed. For instance, the philosopher and Torah scholar Maimonides argued that redemption involves becoming a different person who behaves differently when encountering a situation that has caused that person to transgress in the past (Ruttenberg, 2022). The New Testament's focus on being "born again" also expresses the view that redemption can so radically alter a person that they become, in a way, someone entirely different.

In addition to these theoretical contributions, the current work also has translational implications. The current study did not reveal a difference between evaluations of people who took religious classes versus people who took secular classes about morality. While programs
with religious themes are relatively common in carceral facilities in the United States (e.g., Boddie & Funk, 2012), the current results suggest that it may also be important to offer secular courses, such as those focusing on moral philosophy. Such programs can benefit incarcerated people who do not wish to participate in programs focusing on religion but do want to further their education.

More broadly, the current findings demonstrate that laypeople in the United States view incarcerated individuals as redeemable. Prior scholarship has highlighted the benefits of aligning laws with lay intuitions, as doing so can strengthen the perceived legitimacy and fairness of legal institutions (Tyler & Huo, 2002). However, current policies and practices may communicate that people who have had contact with the legal system are beyond redemption. For instance, carceral facilities do not always provide their residents with the opportunity to take any kind of class, and practices like solitary confinement can impede people's access to rehabilitative programming even when it is offered. Incarceration also profoundly shapes people's outcomes after leaving prison. Although people who have completed their sentence are ostensibly redeemed in the eyes of the law, they face numerous obstacles to re-entering society beyond the prison walls, including limitations on their ability to vote, secure housing, and obtain employment (Alexander, 2012; Manza & Uggen, 2008; Pager, 2007; Western, 2018). Policies such as the death penalty may also communicate a belief that some people cannot be redeemed; if judges and juries perceived individuals as redeemable, they may focus on creating conditions that would allow for moral improvement to take place rather than killing individuals who have transgressed and thereby ending any possibility of moral change. The public may come to perceive the legal system as more legitimate if it treated people as redeemable.

3.2. Limitations and Future Directions
While the current study made a number of theoretical and translational advances, it also left open several questions for future research. First, our materials noted that individuals in the religious condition took classes about God without specifying a particular religious orientation. We made this decision to increase the generalizability of our results and learn how people responded to religious education broadly construed. However, individuals may respond differently to classes that teach different religions. For instance, prejudice against Jews and Muslims may lead to negative perceptions of people whose studies focus on these religions, especially among participants who are not Jewish or Muslim themselves (Imhoff & Banse, 2009; Rowatt et al., 2005; Uenal et al., 2021). Future research can vary the religion about which people learn in order to determine whether participants perceive some religious teachings as more redemptive than others. Future work can also recruit large samples of participants from religious minority groups as well as non-religious participants to investigate how membership or non-membership in a particular religious group may shape responses. In addition to comparing members of different religious groups, this work could also test participants' exposure to different religious traditions to determine whether experience with outgroup religions shapes responses.

Second, all participants in the current work resided in the United States, a nation whose culture is particularly religious (Pew Research Center, 2015) and whose legal system is particularly punitive (Alexander, 2012). In cultures that incarcerate a smaller proportion of their residents, deliver shorter prison sentences on average, and design carceral facilities with a greater focus on rehabilitation, laypeople may perceive their incarcerated fellow residents as more redeemable. Further, in cultures where religion plays a relatively small role in public life, people may not perceive religious education as particularly redemptive. Future work can adopt a cross-
cultural approach to test these hypotheses. Future work can also seek to replicate the current research outside of the northeastern United States to probe possible regional differences within this country. For instance, between 2020 and 2021, Washington experienced the largest percent decrease in incarcerated residents (-13%), while North Dakota experienced the largest percent increase in incarcerated residents (+21; Carson, 2022). Such changes in a state's demographics may shape perceptions of redemption. As the proportion of incarcerated residents rises, it becomes more likely that any given resident of a state will know an incarcerated individual. These personal relationships may shape perceptions; for instance, seeing a close friend go to prison may increase the perception that incarcerated individuals are redeemable. Alternatively, increases in the incarceration rate may indicate increased punitiveness; following the logic outlined above regarding the United States versus other countries, individuals residing in more punitive states could perceive incarcerated people as less redeemable than would individuals residing in less punitive states. Future research can disentangle these possibilities.

Third, in addition to investigating demographics based on religion and place of residence, future research can investigate how the results reported here may vary across race. Racial inequality is prevalent in the United States legal system (Alexander, 2012; Pager, 2007; Rucker & Richeson, 2021; Western, 2018), and Black individuals face stereotypes equating them with criminals (Eberhardt et al., 2004). Therefore, participants—especially White participants—may be particularly optimistic about the possibility that a White person will change for the better and particularly pessimistic about the possibility of a Black person doing so, especially in the context of incarceration. Future work can vary the race of the incarcerated person to test this prediction.

In all of these future studies, researchers may wish to probe behavior in addition to cognition. Building on current findings showing that laypeople—especially children—perceive
incarcerated individuals as redeemable, future work can probe the extent to which these perceptions may shape people's actions. Such studies may test whether perceptions of redeemability lead individuals to perform behaviors such as befriending, hiring, or providing assistance to incarcerated or formerly incarcerated individuals.

Finally, and more broadly, the current work aligns with past results showing that children express more optimism than do adults (Boseovski, 2010; Diesendruck & Lindenbaum, 2009; Dunlea & Heiphetz, 2021; Lockhart et al, 2008). Future work can probe why this age-related difference emerges. One possibility is that parents who punish their children tell them that the goal of the punishment is the children's moral improvement, and children may generalize this message to other types of punishment. This possibility is consistent with theorizing suggesting that children may express optimism in part because their parents view them optimistically; thus, children encounter optimistic worldviews early in development (Boseovski, 2010). Another possibility is that with increasing age, individuals may have more experiences with people who repeatedly transgress without changing and may therefore express more pessimism about the possibility of redemption. Future work can probe how specific aspects of social experience and cognitive maturation shape age-related differences in optimism.

4. Materials and Methods

4.1. Participants

Participants were 50 children (43% male) between 6 and 8 years old ($M_{\text{age}}=6.92$ years, $SD_{\text{age}}=.85$ years) and 53 adults (32% male) between 18 and 34 years old ($M_{\text{age}}=21.36$ years, $SD_{\text{age}}=3.78$ years). Children were recruited via a departmental database and a children’s museum in the northeastern United States. When calling or e-mailing families from our database, we invited them to participate in a study regarding "how children think about right and wrong." The
researcher went on to explain that "[child’s name] will play a short game where we will tell him/her about other people and ask him/her some questions about them" and noted that "[i]n this particular study, we are also interested in how children think about people who have been in prison. So we will tell your child that a fictional character is in prison and ask him/her questions about that character." At the museum, where it was difficult to provide a lengthy explanation among the exhibits, we invited families to participate in a study on "how kids think about other people’s ability to change" and provided additional information, including a walk-through of the entire study, during the consenting process (at which point families could leave if they did not feel comfortable participating, although this was extremely uncommon).

Children completed the study in our on-campus lab (if they were recruited through the database) or in a quiet area of the museum. In either case, families had the option for the parent to accompany the child or to remain apart, in the lab's waiting area or slightly away from the child in a museum setting. When parents accompanied their child, the experimenter asked them to sit quietly behind the participant. This set-up allowed parents to observe everything that was happening but prevented children from seeing their parent's non-verbal responses. After completing the study, children received a small prize for their participation. Adults were recruited online from a university subject pool in the United States and received .5 course credits.

On a demographic questionnaire completed during the session, parents identified their children’s race as White or European American (24%), Black or African American (36%), Asian or Asian American (8%), multiracial (10%), and "other" (4%); the remaining parents did not specify their child's race. Additionally, 22% of children were identified as Hispanic or Latinx. On the same demographic questionnaire, parents identified their children’s religious affiliation as
Protestant (4%), Catholic (14%), Other Christian (20%), Jewish (4%), Muslim (4%), Hindu (2%), nonreligious, atheist, or agnostic (20%; our demographic questionnaire grouped these options together), and "other" (20%); the remaining parents did not specify their child’s religious affiliation. On average, parents reported that children attended religious services "once a year" (on a scale from 1="never" to 6="every week or more often," $M=3.26, SD=1.89$).

Adult participants self-identified as White or European American (42%), Black or African American (8%), Asian or Asian American (3%), Native American or Pacific Islander (2%), multiracial (6%), and "other" (9%); the remaining adults did not specify their race. Additionally, 17% of adults identified as Hispanic or Latinx. On the same demographic questionnaire, adults identified their religious affiliation as Protestant (13%), Catholic (9%), Other Christian (13%), Jewish (9%), Muslim (8%), Buddhist (2%), Hindu (2%), non-religious, atheist, or agnostic (32%), and "other" (6%); the remaining adults did not specify their religious affiliation. On average, adult participants reported that they attended religious services "once a year" ($M=3.14, SD=1.81$).

We excluded data from two children because they fell outside of the age range specified at the onset of the study. In order to ensure that adults were attentive during the study, we asked them to recall one type of transformation that they had read during the study. Participants answered this attention check question after completing all experimental items, and we excluded responses from one adult who failed to correctly answer this attention check question.

4.2. Procedure

An experimenter told children that he or she would ask the child questions about people who would soon be leaving jail and that these questions did not have right or wrong answers. After providing this information, the experimenter introduced children to a five-point scale
consisting of stick figures increasing in size from the left side of the scale to the right side of the scale. The experimenter said, "I’m going to ask you how much you agree with some sentences. To let me know how much you agree or disagree, we’re going to use these pictures." The experimenter then instructed the child on how to use the scale (e.g., "If you don’t agree with my sentence at all, you would point here," said while pointing to the smallest picture). The remaining labels were "agree a little bit," "agree a medium amount," "agree a lot," and "agree completely." The experimenter then asked children two test questions to assess their understanding of the scale (e.g., "Can you show me where you would point if your answer was 'I agree a medium amount'?".). Participants who responded incorrectly received corrective feedback and another opportunity to provide a correct answer. We adapted these methods from previous research (Bregant et al., 2016; Heiphetz et al., 2015; Olson & Shaw, 2011).

Following these instructions, the experimenter narrated three stories about incarcerated people who went to prison for robbing a bank. We selected this behavior to control the seriousness of the offense across vignettes and to present children with a crime that would be familiar to them but would not distress them (i.e., a crime that did not include a stated victim). As in prior work with children (e.g., Bregant et al., 2016; Diesendruck et al., 2013; Dunlea & Heiphetz, 2021; Gelman et al., 2007; Heiphetz et al., 2015), we asked participants about specific characters from vignettes rather than using more general probes about the extent to which they thought incarcerated people might change for the better. We made this decision because children have more experience thinking about specific individuals than abstract concepts. Additionally, asking about particular individuals may be more meaningful on a translational level, as people who have had contact with the legal system may care more about how other people perceive them specifically rather than how these people think about more abstract questions. Although
specific vignettes may elicit more lenient responses than more general questions (Hough et al., 2013), it is these responses that are likely to matter most in people's everyday interactions.

During each story, the experimenter displayed a photograph of a young White man on a laptop and detailed how the character spent his time in prison. In randomized order, the experimenter described one character as having taken classes about God (religious rehabilitation condition), another character as having taken life classes that taught students right from wrong (secular rehabilitation condition), and a third character as having taken art classes (control condition). We took all photographs from Kennedy and colleagues (2009) and matched them on all variables on which faces in that dataset were normed (perceived age, familiarity, mood, memorability, and picture quality). All photographs portrayed men because most imprisoned individuals in the United States are male (e.g., Carson, 2022).

During each trial, the experimenter described a unique lesson that the incarcerated character learned from the classes he took. Each condition described the character as learning something new. After describing each character, the experimenter asked two comprehension check questions (e.g., what type of class the character had taken) and provided corrective feedback if participants provided an incorrect answer.

The full text of the religion vignette read as follows: "This person is in prison right now because he robbed a bank. He is almost finished serving his time in prison. When he was put in prison he started to take classes about God every day because he wanted to become a better person. These classes taught him about how God wants people to behave. He had never prayed or believed in God before going to prison. Now he realizes that stealing from others is wrong. He feels very sorry for what he did because he now understands that it is wrong to steal. He now feels ready to leave prison and live life as a good person who follows the rules."
The full text of the secular vignette read as follows: "This person is in prison right now because he robbed a bank. He is almost finished serving his time in prison. When he was put in prison he started to take life classes every day because he wanted to become a better person. These classes taught him about right and wrong. He had never taken life classes before going to prison. Now he realizes that stealing from others is wrong. He feels very sorry for what he did because he now understands that it is wrong to steal. He now feels ready to leave prison and live life as a good person who follows the rules."

The full text of the art vignette read as follows: "This person is in prison right now because he robbed a bank. He is almost finished serving his time in prison. When he was put in prison he started to take art classes every day because he wanted to be in the same class as all of his friends. These classes taught him about different ways to make drawings and paintings. He had never taken art classes or drawn anything before going to prison. Now he realizes that there are many different ways to draw the same thing. He now feels ready to leave prison."

Following the comprehension check items, the experimenter said, "So now I’m going to ask you how much you agree with some sentences about the person I just told you about." The experimenter proceeded to ask participants to rate their agreement with three sentences probing their attitudes toward incarcerated individuals (e.g., "I like this person"), three sentences regarding the perceived effectiveness of the incarcerated character’s time in prison (e.g., "this person understands why robbing a bank is wrong"), and three sentences measuring the belief that the character has an unchanging essence that would cause him to re-offend (e.g., "this person will always break the rules"). The order of each block (i.e., attitudes, perceived effectiveness, essentialism), and the order of the three sentences within each block, were counterbalanced across participants. After answering all nine items, participants received a brief reminder about
each character and indicated which person they thought was the best and which person they thought was the worst.

Adults completed this procedure online and read all experimental items to themselves. They provided their responses on a scale that used only word-based labels (e.g., "agree a little bit") and did not include stick figures.

5. Conclusion

The current work examined whether 6- to 8-year-olds and adults believe that religious and secular interventions can successfully redeem incarcerated individuals. Both children and adults viewed religious education as well as secular classes with a focus on morality as effective at rehabilitation and reported positive attitudes toward people who had taken both types of classes. While these effects emerged across age groups, we also observed that children viewed incarceration as more effective at rehabilitation than did adults. These findings increase scientific understanding of religious and moral cognition across development and highlight the importance of treating incarcerated people as capable of redemption.
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Data Availability Statement: If this work is accepted for publication, the underlying data will be posted to a publicly accessibly repository associated with the authors' institution (https://academiccommons.columbia.edu).

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