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# Implicit bias predicts less willingness and less frequent adoption of Black children more than explicit bias

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## ABSTRACT

In the United States, prospective adoptive parents often express preferences related to race. In two studies, we examined whether implicit racial bias against Black people may contribute to disparities in much less willingness to adopt Black children. The first study ( $N = 510$ ) assessed individuals' implicit racial bias and their willingness to adopt a Black child. The second study ( $N = 2,001,652$ ) used U.S. state-level implicit racial bias to predict adoption rates of Black foster children in each U.S. state. Greater implicit racial bias predicted less willingness to adopt Black children and less frequent adoptions of Black foster children. Implicit bias contributed to these disparities above and beyond explicit bias, with implicit bias having a 43% larger effect size than explicit bias on willingness to adopt a Black child. These are the first findings to demonstrate the role implicit bias plays in explaining large disparities between Americans' willingness to adopt Black and White children.

## ARTICLE HISTORY

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## KEYWORDS

Adoption; implicit bias; racial disparities; IAT; explicit bias

## Introduction

Adoption is widespread in the United States, with approximately 135,000 children being adopted each year (Adoption Network, 2021). More than 1 in 3 Americans consider adopting, and the U.S. contains 2 million adopted children (Evan B. Donaldson Adoption Institute, 2013). Yet there are tremendous racial disparities among children placed for adoption. Black children are 7 times less likely to be adopted than are Asian children (Pecora et al., 2000). Using data collected from more than one million Americans, we present the first studies that test the hypothesis that individual- and state-level implicit racial bias is associated with lower willingness to adopt Black children and less frequent adoption of Black children from the foster care system.

Racial disparity in adoption rates runs very much counter to the availability of Black and White children in the foster care system, which is where 59% of American adoptions occur (Kids Count Data Center, 2018). Black children make up 14% of the children in the U.S., yet comprise 22% of children awaiting adoption (Kids Count Data Center, 2018). But prospective adoptive parents, 77% of whom are White, most often choose to adopt non-Black children (Pecora et al., 2000). Thus, at an individual level, there is a tendency of not adopting Black children, even though it is unknown what factors might contribute to this decision-making process.

Although individuals may choose to adopt different children for different reasons, the economic value that institutions assign to different races suggests societal-level bias. For example, consider the vast difference in costs associated with private adoptions of White versus Black children. In private adoptions, Americans pay an average of \$32,000 USD for White children, whereas they pay an average of \$24,000 USD for Black children (Baccara et al., 2014). Put another way, 25% less economic value has been assigned to the adoption of Black children than to White children.

From a policy and legal standpoint, there are few barriers to the adoption of Black children. U.S. congress passed the Multiethnic Placement Act (MEPA) in 1994 and the Removal of Barriers to Interethnic Adoption (Interethnic Adoption Provisions, IEP) in 1996, both of which reduced barriers to transracial placements (Brooks et al., 1999). Advocates of these laws argued that children's "best interests" would be served in making permanent adoptive placements more readily available as compared with longer stays in foster care when same-race placements were not available (McRoy & Griffin, 2012). Despite these laws facilitating transracial adoption, large racial disparities remain.

Implicit bias may play a role in willingness to adopt children of different races. Implicit biases have traditionally been conceptualized as capturing less intentional or controlled processes (Dovidio et al., 2002; Gawronski et al., 2008) that can influence judgments and behaviors outside of conscious awareness (Fazio & Olson, 2003). Having more positive valenced associations (e.g., good, bad) with one social category (e.g., White people) relative to another (e.g., Black people) can manifest in subtle and often unintentional ways. For instance, some research indicates implicit bias is associated with behaviors such as systematically sitting further away from Black than White people (Dovidio et al., 2002).

Where does this bias come from? Same race preferences often begin to develop early in the lifespan. Within the first few months of life, infants begin to prefer interacting with familiar groups over unfamiliar groups (Baron, 2015; K. Lee et al., 2017). Same race bias is also seen in friendship preferences beginning in childhood (Abel & Sahinkaya, 1962; Graham & Cohen, 1997). These preferences continue into adolescence (Hallinan & Williams, 1989, 1989) and persist in adults (Crandall et al., 2002; Crandall et al., 1997; Galupo & Gonzalez, 2013). Adults also exhibit same race preferences in dating (Anderson et al., 2014; Fisman et al., 2008) and marriage (Djamba & Kimuna, 2014; Perry, 2013).

With regard to implicit bias specifically, by age 6, most White children show implicit bias toward White people (Baron, 2015). While White children often display same-race bias (Baron & Banaji, 2009; Newheiser & Olson, 2012), on average, Black children do not show bias toward either Black or White people (Baron & Banaji, 2009; Newheiser & Olson, 2012). This pattern is similar to adult biases found on the IAT, where Black adults show much less bias in either direction than White adults (Nosek et al., 2002, 2007).

We posit that implicit bias specifically may be associated with behaviors like willingness to adopt Black children, particularly in people with lower levels of explicit racism who still exhibit moderate to high implicit bias. Many people have a mismatch in their implicit racial bias and their explicit racial biases, as demonstrated by a meta-analysis that found there is only a somewhat weak link between these two types of biases (Hofmann et al., 2005). In other words, implicit bias matters with regard to racial adoption disparities because people who do not have explicitly racist beliefs still might have implicit biases against adopting a Black child.

Here, we conducted two studies examining the role of implicit racial bias in the large discrepancy in adoption rates of Black and White children. We hypothesized that higher levels of implicit racial bias would be associated with less willingness to adopt a Black child and lower rates of actual adoptions of Black children from the U.S. foster care system. Our first study examined this question at the individual level, whereas the second did so at the state level across the U.S.

Individual and group-level data provide us with two different lenses to examine the relationship between implicit racial bias and the rates of adopting Black children. A strength of the individual approach is that we could assess individual willingness to adopt Black children (Blanton & Jaccard, 2017), while a strength of aggregate data is that it emphasizes the role of structural factors and culture on behavior (Payne et al., 2017). Certain contexts make biased associations more accessible; so, taking into account individual data as well as aggregate data can help us better understand the role the environment plays in implicit bias (Correll et al., 2014).

When individual data and group data are examined together, we can avoid the ecological fallacy, which is making possibly erroneous inferences about individuals based on population-level data (Subramanian et al., 2009). Through this approach, we were able to model the individual data, model the group data, and see how the individual and group data were related with regard to implicit racial bias and attitudes about adopting Black children.

## Study 1

### *Methods study 1*

#### *Participants*

Five hundred and ten people from the United States on Amazon's Mechanical Turk participated in this study. These people had a HIT (Human Intelligence Task) approval rate of 95% and above, meaning they have completed 95% of their previous tasks on the website successfully. Seventy-eight percent of participants were White, 13% were Black, 5% were Hispanic, 3% were Asian, and 1% were of another racial identity. Fifty-five percent of participants were parents. All were biological parents; none of the participants was adoptive parents. Fifty percent of participants were 25–34 years old, followed by 21% 35–44, 12% 45–54, 8% 25–34, 7% 55–64, and 2% 65–74.

#### *Procedure*

Following demographics, participants were asked questions about their willingness to adopt a Black child. This included “How likely would you be to adopt a Black child?” and “What percentage of Black heritage would you like your adopted child to have?”. These questions mirror questions asked of prospective adoptive parents in the U.S. (Sweeney, 2013). Participants also completed the Colorblind Racial Attitudes Scale (Neville et al., 2000).

After completing these questions, participants completed the implicit association task (Greenwald et al., 1998). The IAT measures implicit associations between categories and our evaluations of those categories. In the race IAT task, participants are presented with an image of a Black person or a White person in the center of the computer screen. At the top of the computer screen, there are two possible evaluation words to assign to the image, either positive or negative.

In each trial in the IAT, participants are instructed to associate a category with a type of evaluation. For example, in one trial, they are asked to associate the images of White people with the positive evaluation words and Black people with negative evaluation words. In their next trial, these instructions would be reversed, associating White people with negative words and Black people with positive words. After several trials of this task, accuracy and response latency are calculated for the two types of associations. From these results, a score called an IAT  $d$  is calculated that measures racial bias (Subramanian et al., 2009). In other words, racial bias is defined as the difference between positive associations with White people relative to negative associations with Black people (Greenwald et al., 1998). Precise details about the guidelines used to calculate the IAT  $d$  score are described in the supplemental materials of this paper.

#### *Plan of analysis.*

First, we planned a simple regression examining the association between IAT score and willingness to adopt a Black child. Next, we planned a hierarchical regression model controlling for a number of factors in our models we thought likely to be involved in willingness to adopt. Participants reported their socioeconomic status and if they were parents. We planned to control for responses to the police officer's dilemma task (Correll et al., 2014), which measures implicit associations between Black people and weapons. This task was used to determine if a potential bias of seeing Black men as dangerous could be affecting willingness to adopt a Black child. In addition, we controlled for gender and age. We also controlled for how willing the participant would be to adopt a White child. Finally, we controlled for participant race in our model. It is important to note that although race is controlled for in the model, the results speak to how implicit bias in people of any race relates to willingness to adopt a Black child. In these ways, we examined the effect of implicit racial bias factoring out the influence of the participants' own race, age, gender, parental status, socioeconomic status, and implicit associations between Black people and weapons. In addition, we planned an additional hierarchical regression model identical to the one described above, except with a different dependent variable, which was percentage of Black heritage preferred in the adopted child.

A power analysis with an estimated effect size of  $f^2 = 0.020$  (Cohen's  $d = 0.28$ ) for the IAT effect on attitudes about adopting Black children was run a priori. This effect size was drawn from the Greenwald et al. (2015) article that described the average effect size of the Black-White IAT as  $r = 0.14$  ( $d = 0.28$ ). For 90% power with eight predictors, the suggested sample size was 528. Five hundred and ten people completed this study in its entirety. Missing data was handled by listwise deletion, as the IAT was the last part of the study, and its data were crucial to the analysis. Outliers that did not occur by error but rather represented real participant behavior were retained per best practices guidelines for reducing type 1 error rate (see Bakker & Wicherts, 2014; Leys et al., 2019).

All of our results reported below are considered to be exploratory in nature, with study 2 building on study 1. Information for both studies including open data, open code, and open materials can be accessed on the Open Science Framework at [https://osf.io/ug45c/?view\\_only=f023c19604a2489c820ff3963c7c5390](https://osf.io/ug45c/?view_only=f023c19604a2489c820ff3963c7c5390).

## Results study 1

To examine the effects of racial bias on adoption rates of Black children, we first conducted a simple regression. The independent variable was IAT score, and the dependent variable was willingness to adopt a Black child. Without controlling for any covariates, there was a marginally significant relationship between racial bias on the IAT and willingness to adopt a Black child,  $B = -0.47$ ,  $SE = 0.24$ ,  $p = .052$ , 95%  $CI [-0.940, 0.005]$ . To better understand this relationship, we controlled for other variables affecting this relationship in a hierarchical regression model.

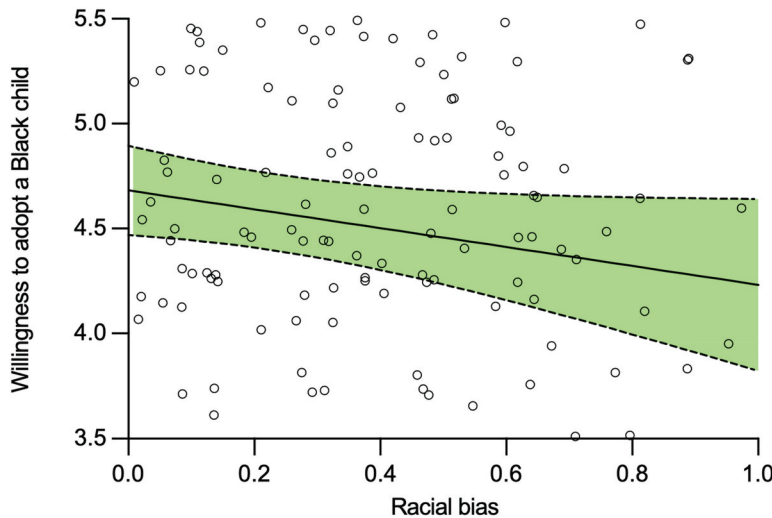
In the first step of the regression, the predictors were parental status (i.e., whether the participant already had children), socioeconomic status, gender, age, and race. Race was a dichotomous variable of White people and people of color. Socioeconomic status was computed from summing together the three questions in our dataset that pertained to socioeconomic status. These questions were “Now, I have enough money to buy all the things I need,” “I don’t worry much about paying my bills,” and “I don’t think I’ll have to worry about too much in the future.” These were all of the questions asked about socioeconomic status in the dataset, and they had a high degree of internal consistency ( $\Omega = 0.92$ ). In the second step of the regression, the predictors were racial bias on the IAT and racial bias on the police officer’s dilemma task, controlling for parental status, socioeconomic status, and age, gender, and race. These results are described in Table 1.

In the first step of the regression, parents, women, and people of a higher socioeconomic status were significantly more willing to adopt a Black child. White people and older people were significantly less willing to adopt a Black child. These statistics are described in Table 1.

**Table 1.** Hierarchical regression model examining factors affecting willingness to adopt a Black child.

Effect	<i>B</i>	<i>SE</i>	<i>p</i>	95% <i>CI</i>
Step 1				
Intercept	4.550	0.376	<.001	[3.811, 5.289]
Parental status	0.488	0.193	.012	[0.110, 0.867]
Socioeconomic status	0.043	0.022	.050	[0.000, 0.086]
Race	−0.835	0.212	<.001	[−1.251, −0.418]
Age group	−0.316	0.085	.001	[−0.482, −0.149]
Gender (1 = female, 0 = male)	0.652	0.186	<.001	[0.286, 1.018]
Step 2				
Intercept	2.341	0.376	<.001	[1.591, 3.091]
Parental status	0.064	0.172	.708	[−0.273, 0.402]
Socioeconomic status	0.023	0.019	.237	[−0.015, 0.060]
Race	−0.993	0.186	<.001	[−1.299, −0.568]
Age group	−0.217	0.074	.004	[−0.363, −0.071]
Gender (1 = female, 0 = male)	0.569	0.163	.001	[0.249, 0.889]
Willingness to adopt a White child	0.530	0.042	<.001	[0.447, 0.612]
Police officer’s dilemma task	0.000	0.004	.985	[−0.008, 0.008]
IAT <i>d</i> (racial bias)	−0.486	0.204	.017	[−0.887, −0.086]

*Dependent variable: willingness to adopt a Black child.*



**Figure 1.** As implicit racial bias increases, willingness to adopt Black children decreases. The dotted lines above and below the solid line show a 95% confidence interval of this relationship.

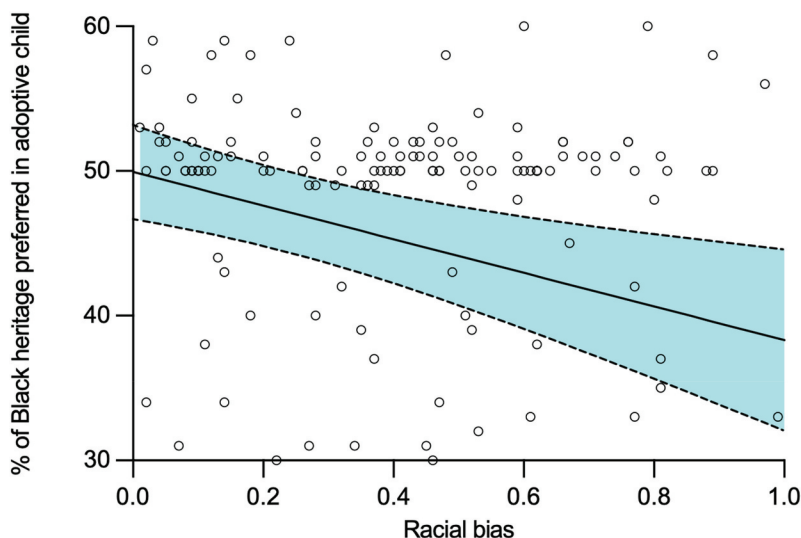
**Table 2.** Hierarchical regression model examining factors affecting percent of Black heritage preferred in adoptive child.

Effect	<i>B</i>	<i>SE</i>	<i>p</i>	95% <i>CI</i>
Step 1				
Intercept	48.887	5.825	<.001	[37.443, 60.331]
Parental status	5.288	2.981	.077	[-0.569, 11.144]
Socioeconomic status	0.840	0.338	.013	[0.177, 1.504]
Race	-16.442	3.284	<.001	[-22.894, -9.990]
Age group	-2.629	1.314	.046	[-5.209, -0.048]
Gender (1=female, 0=male)	13.687	2.884	<.001	[8.021, 19.352]
Step 2				
Intercept	37.716	6.636	<.001	[24.681, 50.756]
Parental status	2.861	2.985	.338	[-3.004, 8.725]
Socioeconomic status	0.745	0.332	.025	[0.092, 1.398]
Race	-16.449	3.238	<.001	[-22.809, -10.088]
Age group	-2.043	1.293	.115	[-4.584, 0.498]
Gender (1=female, 0=male)	12.854	2.834	<.001	[7.287, 18.422]
Willingness to adopt a White child	3.076	0.730	<.001	[1.641, 4.510]
Police officer's dilemma task	-0.037	0.072	.604	[-0.179, 0.104]
IAT <i>d</i> (racial bias)	-9.872	3.545	.006	[-16.867, -2.907]

*Dependent variable: percentage of Black heritage preferred in adoptive child.*

In the second step of the regression, racial bias on the IAT significantly predicted willingness to adopt a Black child. The more racial bias people exhibited on the IAT, the less willing they were to adopt a Black child ( $B = -0.49$ ,  $SE = 0.20$ ,  $p = .017$ , 95%  $CI [-0.887, -0.086]$ ), overall model effect size  $f^2 = 0.50$ , see Figure 1. In addition, being a woman as well as willingness to adopt a White child were significantly, positively related to willingness to adopt a Black child. Being older and being White were significantly, negatively associated with willingness to adopt a Black child (see Table 1).

We conducted a second hierarchical regression examining the percentage of Black heritage people preferred in children they would be willing to adopt (see Table 2). In the first step of the regression, the predictors were parental status, socioeconomic status, gender, age, and race. In the second step of the regression, the predictors were racial bias on the IAT and racial bias on the police officer's dilemma task, controlling for parental status, socioeconomic status, age, gender, and race.



**Figure 2.** As implicit racial bias increases, desired percentage of Black heritage in the adopted child decreases. The dotted lines above and below the solid line show a 95% confidence interval of this relationship.

Similar to the results of the regression about willingness to adopt a Black child, in the first step of the regression, people of higher socioeconomic status and women preferred significantly more Black heritage in a potential adoptive child. Older people and White people preferred significantly less Black heritage in a potential adoptive child (see Table 2).

In the second step of the regression, racial bias on the IAT significantly predicted the percentage of Black heritage people preferred in children they would be willing to adopt. People with less racial bias on the IAT preferred to adopt children with more Black heritage ( $B = -9.87$ ,  $SE = 3.55$ ,  $p = .006$ , 95%  $CI [-16.837, -2.907]$ , overall model effect size  $f^2 = 0.200$ ), see Figure 2. People of higher socioeconomic status, women, and people who were more likely to adopt a White child preferred significantly more Black heritage in a prospective adoptive child in the second step of this model, while White people preferred significantly less Black heritage in this model.

Implicit bias explained these effects above and beyond explicit bias. The following models were the same as the ones described above with the covariates, except explicit bias was controlled for in both. When controlling for explicit bias on willingness to adopt a Black child, the IAT effect is still a significant predictor,  $B = -0.48$ ,  $SE = 0.20$ ,  $p = .018$ , 95%  $CI [-0.880, -0.084]$ , overall model effect size  $f^2 = 0.010$ . When controlling for explicit bias on percentage of Black heritage people preferred in children they would be willing to adopt, the IAT effect is still a significant predictor as well,  $B = -9.78$ ,  $SE = 3.52$ ,  $p = .006$ , 95%  $CI [-16.690, -2.876]$ , overall model effect size  $f^2 = 0.007$ .

Finally, implicit bias and explicit bias were compared in separate models to see their associations with willingness to adopt a Black child and percentage of Black heritage people preferred in children they would be willing to adopt. In a simple regression described earlier in the results, IAT scores were associated with willingness to adopt a Black child,  $B = -0.47$ ,  $SE = 0.24$ ,  $p = .052$ , 95%  $CI [-0.940, 0.005]$ ,  $f^2 = 0.007$ . In a different regression, explicit bias was associated with willingness to adopt a Black child,  $B = -0.007$ ,  $SE = 0$ ,  $p = .097$ , 95%  $CI [-0.015, 0.001]$ ,  $f^2 = 0.005$ . In addition, another simple regression found IAT scores to be associated with percentage of Black heritage preferred in a child people would be willing to adopt,  $B = -11.66$ ,  $SE = 3.70$ ,  $p = .002$ , 95%  $CI [-18.94, 4.38]$ ,  $f^2 = 0.019$ . A final simple regression found explicit bias was associated with percentage of Black heritage preferred in a child people would be willing to adopt,  $B = -0.176$ ,  $SE = 0.06$ ,  $p = .004$ , 95%  $CI [-0.297, -0.056]$ ,  $f^2 = 0.015$ . In this way, implicit bias had a larger effect size on willingness to adopt a Black child and percentage of Black heritage desired in an adoptive child as compared to explicit bias.



All of the models described here were also run with a different dependent variable, willingness to adopt any different-race child, instead of a Black child specifically. There were no significant effects in any of the models. There were no significant effects in any of the models.

## Study 2

### Methods study 2

In Study 2, we examined whether racial bias might play a similar role in explaining adoption rates across the country. This study looked at state-level IAT scores and state-level adoption rates of Black children in the U.S. The state-level IAT scores were calculated by data from Project Implicit, which has organized large-scale data collection of IAT scores across the United States and around the world (see projectimplicit.net & Xu et al., 2014). Individual responses were geolocated, and the bias scores of thousands of individuals within a state were averaged to arrive at a state-level estimate of implicit racial bias. Based on the results of Study 1, we hypothesized that in Study 2, there would be a negative relationship between racial bias from the IAT and the number of Black children adopted from foster care at the state level.

Over the past 5 years, researchers have begun examining how regional variation in intergroup biases might be associated with societally impactful outcomes impossible to study in the lab (Hehman et al., 2019). For instance, greater implicit bias has been associated with rates of police killing disproportionate numbers of Black people (Hehman et al., 2018), higher mortality rates for Black babies (Orchard & Price, 2017), more punishment for Black children at school (Riddle & Sinclair, 2019), and racial death rate disparities (Leitner et al., 2016). We adopted this approach to test our hypothesis that state-level implicit racial bias would be associated with lower rates of adopting a Black child relative to their presence in the state foster care system.

### Participants

We included White participants from annual datasets in the years 2005 to 2016. 57.7% of the participants were female, 42.2% of the participants were male, and other gender identities were not collected in this time period. The mean age was 27.09 (SD = 10.80), with adults from 18 years old to 87 years old.

### Plan of analysis

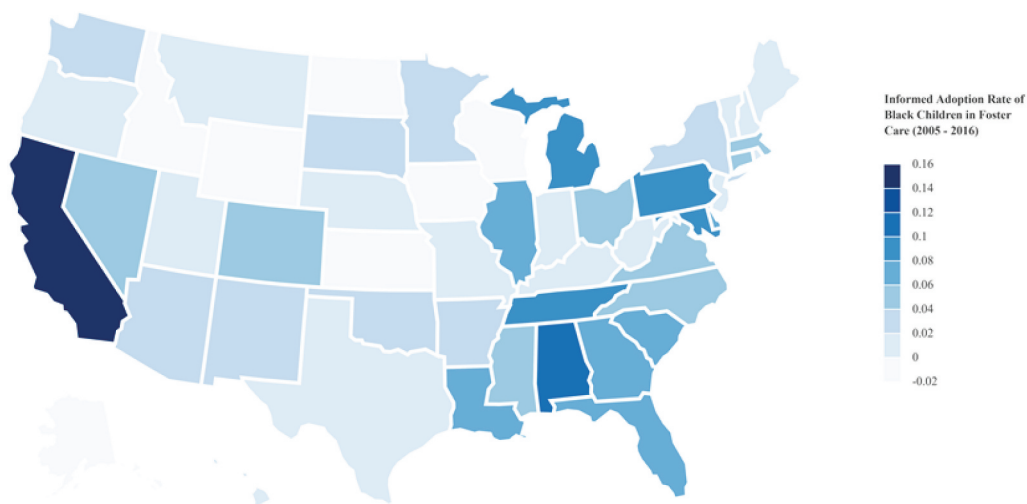
Based on the results of study one, we hypothesized that there would be a negative relationship between racial bias on the IAT and adoption of Black children at the state-level. Because we would expect fewer Black children to be adopted in areas in which there were fewer Black children to adopt, we examined the disproportionate adoption rate of Black children relative to their presence in the foster care system in that state. The disproportionate adoption rate of Black children was calculated as (# Black children in foster system/Total # children in foster system) – (# Black children adopted/Total # children adopted).

**Table 3.** Multiple regression model examining the relationship between disproportionate adoption rates of Black children on state-level implicit racial biases of White people in that state.

Effect	<i>B</i>	<i>SE</i>	<i>p</i>	95% <i>CI</i>
Intercept	.0347	.0034	<.001	[.0240, .0500]
White Racial Implicit Bias	.3806	.1553	.016	[.0115, .6333]
White Weapons-Association	-.3569	.2592	.140	[-.8647, .1442]
State socioeconomic status	.0001	.0001	<.001	[.0001, .0001]
State employment rate	-.0032	.0012	<.001	[-.0062, -.0005]
State violent crime rate	.0001	.0001	<.001	[.0001, .0002]
State population density	-.0001	.0001	.003	[-.0001, -.0001]

*Dependent variable: adoption rate of Black children per state given their proportion in that state's foster care system.*





**Figure 3.** Higher implicit racial bias on the IAT per state was associated with fewer Black children being adopted in that state relative to the proportion of black children in the foster care system in that state. The darker colors indicate states where black children are the least likely to be adopted relative to their presence in the foster care system in that state. This effect (higher implicit bias being associated with fewer black children being adopted) was the most prominent in California. Generally speaking, this effect was also more prominent in the northeastern and southeastern regions of the United States and less prominent in the Midwestern and the Pacific northwestern regions.

## Results study 2

We used a multiple regression model to examine the relationship between disproportionate adoption rates of Black children on state-level implicit racial biases of White people in that state. The model controlled for socioeconomic status, employment, education, average implicit associations between weapons and Black people, population density, and violent crime rate in each state. Across states, greater average implicit racial bias on the IAT was associated with fewer Black children being adopted in that state relative to their presence in the foster care system ( $B = 0.38$ ,  $SE = .16$ ,  $p = .016$ , 95% CI [0.012, 0.633], overall model effect size  $f^2 = 0.58$ ; see Table 3). In other words, as the state's average level of pro-White implicit bias (of White respondents) increased, adoption of Black children relative to their presence in foster homes decreased (visualized in Figure 3).

Disproportionate adoption rates were not associated with threat-based stereotypes as assessed by the weapons-association IAT ( $B = -.36$ ,  $SE = .26$ ,  $p = .140$ , 95% CI [-.865, .144]). In addition, wealthier states and states with greater overall violent crime had greater disproportionate adoption rates. In contrast, states with greater employment and higher population density had less disproportionate adoption rates.

Our final model explained 37.1% of the variance in the rate of adopting a Black child than would be expected based on their presence in state homes across the U.S. from 2005 to 2016. Racial implicit bias uniquely explained 3% of the variance above and beyond all demographic covariates. This result is consistent with the relationship observed in Study 1 at the individual level between implicit bias and willingness to adopt Black children.

## Discussion

Great inequalities exist between Black and White Americans. Systemic racism contributes to economic disparities, disproportionate incarceration rates, and health disparities (Bonilla-Silva, 2017) that include decreased life expectancy (Levine et al., 2016). These problems may relate to the negative social outcomes associated with racial disparities in adoption rates as well as the

disproportionately high numbers of Black children in foster care. Our findings offer the first evidence that both individual- and state-level implicit biases contribute to less willingness to adopt Black children and lower numbers of actual adoptions of Black children from foster care. More racially biased people expressed lower willingness to adopt Black children, and states with more racially biased individuals had significantly more Black children in foster care waiting to be adopted.

In study one, we were able to collect implicit and explicit bias measures. One regression model included only implicit and explicit bias and their association with willingness to adopt Black children. In this model, implicit bias was associated with a 43% larger effect size in these racial disparities than explicit bias was.

What impact does this racial disparity in adoption have for Black children? Time in U.S. foster care is associated with long-term negative outcomes, such as poorer education, increased difficulty in finding and keeping a job, lower wages, and homelessness (Gypen et al., 2017). As Black children spend the most time in foster care awaiting adoption (as compared to children of other racial/ethnic groups), they become more prone for these negative outcomes. In contrast, adoption, in conjunction with racial socialization for the child, is associated with positive outcomes for the child (J. Lee et al., 2018).

Our results suggest that explicit beliefs conflict with the power of implicit racial biases, which are often activated automatically (Dovidio et al., 2002). The findings from these two studies, representing data at the state- and individual-level, are likely to reflect attitudes that are representative of the general public. One benefit of studying biases in the general public in addition to gathering data specifically about adoptions relates to a problem with not enough adoptive parents, and specifically not enough for Black children, in the U.S. Adoption agencies could potentially implement programs to help reduce perceived barriers around transracial adoption that relate to racial bias.

Although it is unknown if the state-level and individual-level implicit racial bias share mechanisms with regard to racial disparities in adoption, we can speculate on possible dynamic relationships between the two. Geographical areas where there are above average rates of implicit bias toward White people may also be areas where it is perceived that community members and extended family members would be less accepting of transracial adoption. Prospective adoptive parents living in a particularly racially biased area also might feel that their child would be more of a target for racism as compared to less racially biased areas. However, these possible dynamic relationships between implicit and explicit bias with regard to transracial adoptions have not yet been explored.

The results of our studies have policy implications for adoption in the U.S. One reason why there are so many Black children remaining in foster care may relate to the implicit bias we saw in our studies. Many Americans believe that all children should have an equal chance of being adopted regardless of their race (Goldberg, 2009; Smith et al., 2008). Black children, however, are being adopted at a much lower rate from foster care than White children, and our studies suggest this choice is partially driven by implicit racial bias. Further policy changes beyond the Multiethnic Placement Act may be needed to reduce racial disparities related to implicit bias and adoption rates.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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## Data availability statement

The data described in this article are openly available in the Open Science Framework at <https://osf.io/ug45c/>.

## Open scholarship



This article has earned the Center for Open Science badges for Open Data and Open Materials through Open Practices Disclosure. The data and materials are openly accessible at <https://osf.io/ug45c/>.

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