

EARLY CONCEPTIONS OF NATIONAL IDENTITY:  
CAUSES AND CONSEQUENCES

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy in Psychology  
in the Graduate College of the  
University of Illinois at Urbana-Champaign, 2017

Urbana, Illinois

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## ABSTRACT

National identity is a powerful category marker that has been found to influence people's perceptions and judgments of social others. While one's nationality is technically defined by circumstantial factors (e.g., birthplace, residence), as opposed to inherent or biological features, adults still describe their national identity as being extremely important to their personal identity (ANES, 2004), and strong national identification has profound—and often pernicious—consequences for how one views national outgroups (e.g., Huynh, Devos, & Altman, 2015). Here, I explore the origins of national identity conceptions; specifically, I ask whether young children (beginning at age 5) are aware of the extrinsic determinants of nationality, or whether their conceptions are more biologically-based, as is their reasoning about other influential social categories (e.g., gender; Rhodes & Gelman, 2009). I tested the prediction that at the age when children first become aware of their national identity as a category marker, they will hold an *essentialist* conception of nationality, believing that it is a biologically-based, stable, and inherent feature of their selves. However, as they age, this tendency will decline, and they will instead attribute nationality to more environmentally-determined factors (Studies 1-3). Further, I investigated the consequences of an early essentialist conception of national identity, and specifically the role that essentialism plays in predicting outgroup-denigrating beliefs and behaviors (Studies 3 & 4). In uncovering the early manifestations and consequences of national identity beliefs, the present research presents an important first look at the development of children's understanding of nation-state membership, and the lasting impact it may have on their interactions with the world.

## ACKNOWLEDGEMENTS

Over the last five years, I've learned that the phrase "it takes a village" applies not only to raising a child, but also to the cultivation of a graduate student. My successes and accomplishments are the result of the love, support, and careful instruction that I've received from so many. For all that they have contributed, I am so very grateful.

To my advisor and mentor, Andrei Cimpian, I owe a tremendous debt of gratitude for your consistent efforts on my behalf. Your tireless work ethic and dedication to rigorous scientific inquiry have inspired me to always search for ways to improve myself and my research. I hope to apply all that you've taught me to my future endeavors, and I know that I will always proudly carry the title of "Cimpianaut" :o).

To my committee members, I am so grateful for your thoughtful consideration and critique of the present dissertation. Your feedback was instrumental in improving the project, and I greatly appreciate the opportunity to have worked alongside all of you.

To my labmates and graduate student compatriots in Champaign-Urbana, I am so lucky to have been surrounded by such a supportive and close-knit group of people. To the Fab Four especially, thank you for your friendship, encouragement, and more than a few shared drinks. I so look forward to all that you will accomplish, and I'm excited to have gained so many lifelong friends.

To my family, your unconditional love and support is the driving force behind all of my success. Mom and Dad, thank you for teaching me that there is nothing that I can't accomplish, and for always encouraging me to follow my dreams, even when they took me away from home. Garret, Rebekah, and Trevor, thank you for your friendship and for making me feel that no matter how long we're apart, we never seem to skip a beat. And Leah and Jonathan, thank you

for giving Aunt Larisa the best hugs in the world, and for being my motivation to improve myself and the world around me.

Finally, there are two individuals who have played such a critical role in my graduate school career that without them, I would not be where I am today. Jay, for the past eight years, you have been a constant support and source of joy in my life. Thank you for always believing in me, for exploring the world with me, and for sharing countless plates of three cups chicken. I will never be able to adequately convey all that you've done for me, but I will be forever grateful for all that we've shared. Lastly, to my partner in crime, my other half, and my very favorite part of grad school: Christina, you've been my inspiration for the last five years, and I can't imagine graduate school or life without you. I am so incredibly grateful for your friendship, and am excited for you will accomplish next. For now and forever, I love you like XO.

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## CHAPTER 1: INTRODUCTION

Since its origins in post-Renaissance Europe, the nation state has held a privileged place both politically and psychologically, influencing the actions and attitudes of groups based on their national identities (Anderson, 2006). Even today, despite a trend of increasing globalization in nearly every aspect of modern life, nationality is a key source of personal identity and ingroup affiliation. For instance, 81% of Americans report being either “very proud” or “extremely proud” to be American (Swift, 2015), and over 88% of Americans say that being an American is either “very important” or “extremely important” to their identity as people (ANES, 2004). Thus, national identity seems to function not only as a shallow administrative means of classifying people but also as a powerful source of identity and meaning. In this way, national identity behaves similarly to other social category markers such as race, gender, and ethnicity (Hirschfeld, 1995; Rhodes & Gelman, 2009; Diesendruck & haLevi, 2006).

Nationality and the extent to which one identifies with one’s national group also have consequences for one’s views and treatment of others. Strong national identification, for instance, has been linked with anti-immigrant attitudes, and with a tendency to view ethnic minorities as outsiders (e.g., Huynh, Devos, & Altman, 2015; Schatz, Staub, & Lavine, 1999). Recent evidence for the influence of nationalist (i.e., the belief that one’s country is superior to all others) beliefs on intergroup attitudes can be found in the pro-isolationist, and at times, anti-immigrant platforms embedded in political parties (e.g., UKIP in the United Kingdom; National Front in France) that have recently gained traction across the globe (“League of Nationalists”, 2016). Perhaps most strikingly, the election of Donald Trump as president of the United States—and his ongoing efforts to restrict entry into the U.S. for individuals of certain nationalities—reflect a shift in popular thinking about national groups and how they should interact.

Given the significant influence that national identity has on people's behavior and attitudes, uncovering precisely when and how people first conceptualize their national identity may prove important to better understanding the role of nationality in our social interactions. Here, I explore the developmental origins of national identity concepts; that is, I investigate how young children conceptualize their nationality and whether these early conceptions have consequences for outgroup-oriented behavior. I propose that, unlike most adults, young children have a biologically-based conception of nationality, which has a significant impact on how they view and treat members of their own as well as other national groups. Specifically, I argue that believing that national identity is an inherited, internal, and stable trait may lead children to endorse intergroup inequalities as fundamentally fair and just.

### **Conceptions of national identity: What we know**

As alluded to above, national identity is a powerful category marker that influences a variety of social judgments. However, unlike many other delineators of social groups, national identity is largely determined by factors extrinsic to the individual (e.g., where one was born, where they live), and is to some extent malleable. For instance, immigrating to a new country can allow one to acquire a new national identity, and thus a new set of nationality-relevant attitudes and behaviors. When asked explicitly to consider the factors that are important in making someone an American, a vast majority of adults list qualities like having American citizenship or being able to speak English, reflecting the understanding that what makes someone a member of a specific national group is not necessarily inborn or immutable (Schildkraut, 2007).

The fact that nationality is determined by largely contextual or extrinsic forces sets it apart from other category markers, like race and gender, which are widely assumed to have some

biological basis. However, similarly to more biologically-determined categories, conceptions of nationality can be extremely powerful in terms of the beliefs and behaviors they license. The adult literature on the consequences of certain national identity beliefs has largely focused on two aspects of nationality conceptions: (1) how favorably people view their nationality and national group compared to others, and (2) how important people consider their nationality to their personal identity.

A great deal of research on the first aspect has revealed that comparative beliefs about national identity have important consequences for people's attitudes toward domestic and foreign groups and policies (e.g., Gangl, Torgler, & Kirchler, 2015; Livi, Leone, Falgares, & Lombardo, 2014; Schatz et al., 1999; Worchel & Coutant, 1997). For instance, nationalism—the belief that one's nation and national group is superior to all others (e.g., Adorno, Frenkel-Burnswik, Levinson, & Sanford, 1950; Kosterman & Feshbach, 1989; Schatz et al., 1999)—has been linked with system-supporting attitudes (Carter, Ferguson, & Hassin, 2011), authoritarianism (Baughn, & Yaprak, 1996), and anti-multiculturalism (Li & Brewer, 2004). Similarly, unquestioning support for one's country and an intolerance of criticism (i.e., “blind patriotism”) predicts political disengagement and selective avoidance of anti-national group information (Livi et al., 2014; Schatz et al., 1999). However, a more critical but still favorable (i.e., “constructive patriotism”) view of one's national group is related to more politically engaged behaviors and greater concern for others, regardless of national allegiance (i.e., universalism). Thus, how people evaluate their national group, and consequently their national identity, in relation to others appears to have important consequences for their behavior.

In cases in which participants are asked to consider the personal importance of their national identity (and not necessarily its status compared to others), national group identification

is still influential, and at times can be invoked as a means of fostering prejudice (e.g., Falomir-Pichastor & Frederic, 2013; Kunovich, 2009; Meeus, Duriez, Vanbeselaere, & Boen, 2010). One investigation of the relationship between perceived national group importance and outgroup attitudes, for instance, found a strong positive relationship between the importance of national identification (e.g., “Is it important for you to be Swiss?”) and the belief that immigrants threaten the collective national identity (e.g., “To what extent do immigrants constitute a threat to the Swiss identity?”; Falomir-Pichastor & Frederic, 2013). Further, the importance to which people ascribed their national identity was also found to be strongly correlated with prejudice toward outgroups (e.g., “These immigrants are asking too much when they demand equal rights”), suggesting that the extent to which people identify with their national group may influence not only their conceptions of outgroups, but also how they behave toward outgroup members. Nationality therefore represents a powerful and unique identity marker, with far-reaching consequences for human behavior. Given this, I explored the origins of national identity conceptions, in an effort to uncover precisely how nationality beliefs, and the corresponding intergroup attitudes, take root early in life.

Like adults, children appear to identify strongly with their national group from a young age. For instance, American children as young as five are able to identify their nationality and recognize their country’s flag, and there is some evidence that a strong sense of national pride exists by age seven (Moore et al., 1985; Piaget & Weil, 1951; Weinstein, 1957). Given that even young children are well aware of their national identity and (similar to adults) consider nationality to be an important aspect of their identity (Carrington & Short, 1995; 1996), one might expect children to have a rather sophisticated subjective conceptualization of national identity. That is, similar to adults, children may understand the malleable nature of nationality,

and be highly sensitive to the various external, contingent factors that determine national identity. And in fact, older children and adolescents do express adult-like conceptions of nationality (Carrington & Short, 1995; 1996; Howard & Gill, 2001). For example, when queried about “what makes a person British,” over 80% of 11-year-old Scottish children cited “being born in Britain” as a deciding factor, while less than 3% mentioned race or ethnicity (Carrington & Short, 1995). However, very little is known about children’s concepts of national identity before the age of 10, and in fact, research on early category reasoning suggests that young children’s views on this topic may be quite different from those of adolescents and adults.

### **Early essentialist conceptions of social categories**

For several decades, developmental researchers have noticed a pattern in young children’s reasoning about natural (e.g., dogs, lions) and social (e.g., women, Blacks) kinds. Beginning around age 4, children’s thinking reflects a belief that such categories are determined by some deep, microstructural essence, which is responsible for causing category-relevant properties and behaviors (e.g., Gelman, 2003). Members of the same category are thought to share the same essence, which reflects a stable, inherent part of their identity. This belief in *psychological essentialism* has striking consequences for children’s categorical reasoning, leading them to believe that individuals that share the same category essence will share properties and preferences (e.g., Diesendruck & HaLevi, 2006), that essence-linked features are impervious to changes in the environment (e.g., Taylor, Rhodes, & Gelman, 2009), and that stable internal characteristics underlie attitudes and behaviors (e.g., Gelman & Wellman, 1991; Newman & Keil, 2008). As a result, children view category membership as stable across time and delineated by strict boundaries. Given that children demonstrate essentialist reasoning about social categories based on race (e.g., Hirschfeld, 1995), gender (e.g., Gelman & Taylor, 2000),

ethnicity (e.g., Birnbaum, Deeb, Segall, Ben-Eliyahu, & Diesendruck, 2010) and religion (Chalik, Rhodes, & Leslie, 2013; Segev, Bergman, & Diesendruck, 2012), it is possible that they might conceptualize even the highly externally-determined category of national identity as being rooted in biology.

Further support for this expectation comes from research on children's reasoning about another externally-determined category marker, language (e.g., Hirschfeld & Gelman, 1997; Kinzler & Dautel, 2012). Like national identity, the language that one speaks is largely due to various environmental and contextual factors, such as the language(s) spoken by one's parents and early linguistic input. However, young children's reasoning about language instead resembles their essentialist conceptions of categories such as gender. For instance, when asked whether a young child would grow into an adult that either a) spoke the same language as the child, but was a member of a different race or b) spoke a different language as the child, but was a member of the same race, 5- and 6-year-old children reliably chose the same-language, different-race adult (Kinzler & Dautel, 2012). Thus, young children view language as an essential trait, even though it is in reality determined by one's environment. This evidence provides indirect support for the prediction that children might view nationality as an essentialized category marker.

In addition to serving as a framework through which people categorize natural and social groups, essentialism also influences their attitudes and behavior toward those groups. In adults, for instance, essentialism of social categories has been shown at times to have negative consequences, fueling the belief that those who don't share the same essence are fundamentally different. There have even been instances when essentialism in adulthood has been linked with overt stereotyping and prejudice toward outgroups (e.g. Bastian & Haslam, 2006; Haslam,

Rothschild, & Ernst, 2002; Keller, 2005). Essentialist conceptions of social groups also appear to influence children's behaviors, leading them to withhold resources from an outgroup (i.e., those with different essences), suggesting that essentialism may have important consequences for children's status- and resource-based judgments (Rhodes, Leslie, Saunders, Dunham, & Cimpian, in press). However, the relationship between essentialism and overt prejudice (e.g., disliking, avoiding affiliation) in children is somewhat tenuous, with mixed results suggesting that further research is necessary to determine when essentializing a social category fosters prejudiced beliefs about the outgroup (Diesendruck & Menahem, 2015; Pauker, Ambady, & Apfelbaum, 2010; Rhodes et al., in press).

Given the influence that essentialist reasoning has on one's outgroup-oriented beliefs and behaviors, an essentialist notion of national identity may also influence children's behaviors toward national outgroups, most prominently in cases when a division of resources is involved. Therefore, in the present research, I explored both children's essentialist conceptions of national identity, as well as the consequences that such conceptions may have for their attitudes toward national outgroups.

### **The Present Research**

Based on the powerful role essentialist beliefs play in children's early category reasoning, I formulated two central predictions that guided my investigation. In Chapter 2, I tested the prediction that children's early national identity reasoning would show the hallmarks of essentialism. In Chapters 3 and 4, I tested whether children's essentialism about their national identity influences their outgroup-oriented attitudes.

**Prediction 1: Early essentialist thinking.** First, I expected that young children's reasoning about national identity—both their own and others'—would show signs of

essentialism. That is, I predicted that young children would describe national identity as stable, inherent, and biologically determined. However, I also predicted that the tendency to essentialize national identity would decrease with age, as children become more aware of the contextual factors that define one's nationality. This parallels findings in the essentialism (e.g., Gelman, 2003) and national identity (e.g., Carrington & Short, 1995) literatures, in which older children essentialize social categories to a lesser degree, and attribute national identity to environmental factors. Therefore, I expected older children to attribute their national identity to external factors, such as country of residence or birthplace, more often than younger children. I tested this prediction in Chapter 2 in two studies, examining children's conceptions about their own (American) national identity, as well as an outgroup nationality. In order to gain a comprehensive understanding of children's early essentialist conceptions, I used several different measures of essentialist thinking, including both forced-choice and open-ended tasks.

**Prediction 2: Consequences of essentialist thinking for intergroup attitudes and behaviors.** In Chapters 3 and 4, I investigated the consequences of holding essentialist conceptions of national identity on two outgroup-oriented behaviors: justification of intergroup inequalities, and overt prejudice. Although I expected a significant decline in children's essentialism of national identity over time, I also predicted that essentializing national identity would have important consequences for behavior in children of all ages, given its influential role in outgroup-oriented behavior in both adults and children (e.g., Bastian & Haslam, 2006; Rhodes et al., in press). Thus, my second central prediction was that essentialism of national identity would be related to behaviors that emphasize the divisions between national groups, as essentialist reasoning fosters the belief that those of different nationalities are fundamentally different people. As prior work has demonstrated that children show a strong tendency to justify

group-based disparities based on presumed inherent features of the groups involved (Hussak & Cimpian, 2015), I predicted that children who believed that national groups differed on fundamental inherent properties (an *essence*) would rationalize existing inequalities. More direct support for this prediction is also found in previous work that suggests that essentialist conceptions lead children to skew intergroup resource distributions in their favor (Rhodes et al., in press). I tested this prediction in Chapter 3 by measuring both children's ingroup nationality essentialism and their tendency to believe that intergroup disparities are fair and just.

I also tested, but had less definitive expectations about, the role of an essentialist conception of national identity on prejudiced attitudes toward other national groups. While I expected children to demonstrate a robust ingroup preference (e.g., Brewer, 1999; Dunham, Baron, & Carey, 2011), I did not make strong predictions about whether this preference would be influenced by children's essentialist beliefs. One primary reason for this is the fact that the US consistently ranks as one of the most patriotic and nationalistic countries in the world, with high endorsement of statements like "America is the greatest country in the world" (Doré, 2015; Hess & Torney, 1976; Tyson, 2014). Given that such sentiments are embedded within poems and songs (e.g., the Pledge of Allegiance, the Star-Spangled Banner) that most children are exposed to on a daily basis, I expected that pro-American attitudes would be demonstrated by nearly all children, and thus not necessarily be strongly related to their essentialist conceptions. This expectation is further supported by the fact that the developmental evidence for a link between essentialism and prejudice is thus far mixed (Diesendruck & Menahem, 2015; Pauker, Ambady, & Apfelbaum, 2010; Rhodes et al., in press).

**Proposed moderators and mechanisms of the relationship between essentialism and outgroup attitudes.** Finally, in Chapter 4, I explored the conditions under which essentialism

may lead to certain outgroup attitudes—specifically, the rationalization of intergroup inequalities. I tested whether the relationship between essentialist thinking and support for such inequalities is present both when the ingroup (here, Americans) is advantaged and when it is disadvantaged. I expected that the relationship between essentialism and support for resource-based disparities would vary depending on the relative status of the ingroup as well as children's age, as they may experience differing motivations (e.g., to favor the ingroup vs. to support the status quo) across development.

I also explored the mechanisms that may underlie the hypothesized relationship between essentialism of national identity and support for resource-based intergroup inequalities. More specifically, I tested whether adopting an essentialist conception of national identity leads children to believe that a) intergroup contact is highly unlikely and b) their national identity is an unchangeable feature of their selves. I also tested whether holding such beliefs predicted heightened support for intergroup inequalities.

With respect to the first possible mechanism, one trademark of essentialist thinking is that it highlights the discreteness of category boundaries (e.g., Dar-Nimrod & Heine, 2011; Gelman, 2003; Rhodes et al., in press; Taylor et al., 2009; Williams & Eberhardt, 2009). In the case of national groups (who largely live in separate parts of the world), an essentialist conception may thus lead children to believe that they are unlikely to ever encounter a member of a national outgroup. Thus, it may be easier for them to endorse intergroup inequalities if they believe that they will never personally see their effects. Alternatively, essentialism—and more specifically, beliefs about stability—may contribute to the notion that one's national identity is unchangeable (e.g., Bastian & Haslam, 2006; Gelman, 2003; Gelman, Ware, & Kleinberg, 2010; Keller, 2005). Therefore, in cases when one's ingroup is advantaged, children who hold an essentialist

conception of national identity may be especially likely to endorse intergroup inequalities, as they'll view their relatively high-status national identity as permanent.

## CHAPTER 2: EARLY ESSENTIALIST CONCEPTIONS OF NATIONAL IDENTITY

In Chapter 2, I investigated children's early concepts of their national identity in two studies. In both, I tested whether children have an essentialist conception of national identity, believing that it is an inherent, stable, and inherited feature. In Study 1, I explored children's conceptions of their own (i.e., American) national identity, and in Study 2 I compared children's reasoning about American national identity with their reasoning about a familiar outgroup national identity (namely, Canadian). From this comparison, I was able to draw conclusions about whether children's concepts of nationality differ depending on whether the national group in question is one to which they belong. In both studies, I recruited children between the ages of 5 and 8, in order to explore a previously understudied period of development during which children can identify their nationality but may not yet possess adult-like reasoning regarding its origins and characteristics.

### Study 1

#### Method

**Participants.** I recruited 70 five- to eight-year-old children (35 males, 35 females;  $M_{age} = 7.12$  years,  $SD = 1.26$ ). Participants were recruited from a small Midwestern city (as were the participants in Studies 2, 3, and 4) and were tested either in a university lab ( $n = 29$ ) or in a quiet room at their school ( $n = 41$ ). I sampled 5- to 8-year-olds in Studies 1-3 (and 5- to -12-year-olds in Study 4) in order to cover a relatively broad period of development and thus provide an adequate test of the prediction of decreases in essentialism with age. Additionally, prior research has demonstrated that five is the earliest age at which children reliably identify their own nationality and national symbols, a skill that is critical in my studies (Piaget & Weil, 1951; Weinstein, 1957). Voluntary demographic information was provided by a subset of the

participants' families ( $n = 39$ ), and reflected that a majority (>80%) were European American, and came from homes in which the primary caregiver had at least a Bachelor's degree (79%) and a median income between \$80,000- \$99,999.<sup>1</sup>

**Materials.** To test whether children essentialize their national identity, I administered a combination of forced-choice and open-ended measures adapted from previous developmental studies of essentialist reasoning, described below.

**Forced-Choice Measures.** I asked questions pertaining to four previously established components of essentialism (e.g., Gelman, 2003). To assess children's belief in the *stability* of their national identity, I introduced them to a young child who was identified as an American. I then asked children whether that child a) had always been an American and b) would always be an American (adapted from Gelman & Heyman, 1999). Children who answered affirmatively to the second question were then asked whether the American child would remain an American if they moved to another country "far far away". Finally, all children were asked whether the child would be an American even if they didn't want to be an American anymore. For the first and last question, children's responses were assigned either a 1 ("yes" answers) or a 0 ("no" answers). For the second question, children who said that the child would not always be an American were given the score of 0; those who said that the child would always be an American, but not if they moved to a country far away were given a score of .5; those that answered "yes" to both questions (that the child would always be an American, even if they moved "far far away") were given a score of 1. Scores were averaged to create a composite *stability* score ( $\alpha = .41$ ).

In order to assess whether children believed that national identity was *heritable*, I used a classic adoption task from Gelman and Wellman (1991). I introduced children to two couples, an

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<sup>1</sup> When included in the multilevel models in Studies 1-4, neither parental education nor family income were significant predictors of children's essentialist beliefs or outgroup attitudes

American couple and an Andorran couple. In order to distinguish between the two, children were shown pictures of each couple, with the corresponding flag in the background. Assignment of nationality to each couple was counterbalanced across participants. I then told children that the American couple had a baby, but right after the baby was born, it went to live with the Andorran couple, with whom it grew up. After being informed that the baby grew up never seeing its birth parents, or any Americans ever again, children were asked three questions about what the baby would be like when it grew up. Specifically, children were asked whether the (former) baby would be an American or an Andorran, whether it would speak English or the Andorran language, and whether it would like the same foods as the American couple or as the Andorran couple. Question order was randomized. Essentialist responses (i.e., those that reflected the belief that the adopted baby would retain American characteristics) were assigned a value of 1, while non-essentialist responses were assigned a value of 0. Averages of these values were taken to construct a *heritability* composite score ( $\alpha = .25$ ).

To test whether children believed that national identity had a *biological nature* (i.e., is manifested in one's biology), I adapted a task that assessed children's beliefs about the physicality of category membership (Gelman, 2003; Newman & Keil, 2008). Children were shown a picture of two identical twins and were told that only one of the two was an American, while the other was not an American. Children were then presented with five "ideas" in random order for how they could determine which individual in the picture was an American. Three of the ideas involved examining the biology of the two people in the photo (e.g., "Do you think we could tell who's an American by looking at their blood/bones/brains?"). For each question, children received a score of 1 if they answered "yes," and a score of 0 if they answered "no." Two additional questions, which were designed to elicit widespread agreement (e.g., "Do you

think we could tell who's an American by talking to the girls, and asking them questions?") and disagreement (e.g., "Do you think we could tell who's an American by finding out how old the girls are?"), were also asked to ensure that children were not simply answering in a uniform manner (e.g., always answering "yes"). As expected, levels of agreement were vastly different for these two questions (99% vs. 20% agreement for the "asking questions" and "age" questions, respectively). The values for the three main biology questions were averaged to create a *biological nature* composite score ( $\alpha = .62$ ).

The final forced-choice measure assessed beliefs about the *inductive potential* of national identity—that is, the extent to which children believe that information about national identity licenses inductive inferences (Gelman, 2003; Gelman & Markman, 1987). Specifically, this task pitted national identity against other inductively powerful and informative category markers (namely, race and gender) to test which category membership children found to be most inductively rich. In this task, adapted from Diesendruck and haLevi (2006), children were introduced to three people: a target character and two test characters. The test characters were always introduced first and were labeled as either American or belonging to a different national group (e.g., South African). To further highlight the characters' national identity, all characters were shown in photographs holding their respective countries' flags. In the two critical trials, the test characters were described as having differing preferences (e.g., "This is Megan. She's an American. Megan likes to play Gorp at recess. This is Mark. He's an Estonian. Mark likes to play Quid at recess."). In addition to having different preferences, the test characters also differed on some other social category marker (race or gender). After being introduced to the test characters, children were shown the target character, who was always shown with an American flag, and thus shared the national identity of one of the test characters (i.e., American). The

American target character also shared the social category membership of the non-American test character (race or gender). For example, if the test characters were an American girl and an Estonian boy, the target character would be an American boy. Children were asked to guess whether the target character would share the preference of the same-nationality test character or the same-gender/race test character (e.g., “This is Aaron. Do you think Aaron likes to play Gorp at recess, like Megan, or does he like to play Quid at recess, like Mark?”). The order in which the test characters were mentioned in each test question was counterbalanced.

As race and gender have been found to be inductively rich categories for young children (e.g., Gelman & Taylor, 2000; Hirschfeld, 1995), they were used as foils on the two critical test trials. Thus, if children believed that Americans would share preferences with other Americans, even when they differed in race or gender, it would suggest that they believed that national identity licenses important inductive inferences, perhaps even beyond those licensed by other salient category markers.

In addition to the two critical trials, which asked about preferences, two control trials were also included. In these control trials, children were asked to make inductive inferences about properties that one would not expect to differ by nationality (e.g., handedness, the gender of one’s sibling). Just as in the critical trials, children judged whether the target would share a property with a same-nationality, different-gender/race individual, or with a different-nationality, same-gender/race individual. However, I expected children to show a weaker tendency to choose the American test character in the control trials than in the critical trials, which they did (63% chose the same-nationality child on the control questions vs. 78% on the critical trials,  $t(69) = 2.87, p = .005$ ).

For the two critical trials, children received a score of 1 when they chose the American test character (i.e., they generalized the property from the American test character to the American target character), and a score of 0 when they chose the non-American test character. Scores on the critical trials were averaged to create an *inductive potential* composite ( $\alpha = .11$ ).

***Open Ended Measures.*** To obtain a more comprehensive picture of children's concepts of national identity, I also included three open-ended measures that assessed (1) children's explanations for the origins of popular national conventions, (2) the subjective meaning children assign to national identity, and (3) children's understanding of the process by which one acquires a certain national identity.

First, because national identity is often made salient in the context of conventions and national traditions, I tested whether children explained popular national traditions in essentialist ways—for example, if they believed that Americans eat a lot of apple pie because of some inherent, important features of Americans (as opposed to historical or conventional practices). Children were asked three questions in random order about American traditions (eating apple pie, going to baseball games, watching fireworks shows). Answers that explained the tradition as arising from inherent or internal features were given a score of 1 (e.g., “[Americans watch fireworks] because they're American and they like watching fireworks shows”). Answers that attributed the tradition to more arbitrary (historical or environmental) circumstances were given a score of 0 (e.g., “[Americans eat apple pie] because maybe people founded this [tradition] a long time ago when the pilgrims were here and we like to eat it and add on to the tradition”). All responses were coded by the author as well as a second, hypothesis-blind coder. Both coders were blind to participants' age. Inter-rater agreement was 87%, and disagreements were resolved

via discussion. Children's scores were averaged across the three questions to form a composite *conventions* score. ( $\alpha = .30$ )

Second, to more directly assess children's subjective understanding of national identity as a category marker, I asked them to explain what it "means to be an American" (henceforth, *meaning*). Children's responses that reflected an essentialist conception of national identity—that is, those that explained nationality in terms of an individual trait (e.g., "to be nice"), behavior (e.g., "to speak English"), or internal state (e.g., "it's just how you feel in your body")—were given a score of 1 (see Table 1 for more examples). These types of responses suggest that children conceptualize national identity as an inherent feature or "essence" that resides within an individual. Children's responses that reflected a more extrinsic understanding of national identity, mentioning historical (e.g., "you were born in America and have parents who were born in America") or environmental (e.g., "you live in America") influences, were given a score of 0 (inter-rater agreement = 90%).

As a final open-ended measure of children's conceptions of national identity, I asked them to explain how a person "becomes an American" (henceforth, *acquisition*). This question allowed me to further assess whether children believed that national identity could be acquired, or whether it was some inherent, essential feature that one either does or does not possess from birth. Children's responses that attributed nationality to some inherent trait or feature (e.g., "[You become an American] when you are born and you talk English") were given a score of 1, while children's responses that described becoming an American as a process determined by environmental or extrinsic forces (e.g., "You have to travel to America") were given a score of 0 (inter-rater agreement = 82%).

**Procedure.** All children completed all of the measures in a single session. The order of the measures (aside from the final two questions, which always came at the end of the study to avoid contaminating the other measures) was counterbalanced across participants.

## **Results**

**Analytic Strategy.** Composite essentialism scores differed greatly from task to task (from .21 to .78, see Table 2 for all means and *SDs*;  $\alpha = -.04$ ). However, all were significantly different from zero, suggesting that children's early national identity conceptions contain traces of essentialist thinking. The high degree of variability across tasks however highlights the fact that early conceptions of national identity are multi-faceted and differ from child to child. This finding is in line with others in the literature. Early in childhood, children's performance on measures of essentialism is not uniform and does not correlate consistently across measures (Gelman, Heyman, & Legare, 2007).<sup>2</sup> Given the significant variability in the essentialism composites and the fact that they did not appear to correlate strongly with one another ( $\alpha = -.04$ ), I included all seven measures of essentialism (four forced-choice and three open-ended) as separate dependent variables in the multilevel models we used to analyze these data. This also allowed me to observe whether the various components of essentialist thought differ in their developmental trajectories.

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<sup>2</sup> It is important to note that the high degree of variability in children's endorsement of the components of essentialism does not necessarily reflect a lack of understanding or definitive beliefs about the nature of national identity. A closer look at the measures used highlights the fact that the theoretical midpoint is not the same for all measures, and variability in children's endorsement is in fact to be expected. For example, a child with a .33 biological nature composite would have answered that one's American identity can be detected in one of three internal locations (brain, bones, or blood). Believing that one's social category membership is evident in their biology is a hallmark of essentialist thought, and so any deviation from 0 (i.e., answering "no" to all three biological nature questions) on the biological nature composite would indicate a highly essentialist conception of national identity. In contrast, a .33 heritability composite score would reflect the belief that an American child adopted by non-American parents would share more traits (e.g., language spoken, national identity) with their adopted than their biological parents, suggesting that national identity, and its associated traits is influenced more by experience than genealogy. Thus, one would characterize this as a fairly weak essentialist conception.

To get a first look at the relationship between essentialism and age, I conducted bivariate correlations between children's ages and their endorsement of the seven measures of essentialism. As my first main prediction was that children's tendency to essentialize national identity would decrease with age, I then conducted a linear mixed-effects multilevel regression. Children's composite scores on each of the seven essentialism items served as the dependent variables. Age, six indicator variables (with stability omitted) specifying essentialism task (e.g., biological, inductive potential), and the interactions between age and the six indicator variables served as the independent variables. The model included random intercepts for subjects.

**Findings.** Five of the seven essentialism measures were negatively correlated with age, providing initial evidence that children's tendency to essentialize national identity decreases across childhood ( $r_s = .06$  [stability],  $-.20$  [heritability],  $-.40$  [biological nature],  $.004$  [inductive potential],  $-.17$  [conventions],  $-.09$  [meaning],  $-.22$  [acquisition]; see Table 3 for full correlation matrix).

The results of the mixed-effects linear regression revealed that the main predicted negative relationship between age and essentialism was significant,  $b = -.04$   $[-.07, -.02]$ ,  $p < .001$  (see Figure 1). This result suggests that, across tasks, younger children were more likely to hold an essentialist conception of national identity than were older children. However, this relationship was not uniform across tasks, suggesting that different components of children's conceptions of national identity may develop at different rates (see Table 4 for full regression results). In particular, the significant Age  $\times$  Biological Nature interaction ( $b = -.13$   $[-.21, -.04]$ ,  $p = .005$ ) indicates that there is a significantly steeper decline in children's beliefs in a biological component of nationality over time than there is for their beliefs about the stability of national

identity.<sup>3</sup> The fact that all of the other interaction terms were negative as well suggests that the other components of essentialism also declined more sharply across childhood than did stability; however, this difference in slope with age only reached significance for Biological Nature, as discussed above.

**Conclusion.** The results of Study 1 provide initial evidence for the predicted age-related decline in children's tendency to essentialize their American national identity. In Study 2, I explore whether this relationship is unique to children's reasoning about their own national identity, or whether it applies to their understanding of national identity more broadly. To answer this question, I compared children's essentialism of American national identity to their essentialism of Canadian national identity, a familiar (yet distinct) identity to most Americans.

## Study 2

### Method

**Participants.** Participants were 70 five- to eight-year-old children (35 males, 35 females;  $M_{age} = 6.94$  years,  $SD = 1.19$ ) who were tested either in a university lab ( $n = 41$ ) or in a quiet room at their school ( $n = 29$ ). One additional child was tested but excluded from the final sample for refusing to complete the study. Demographic information was provided by 39 families. The demographic characteristics of the participants in Study 2 were largely similar to Study 1; that is, participants were mostly European American (72%) and came from households in which the primary caregiver held at least a Bachelor's degree (92%), with a median household income between \$100,000-\$119,000.

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<sup>3</sup> When the same model is run with biological nature as the omitted variable, all of the Task x Age interaction terms are positive (stability [ $b = .13$ ,  $p = .005$ ] and inductive potential [ $b = .11$ ,  $p = .01$ ] being the only significant terms), indicating that children's beliefs about the biological nature of national identity experience the sharpest decline across childhood.

**Materials and Procedure.** As my goal in Study 2 was to measure children’s essentialism of both their own and an outgroup national identity, I used a subset of items from Study 1 to keep the study session at a manageable length. I used the *stability*, *heritability*, and *biological nature* forced choice measures from Study 1. For each measure, the procedure was identical for Study 1, and children completed each measure twice, once with American national identity being the target, and once with Canadian national identity being the target (e.g., in the heritability task, the birth parents were a Canadian couple, and the participant was asked whether the baby would be a Canadian or an Andorran when it grew up). The essentialism measures were blocked by nationality and randomized within block. Additionally, the order of the nationality blocks was counterbalanced across participants.

In order to ensure that children were familiar with Canadians as a national outgroup, at the end of the study they were asked several questions, including identifying the Canadian flag, providing the demonym for “people from Canada,” and locating Canada on a map. All children correctly answered at least one of these questions (overall correct = 60%).

## **Results**

**Findings.** As in Study 1, while there was variability in children’s scores on the essentialism measures ( $\alpha = .59$ ; see Table 2 for all means), there were also strong signs of early essentialist thinking (i.e., children’s scores on all measures were significantly higher than zero). A majority of essentialism measures were also negatively correlated with children’s age ( $r_s = .26$  [American stability],  $-.19$  [American heritability],  $-.30$  [American biological nature],  $.05$  [Canadian stability],  $-.34$  [Canadian heritability],  $-.32$  [Canadian biological nature]; see Table 5 for full correlation matrix).

Next, I conducted a mixed-effects linear regression predicting essentialism on the basis of Age, Task (two indicator variables; Stability omitted), Target Nationality (American or Canadian), and Age  $\times$  Task, Nationality  $\times$  Task, and Age  $\times$  Nationality as interaction terms. Most notably, there was no overall difference in essentialist reasoning about American vs. Canadian targets,  $b = -.02 [-.07, .04]$ ,  $p = .58$ . As in Study 1, essentialism of national identity declined with age,  $b = -.03 [-.07, .001]$ ,  $p = .06$ ; however, this age-related decrease was steeper when children considered Canadian targets vs. American targets,  $b = -.06 [-.11, -.02]$ ,  $p = .008$ .

Similar to Study 1, there was considerable variability between tasks in terms of their relationship with age (see Table 6 for full regression results). Both heritability ( $b = -.08 [-.14, -.03]$ ,  $p = .004$ ) and biological nature ( $b = -.13 [-.18, -.07]$ ,  $p < .001$ ) showed significantly steeper age-related decreases than did stability, suggesting that children's endorsement of biological and heritable components of national identity decline more sharply across childhood than does their tendency to endorse the stability of national identity.<sup>4</sup>

## Discussion

The results from Study 2 suggest that children's early conceptualizations of national identity are broadly similar when considering their own vs. an outgroup's. Thus far, the evidence from Studies 1 and 2 suggests that young children hold an essentialist view of national identity, believing that it is an inherited, stable, and inherent characteristic, no matter whether they are considering their own nationality or others'. With development, children's concepts of national identity become less essentialist, and this effect may be more pronounced when considering outgroup identities (see the General Discussion for speculation as to why this may be the case). This general tendency to become less essentialist with age parallels previous findings, which

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<sup>4</sup> Again, running the regression model with biological nature as the omitted variable reveals positive Age  $\times$  Task interaction terms for stability ( $b = .13$ ,  $p < .001$ ) and heritability ( $b = .05$ ,  $p = .10$ ), demonstrating that children's beliefs about the biological nature of national identity experience the sharpest decline across development.

suggest that as children age, they refer to more environmental factors rather than to inborn or inherent features as being influential in determining their national identity (Carrington & Short, 1995; 1996).

While not directly tested here, there are a number of potential reasons for this age-related decline in essentialist thinking. Perhaps most obviously, older children may have more knowledge about the civic concept of citizenship (e.g., that it can be conferred based solely on birthplace), and thus they may be less likely to attribute national identity to biological or inherent features. Alternatively, older children may rely on more extrinsic (i.e., less essentialist) information when considering what comprises national identity because such information is more accessible, due in part to greater cognitive abilities and improved cognitive control (Cimpian & Steinberg, 2014). While early conceptions of national identity may focus on internal essentialist traits (as that information has been demonstrated to be highly accessible in memory; Cimpian & Salomon, 2014; Cimpian & Steinberg, 2014), as children's cognitive capacities expand, they may be more likely to instead rely on more relationally-complex extrinsic information to inform their understanding of national identity. Future work that directly investigates the cause(s) of the age-related decline in essentialist thinking would contribute to a richer understanding of nationality conceptions across development.

The results so far leave open the question of whether an essentialist conception of national identity relates to children's attitudes and behaviors towards outgroups, as adults' essentialism of social groups has been found to do (Bastian & Haslam 2006; Haslam, Rothschild, & Ernst, 2002; Keller, 2005). If essentializing national identity contributes to the development of prejudiced or xenophobic attitudes, then uncovering the origins of this relationship early in

development has far-reaching implications. I go on to investigate the consequences of essentialist reasoning about national identity in Chapters 3 and 4.

## CHAPTER 3: RELATION OF ESSENTIALISM TO CHILDREN'S ATTITUDES TOWARD OUTGROUPS

In Chapter 3, I explored the relationship between essentialism of national identity and intergroup attitudes. Specifically, based on recent findings that essentialism of a social group leads children to withhold material resources from an outgroup (Rhodes et al., in press), I predicted that children who essentialize their national identity will be more likely to endorse and justify advantageous intergroup inequalities than children who do not essentialize their national identity. I also tested whether essentialism of national identity is linked with overt prejudice—a relationship for which support in the developmental literature has been mixed (e.g., Diesendruck & Menahem, 2015; Pauker, Ambady, & Apfelbaum, 2010; Rhodes et al., in press).

### Study 3

#### Method

**Participants.** Participants in Study 3 were 72 five- to eight-year-old children (36 males, 36 females;  $M_{age} = 6.93$  years,  $SD = 1.37$ ) who were tested either in a university lab ( $n = 32$ ) or in a quiet room at their school ( $n = 40$ ). Two additional children were tested but excluded from the final sample because they refused to complete the study. Demographic information was provided by 59 participating families. A majority of participants (79%) were European American and came from homes in which the primary caregiver earned at least a Bachelor's degree (83%). The median household income was in the range from \$80,000 to \$99,000.

**Materials.** In order to measure the behavioral correlates of children's essentialism of national identity, in Study 3 I administered four measures of essentialism and two measures of attitudes toward national outgroups.

***Essentialism measures.*** The *stability, heritability, biological nature, and inductive potential* measures were administered as in Study 1. Measure order was randomized, and participants always made judgments about American targets.

***Outgroup prejudice measure.*** In order to test whether children disproportionately viewed members of their national ingroup more positively than members of a national outgroup, I administered a modified version of the Preschool Racial Attitudes Measure II (PRAM; Williams, Best, & Boswell, 1975). The PRAM II is a well-validated measure of children's early prejudice that correlates with behavioral measures such as playmate preferences and doll choice (Mabe & Williams, 1975; Nagata, 1985). Children's scores on the PRAM II have also been found to be related to their performance on prejudice tasks that do not require a forced-choice (i.e., ingroup vs. outgroup) decision, implying that their responses don't simply reflect an ingroup preference, but also tap into outgroup-oriented prejudice (e.g., Doyle & Aboud, 1995).

In this task, children are shown two pictures, one of a child from their ingroup and one from a child from an outgroup. Children are then provided with either a positive or negative trait and asked to choose which child has that trait (e.g., "One of these two children is selfish. They don't share their toys with others. Which one of these two is selfish?"; see Supplemental Materials for full script). Altogether, children made judgments about 12 negative and 12 positive traits.

Since we were interested in children's attitudes regarding national identity (rather than race, as in the original measure), we varied whether the children in the pictures were American or non-American by showing a flag in the background of each picture. All of the children in the pictures were of the same race and gender-matched with the participant (i.e., male participants only saw pictures of boys). Nationality assignment of the children in the pictures was

counterbalanced across participants. Picture placement was also random for each question; across participants, the American child appeared to the right vs. the left of the non-American child equally often.

For the 12 positive traits, children received a score of 1 if they chose the picture of the American child, and a score of 0 if they chose the picture of the non-American child. For the 12 negative traits, they received a 1 if they chose the non-American child, and a 0 if they chose the American child. Children's scores were averaged to create a *prejudice* composite.

***Rationalization of inequality measure.*** In addition to measuring children's differential assignment of positive and negative traits to ingroup and outgroup members, I also examined the extent to which they rationalized inequalities between the ingroup and outgroup, based on previous findings that children withhold resources from an essentialized outgroup (Rhodes et al., in press).

Here, I was interested in whether children believe that inequalities between ingroup (i.e., Americans) and outgroup (i.e., non-Americans) members are fair and acceptable. I told children two stories in which Americans were portrayed as having an economic advantage over a novel non-American group (e.g., "There are lots of things that are the same about Americans and Daxians. They go grocery shopping, they like pancakes, and they both like to watch sports. But, there's one thing that's different about Americans and Daxians. Americans tend to have a lot more money than Daxians"; adapted from Hussak & Cimpian, 2015; see Supplemental Materials for full vignettes). In order to facilitate children's understanding, we used pictures of two flags (an American flag and a non-American flag) while telling the story.

After each story, children were asked three questions in random order: whether they thought it was fair that Americans had an advantage, whether they thought the inequality was

OK, and whether Americans deserved their advantage. For the questions that asked about whether the disparity was fair and OK, I asked children to elaborate on their initial “yes/no” responses by providing them with three additional choices (“really [not] fair/OK”, “[not] fair/OK”, “sort of [not] fair/OK”). Thus, children’s answers could ultimately be scored on a 6-pt scale (“really not fair/OK” to “really fair/OK). The deservingness measure was dichotomous (“yes” vs. “no”). Children’s responses across the two stories were standardized and averaged into a composite *inequality rationalization* score ( $\alpha = .65$ ).

**Procedure.** Both outgroup attitudes measures were placed in a single block (and their within-block order was randomized). Essentialism measures were also blocked, and both blocks were randomly presented to children. Block order was counterbalanced across children.

## Results and Discussion

**Essentialism of national identity over age.** Children’s responses on the essentialism tasks again differed across tasks (task means ranged from .24 to .76; see Table 3 for full list of means) and, for the most part, were negatively correlated with age ( $r_s = .04$  [stability],  $-.38$  [heritability],  $-.13$  [biological nature],  $-.23$  [inductive potential]; see Table 7 for full correlation matrix). I then conducted a mixed-effects linear regression, predicting children’s composite essentialism on the basis of Age, Task (three indicator variables with *stability* omitted), and an Age  $\times$  Task interaction, allowing subjects’ intercepts to vary randomly. Replicating the results from Studies 1 and 2, children’s tendency to essentialize national identity decreased with age,  $b = -.05$  [ $-.08, -.02$ ],  $p = .001$  (see Table 8; Figure 3). Moreover, as in the previous two studies, there was variability in the strength of this relationship, depending on task. The Task  $\times$  Age interaction terms were negative for heritability, biological nature, and inductive potential, suggesting that children’s endorsement of these essentialist components declined more sharply

across development than did their endorsement of stability; however, only the heritability interaction term reached significance ( $b = -.13 [-.22, -.04], p = .003$ ).<sup>5</sup>

**Relation between essentialism and outgroup attitudes.** I first examined the raw correlations between children's responses on the essentialism tasks and their endorsement of (1) prejudiced and (2) inequality-rationalizing beliefs.

Children did demonstrate prejudice, assigning significantly more positive traits to Americans and significantly more negative traits to non-Americans than would be predicted by chance ( $M_s = 0.58$  and  $0.64$ , respectively;  $p_s \leq .001$  vs. chance). However, the tendency to derogate the national outgroup (i.e., the extent to which children assigned positive traits to Americans and negative traits to non-Americans) was not significantly correlated with any of the measures of essentialism ( $r_s$  range:  $-.13$  to  $.12$ ; see Table 7). Thus, believing that their national identity was an inherent, stable, and biological part of them was not related to children's tendency to attribute more negativity to non-Americans and positivity to other Americans. Given that Americans tend to be a highly patriotic and nationalistic group (Doré, 2015; Hess & Torney, 1976; Tyson, 2014), and that most children are exposed to pro-American traditions (e.g., the Pledge of Allegiance) on a daily basis, the lack of correlation with essentialist beliefs is not surprising. Children's prejudice was also not correlated with age ( $r = .05$ ), suggesting that the tendency to hold prejudiced beliefs toward national outgroups is a developmentally stable one, perhaps reflecting a more general pro-American mindset.

As a group, children also showed some (weak) signs of rationalizing the intergroup inequalities presented ( $M_{OK} = 2.47$ ,  $M_{Fair} = 1.73$  [both out of 5],  $M_{Deserve} = .50$  [out of 1]; means

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<sup>5</sup> Designating heritability as the omitted variable in the model revealed positive Age x Task interaction terms for the other three variables; however, only stability ( $b = .11, p = .02$ ) reached significance, suggesting that while the developmental trajectory of heritability beliefs did not differ from those of biological nature or inductive potential beliefs, it was significantly different than that of stability beliefs.

comparable to Hussak & Cimpian, 2015). Unlike their prejudice, children's rationalization of inequalities between ingroup and outgroup nationalities was positively, and in some cases significantly, related to individual differences in their essentialist beliefs about national identity ( $r_s = .25$  [with stability],  $.24$  [with heritability],  $p_s = .03$  and  $.04$ , respectively; see Table 7 for full results). To test whether these relationships hold when adjusting for participants' age, and to also see whether any of the individual essentialism components have unique predictive power, I conducted a linear regression predicting children's inequality rationalization on the basis of their four essentialism scores and their ages. Stability remained a significant predictor in this model ( $\beta = .31$  [.26, 1.73],  $p = .009$ ; see Table 9 for full regression results), suggesting that the extent to which children essentialize their national identity—and specifically, the extent to which they believe it is a stable, immutable feature of their identity—predicts their belief that inequalities between their national ingroup and outgroup members are fair and deserved, above and beyond their age. Heritability was still positively related with children's inequality rationalization; however, it did not reach significance,  $\beta = .22$  [−.06, 1.07],  $p = .08$ .

**Conclusion.** The findings from Study 3 provide the first evidence that early essentialist conceptions of national identity are related to children's treatment of national outgroups. However, these findings are correlational in nature, and thus it remains unclear whether essentializing one's national identity causally influences beliefs and behaviors toward outgroup members. While others (e.g., Diesendruck & Menahem, 2015; Rhodes et al, in press) have found essentialism of a social group to be causally implicated in various attitudes and behaviors, further research is necessary to establish the same relationship in the domain of national identity. Thus, in Chapter 4, I developed a study to test whether there is a causal relationship between essentialism of national identity and support for inequalities between nations.

## **CHAPTER 4: INVESTIGATING THE CAUSAL NATURE AND MECHANISMS UNDERLYING THE RELATIONSHIP BETWEEN ESSENTIALISM OF NATIONAL IDENTITY AND SUPPORT FOR INEQUALITY**

The study described in this chapter had three goals. First, it investigated whether the relationship between essentialism of national identity and support for inequalities between national groups is causal. Second, it explored whether the relationship between essentialism and inequality support is influenced by the relative status of one's ingroup. Finally, it explored the mechanisms that may underlie this potential causal relationship.

In order to address the first two goals, I tested predictions set forth by two prominent theories of intergroup relations, system justification theory (SJT) and social identity theory (SIT). SJT and SIT make diverging predictions, spelled out below, about how individuals will react to instances of intergroup inequality, which are informative for understanding children's attitudes towards national group-based disparities in the present study.

According to system justification theory (e.g., Jost & Banaji, 1994; Jost & Hunyady, 2002; Kay et al., 2009), people possess a fundamental motive to view their systems as fair and legitimate. As a result, when confronted with instances of inequality, people are more likely to rationalize (rather than reject) the status quo, even when their own group is disadvantaged (e.g., Jost, Pelham, Sheldon, & Sullivan, 2003; Kay & Jost, 2003). In fact, some have argued that low-status individuals may demonstrate *greater* support for the system than their high-status counterparts, as a means of reducing the uncertainty or anxiety they feel about their (largely unfavorable) positions (Jost et al., 2003; Kay & Jost, 2003; Laurin, Fitzsimons & Kay, 2011; but see Brandt, 2013). If the drive to support the status quo is present early on in life, then according to SJT, children in the present study should rationalize the inequalities, regardless of the relative status of the ingroup, and potentially more so when the ingroup is disadvantaged. An SJT

account might also predict that inequality rationalization would be most prominent for those who hold an essentialist conception of national identity, as essentializing national identity may lead children to believe that the group-based hierarchies are rooted in stable and legitimate group differences, thus reinforcing the notion that the system is fair (e.g., Laurin, Gaucher, & Kay, 2013; Laurin, Kay, & Fitzsimons, 2012; see Figure 4 for a graphical representation of the predictions).

Importantly, however, system justification motives may not be influential at all stages of development. Specifically, given that they are hypothesized as functioning to “reduce anxiety, guilt, dissonance, discomfort, and uncertainty” that individuals may feel when contemplating their place in a larger society, it is possible that as children age and identify more strongly as members of their given societies, they may be more susceptible to these system justifying motives (Jost & Hunyady, 2002, p. 114; see also Hussak & Cimpian, 2015). Thus, system justification motives may play a weaker role in young children’s (e.g., 5-year-olds) reasoning. Instead, younger children (e.g., 5- to 8-year-olds), who perhaps identify less strongly with their given societies (and thus have yet to experience strong system justification motivations), might base their support for the intergroup inequalities more on ingroup favoritism motives, which have been documented even in infants (e.g., Baillargeon, Setoh, Sloane, Jin, & Bian, 2014; Brewer, 1999; Mahajan, & Wynn, 2012). Younger children’s attitudes then may be better predicted by an account that prioritizes ingroup favoritism motives, namely, social identity theory.

According to social identity theory (e.g., Tajfel & Turner, 1979; 1986), the groups to which one belongs are instrumental in constructing his/her self-concept. In order to maintain a positive self-concept, people show preferences for and ascribe positive attributes to their ingroup

(i.e., ingroup bias), even in instances when their group disadvantaged (e.g., Lalonde, 2002). Thus, SIT would predict that in general, children would support intergroup inequalities *when the disparities benefit the ingroup* (i.e., Americans = high-status), and would react against inequalities that derogate the ingroup (i.e., Americans = low-status). However, according to SIT, the perceived *stability* and *legitimacy* of an inequality is also thought to be influential in shaping individuals' attitudes, especially in cases in which one's ingroup has low status (Bettencourt, Dorr, Charlton, & Hume, 2001; Sidanius, Levin, Federico, & Pratto, 2001). Specifically, according to SIT, children who believe that their national identity (and thus their fortunes) are stable across time and place (i.e., children who hold an essentialist conception of national identity) may be less likely to oppose disparities that disadvantage their ingroup than are children who believe that their national identity—and likewise their intergroup status—is less stable (i.e., those who hold a nonessentialist conception of national identity)<sup>6</sup>. Therefore, SIT would predict children would demonstrate support for ingroup-favoring inequalities, regardless of whether they perceive national identity as an essentialized category. However, essentialism would influence their attitudes for outgroup-favoring inequalities, as children who hold an essentialist conception of national identity may be more likely to perceive their positions as existing within a stable hierarchy, and less likely to reject such a disparity outright. While an SIT account would predict such a pattern in children of all ages, because older children in the present study may be more likely to be influenced by the system justification motives described above, I expect that an

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<sup>6</sup> Earlier accounts of social identity theory have made the opposite prediction—specifically that in cases in which the stability of one's identity reflects the stability and impermeability of intergroup boundaries, that low-status groups will show stronger ingroup favoritism, and less support for existing inequalities (e.g., Ellemers, Van Knippenberg, De Vries, & Wilke, 1988; Ellemers, Wilke, Van Knippenberg, 1993). While more recent evidence points to a positive relationship between identity (and status) stability and status quo support in low-status groups, the precise conditions under which low-status groups reject vs. support the status quo remains a topic for further inquiry in social identity theory research (Brown, 2000).

ingroup-favoring pattern of behavior to be most prevalent in younger children (e.g., 5- to -8-year-olds; see Figure 4 for a graphical representation of the predictions).

With respect to the third goal, I explore the mechanistic beliefs that underlie the predicted interactions between ingroup status and essentialism. Specifically, I test whether two beliefs that may follow from an essentialist conception of national identity influence children's disparity endorsement (and differentially so, depending on the status of the ingroup). One such belief is the *perceived immutability of national identity*. If essentializing their national identity leads children to believe that this identity is immutable, then they may strongly support inequalities that currently—and, according to this belief, will always—benefit their national ingroup. In cases when the ingroup is disadvantaged, a strong belief in the immutability of one's national identity (and thus one's unfavorable position) may also promote a belief that intergroup disparities are stable and legitimate. Beliefs about the stability of ingroup-disadvantaging hierarchies have been linked with disparity support in both the system justification (e.g., Laurin et al., 2012; 2013) and social identity theory (e.g., Bettencourt et al., 2001) literatures, and thus may function similarly in children in the present study.

A second potential belief that may influence children's disparity support is the *expectation of diminished intergroup contact* (Gaither et al., 2014; Rhodes et al., in press). Specifically, essentialism of a social group might increase the belief that group boundaries are discrete, leading participants to expect little interaction with other groups. This effect may be especially pronounced in the case of national identity, as national groups do, for the most part, live in separate geographical spaces. Thus, if children who essentialize their nationality believe that they are unlikely to encounter members of other national groups, it may be easier for them to endorse perceived disparities that are unfavorable to such national outgroups. When children are

faced with disparities that *favor* the outgroup, a belief in diminished intergroup contact may increase support in older children, according to system justification theory, as it may be easier for them to satisfy system supporting motives and justify their own positions when they do not expect to have to confront their comparative misfortune. In contrast, according to a social identity theory perspective (likely most relevant for younger children in the present study), diminished intergroup contact may lead to ingroup-favoring (and thus disparity-rejecting) attitudes, as they may perceive a disparity with a foreign and largely absent outgroup as less salient and potentially less legitimate. Thus, I expected that for older children (who are likely most susceptible to system justification motives), both *perceived immutability of national identity* and *expectation of diminished intergroup contact* would be related to increased support for all intergroup disparities. However, for younger children (whose attitudes are likely more consistent with a social identity theory account), while I expected that *perceived immutability of national identity* would predict support for all intergroup disparities, I predicted that an *expectation of intergroup contact* would be positively related to support for only *ingroup-favoring* disparities, and negatively related to support for *outgroup-favoring* disparities.

To test the influence of essentialist thinking on children's inequality beliefs, and tease apart the predictions spelled out by system justification theory- and social identity theory-based accounts, I conducted an experiment with children ranging in age from 5 to 12 years. This wide age range allowed me to also examine whether the predicted effects varied across development, and specifically whether children's attitudes could be differentially explained by accounts of group-favoring (i.e., social identity theory) vs. system-supporting (i.e., system justification theory) motivations (see Figure 4).

## Study 4

### Participants

Participants were 80 five- to twelve-year-old children (40 males, 40 females;  $M_{age} = 8.94$  years,  $SD = 1.97$ ). Children were recruited in a small Midwestern city and tested either in a university lab ( $n = 38$ ) or in a quiet room at their school ( $n = 42$ ). An optional demographic survey was distributed, and revealed that a majority of participants were European American (64%) and came from homes in which their primary caregivers earned at least a Bachelor's degree (60%). The median income ranged from \$80,000-99,999.

### Materials

**Essentialism manipulation.** Children were randomly assigned to one of two conditions: Pro- and Anti-Essentialism. In each condition, children were read a short storybook (adapted from Diesendruck & Menahem, 2015) that profiles three different children: an American, an Andorran, and a Moldovan.

In the Pro-Essentialism book, each child was described as living in a town with only people of the same national identity (e.g., the American child lives in a town where all of the people are Americans), engaging exclusively in country-specific conventions (e.g., the American child recites the Pledge of Allegiance and attends 4<sup>th</sup> of July celebrations), and enjoying exclusively country-specific foods and games (e.g., the American child likes to eat hamburgers and play baseball). Thus, the Pro-Essentialism book suggested that people of different nationalities are fundamentally different (see Supplemental Materials for sample pages).

In contrast, the Anti-Essentialism book described the children as living in culturally heterogeneous areas (e.g., the American child lives in a town where there are people from all sorts of countries), engaging in a variety of international celebrations (e.g., the American child

lives in a town where they also celebrate Chinese New Year), and visiting family and friends all over the world (e.g., the American child and his family visit his aunt, who lives in Egypt). Thus, the Anti-Essentialism book fosters the idea that nationality does not necessarily determine one's preferences and behaviors, and that commonalities exist across national groups (see Supplemental Materials for sample pages).

Throughout the book, children were asked several attention check questions (e.g., "Can you tell me what we just said about...?"), in order to ensure that they understood and remembered the material being presented.

**Rationalization of inequalities.** After reading the book, all children were presented with two scenarios to assess their beliefs about intergroup inequalities. In the *ingroup-favoring scenario*, Americans are portrayed as having more resources than an outgroup nationality (Moldovans); in the *outgroup-favoring scenario*, an outgroup (Andorrans) is described as having more resources than Americans. These two outgroups were those mentioned in the Pro- vs. Anti-Essentialism storybooks. For both scenarios, children were asked four questions to gauge their support for the inequalities. Specifically, they were asked whether the situation is fair (6-pt scale), OK (6-pt scale), deserved (yes/no), and whether any money should be taken from the advantaged group to be given to the disadvantaged group (5-pt scale; "None" to "A ton"). Question order for each scenario was randomized, and children's responses to each of the four questions was standardized and averaged to obtain a composite *rationalization of inequality* score ( $\alpha = .68$  for the ingroup-favoring scenario;  $\alpha = .73$  for the outgroup-favoring scenario).

**Potential Mechanisms.** Children then received two additional blocks of questions designed to assess the two mechanisms (i.e., perceived immutability of national identity, expectation of diminished intergroup contact) described above. To assess children's beliefs about

the possibility that their national identity could change—and specifically that they might acquire the nationality of one of the two target outgroups—I asked them three questions. Specifically, I asked whether they think there is a chance that an American child could grow up and become an Andorran/Moldovan (yes/no), and also how easy or hard it would be for an American to become an Andorran/Moldovan and vice versa (both 4-pt scales, “Really easy” to “Really hard”). Question order was randomized, and responses were standardized and averaged into a composite *immutability* score ( $\alpha = .43$  for Moldovan outgroup;  $\alpha = .48$  for Andorran outgroup<sup>7</sup>).

To assess children’s perceptions of intergroup contact, I asked them an additional three questions: (1) how often Americans and non-Americans (Moldovans or Andorrans) talk to one another (4-pt scale, “Never” to “All the time”), (2) how often they “hang out” with one another (4-pt scale, “Never” to “All the time”), and (3) how many of the target non-American group live in America (4-pt scale, “None” to “A whole lot”). All of these questions were averaged (within block) to obtain an *intergroup contact* composite score.

In one block, children were asked questions about both of the above mechanisms as they relate to the low-status outgroup (e.g., how much contact they perceive Americans to have with Moldovans;  $\alpha = .76$  for Moldovan outgroup), and in the other block, they reported on their beliefs as they relate to the high-status outgroup (i.e., Andorrans;  $\alpha = .64$  for Andorran outgroup). This allowed me to observe whether the proposed mechanisms underlying the essentialism → inequality support relationship differed depending on whether one is evaluating a relatively higher- vs. lower-status group.

**Manipulation checks.** Finally, children were asked a series of five questions (in a fixed order) to assess the effectiveness of the essentialism manipulation. In the first two questions, they

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<sup>7</sup> Removing one item (“Is it possible for an American child to one day become an Andorran/Moldovan?”) drastically improved the reliability of this composite; however, it did not change the results of the main analyses presented below, so all items were retained.

were asked to provide justifications for their earlier answers of whether Americans deserve to have more money than Moldovans, and whether Andorrans deserve to have more money than Americans. These justifications were coded for essentialist language (e.g., appealing to inherent traits or features). The prediction is that children will use such language more often in the Pro- vs. the Anti-Essentialism condition. The final three questions assessed how stable children believe national identity to be. Using each of the three characters from the storybook they read, children were asked whether that character has always had their current nationality, and whether that character will always have that nationality. If the manipulation books are effective in altering children's beliefs, children in the Pro-Essentialism condition should report nationality to be more stable than children in the Anti-Essentialism condition.

### **Procedure**

All children began the session by reading either the Pro- or Anti-Essentialism storybook. Immediately after reading the manipulation book, children received the two *rationalization of inequality* blocks, in counterbalanced order. Following these questions, children received the two blocks with mechanism measures, in counterbalanced order. Lastly, children received the manipulation check block.

### **Results and discussion**

**Manipulation checks.** As expected, children in the Pro-Essentialism condition provided more essentialist responses to the manipulation check questions than did children in the Anti-Essentialism condition. Specifically, children in the Pro-Essentialism condition tended to refer more on inherent traits and features of national groups than did children in the Anti-Essentialism condition, when providing justification for their beliefs about whether one group deserved an advantage over another, although this difference was not statistically significant (45% vs. 28%,

respectively;  $t(78) = .78, p = .08$ ). Further, children in the Pro-Essentialism condition viewed the nationality of the book characters as significantly more stable than did children in the Anti-Essentialism condition,  $t(78) = 4.05, p < .001$ . Thus, the manipulation books appeared to have a significant impact on children's tendency to view national identity as an essentialized and stable category.

**Relationship between essentialism, ingroup status, and support for intergroup inequalities.** As described earlier, system justification theory and social identity theory make distinct predictions as to how essentialism and relative ingroup status will influence children's tendencies to support intergroup disparities. Specifically, SJT predicts that those who possess a fundamental motive to defend the status quo (i.e., likely 9-12-year-old children, in this sample) will generally demonstrate support for the intergroup disparities, and may do so even more in cases where their ingroup is disadvantaged (e.g., Jost et al., 2003). Further, this support may be heightened for those who essentialize national identity, to the extent that essentialism conveys the notion that the existing disparities are based on fundamental and legitimate group differences.

For younger children (here, 5- to 8-year-olds), who are likely to be more influenced by ingroup-favoring (vs. system-supporting) motives, SIT predicts that they would demonstrate ingroup-favoring attitudes, generally supporting disparities that favor the ingroup, and rejecting those that favor the outgroup. However, for those children who essentialize national identity, outgroup-favoring disparities may appear more stable and legitimate (than for those who don't essentialize national identity), leading them to show some mild support (see Figure 4 for a graphical representation of the predictions of the two accounts).

As children's attitudes were expected to vary according to age (and the associated differential motivations of SJT and SIT), I split the data into two age groups (5-8 years and 9-12

years), and included Age Group as a dichotomous variable in all of my models.<sup>8</sup> In order to see whether children's support for intergroup inequalities was based on a) essentialism manipulation condition (Pro- vs Anti-Essentialism) and b) relative ingroup status (high vs. low), I conducted a mixed-effects linear regression, predicting children's composite rationalization of inequality on the basis of Essentialism (0 = Anti-Essentialism, 1 = Pro-Essentialism), Ingroup Status (0 = Low Status, 1 = High Status), and Age Group (0 = 5-8 years, 1 = 9-12 years) and their interactions, allowing subjects' intercepts to vary randomly.

The results of the regression revealed no significant main effects of Essentialism, Ingroup Status, or Age (see Table 10 for full regression results). There was, however, a significant Status x Essentialism interaction ( $b = -.56 [-.99, -.14], p = .010$ ), a significant Status x Age interaction ( $b = -1.02 [-1.45, -.60], p < .001$ ), as well as a significant three-way Status x Age x Essentialism interaction ( $b = .70 [.09, 1.31], p = .024$ ). The significant three-way interaction suggests that the influence of the essentialism manipulation and their ingroup's relative status on children's support for the intergroup inequalities was not uniform across childhood.

To explore how children's responses changed across development, I examined the Status x Condition interaction at each age group (i.e., 5-8-year-olds vs. 9-12-year-olds) for children in my sample (see Figure 5). Younger children showed overall greater support for ingroup-favoring (vs. outgroup-favoring) disparities, and this difference was most pronounced in the Anti-Essentialism condition, consistent with a social identity theory-based account. Specifically, there was a significant Status x Essentialism interaction, as well as a significant main effect of Status ( $ps = .01$ ; see Table 11 for full results). In the Anti-Essentialism condition, young children showed significantly greater support for the ingroup-favoring inequality ( $M = .21$ ) than for the

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<sup>8</sup> Models in which Age was entered as a continuous variable yielded largely similar results and are included in the Supplemental Analyses.

ingroup-favoring inequality ( $M = -.40$ ), 95% CI of the difference: [.31, .91]. However, in the Pro-Essentialism condition, children's support for the ingroup- vs. outgroup-favoring disparities did not differ ( $M_{\text{ingroup-favoring}} = -.07$ ;  $M_{\text{outgroup-favoring}} = -.11$ ). Further, for both ingroup- and outgroup-favoring disparities, children's endorsement did not differ by essentialism condition (see Table 12 for all means). Thus, the results for younger children—specifically their tendency to support ingroup-favoring disparities—lend support for a social identity theory-based account early in development. Also consistent with SIT, in the Anti-Essentialism condition, young children reacted strongly against outgroup-favoring disparities potentially reflecting their belief that such disparities were based on unstable or illegitimate differences (e.g., Bettencourt et al., 2001; Sidanius et al., 2001). in the Pro-Essentialism condition. For young children, then, essentializing national identity may add a degree of legitimacy to the intergroup disparities, leading to roughly equal support for ingroup- and outgroup-favoring disparities (in the Pro-Essentialism condition). However, when children don't essentialize national identity, the intergroup disparities may appear less legitimate, and thus invoke less support when they disadvantage the ingroup.

In contrast, older children showed a general tendency to support *outgroup*-favoring disparities more than ingroup-favoring disparities, particularly when they held essentialist conceptions of national identity. These results are consistent with a motivated system justification account, whereby people seek to rationalize their positions by justifying the larger system (especially when their positions are unfavorable). For older children, the Status x Essentialism interaction was not significant ( $p = .53$ ); however, there was a significant main effect of Status ( $p = .002$ ; see Table 11 and Figure 5). In contrast with the younger children, older children showed the strongest overall support for the outgroup-favoring inequality in the Pro-Essentialism condition ( $M = .36$ ), and this was significantly above zero (the standardized mean;

95% CI of the difference: [.05, .68]; see Table 12 for all means). These results suggest that older children's pattern of endorsement are somewhat consistent with a system justification theory account of intergroup cognition, whereby low-status groups may be motivated to rationalize their own unfavorable positions—to an even greater extent than their high-status counterparts—by legitimizing the overall hierarchical system (e.g., Jost & Banaji, 1994; Jost et al., 2003).

**Influence of the proposed mechanistic beliefs on children's attitudes toward inequalities.** To investigate what predicted children's differential support for ingroup- vs. outgroup-favoring disparities, I examined their perceptions of nationality immutability and intergroup contact. Children's beliefs about the immutability of national identity as well as the likelihood of intergroup contact were highly similar when considering both advantaged (i.e., Andorran) and disadvantaged (i.e., Moldovan) target outgroups (immutability:  $t[78] = .049, p = .96$ ; intergroup contact:  $t[78] = .42, p = .68$ ; see Table 11 for all means). Given this, I collapsed children's scores across status manipulations so that each child had a single *immutability* and a single *likelihood of intergroup contact* score. Additionally, as the pattern of children's disparity endorsement differed significantly with age (with younger children rejecting, and older children supporting, outgroup-favoring inequalities), I also examined the influence of the proposed mediators separately for children ages 5-8 ( $n = 41$ ) and children ages 9-12 ( $n = 39$ ).

Contrary to the predictions laid out earlier, children's *immutability* and *likelihood of intergroup contact* beliefs did not differ by essentialism condition at any age (all  $ps > .1$ ), and thus they did not mediate the pathways between essentialism and disparity support (all *ab* pathway  $ps > .2$ ). As children in the current sample were all recruited from a highly diverse college town, it's likely that the short storybook read to them at the beginning of the study was not a strong enough manipulation to counteract their preexisting beliefs about the likelihood of

encountering or becoming a member of a different national group. Although it's impossible to make definitive conclusions given the present data, this possibility is supported by the fact that older children—who have likely had more experience learning about and interacting with non-Americans—show even smaller condition differences on the proposed mechanistic beliefs than do younger children (although there is no significant interaction with age). Thus, future investigations into these mechanisms may require a more intensive manipulation of essentialist thinking.

While children's beliefs about nationality immutability or the likelihood of intergroup contact did not vary by manipulation condition, they were related to disparity support for the 5- to 8-year-old children. Nationality immutability beliefs, for instance, were positively and significantly related to their support for ingroup- as well as outgroup-favoring disparities ( $r_s = .37$  and  $.39$ , respectively; see Table 13 for full correlation matrix). Their perceptions of increased intergroup contact, however were only significantly related to their endorsement of outgroup-favoring disparities ( $r = .43$ ), implying that the less children expected to interact with a high-status outgroup, the less likely they were to support an outgroup-favoring disparity. As described earlier, this is consistent with a social identity theory account, whereby diminished contact with a high-status outgroup may increase perceptions of disparity illegitimacy or instability, and thus lead children to reject the inequality. Older children's (9- to 12-year-olds) disparity support was not significantly related to either of the proposed mechanisms, leaving open an important question of what precisely drives their support for outgroup-favoring disparities (see the General Discussion for speculation on this topic).

**Conclusion.** As expected, manipulating children's essentialist beliefs about national identity and their ingroup's status did not uniformly predict their tendency to rationalize

intergroup inequalities. However, support was found for both a system justification theory- and social identity theory-based predictions of children's intergroup attitudes. Specifically, while young children's beliefs appear to be influenced by self- and group-esteem motives, older children's attitudes may be influenced by a drive to defend the status quo. Strikingly, this resulted in a shift from a tendency to support ingroup-advantaging inequalities early in childhood to a tendency to favor outgroup-advantaging inequalities in late childhood. This dramatic switch highlights an important developmental change in early national group reasoning, and presents a fruitful avenue for future research.

## CHAPTER 5: GENERAL DISCUSSION

I predicted that from a young age, children's reasoning about national identity would show hallmarks of essentialist thinking, and that the tendency to hold essentialist beliefs would decrease with age. I also predicted that, even as the tendency to essentialize national identity declines, essentialist thinking would still have a significant impact on how children view and treat others.

In line with my first prediction, I found that children's essentialism significantly decreased with age when they were considering both their own (i.e., American identity), as well as an outgroup national identity. These results point to a domain-wide relationship between nationality essentialism and age, such that the nature of children's conceptualizations apply to the category "national identity" more broadly, as opposed to any one specific national group. However, the fact that age-related decline in essentialism was steeper for Canadian targets than for American targets in Study 2 does hint at some differentiation in children's national identity beliefs depending on the target. This result can be interpreted in two possible ways. One way is to assume that older children are even more aware of the extrinsic and circumstantial factors that comprise outgroup (vs. ingroup) national identity. This may be especially relevant for the children in my studies, who largely grew up in a fairly diverse college town. Thus, it's likely that they have encountered several individuals who, while originating in a foreign country, consider themselves to be Americans. Therefore, children may have increasing exposure (as they age) to people shedding some of the hallmarks of their outgroup national identity (e.g., liking certain foods) in order to assimilate into American life. In contrast, they may have limited (if any) exposure to native-born Americans renouncing their birth nationality, and thus may perceive American national identity as more stable or biologically-rooted than an outgroup identity.

Alternatively, one could interpret the present findings as reflecting children's increasing beliefs that an outgroup identity is less informative, or meaningful than their ingroup identity. According to social identity theory (Tajfel & Turner, 1979), people tend to view outgroups as homogenous and consider their identities as less significant than, and in some cases inferior to, one's own. Here, if older American children view Canadian national identity as less informative for predicting behavior and less likely to be an inherited, biological trait than American identity, it could reflect a more fundamental belief that an outgroup identity is less meaningful than the ingroup identity. Relatedly, this view may help to fuel the exceptionalist view of American national identity that is endorsed even by young children (Hess & Torney, 1976). Further investigation into children's differential conceptions of national identities depending on their group status (in- vs. outgroup) would likely provide a great deal of insight into early group behavior. However, the cumulative finding from Studies 1-3 that essentialism of national identity declines across childhood provides strong evidence for a domain-wide developmental shift in children's conceptions of nationality.

In support of my second prediction, I also found that essentialism of one's own national identity has important consequences for how one views members of national outgroups. In Study 3, children who had a more essentialist view of their American identity were more likely to endorse and justify inequalities between Americans and non-Americans. Thus, believing that one's nationality is a stable, immutable trait appears to license the belief that those who share the same essential features (i.e., the national ingroup) deserve advantages over those who do not. In Study 4, the relationship between essentialism and rationalization of inequalities was revealed to be more nuanced. Specifically, while young children (5-8-year-olds) tended to reject disparities in which Americans had relatively low status, older children (10-12-year-olds) demonstrated

strong support for such outgroup-favoring inequalities. Further, older children's support was unrelated to their beliefs about the immutability of their national identity, or the extent to which they believe intergroup contact is likely, suggesting that there may be other factors, unexplored here, that influence older children's reasoning about intergroup disparities.

Together, these results provide a first look into the influence of essentialist conceptions on children's perceptions and treatment of members of various national groups. While the tendency to essentialize national identity declined significantly with age, believing that nationality is a stable and inherent feature of one's self influenced children's support for intergroup inequalities. Future work should continue to explore older children's and adolescents' national identity beliefs, in order to better understand the various cognitive and social processes that shape national group-based attitudes in adulthood. Doing so will provide a more complete developmental picture of certain nationality-based attitudes and prejudices present in adults (e.g., Huynh, Devos, & Altman, 2015; Pehrson, Vignoles, & Brown, 2009).

### **Unanswered questions and future directions**

The research described above presents an important first look into children's early conceptualizations of national identity, and raises additional questions for future research to explore. One question that Study 3 raises is why essentialism of national identity strongly predicted rationalization of intergroup inequalities, but did not predict more positively valenced attributions of the ingroup over the outgroup. One possibility, raised earlier, is that the results of the outgroup prejudice task simply reflect a broad tendency to favor the ingroup (and derogate the outgroup) that acts independently of children's beliefs about whether the ingroup is comprised of a collection of individuals who share a single, causal essence (e.g., Brewer, 1999; Dunham et al, 2011). Given that adult Americans consistently endorse the belief that the United

States is one of the greatest countries in the world (Tyson, 2014), and American children as young as 7 have demonstrated a strong sense of national pride (Hess & Torney, 1967), an “Americans = good” association may have dominated children’s reasoning on our stereotyping task, regardless of what they believed the origins of their national identity to be. Another possibility is that essentialism leads to a belief that category boundaries are discrete and impermeable. However, believing that the outgroup consists of fundamentally different and foreign individuals may not be enough to license explicitly prejudiced beliefs, as demonstrated by children’s willingness to endorse outgroup-favoring disparities in Study 4. It should remain an important goal of future research to continue to investigate the developmental origins of national group prejudice, and what specific factors contribute to prejudiced attitudes and behaviors.

Perhaps the most pressing, and potentially promising, task for future research on early national group attitudes is to better document and investigate the striking shift in children’s outgroup-oriented attitudes revealed in Study 4. While younger (5-8-year-old) children appeared to strongly reject inequalities that disadvantaged Americans—particularly when those inequalities appeared arbitrary and potentially illegitimate (i.e., in the Anti-Essentialism condition), older children (9-12-year-olds) tended to show support for outgroup-favoring disparities, suggesting that a near-reversal of attitudes towards ingroup-disadvantaging inequalities. What might lead to such a drastic shift in attitudes? Although the data in Study 4 do not offer definitive answers, past research on children’s and adults’ intergroup attitudes provide some potential explanations for the developmental trend observed. Socio-cognitive theory (ST; Aboud, 1988) argues that children’s intergroup attitudes are in part shaped by their perceptual-cognitive abilities. More specifically, before the age of 8, children rely largely on perceptual

features (e.g., skin color) or category markers (e.g., American vs. Non-American) to differentiate between groups, and on this basis, develop a robust ingroup preference. However, as children’s cognitive capacities develop, they become better at perceiving people as individuals, and not simply representative of a certain group. According to ST, this brings about a change both in children’s inter- and intra-group attitudes, leading to more positive outgroup-oriented attitudes, and less positive ingroup-oriented attitudes (e.g., Doyle, Beaudet, & Aboud, 1988; Nesdale, Lawson, Durkin, & Duffy, 2010) than younger children. In certain cases, older children—like those in Study 4—have even demonstrated outgroup preferences, favoring conditions that disadvantage the ingroup (e.g., Doyle et al., 1988; Verkuyten & De Wolf, 2007). Previous work on children’s tendencies to rectify or perpetuate inequalities also found that, similar to the children in Study 4, 8-10-year-olds were more likely to distribute resources to underprivileged group (even when it was a salient outgroup), while 5-7-year-olds were more likely to distribute resources to an advantaged group (Olson, Dweck, Spelke, & Banaji, 2011). Thus, an important shift in children’s cognitive capabilities that occurs around middle childhood may in part explain why they show support for outgroup-favoring inequalities.

This tendency to favor outgroup-advantaging disparities as a result of the development of certain cognitive capacities (e.g., perspective-taking) may have been exacerbated in Study 4 by older children’s perceptions of the current political climate. When asked to explain their disparity support positions for instance, several older children invoked Donald Trump (e.g., “[he’s] not a good guy”) and Americans’ anti-immigration attitudes (e.g., “[Moldovans] might come here and Americans might not want them here, and that would be really hard”), suggesting that their outgroup-oriented support may be in part driven by their exposure to recent pro-nationalist and anti-immigration messages. Further investigation into precisely what sociopolitical messages

children receive from their environment, and the consequences they have may shed further light onto older children's integration of political attitudes into their intergroup behavior.

A second alternative, described in Study 4, is provided by system justification theory (SJT; Jost & Banaji, 1994). According to SJT, people are motivated to justify the systems in which they are embedded, at least in part as a means of rationalizing their own position within that system. Thus, when individuals or groups find themselves in disadvantaged positions, they may endeavor to reduce the negative emotions that accompany such positions by endorsing the larger social structure (e.g., "If everything is as it's supposed to be, then I'm right where I belong"). Although this motivational pathway has almost exclusively been studied in adults, the responses of the older children in Study 4 may have in part been due to certain motivational interests. By 4<sup>th</sup> grade, children are certainly aware of important characteristics of their society, and thus may be experiencing a motivation to view their society as fair and just. Thus, when presented with a situation in which Americans have low status and fewer resources than an outgroup, older children may have experienced a certain degree of uncertainty or negative emotions about their positions. As a result, they may be motivated to rationalize their disadvantaged position by vocalizing support for the disparity, in order to alleviate any anxiety they felt. This interpretation mirrors findings with adults and adolescents, in which lower-status groups display more system justifying behaviors (e.g., opposing protest, vocalizing support) than their higher-status counterparts (e.g., Henry & Saul, 2006; Jost et al., 2003; cf. Brandt, 2013).

Both the socio-cognitive theory and system justification theory accounts of older children's intergroup attitudes provide promising avenues for future research, including further exploring how environmental and cognitive factors interact to shape social group cognition across development. Further work should also address the growing gap between an apparent

weakening of ingroup-favoring attitudes in late childhood and the recent global rise in nationalism (the belief that one's country is superior to others) in adults ("League of Nationalists", 2016). For instance, in his inaugural address, President Donald Trump declared that "from this day forward, a new vision will govern our land. From this moment on, it's going to be America First" (Blake, 2017). Such a public declaration of national ingroup dominance, which has been echoed in in parliaments and chambers across the globe, lies in stark contrast with the outgroup-favoring attitudes espoused by the older children in Study 4. Therefore uncovering both the underlying psychological and environmental conditions that influence national group attitudes as children and adolescence reach adulthood may prove important to gaining a better understand the rapidly shifting international landscape.

Finally, expanding the scope of this research to include samples from other nations is critical in order to gain a more comprehensive understanding of national identity conceptions early on, and to also understand how various cultural environments differentially influence children's understanding of their national identity (e.g., Carrington & Short, 1995; 1996; Howard & Gill, 2001). Equally important is understanding what sort of individual difference variables and environmental factors predict essentialism of national identity, and downstream behaviors such as justification of intergroup inequalities. Although demographic factors such as parental income and education did not appear to relate to children's beliefs in the present studies, a more comprehensive investigation of national identity beliefs would certainly include greater sociodemographic diversity.

As globalization and international immigration continue to rise, the lines between national groups are continually crossed. Thus, understanding the roots of national group-based prejudices will become an increasingly important goal of developmental research. I believe that

the present research provides an important first step in understanding precisely how psychological essentialism shapes young children's conceptions of national identity and the key consequences it has for their interactions with the world around them.

## TABLES AND FIGURES

Table 1

*Sample essentialist and non-essentialist responses to the open-ended measures in Study 1*

Task	Essentialist response	Non-essentialist response
<b>Conventions:</b> Americans eat apple pie	<i>“Because a lot of [Americans] have a sweet tooth”</i>	<i>“Because there’s a lot of apple trees around here”</i>
<b>Conventions:</b> Americans watch baseball games	<i>“Because baseball players talk English...”</i>	<i>“Because there’s more baseball players here”</i>
<b>Conventions:</b> Americans watch fireworks shows	<i>“Because they’re for celebrating a president...they celebrate freedom”</i>	<i>“Because some [countries] can’t have fireworks because it’s the law”</i>
<b>Meaning</b> (“What does it mean to be an American?”)	<i>“It means to talk English and sometimes you wear red to respect the flag”</i>	<i>“That you live in America”</i>
<b>Acquisition</b> (“How do you become an American?”)	<i>“...speaking English and doing stuff Americans do”</i>	<i>“[You were] born there or [you] sail there on a ship”</i>

Table 2

*Average scores on the essentialism measures from Studies 1-3*

Essentialism Task	Study 1	Study 2 (American Target)	Study 2 (Canadian Target)	Study 3
Stability	.62 (.30)	.68 (.29)	.45 (.25)	.64 (.25)
Heritability	.40 (.31)	.41 (.34)	.42 (.37)	.46 (.36)
Biological Nature	.30 (.35)	.30 (.34)	.34 (.37)	.24 (.28)
Inductive Potential	.78 (.30)	--	--	.76 (.32)
Conventions	.36 (.33)	--	--	--
Meaning	.68 (.47)	--	--	--
Acquisition	.21 (.41)	--	--	--

Standard deviations are depicted in parentheses.

Table 3

*Inter-correlations Among the Measures of Essentialism and Participants' Age in Study 1*

	1.	2.	3.	4.	5.	6.	7.	8.
1. Participant Age	1	.06	-.20	-.40**	.004	-.17	-.09	-.22†
2. Essent.: Stability		1	.04	.03	.21†	-.04	-.12	-.22†
3. Essent.: Heritability			1	.16	-.12	.03	.24*	.19
4. Essent.: Biol. Nature				1	-.35**	.34**	.22†	.06
5. Essent.: Inductive Pot.					1	-.02	-.15	.02
6. Essent.: Conventions						1	.19	.20
7. Essent.: Meaning							1	.34**
8. Essent.: Acquisition								1

$N = 70$ . † $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

Table 4

*Linear mixed-effects regression predicting children's essentialist beliefs on the basis of age in Study 1*

<i>Fixed Effects</i>	Estimate	<i>SE</i>	95% <i>CI</i>	
(Intercept)	1.02	.11		
<b>Age</b>	<b>-.04</b>	<b>.01</b>	<b>-.07</b>	<b>-.02</b>
<u>Task Effects</u> (vs. Stability)				
Task: Heritability	-.22*	.06	-.34	-.11
Task: Inductive Potential	.15*	.06	.04	.27
Task: Biological Nature	-.33*	.06	-.44	-.21
Task: Conventions	-.27*	.06	-.38	-.16
Task: Meaning	.06	.06	-.05	.17
Task: Acquisition	-.42*	.06	-.53	-.30
<u>Interaction Effects</u> (vs. Stability x Age)				
Heritability x Age	-.06	.05	-.15	.03
Inductive Pot. x Age	-.01	.05	-.10	.07
Biol. Nature x Age	-.13*	.05	-.21	-.04
Conventions x Age	-.07	.05	-.16	.02
Meaning x Age	-.05	.05	-.14	.04
Acquisition x Age	-.09	.05	-.18	.001
<u>Random Effects</u>				
Grouping variable: Subject	Intercept		.09	

*Note.* Observations: 486; Subjects: 70. Task estimates indicate differences in endorsement from Stability. Interaction estimates indicate differences in developmental trajectory from Stability. \* = significant coefficient,  $p < .05$ .

Table 5

*Inter-correlations Among the Measures of Essentialism and Participants' Age in Study 2*

	1.	2.	3.	4.	5.	6.	7.
1. Participant Age	1	.26*	-.19	-.30*	.05	-.34**	-.32**
2. American Ess.: Stability		1	.12	-.07	.45**	.07	-.05
3. American Ess.: Heritability			1	.07	.18	.76**	.10
4. American Ess.: Biol. Nature				1	.07	.09	.68***
5. Canadian Ess.: Stability					1	.17	.01
6. Canadian Ess.: Heritability						1	.15
7. Canadian Ess.: Biol. Nature							1

$N = 70$ .  $p < .05$ . \*\*  $p < .01$ . \*\*\* $p < .001$

Table 6

*Linear mixed-effects regression predicting children's essentialist beliefs on the basis of age and target nationality in Study 2*

<i>Fixed Effects</i>	Estimate	<i>SE</i>	<i>95% CI</i>	
(Intercept)	.99	.13		
<b>Age</b>	<b>-.03</b>	<b>.02</b>	<b>-.07</b>	<b>.001</b>
Target Nationality	-.02	.03	-.07	.04
<u>Task Effects</u> (vs. Stability)				
Task: Heritability	-.22*	.03	-.29	-.15
Task: Biological Nature	-.34*	.03	-.41	-.28
<u>Task x Age Interactions</u> (vs. Stability x Age)				
Heritability x Age	-.08*	.03	-.14	-.03
Bio. Nature x Age	-.13*	.03	-.18	-.07
<u>Nationality x Task Interactions</u> (vs. Nationality x Stability)				
Nationality x Heritability	.02	.07	-.11	.15
Nationality x Bio. Nature	.10	.07	-.04	.23
Nationality x Age	-.06*	.02	-.11	-.02
<hr/>				
<i>Random Effects</i>		<i>SD</i>		
Grouping variable: Subject		Intercept	.14	

*Note.* Observations: 419; Subjects: 70; Task estimates indicate differences in endorsement from Stability. Task x Age interaction estimates indicate differences in developmental trajectory from Stability. Nationality x Task interaction estimates indicate differences in Nationality effect in Heritability and Biological Nature (separate coefficients) vs. Nationality effect in Stability. Nationality x Age interaction estimate indicates the difference in developmental trajectory of Canadian essentialism from American essentialism. American = 0, Canadian = 1.

\* = significant difference.

Table 7

*Inter-correlations Among the Measures of Essentialism, Participants' Age, and Outgroup Attitudes in Study 3*

	1.	2.	3.	4.	5.	6.	7.
1. Participant Age	1	.04	-.38**	-.13	-.23*	.05	-.15
2. Essent.: Stability		1	-.12	-.17	.04	.11	.25*
3. Essent.: Heritability			1	.22†	.05	.12	.24*
4. Essent.: Biol. Nature				1	-.14	-.12	.20†
5. Essent.: Inductive Pot.					1	-.13	.05
6. Outgroup Prejudice						1	.14
7. Rationalization of Inequality							1

$N = 72$ . † $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

Table 8

*Linear mixed-effects regression predicting children's essentialist beliefs on the basis of age in Study 3*

<i>Fixed Effects</i>	Estimate	<i>SE</i>	95% <i>CI</i>	
(Intercept)	1.02	.12		
<b>Age</b>	<b>-.05</b>	<b>.02</b>	<b>-.08</b>	<b>-.02</b>
<u>Task Effects</u>				
<u>(vs. Stability)</u>				
Task: Heritability	-.18*	.05	-.28	-.08
Task: Inductive Potential	.11*	.05	.02	.21
Task: Biological Nature	-.40*	.05	-.50	-.30
<u>Interaction Effects</u>				
<u>(vs. Stability x Age)</u>				
Heritability x Age	-.13*	.04	-.22	-.04
Inductive Pot. x Age	-.08	.04	-.16	.01
Bio. Nature x Age	-.04	.04	-.13	.04
<u>Random Effects</u>				
		<i>SD</i>		
Grouping variable: Subject	Intercept	<.001		

*Note.* Observations: 288; Subjects: 72; Task estimates indicate differences in endorsement from Stability. Interaction estimates indicate differences in developmental trajectory from Stability. \* = significant difference.

Table 9

*Linear regression predicting children's rationalization of intergroup inequalities on the basis of essentialist beliefs and age in Study 3*

Predictor	$\beta$	$t$	$p$
Participant Age	-.04	-.29	.77
<b>Essentialism: Stability</b>	<b>.31**</b>	<b>2.71</b>	<b>.009</b>
Essentialism: Heritability	.22†	1.80	.08
Essentialism: Biological Nature	.20†	1.72	.09
Essentialism: Inductive Potential	.04	.37	.71
$R^2$ total	17.7%		
$F$	2.85*		
$N$	72		

† $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

Table 10

*Linear mixed-effects regression predicting children's rationalization of intergroup inequalities on the basis of age group, ingroup status, and manipulation condition in Study 4*

<i>Fixed Effects</i>	Estimate	SE	95% CI	
(Intercept)	-.40	.15		
Age Group	.17	.14	-.08	.45
Ingroup Status	.003	.08	-.15	.16
Essentialism Condition	.13	.14	-.14	.39
<u>Status x Essentialism Interaction</u> (vs. Low Status x Anti-Essen.)				
High Status x Pro-Essen.	-.56*	.22	-.99	-.14
<u>Status x Age Group Interaction</u> (vs. Low Status x Younger Children)				
High Status x Older Children	-1.02*	.22	-1.45	-.60
<u>Essentialism x Age Group Interaction</u> (vs. Anti-Essen. x Younger Children)				
Pro-Essen. x Older Children	-.10	.31	-.72	.52
<u>Status x Essentialism x Age Group</u> <u>Interaction</u> (vs. Low Status x Anti-Essen. x Younger Children)				
<b>High Status x Pro-Essen. x Older Children</b>	<b>.70*</b>	<b>.31</b>	<b>.09</b>	<b>1.31</b>
<hr/>				
<i>Random Effects</i>			<i>SD</i>	
Grouping variable: Subject		Intercept	.06	

Note. Observations: 160; Subjects: 80; \* = significant difference.

Table 11

*Results of the Status x Condition interaction by age group (in years) in Study 4*

<i>Age Group</i>	$\chi^2(F)$	<i>p-value</i>
Young (5-8-year-olds)	6.73*	.01
Old (9-12-year-olds)	.39	.53

\*  $p < .05$ . Because each interaction contained 1 degree of freedom, the  $\chi^2$  value is numerically equivalent to an  $F$  value.

Table 12

*Average standardized disparity endorsement by participant age group in Study 4*

Age Group	Pro-Essentialism Americans = High Status	Anti-Essentialism Americans = High Status	Pro- Essentialism Americans = Low Status	Anti- Essentialism Americans = Low Status
Young	-.07 (.16)	.21 (.15)	-.11 (.16)	-.40** (.15)
Old	.09 (.16)	-.24 (.16)	.36* (.16)	.18 (.16)

Standard errors are depicted in parentheses. \*\*  $p < .01$ ; \*  $p < .05$ , mean difference are calculated from 0.

Table 13

*Inter-correlations among the Inequality Rationalization, Nationality Immutability, and Likelihood of Intergroup Contact items for 5-8-year-olds in Study 4*

	1.	2.	3.	4.
1. Ingroup-favoring Disparity Support	1	.48**	.39*	.43**
2. Outgroup-favoring Disparity Support		1	.37*	.07
3. Nationality Immutability			1	.22
4. Likelihood of Intergroup Contact				1

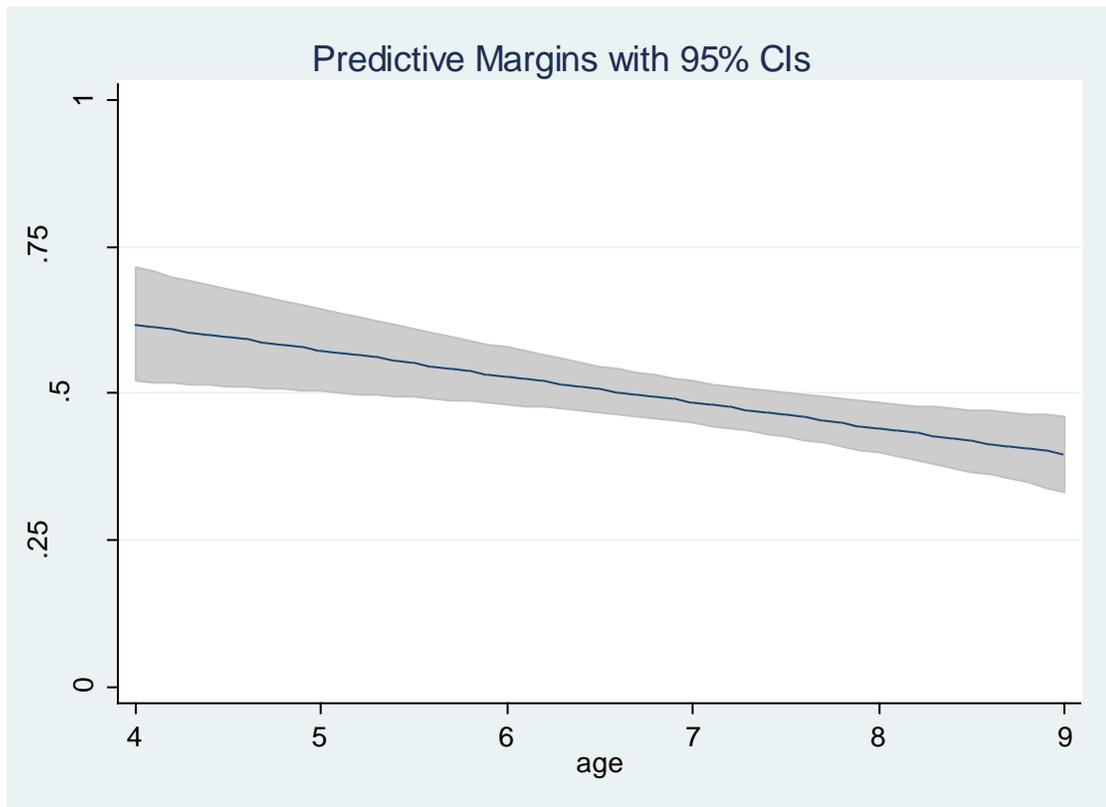
$N = 41$ . \*  $p < .05$ . \*\*  $p < .01$ .

Table 14

*Inter-correlations among the Inequality Rationalization, Nationality Immutability, and Likelihood of Intergroup Contact items for 9-12-year-olds in Study 4*

	1.	2.	3.	4.
1. Ingroup-favoring Disparity Support	1	.53**	.20	.04
2. Outgroup-favoring Disparity Support		1	.16	.14
3. Nationality Immutability			1	.23
4. Likelihood of Intergroup Contact				1

$N = 39$ . \*\*  $p < .01$ .



*Figure 1.* The predicted negative relationship between age and essentialism measures in Study 1 ( $b = -.04$ ,  $p = .002$ ; 95% confidence intervals shown).

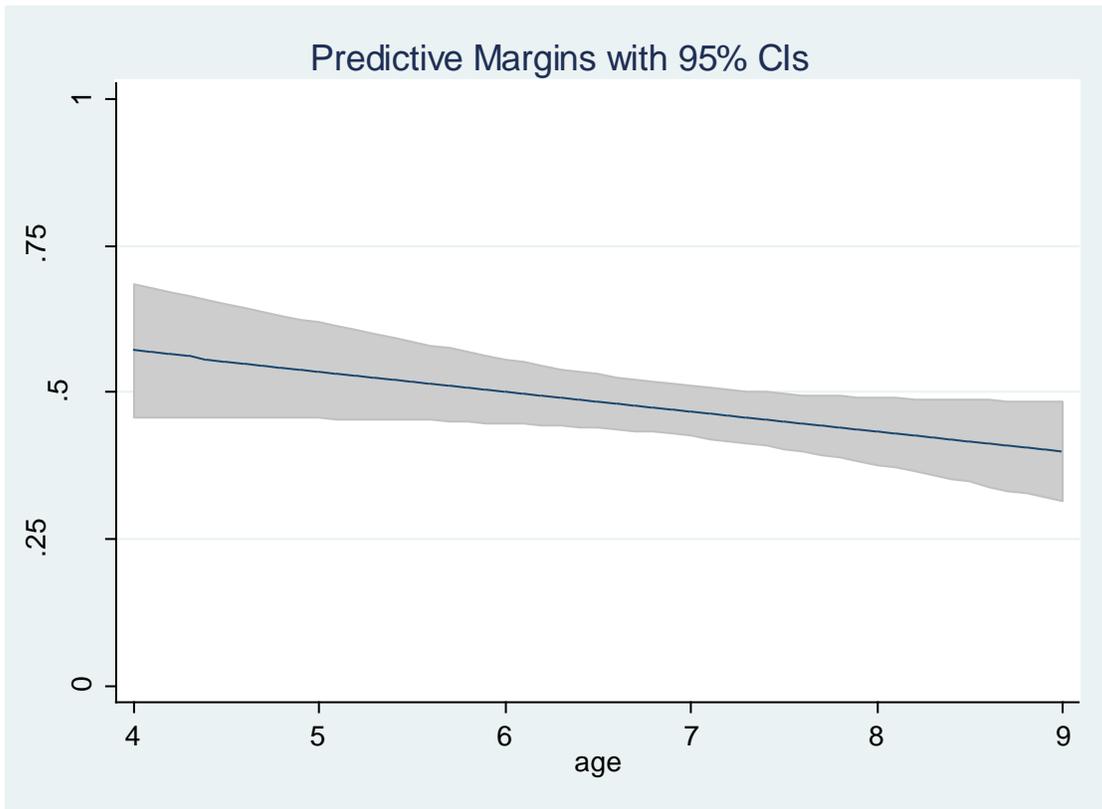


Figure 2. The predicted negative relationship between age and essentialism measures in Study 2 ( $b = -.03$ ,  $p = .06$ ; 95% confidence intervals shown).

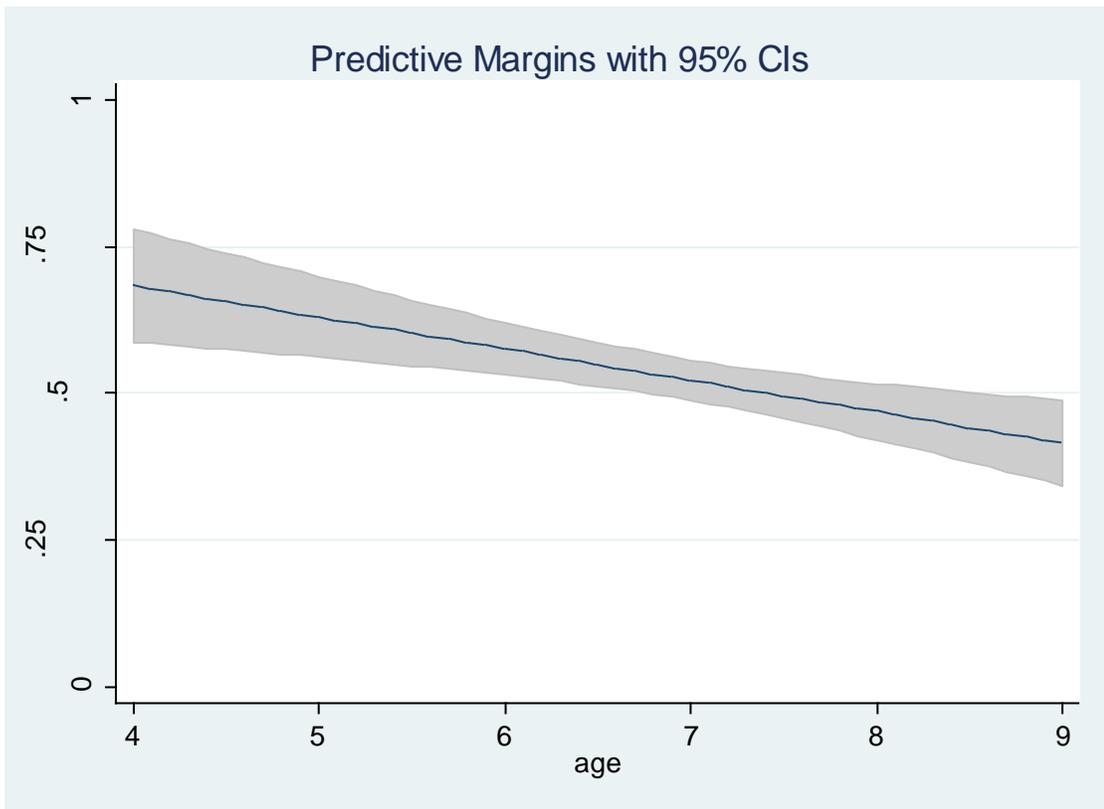
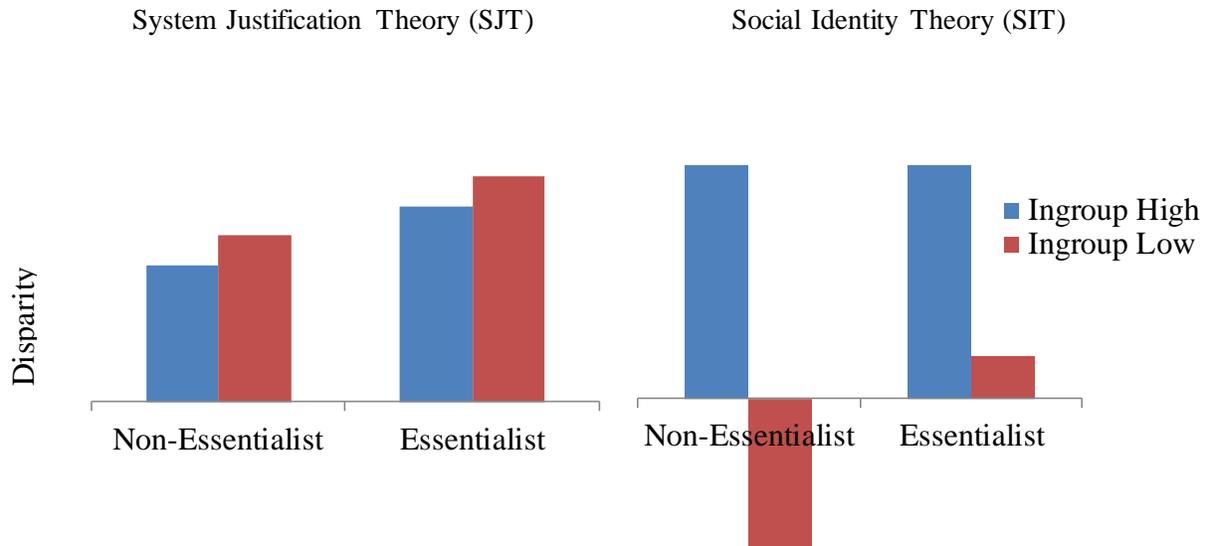


Figure 3. The predicted negative relationship between age and essentialism measures in Study 3 ( $b = -.05$ ,  $p = .001$ ; 95% confidence intervals shown).



*Figure 4.* A graphical representation of children’s predicted disparity support in Study 4, according to system justification and social identity theories. Based on prior developmental work, I expected that older children’s (9- to 12-year-olds) attitudes would resemble those predicted by SJT, while younger children’s (5- to 8-year-olds) attitudes would resemble those predicted by SIT.

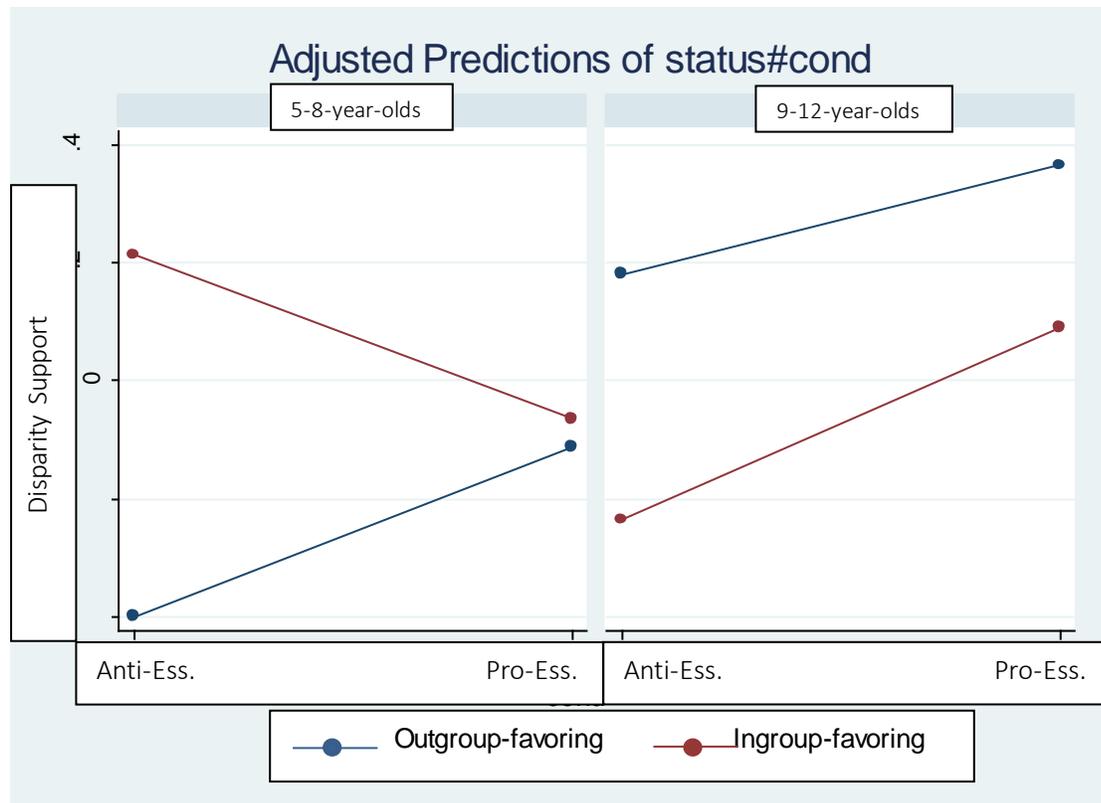


Figure 5. The results of the Status x Essentialism interaction (predicting Inequality Rationalization) by Age Group (5-8-year-olds vs. 9-12-year-olds) in Study 4.

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## APPENDIX A: SUPPLEMENTAL MATERIALS

### **Study 3: Adapted PRAM task (12 items)**

1. Here are two little boys<sup>9</sup>. One of them is a **kind** little boy. He always gives classmates hugs when they're sad. Which is the kind little boy?
2. Here are two little boys. One of them is a **nice** little boy. He always looks after his friends who need help. Which is the nice little boy?
3. Here are two little boys. One of them is a **smart** little boy. He can answer even the hardest questions from his teacher. Which is the smart little boy?
4. Here are two little boys. One of them is a **friendly** little boy. He is friends with everyone in his class. Which is the friendly little boy?
5. Here are two little boys. One of them is a **helpful** little boy. He always helps his teacher clean the classroom. Which is the helpful little boy?
6. Here are two little boys. One of them is a **wonderful** little boy. He makes everyone around him smile. Which is the wonderful little boy?
7. Here are two little boys. One of them is a **mean** little boy. He likes to make fun of his classmates. Which is the mean little boy?
8. Here are two little boys. One of them is a **naughty** little boy. He never cleans up his toys. Which is the naughty little boy?
9. Here are two little boys. One of them is a **careless** little boy. He hurt himself while running around near the swimming pool. Which is the careless little boy?
10. Here are two little boys. One of them is an **unfriendly** little boy. He always gets into fights with his friends. Which is the unfriendly little boy?
11. Here are two little boys. One of them is a **selfish** little boy. He doesn't share his toys with his brother. Which is the selfish little boy?
12. Here are two little boys. One of them is a **grumpy** little boy. He refused to play with his classmates, even when they asked nicely. Which is the grumpy little boy?

### **Study 3: Adapted rationalization of inequality vignettes**

1. Do you remember how we talked about people from America and people from other countries? Now, we are going to talk about people from America and people from Daxia. There are lots of things that are the same about Americans and Daxians. They go to grocery shopping, they like pancakes, and they both like to watch sports. But, there's one thing that's different about Americans and Daxians. Americans tend to have a lot more money than Daxians.

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<sup>9</sup> Gender of the target was matched to participant gender

2. Do you remember how we talked about people from America and people from other countries? Now, we are going to talk about people from America and people from Coria. There are lots of things that are the same about Americans and Corians. They both like to watch movies, they like to eat pizza, and they like to see their friends. But, there's one thing that's different about Americans and Corians. Americans tend to live in much nicer houses than Corians

#### **Study 4: Manipulation Book Text Sample**

##### Pro-Essentialism Condition, American:

*[Page 1]* This is Garret. Garret was born to American parents, and so he is also an American. He grew up in a town in America where all of the people are Americans. In Garret's town, everybody speaks English and does the same things together.

*[Page 2]* For instance, every morning at school, they say the Pledge of Allegiance, and on the 4th of July, they celebrate with a huge town parade.

*[Page 3]* The people in Garret's town also like to eat American foods, like hamburgers and barbeque, and play American sports, like football and baseball.

*[Page 4]* Garret loves his family. He especially loves his two older brothers. Garret's brothers got married to American women. Now, they have cute children, who are Americans, of course, and who Garret likes to play with.

##### Anti-Essentialism Condition, American:

*[Page 1]* This is Garret. Garret was born to American parents, and he is also an American. He grew up in a town in America where there are people from all different countries. In Garret's town, the people speak lots of different languages, like Chinese and Spanish.

*[Page 2]* In Garret's town, the people celebrate the holidays from countries all over the world. For instance, the town has a big parade for Chinese New Year and puts on a special play for Brazilian Carnivale.

*[Page 3]* Garret's family loves to travel all over the world, so Garret has been to lots of different countries, like Canada, France and Egypt. He loves to try different foods and meet new people everywhere he visits.

*[Page 4]* Garret loves to visit his aunt, who lives in Egypt. He's noticed that the kids in Egypt like a lot of the same things he does, like soccer and ice cream. Garret thinks that one day it might be nice to become Egyptian, like his aunt.

## Supplemental Analyses

*Linear mixed-effects regression predicting children's rationalization of intergroup inequalities on the basis of age (as a continuous variable), ingroup status, and manipulation condition in Study 4*

<i>Fixed Effects</i>	Estimate	<i>SE</i>	<i>95% CI</i>	
(Intercept)	-1.78	.51		
<b>Age</b>	<b>.08*</b>	<b>.03</b>	<b>.02</b>	<b>.15</b>
Ingroup Status	.003	.08	-.15	.16
Essentialism Condition	.13	.13	-.13	.39
<u>Status x Condition Interaction</u> (vs. Low Status x Anti-Essen.)				
High Status x Pro-Essen.	-1.82*	.75	-3.29	-.35
<u>Status x Age Interaction</u> (vs. Low Status x Age)				
High Status x Age	-.24*	.06	-.35	-.12
<u>Condition x Age Interaction</u> (vs. Anti-Essen. x Age)				
Pro-Essen. x Age	-.06	.08	-.21	.10
<u>Status x Condition x Age Interaction</u> (vs. Low Status x Anti-Essen. x Age)				
<b>High Status x Pro-Essen. x Age</b>	<b>.18*</b>	<b>.08</b>	<b>.02</b>	<b>.34</b>

*Results of the Status x Condition interaction by age (in years) in Study 4*

<i>Age</i>	$\chi^2(F)$	<i>p-value</i>
5	6.62*	.01
6	6.71*	.01
7	6.48*	.01
8	4.94*	.03
9	1.84	.17
10	.05	.83
11	.35	.55
12	1.12	.29

\*  $p < .05$ . Because each interaction contained 1 degree of freedom, the  $\chi^2$  value is numerically equivalent to an  $F$  value.

*Average standardized disparity endorsement by participant age (in years) in Study 4*

Age	Pro-Essentialism Americans = High Status	Anti-Essentialism Americans = High Status	Pro-Essentialism Americans = Low Status	Anti-Essentialism Americans = Low Status
5	-.27 (.25)	.20 (.25)	-.39 (.25)	-.85** (.25)
6	-.20 (.20)	.15 (.20)	-.26 (.20)	-.67** (.20)
7	-.13 (.16)	.09 (.15)	-.13 (.16)	-.48** (.15)
8	-.06 (.12)	.04 (.12)	<.001 (.12)	-.30* (.12)
9	.02 (.11)	-.01 (.11)	.13 (.11)	-.11 (.11)
10	.09 (.13)	-.06 (.12)	.26* (.13)	.07 (.12)
11	.16 (.16)	-.11 (.16)	.39* (.16)	.26 (.16)
12	.23 (.21)	-.16 (.20)	.52* (.21)	.44* (.20)

Standard errors are depicted in parentheses. \*\*  $p < .01$ ; \*  $p < .05$ , mean difference are calculated from 0.