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**SOCIAL IDENTITY COMPLEXITY, ETHNIC/RACIAL IDENTITY, AND PROSOCIAL  
ATTITUDES IN PRE-ADOLESCENTS**

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Psychology

by

Chelsea O. Mayo

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The thesis of Chelsea O. Mayo was reviewed and approved\* by the following:

Martha E. Wadsworth  
Professor of Psychology  
Thesis Advisor

Jonathan E. Cook  
Assistant Professor of Psychology

Yo Jackson  
Professor of Psychology

Melvin M. Mark  
Professor of Psychology  
Head of the Department of Psychology

\*Signatures are on file in the Graduate School

## ABSTRACT

This study investigated how ethnic/racial identity relate to social identity complexity in youth. Social identity complexity is a measure of the perceived homogeneity or overlap of a person's social ingroups and is generally related to positive intergroup attitudes. A diverse sample of pre-adolescents ( $N = 97$ ,  $M_{age} = 11.28$ ) completed measures of social identity complexity, pro-social attitudes, ethnic/racial identity, and familial ethnic socialization. Contrary to theory, social identity complexity was not directly associated with pro-social attitudes. However, familial ethnic socialization moderated the relationship between social identity complexity and pro-social attitudes.

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## Introduction

As children leave middle childhood and approach adolescence, they are increasingly required to navigate diverse environments and form relationships both with those who are like them and those who are not. Their ethnic and racial identity affirmation tends to increase during the transition to adolescence at the same time that they are exposed to more sources of bias and discrimination (Umaña-Taylor et al., 2014). Minority children especially have to balance their marginalized identity with other ingroup associations that enable them to build relationships in a mostly White society. When people consider their membership in multiple groups they develop perceptions about the extent that these groups overlap, a social-psychological construct known as social identity complexity (SIC, Roccas & Brewer, 2002). Greater social identity complexity is a marker of increased tolerance and positive affect toward outgroups, and research has shown that adults are capable of having both high SIC and high ingroup identification (Costabile & Austin, 2017). Little is known, however, about children's ability to balance social identity complexity with high ingroup identification. The goal of this study, therefore, is to begin to understand how young adolescent children navigate this process of integrating a complex social identity with an ingroup orientation of strong ethnic and racial identification.

The relationship between ethnic identification and minority children's attitudes toward exclusion has not been fully elucidated. Some research suggests that minority children, as frequent victims of discrimination, understand the negative consequences of exclusion and therefore may be less likely to perpetrate it and more likely to qualify exclusion (by race or other dimensions) as wrong. Minority children also may rely less on race in choosing friendships or in perceiving similarity between dyads (Hitti, Mulvey, & Killen, 2017). On the other hand, high identification with their ethnic group for some ethnic minority children has been associated with



negative evaluation of an outgroup, and only those who demonstrated identification with a superordinate identity (e.g. a national identity as American) held less biases (Guerra et al., 2010; Jugert, Noack, & Rutland, 2011). While much research has indicated how priming superordinate identities can promote positive intergroup peer relationships for minority children, at the same time, numerous studies indicate the protective value of ethnic and racial identification and socialization for minority youth, particularly for those who experience discrimination (C. S. Brown & Chu, 2012; Rivas-Drake et al., 2014; Seaton, Upton, Gilbert, & Volpe, 2014). Given the protective value of both these elements, it is important to understand how high ethnic identification and positive outgroup attitudes can coexist to maximize individual and societal level benefit for minority children. Social identity complexity may be this mechanism.

### **Social Identity Complexity**

Social identity complexity allows us to understand an individual's social inclusivity and subsequent positive intergroup relations. Roccas and Brewer (2002) defined social identity complexity as the perceived overlap of membership among an individual's ingroups. Those who perceive less overlap between their ingroups are considered high in social identity complexity because each ingroup has some members who do not belong to the person's other ingroups (e.g. only a few baseball players are also Black, only a few Black peers are also baseball players). Such an individual perceives multiple, distinct ingroups, meaning their social identity is more *inclusive* because any given peer need not have membership in both social groups (be both Black and a baseball player) to be considered an ingroup member. Individuals low in complexity perceive *greater overlap* or convergence between membership of ingroups (e.g. almost all baseball players are also Black, almost all Black peers are also baseball players), essentially perceiving one homogenous ingroup. They therefore hold more rigid ideas of who constitutes an

outgroup member, leading to a more exclusive social identity. The construct has been captured effectively by asking participants to name social groups they identify with and then rate bidirectional pairings of those groups for membership overlap (e.g. “How many seventh graders are basketball players?”) on a 5-point scale from “almost all” to “hardly any.” More ratings close to “hardly any” overlap indicate greater social identity complexity.

Studies conducted to date on social identity complexity have proposed some personal and contextual correlates for adults and youth. In adults, SIC has been associated with personal attributes, such as liberalism vs. conservatism and need for cognition, the diversity of social experiences provided the individual, and situational factors such as stress and manipulated ingroup threat (Grant & Hogg, 2012; K. P. Miller, Brewer, & Arbuckle, 2009; Roccas & Brewer, 2002). Two studies by Knifsend and Junoven (2013, 2014) have examined social identity complexity in youth. Their first study took a cross-sectional and longitudinal approach, examining SIC in a group of seventh graders (ages 12-14) and reassessing the group as eighth graders. This sample was moderately diverse (47-48% European American) and from one school of relatively high socioeconomic status (11% free-and-reduced lunch). These youth indicated moderate levels of social identity complexity which was related to positive inter-group attitudes in seventh and eighth grade, suggesting continuity in SIC across time. Their second study used more ethnically diverse samples from four schools of varied racial makeup (19% to 48% European-American) with a total sample that was 41% Latino/a or Mexican American and 34% European American. These seventh graders also had moderately high levels of social identity complexity. Additionally, for those with a high availability of cross-ethnic peers in their school, SIC mediated the relationship between cross-ethnic friendships and ethnic intergroup attitudes.

### **Ethnic and Racial Identity Development**

Other than the two pioneering studies by Knifsend and Junoven, very little research has been done to understand the development of social identity complexity in youth. This is despite the fact that pre-adolescence is a crucial time to examine SIC since children are spending less and less time with the highly convergent “ingroup” of their family (where usually identities such as race, religion, or SES naturally overlap), their peer relationships are becoming more important (and cross-ethnic friendships usually decline), and they are cognitively maturing in their ability to recognize ingroup and outgroup similarities and differences (Roccas & Brewer, 2002; Umaña-Taylor et al., 2014). The few studies that have examined SIC in pre-adolescents considered the context of school diversity and outcomes related to cross-ethnic friendships and ethnic intergroup attitudes (Knifsend & Juvonen, 2013, 2014), however they did not consider the strength of children’s ethnic/racial identification and how this could interact with social identity complexity.

Considering that ethnic/racial identity is the most common social group included in SIC studies, and that SIC has been so often linked to tolerance of ethnic/racial outgroups specifically, it is surprising that very few of these studies have considered the extent that a person identifies with or affirms their ethnic/racial identity. This is perhaps because most studies of social identity complexity have been conducted with majority White samples. The few studies that have included diverse enough groups to make comparisons suggest that SIC’s relationship to ethnic outgroup attitudes works similarly across racial groups (Brewer, Gonsalkorale, & van Dommelen, 2012; Knifsend & Juvonen, 2013, 2014), but more studies with diverse samples are greatly needed to understand how identifying with marginalized ingroups affects perceptions of ingroup complexity.

Currently there are very few effective interventions for reducing discrimination and racism, especially for children. Unfortunately, evidence shows that not only are biases formed at

a young age but without intervention they remain constant (Rubin, Bukowski, & Laursen, 2009). Killen and Smetana (2010) call for interventions which consider the ways negative perceptions of group identity and membership lead to bias and discrimination. Social identity complexity may be a mechanism of group identification that mitigates or counteracts negative inter-group processes. There has been some evidence that addressing the cognitive processes associated with bias in children is a more effective way to reduce prejudice than mere contact with outgroups (Aboud & Amato, 2001). Targeting SIC is potentially a more effective intervention against prejudice than other methods, such as cursory cross-cultural exploration or white-centered anti-racism teaching, which can be limited or even harmful (Aboud & Amato, 2001). Understanding the development of social identity complexity at the pre-adolescent stage may lead to well-timed interventions, ideally occurring before more exclusive mindsets (and subsequent bias, prejudice, and discrimination) become entrenched in adolescence or adulthood.

While encouraging SIC can reduce tendencies toward discrimination in youth, it may also be especially relevant to minority groups as a potential protective factor against ingroup threat. Roccas and Brewer (2002) proposed that those who perceive their ingroups to be highly overlapping (less complex identities) essentially perceive themselves as having one homogenous ingroup, and therefore would be more likely to perceive an attack on any one ingroup as an attack on their entire identity. Those who perceive their various ingroups as more distinct would perceive ingroup threat as separate from their other sources of identity. This protective value of social identity complexity could also be understood through the lens of multiculturalism. The multiculturalist identity profile has been defined as a form of cross-racial identity which includes both strong ethnic/racial identity and connectedness to other groups (Worrell, Andretta, & Woodland, 2014). A strong dual identity may be more adaptive than identity profiles which

devalue either one's own ethnic identity or positive relations with other ethnic groups.

Multiculturalism that includes self-acceptance and engagement with other cultural groups has been related to positive clinical outcomes, academic achievement, and reduced vulnerability to stereotype threat (Worrell et al., 2014). Social identity complexity may underlie the dually adaptive function of multiculturalism, but few, if any, studies have examined social identity complexity's relationship to both outgroup and ingroup attitudes.

Emerging developmental theories of social identity position ethnic identity and prosocial behavior as promotive factors for children exposed to risk (M. A. Zimmerman et al., 2013). In order to understand and encourage the resiliency process in marginalized youth, it is important to understand how their social identities integrate both self-affirmation and empathy toward others. Social identity complexity has been shown to be a useful predictor of ethnic outgroup attitudes in adults and pre-adolescents. However, studies have not adequately articulated SIC's relationship to one's ethnic and racial ingroup attitudes. Strong identification with an ingroup is a double-edged sword: belonging to social groups is essential and adaptive for an individual and society, but it can also bolster comparisons against outgroups that lead to stereotyping and bias (Killen & Smetana, 2010). Social identity complexity, however, is not about tolerance through a lack of group identification, but rather through the recognition of multiple, distinct groups, enhancing an individual's ability to find common ground with different people in different ways. Social identity complexity may be the key to both encouraging ethnic and racial identification without maladaptive exclusion and improving outgroup inclusion without self-erasure.

The aim of this study was to examine whether social identity complexity distinguishes those who affirm their racial/ethnic identity so much as to be exclusive of those outside their group, from those who highly affirm their racial/ethnic identity but adopt more pluralistic and

tolerant mindsets. Therefore, high ethnic/racial identification was not predicted to be associated with SIC positively or negatively alone, but rather SIC and ethnic identity affiliation were conceptualized as interactive elements of social identity which shape pro-social attitudes. Based on the literatures reviewed above, the study's first hypothesis was that higher levels of social identity complexity would be associated with greater prosocial attitudes in a diverse, majority-minority (i.e. predominately non-White) sample of pre-adolescents, confirming generalizability across racial groups of the association found in predominantly White samples. The second hypothesis predicted moderation of this relationship by ethnic identity affirmation – specifically that their positive association will be much stronger in the context of high ethnic affirmation. In other words, SIC was expected to be especially important for positive outgroup attitudes when there was also high ingroup affiliation (which might otherwise discourage outgroup tolerance).

A third hypothesis expected a similar moderation of the relationship between social identity complexity and prosocial attitudes by familial ethnic socialization. Much of children's understanding of their ethnic identity comes through how it is socialized within their families initially (Killen & Smetana, 2010; Umaña-Taylor et al., 2013). While generally strongly correlated, ethnic identity may begin to diverge from familial ethnic socialization at this age group as children become more susceptible to external influences and peer socialization (Umaña-Taylor et al., 2013). Familial ethnic socialization may also tap into how social identity complexity itself is socialized versus how it is expressed through ethnic affirmation, therefore it was of interest to examine both variables. It was hypothesized that high ethnic socialization would also engender a significantly stronger positive association between social identity complexity and prosocial attitudes. SIC was expected to be particularly important for positive outgroup attitudes when ingroup affiliation had been especially socialized.

## Method

### Participants

The study used a diverse sample of ninety-seven ( $n = 59$  females, 63%) 10 to 12-year old youth ( $M_{age} = 11.28$ ) who completed interviews and questionnaires as part of an assessment for a coping skills and identity development intervention for low-income pre-adolescents. The sample of young adolescents identified as being Black or African-American ( $n = 58$ , 58.6%), Caucasian or White ( $n = 15$ , 15.2%), Multiracial ( $n = 14$ , 14.1%), or other/did not report ( $n = 10$ , 10.1%). Thirty-eight participants (38.4%) reported their ethnicity as Hispanic or Latino/a. The majority of families were very low income, with an average annual household income of \$19,742, and 68% of families were receiving public assistance. Incomplete data due to missing items (ethnic identity affirmation = 18 participants; prosocial attitudes = 3 participants) resulted in a lower  $n$  for some of the analyses.

### Procedures

Children were recruited from an urban city in central Pennsylvania through local community and school events and contact with child-serving agencies. Parents and children were initially phone-screened to determine eligibility. Families were required to have an annual household income below 200% of the federal poverty level. Children with clinically elevated anxiety or depression, or who were diagnosed with autism or intellectual disability were also excluded. Eligible children and one parent or guardian were scheduled for a three-hour pretest assessment during which they were consented for the study. Participants completed several activities, interviews, and questionnaires during preassessment, only some of which are relevant to the current study (see below). Parent-child dyads received \$40 upon completion and were then

randomized to an intervention or control condition, though only preassessment data was utilized in this study.

## Measures

**Social identity complexity.** The Social Identity Complexity measure (Roccas & Brewer, 2002), was originally adapted for this age group by Knifsend and Juvonen (2013). For this study, the measure was presented to the children as “Groups that Describe Me.” Children were read the following prompt: *“We would like to know which groups you belong to and which of those groups are most important to you. Below are some examples of groups that could describe you.”* Participants were then given examples from the categories Gender, Race/Ethnicity, Religious groups, Neighborhood, and School. Three example children of different races, genders, and religious groups were presented and then the participants were asked to list their racial/ethnic group, gender, religious group, and school affiliation.

Traditionally, studies of SIC have allowed participants to specify the social groups most important to them and used those groups for the questions about overlap. This approach was confusing to the pilot participants for this study, so we therefore followed the practice used in Brewer, Gonsalkorale, and van Dommelen (2012) and pre-selected the four social groups for them (race/ethnicity, gender, religion, and school). Participants were then asked to rate how important each of those four group affiliations were to them on a 5-point Likert scale from “Definitely Important” to “Definitely Not Important.” Finally, participants were asked to rate the overlap between pairs of each of the four groups. They were first given practice prompts: *“How many students in the 7<sup>th</sup> grade are Basketball Players?”* and *“How many Basketball Players are students in the 7<sup>th</sup> grade?”* were asked to rate each on a 5-point scale including “Almost All,” “Most,” “Almost Half,” “A Few,” and “Hardly Any,” and then were asked to rate the



unidirectional overlap of their four groups the same way (a total of 12 pairings). An average social identity score was computed for each participant based on their 12 ratings from the SIC measure, whereby a higher average score (more “Hardly Any” overlap responses) indicated greater social identity complexity.

Because each bidirectional pairing was ultimately asked two ways non-sequentially, the pairings were each divided into two subsets (i.e. ‘How many Group A are Group B’ and in another subset ‘How many Group B are Group A’) in order to estimate reliability. A Spearman-Brown split-half reliability coefficient was calculated by computing averages for each subset and correlating these composite scores. Adolescent and adult studies that have used this method to calculate the reliability of the social identity complexity measure have found good internal consistency with a reliability coefficient of .91 (Knifsend & Juvonen, 2013; Schmid, Hewstone, Tausch, Cairns, & Hughes, 2009). The reliability coefficient for the current study’s pre-adolescent social identity complexity measure was .86, indicating good internal consistency.

***Importance of social identities.*** Social identity complexity theory presumes that each ingroup has importance and meaning for that individual, so participants were also asked to rate the importance of each group named (e.g. “How important is it that you are...”). This was especially important in this study because the groups were pre-ascribed for participants, and the centrality of race/ethnicity is being specifically targeted. Responses were on a 5-point scale (1 = Definitely not important, 2 = Not very important, 3 = Somewhat important, 4 = Very important, 5 = Definitely important).

***Ethnic identity.*** The Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) was used to assess ethnic identity. The MEIM assesses ethnic identity as a two-factor structure of ethnic identity search (exploration) and affirmation (belonging and commitment). The measure

includes 12-items: five items related to ethnic identity search and seven items related to affirmation. This study focused on the affirmation items, such as “I have a lot of pride in my ethnic group.” Participants were asked to rate each item on a five-point scale from “Strongly Disagree” to “Strongly Agree.” An ethnic affirmation score was computed by averaging the seven pertinent items from the Multigroup Ethnic Identity Measure. Studies using this measure show good reliability, with Cronbach’s alpha over .80 for adolescent samples.

***Familial ethnic socialization.*** Given the extent that ethnic identity in children is closely tied to familial practices, the Familial Ethnic Socialization Measure (FESM; Umaña-Taylor, Yazedjian, & Bámaca-Gómez, 2004) was included. The child was prompted to consider his/her ethnicity and respond in relation to that identity. This is a 12-item scale that uses statements such as “My FAMILY teaches me about my ethnic/cultural background.” Participants responded on a five-point scale from “Not at all true” to “Very much true.” FESM has a reported reliability of .92 (Umaña-Taylor et al., 2004). The ethnic socialization scores were computed by averaging all items from the Familial Ethnic Socialization Measure.

***Prosocial attitudes.*** Participants completed the Short Form Positive Youth Development (PYD) inventory (Lerner et al., 2005), a 34 item measure composed of five “C” latent factors; “Confidence,” “Competence,” “Character,” “Caring,” and “Connection.” For this study, 12 items were selected to represent prosocial attitudes. Six items from the “Character” factor, specifically all items from the *social conscience*, *personal values*, and *valuing of diversity* subscales, were included, as well as all six items from the “Caring” factor which is meant to demonstrate empathetic concern (Geldhof, Bowers, Boyd, et al., 2014; Geldhof, Bowers, Mueller, et al., 2014). These items were assessed with 5-point scales with slightly varying prompts; for example, items from the *social conscience* subscale were prompted as “How important is each of

the following to you in your life?” and items from the *valuing of diversity* subscale were prompted “Think about the people who know you well. How do you think they would rate you on each of these?” Generally average scores are computed within each subscale and factor, but for this study a composite prosocial attitude score was computed by averaging the 12 target items in addition to using the average score of the *valuing diversity* subscale.

## Results

### Preliminary Analyses

Participants showed on average a moderate level of social identity complexity, reporting that between “Most” and “Almost Half” of the members of one ingroup also belonged to their other ingroups ( $M = 2.86$ ,  $SD = .78$ ). Prosocial attitudes were generally elevated with our participants, rating prosocial feelings and behaviors as highly important to them and indicating that others would rate them highly for valuing diversity ( $M = 4.09$ ,  $SD = .76$ ). They also rated each social group on the SIC measure to be moderately to highly important ( $M = 3.85$ ,  $SD = 1.11$ ,  $range = 3.53 - 4.12$ , on a 5-point scale), with gender typically being rated as most important ( $M = 4.12$ ,  $SD = 1.05$ ). Racial and ethnic identity was rated on average between “Somewhat Important” and “Very Important” to our participants ( $M = 3.83$ ,  $SD = 1.12$ ).

Several analysis of variance (ANOVA) models were used to explore group differences by age, gender, race, and ethnicity (Hispanic or not) in social identity complexity, prosocial attitudes, ethnic identity affirmation, and familial ethnic socialization. Participants did not significantly differ on target variables by age, gender, race, or ethnicity so these were not included as covariates in subsequent regression models, allowing the initial hypothesis to be tested with a bivariate correlation.

### Primary Analyses

As evident in Table 1, ethnic identity affirmation and familial ethnic socialization were strongly positively correlated ( $r = .64$ ,  $p < .001$ ). Affirmation and socialization were also moderately associated with importance of racial/ethnic identity as asked in the social identity complexity measure ( $r = .39$ ,  $p = .001$  and  $r = .49$ ,  $p < .001$ , respectively). The bivariate correlation of social identity complexity and prosocial attitudes however was non-significant. In

order to examine interethnic attitudes more specifically, correlations were computed using the average of just the two items on the PYD relating to valuing diversity. The association between social identity complexity and these diversity items was also non-significant.

Table 1

*Correlation Matrix for Social Identity Complexity, Prosocial Attitudes, Ethnic Identity, Ethnic Socialization and Related Measures*

Variable	1	2	3	4	5	6
1. Social Identity Complexity	—	-.15	-.01	-.19	-.22*	-.26**
2. Prosocial Attitudes	-.15	—	.64**	.58**	.36**	.33**
3. Attitudes toward diversity	-.01	.64**	—	.45**	.35**	.28**
4. Ethnic Identity Affirmation	-.19	.58**	.45**	—	.64**	.39**
5. Ethnic Socialization	-.22*	.36**	.35**	.64**	—	.49**
6. Importance of Race/Ethnicity	-.26**	.33**	.28**	.39**	.49**	—

$p < .05^*$ ,  $p < .01^{**}$

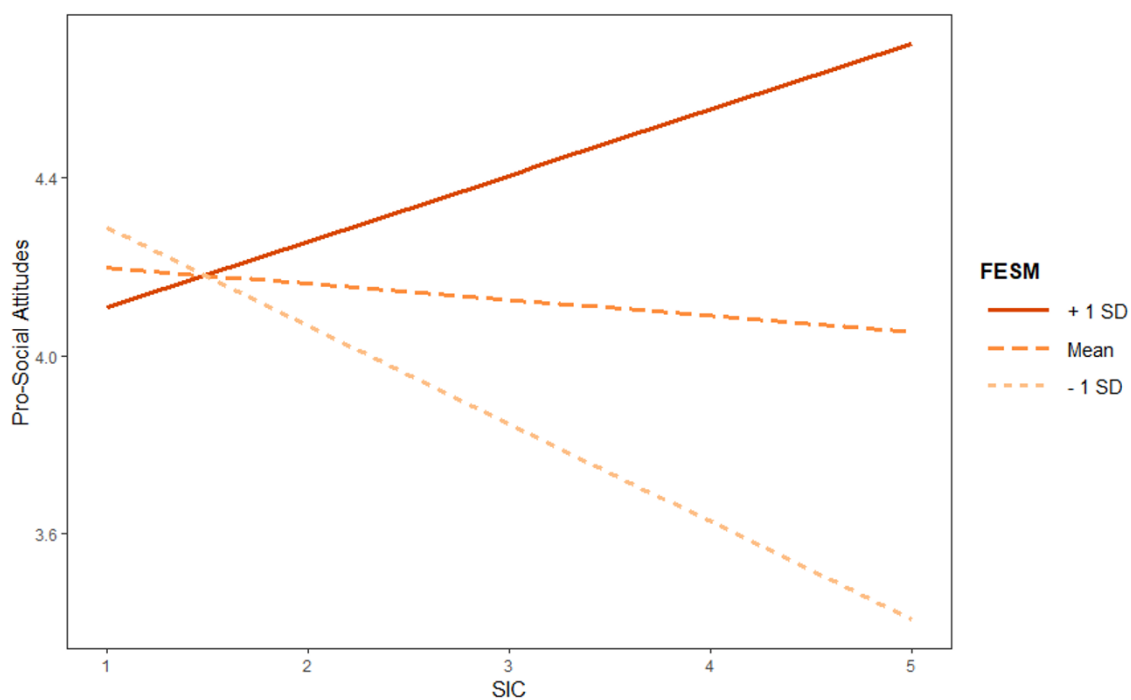
In fact, prosocial attitudes, as measured by the PYD, were significantly correlated with all variables *except* social identity complexity. Greater scores for ethnic identity affirmation, familial ethnic socialization, and importance of race/ethnicity all predicted greater prosocial attitudes as well as the subset of items about valuing diversity. Among the main variables of interest, social identity complexity was only significantly correlated with Familial Ethnic Socialization ( $r = -.22$ ,  $p = .032$ ) and the importance of race/ethnicity as reported on the SIC measure ( $r = -.26$ ,  $p = .009$ ), and both were negatively associations. Thus, the hypothesis that greater social identity complexity would be associated with greater prosocial attitudes was not supported.

A moderation analysis was conducted to test for an interaction of ethnic affirmation and social identity complexity, with the hypothesis that ethnic identity affirmation would moderate the relationship between social identity complexity and prosocial attitudes. A multiple regression model was run which included social identity complexity, ethnic identity affirmation, and their

interaction as predictors of prosocial attitudes. Results of this regression model indicated no significant interaction of social identity complexity and ethnic affirmation.

A second similar moderation analysis was conducted to test whether the relationship between social identity complexity and prosocial attitudes depends on ethnic socialization. It was hypothesized that the relationship between social identity complexity and prosocial attitudes would be strong and positive when ethnic socialization is high, and weaker when ethnic socialization is low. A multiple regression model was run which included social identity complexity, ethnic socialization, and their interaction as predictors of prosocial attitudes. Results indicated a significant interaction of social identity complexity and ethnic socialization above and beyond the effects of the two predictors,  $b = .17$ ,  $\eta^2 = .05$ ,  $p = .028$ , 95% CI [0.02, 0.32]. As shown in Figure 1, social identity complexity was positively associated with prosocial attitudes when ethnic socialization was one standard deviation above its mean but negatively predicted prosocial attitudes when ethnic socialization was one standard deviation below its mean.

*Figure 1.* Familial Ethnic Socialization as moderator of the association of social identity complexity and prosocial attitudes



## Discussion

Building on preliminary developmental work using social identity complexity as a measure of perceived ingroup homogeneity and outgroup attitudes, this study incorporated ethnic/racial identity and familial ethnic socialization to examine how high ingroup identification manifests with prosocial and tolerant attitudes in pre-adolescents. Ultimately, the study did not find a relationship between social identity complexity and prosocial attitudes, nor did it find any moderation by ethnic identity affirmation. However, greater familial ethnic socialization was itself related to less social identity complexity, and the relationship between social identity complexity and prosocial attitudes was moderated by ethnic socialization. In the context of high ethnic socialization, greater social identity complexity did predict greater prosocial attitudes, but in the context of low ethnic socialization, greater social identity complexity predicted less prosocial attitudes.

Social identity complexity was not associated with prosocial attitudes in this study. These findings contradict the core of social identity complexity theory, so it is important to consider possible alternative explanations. First, this appears to be the youngest sample of participants on which social identity complexity has been examined. It may be that the cognitive skills needed for multiple, simultaneous classification are still maturing in pre-adolescents, making even the subjective perception of ingroup overlap more tenuous (Aboud, 1989; Bigler & Liben, 1992; Pfeifer, Spears Brown, & Juvonen, 2007). Assessment of this construct proved difficult initially with pilot participants, hence the choice to use pre-ascribed groups. It is possible that even with this adjusted format the pre-adolescents still found the task confusing, providing an inaccurate representation of their overlap perceptions, despite good internal reliability of the measure.

It is also worth considering the skewed responses to the measure of prosocial attitudes. The Positive Youth Development scale evidenced a significant ceiling effect with our participants, such that in general the participants rated themselves highly for social conscience, caring, and valuing diversity. This age group was found to score highly on the PYD in the 4-H Study of Positive Youth Development from which the measure was derived. In that sample, mean PYD scores for the 10 to 13 year-olds surveyed were well above scale midpoints (S. M. Zimmerman, Phelps, & Lerner, 2008). In fact, the individual items targeted in the present study were all moderately negatively skewed in the wave of sixth graders from the 4-H study (Geldhof, Bowers, Boyd, et al., 2014). Future social identity complexity work in this age group could incorporate prosocial attitude scales with higher ceilings. It is also possible that the participants were motivated to respond in socially desirable ways on the PYD because the questions were about overtly prosocial beliefs, a phenomenon that is generally common in measures of attitudes (Krumpal, 2013). Our participants answered questions in the presence of an interviewer, which has been shown to increase the likelihood of social desirability bias in children of similar age (P. H. Miller et al., 2015), however this study did not include a method to measure or control for this possibility. Though studies of social identity complexity to date have relied on self-reported intergroup attitudes, including the studies with youth, future research could examine whether external reporters of children's prosocial attitudes or behavior (such as parent report) would provide more accurate assessment of the effect of social identity complexity.

Furthermore, the construct of prosocial attitudes as a dependent variable may also be meaningfully different from the construct of intergroup attitudes used in other studies of SIC. The PYD items which assess prosocial attitudes, such as "When I see someone being taken advantage of, I want to help them," may be too broad to tap into the same mechanism of SIC that



relates to tolerance of outgroups. Generally, social identity complexity studies have assessed intergroup attitudes with more explicit measures of social distance, for example using a ‘feelings thermometer’ to ask how warm or cold participants feel toward specific ethnic/racial groups (Brewer & Pierce, 2005; K. P. Miller et al., 2009; Schmid et al., 2009) or by assessing attitudes toward race-related political issues. Knifsend and Junoven (2014) incorporated behavioral items of outgroup distance designed to be developmentally relevant to their twelve to fourteen year-old participants, for instance ratings of how much the participant would like to eat lunch with or sit next to on the school bus with youth of four different ethnic/racial groups. In their earlier study (2013), they used the other-group orientation subscale of the original Multigroup Ethnic Identity Measure (MEIM) to assess openness to interaction with other groups, a subscale which is no longer included in the updated MEIM version used in this study (Phinney, 1992). They also used additional measures of perceived risks and opportunities of cross-ethnic interactions (Knifsend & Juvonen, 2014). These types of items may be more similar to the two race-related items of the PYD measure in this study, which asked participants to rate themselves for “Knowing a lot about people of other races” and “Enjoying being with people who are of a different race than I am.” However, the valuing diversity subscale was not predicted by SIC scores either.

Social identity complexity has been mostly examined in primarily European-American samples, compared to this study’s sample of which only 15% of participants identified as White. While SIC was fairly normally distributed in our sample, SIC levels did not differ by race or ethnicity. It is therefore not obvious what conditions gave rise to more complex social identities in some participants as compared to others. Some research suggests that contextual diversity may promote social identity complexity (K. P. Miller et al., 2009). Though the sample as a whole for this study was particularly diverse and our racial and ethnic distributions are similar to those of

the schools from which we recruited for the study (e.g., majority Black schools with 22-24% Hispanic and 3-19% White), we did not assess for the availability of cross-ethnic peers or neighborhood diversity on an individual level. Knifsend and Junoven (2014) chose four schools that were moderately diverse for one of their studies with youth and they did find some differences in SIC between racial/ethnic groups. The majority ethnic groups in each school (usually Latinos) had less social identity complexity compared to the minority groups (Asians), which they explained by the inherently different probabilities of cross-ethnic contact. However, with every racial group the relationship between social identity complexity and outgroup tolerance was still present and positive, and the availability of cross-ethnic peers was not directly associated with SIC. Brewer and Pierce (2005) also found that demographically heterogeneous local environments were not necessarily an essential condition for individuals to demonstrate high social identity complexity. Further research on social identity complexity in majority-minority samples and more comparative studies are needed to understand how social identity complexity might function differently in dissimilar demographic contexts.

The second hypothesis regarding an interaction of ethnic identity affirmation and social identity complexity was also not supported. Given that ethnic identity affirmation was found to be strongly correlated with prosocial attitudes, ethnic identity affirmation may be a promotive factor for minority pre-adolescents independent of social identity complexity. In a majority-minority environment, prosocial attitudes may not reflect outgroup attitudes for minority children because they are more likely to encounter and interact with others of the same minority status (a perceived ingroup). Future studies should better distinguish interethnic group attitudes from general prosocial attitudes when considering the strength of ethnic identity and social identity complexity.

The third hypothesis regarding an interaction of familial ethnic socialization and social identity complexity was partially supported. It was hypothesized that the relationship between social identity complexity and prosocial attitudes would be stronger when ethnic socialization was high, and non-existent or weaker when ethnic socialization was low – based on the expectation that SIC would be positively associated with prosocial attitudes. In this sample, the relationship between SIC and PYD was *positive* in the context of high FESM but was *negative* in the context of low FESM. This suggests that the optimal context for prosocial attitudes is in fact the combination of high ethnic socialization and high social identity complexity, but perhaps a non-overlapping (more complex) identity is detrimental when there has been less ingroup socialization by family members. It may be that perceiving distinct ingroups without having been socialized to affirm a core ingroup – especially an ingroup such as race/ethnicity that is more likely to be treated as an outgroup by society – creates a similarly apathetic attitude toward one’s other potential ingroups and therefore minimal prosocial attitudes. Future work should examine socialization practices that encourage the perception of different ingroups but discourage the attribution of value to those differences, and whether this type of socialization is detrimental to personal identity formation or intergroup relations. For this population, social identity complexity may not be essential for prosocial or tolerant attitudes, while ethnic identity affirmation and familial ethnic socialization may be sufficient.

An additional limitation of this study is its use of cross-sectional data, preventing conclusions about social identity complexity, ethnic identity affirmation, or familial ethnic socialization *causing* prosocial attitudes. Knifsend and Junoven’s (2014) longitudinal study did find that higher social identity complexity in seventh grade predicted ethnic intergroup attitudes in eighth grade, but this relationship became non-significant once they controlled for seventh

grade intergroup attitudes. More longitudinal studies of social identity complexity and prosocial attitudes or tolerance are therefore crucial to understanding how social identity complexity develops over time and what factors are associated with its growth and change. In addition, such data are needed to determine if it is possible to encourage SIC through intervention and if doing so would have positive effects.

Though this study suggests social identity complexity is not always tied to prosocial or interethnic attitudes, research is needed to determine if SIC may have protective value against discrimination. Self-complexity theory suggests that identifying with multiple separate ingroups buffers against threat to any one ingroup, as the individual's identity is not solely staked in that one group (Evans, 1994; Linville, 1985). Following this theory, those with highly overlapping ingroups could be more likely to perceive an attack on one ingroup as an attack on their entire identity, which could contribute to psychological maladjustment. Longitudinal research on SIC and clinical outcomes could better evaluate SIC as a promotive or protective factor, in a similar way that ethnic identity and familial ethnic socialization have been found to be both promotive and protective against discrimination (M. A. Zimmerman et al., 2013).

### **Conclusions**

The current study sought to expand research on social identity complexity, or the convergence of multiple social identities, by examining how it relates to one of these social identities - race/ethnicity – in a pre-adolescent sample. Given the personal benefits of familial ethnic socialization and ethnic identity affirmation to children from marginalized groups (Umaña-Taylor et al., 2014; M. A. Zimmerman et al., 2013), it is valuable that these facets of ethnic identity also seem to predict prosocial attitudes. The observed interaction between ethnic socialization and SIC suggests that perhaps there are some forms of ethnic socialization which

encourage complex social identities and prosocial attitudes and other forms of socialization which encourage prosocial attitudes independent of SIC. For ethnic minority youth, SIC may not be necessary for prosocial attitudes, and strong socialization in the absence of SIC may not cause greater social distancing from racial and ethnic outgroups in majority-minority populations. With this preliminary evidence that strong socialization and social identity complexity are optimal, further research which clarifies the function of social identity complexity in demographically diverse samples of children is warranted. This research could inform the development of interventions which socialize both the affirmation of children's ethnic/racial ingroup and wider acceptance of outgroups through social identity complexity.

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