

Emerging Sense of Ethnic Awareness and Peer Interactions in Preschool

by

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## ABSTRACT

Emerging sense of ethnic awareness is described as a child's growing recognition of their ethnicity and connectedness to their ethnic group. Ethnic awareness is proposed to be the foundation for ethnic identity that typically emerges in early adolescence. Ethnic awareness includes three distinct dimensions: sense of belonging, sense of community, and sense of place within the context of their ethnic group. There has been little investigation of children's emerging sense of ethnic awareness during the preschool year when children's social-cognitive abilities to recognize differences and similarities among ethnic groups emerge. Entry into preschool provides children with the opportunities to interact and develop relationships with peers. These relationships may help children to learn more about and internalize their sense of ethnic awareness. Reciprocally, children's sense of ethnic awareness may contribute to the frequency of their peer interactions. How children's emerging sense of ethnic awareness is associated with the frequency of their peer interactions is understudied in early childhood. Using a sample of 231 low-income, ethnically diverse families in Western Canada, the current study tested three theoretically guided models to examine how children's emerging sense of ethnic awareness and peer interactions (positive peer interactions and peer conflict) are associated across a preschool year. The awareness-driven model tested whether children's sense of ethnic awareness contributes to prospective frequency of peer interactions. The peer-driven model tested whether peer interactions contribute to prospective proficiency of sense of ethnic awareness. The transactional model tested whether sense of ethnic awareness and peer interactions were reciprocally related. Ethnicity and immigration status were tested as moderators of the associations between children's sense of ethnic awareness and peer interactions. The awareness-driven model fit the data best for positive peer interactions whereas

the peer-driven model fit the data best for peer conflict. The transactional model did not provide a better fit to the data. Ethnicity and immigration status did not moderate these associations.

Children who had a more proficient sense of ethnic awareness had more frequent positive peer interactions at the end of the school year. Alternatively, children who had more frequent peer conflict had a less proficient sense of ethnic awareness at the end of the school year. These results highlight that children's sense of ethnic awareness may enhance the frequency of their positive peer interactions but be undermined by more frequent peer conflict.

## PREFACE

This thesis is an original work by Saira John. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “Early Experiences Project”, No. 00051399, September 9, 2014.

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## CHAPTER I

### **Introduction**

By the year 2031, ethnic diversity in the Canadian population will change, such that at least 36% of the population under the age of 15 will be in the ethnic minority (Malenfant, Lebel, & Martel, 2010). Ethnicity refers to groups who share a common nationality, customs, beliefs, and language (Betancourt & Lopez, 1993). This set of shared beliefs, customs, and norms is argued to provide the context for the development of ethnic identity that typically becomes salient in early adolescence (Phinney, Romero, Nava, & Huang, 2001).

Ethnic identity refers to individuals' sense of affiliation and relatedness to a particular ethnic group and is a hallmark of development in early adolescence, especially for ethnic minority adolescents (Phinney, 1989). The development of ethnic identity is an ongoing process across childhood where children gain knowledge about ethnic groups; develop an understanding of the shared beliefs, customs, and norms of ethnic groups; and also gain a sense of affiliation and belongingness to a particular ethnic group. I hypothesize that the process of forming an ethnic identity emerges in early childhood as children develop a sense of awareness of their ethnic group and begin to feel a sense of belongingness to an in-group, such as their ethnic group. This process of developing a sense of ethnic awareness also corresponds with children's emerging social-cognitive abilities to understand the meaning of ethnicity (Quintana, 1998). Specifically, I propose that an emerging sense of ethnic awareness is a process that precedes ethnic identity development in early adolescence, in which children come to feel membership to and gain knowledge about their ethnic group (Umaña-Taylor et al., 2013; Quintana, 1998). Compared to the wealth of literature on adolescents' ethnic identity, the emergence of children's sense of ethnic awareness as a precursor to ethnic identity has received little empirical attention,

making it a relatively new area of scholarship (Connolly, 2011). Ethnic awareness encompasses three dimensions: feelings of relatedness to one's ethnic group and members of the group (sense of belonging), knowledge of one's ethnic group (sense of community), and knowledge of and experiences with the practices of one's ethnic group (sense of place; Janus & Hopkins, 2012; Phinney, 1989). A child who displays a deeper understanding across the three dimensions of sense of ethnic awareness (sense of belonging, sense of community, and sense of place) would be considered more proficient in their sense of ethnic awareness (Janus & Hopkins, 2012).

Ethnic identity is often examined in the context of family, as parents support their children's ethnic identity development through sharing ethnic practices and promoting pride for their ethnicity (Chakawa & Hoglund, 2015; Hughes et al., 2006). Recent studies highlight how interactions with peers can also foster a more proficient sense of ethnic identity in early adolescence (Rutland et al., 2011; Phinney et al., 2001). I hypothesize that children's interactions with their peers in early childhood may also relate to children's emerging sense of ethnic awareness.

The purpose of the current study is to examine how children's emerging sense of ethnic awareness relates to the frequency of their peer interactions in preschool. Accordingly, the current study tests three models to examine the directional associations between children's emerging sense of ethnic awareness and peer interactions across one preschool year; an awareness-driven model, a peer-driven model, and a transactional model. Differences in the directional associations between sense of ethnic awareness and peer interactions by child ethnicity (ethnic majority and ethnic minority) and immigration status (immigrant and non-immigrant status) are also examined.

### **Guiding Theoretical Framework**

The current study is guided by developmental systems theories that draw attention to the multiple spheres of influence on children's development, such as cultural, community, familial, and peer contexts (Bronfenbrenner, 1977; Sameroff, 2000). One hallmark of developmental systems theories that inform the current study is the focus on the ongoing reciprocity between individual children and the multiple contexts they are developing within. For example, individual characteristics (such as children's sense of ethnic awareness) are proposed to change in response to interactions with their environment (such as children's interactions with peers). Reciprocally, children's individual characteristics are also proposed to change qualities of their environment. For example, children's interactions with peers may change in response to children's sense of ethnic awareness. I use developmental systems theories to better understand how individual and environmental processes relate over time, with a particular focus on children's emerging sense of ethnic awareness and peer interactions. Given this guiding theoretical framework, the current study examines how children's sense of ethnic awareness and the frequency of their peer interactions may mutually influence each other over the course of the preschool year.

### **Emerging Sense of Ethnic Awareness in Early Childhood**

An exploratory study conducted by Canadian researchers Janus and Hopkins (2012) included the development of a measure of children's sense of ethnic identity as part of an assessment of children's developmental competencies in Northern Canada (Sense of Identity Questionnaire [SIQ]). This measure contains three distinct dimensions: a sense of belonging (e.g., children's feelings of relatedness to their ethnic group), a sense of community (e.g., children's knowledge of their ethnic group), and a sense of place (e.g., children's understanding of behaviours and practices associated with their ethnic group; Janus & Hopkins, 2012). The SIQ is consistent with Quintana's (1998) social-cognitive theory of ethnic understanding.

According to Quintana (1998), the development of ethnic understanding is related to children's emerging social-cognitive abilities, which are age-dependent. In early childhood, about ages 3-5, children have an affective and perceptual understanding of ethnicity. Their knowledge of what ethnicity means is based on observable aspects of their ethnic group, such as using a person's skin colour to categorize their ethnicity. Across the transition from early to middle childhood and by about ages 6-8, children develop a literal understanding of ethnicity as a relatively permanent phenomena and focus on both observable and non-observable characteristics that may define ethnic groups. Unlike in early childhood, during middle childhood children can more accurately categorize a person's nationality by attending to both external (i.e., skin colour) and inferred internal characteristics (i.e., preference for certain activities). Across middle to late childhood, from about ages 8-12, children form a social and non-literal understanding of ethnicity where they recognize subtler aspects of ethnicity and begin to form in-group and out-group preferences. Thus, whereas young children can indicate skin colour and activity choice as markers of their proficiency in ethnic understanding, older children can also identify social features (i.e., perceptions of specific ethnic groups) as markers of their proficiency in ethnic understanding (Quintana, 1998). In this way, Quintana's (1998) social-cognitive theory of ethnic understanding may help to explain how children's emerging sense of ethnic awareness manifests in early childhood and also gives rise to ethnic identity development in early adolescence.

Research on older children describes these changes in ethnic understanding as having implications for children's self-esteem (i.e., engaging in positive self-evaluations; Umaña-Taylor, Gonzales-Backen, & Guimond, 2009). As children gain a more solidified understanding of their ethnicity and its personal relevance, the implications of this can be greater confidence,

which promotes self-esteem (Umaña-Taylor et al., 2009). For instance, Umaña-Taylor et al. (2009) conducted a study with Latino adolescent boys aged 14-16 and found that boys who had a more proficient sense of ethnic identity showed higher self-esteem over four-years. Under disadvantaged conditions and immigration processes, research has also shown that ethnic minority adolescents tend to experience benefits from having a more proficient sense of ethnic identity (Phinney, Horenczyk, Liebkind, & Vedder, 2001). These benefits likely stem from increased self-esteem, which can buffer negative peer experiences (Phinney et al., 2001). Similarly, a more proficient sense of ethnic awareness in preschool may also contribute to children's greater confidence and self-esteem.

### **Peer Interactions in Early Childhood**

Peer interactions and relatedly peer relationships are lifelong and hold developmental significance across the lifespan (Rubin et al., 2006). Children's ability to experience positive peer interactions is a developmental task of early childhood (Rubin, Bukowski, & Parker 2006). Positive peer interactions in early childhood are generally defined as displays of cooperative and organized play and communication with peers (Rubin et al., 2006). Specifically, positive peer interactions in early childhood have been observed to involve sociability (e.g., playing in close proximity of peers), communication (e.g., initiating conversation with peers), and assertiveness (e.g., leading peer interactions) with peers during play (Downer et al., 2010). Positive peer interactions can predict better social competence (e.g., the ability to initiate and maintain positive relationships with others) and high quality friendships in early childhood (Bulotsky-Shearer et al., 2011; Ladd, 2005). On the other hand, negative peers interactions and specifically peer conflict involves negative affect, tension and aggression with peers (Downer et al., 2010). Peer

conflict can predict children's feelings of loneliness and isolation in school as well as aggressive behaviours (Raikes, Virmani, Thompson, & Hatton, 2013; Rubin et al., 2006).

Two theories highlight the importance of peers in early childhood. According to the group socialization perspective, peers are a group to which children can belong (Rubin et al., 2006). The desire to belong to a group may motivate children to act in ways that ensure their acceptance from peers. For example, when a child desires to play with a group during centre time, they might initiate bids to play with peers in a sociable way (e.g., smiling or making friendly comments) in order to be granted an invitation to play with these peers. Indeed, young children who exhibit positive peer behaviours (e.g., smile at peers, play in close proximity of peers, initiate communication) tend to have more peer acceptance in the classroom (Vaughn et al., 2016).

According to a contextual-developmental perspective (Chen & Rubin, 2011), peers play an important role in shaping children's behaviours. For example, children who are overly shy but use positive non-verbal behaviours to initiate interactions with peers, such as smiling at other children, may be more accepted by a peer group who also value shy behaviours, as observed in studies of peer interactions in Asian cultures (Chen, DeSouza, Chen, & Wang, 2006).

Alternatively, children who use more assertive behaviours to initiate interactions with peers, such as by verbally asking peers to play a game, may be more accepted by peer groups who value such assertive behaviours, as observed in studies of peer interactions in the Canadian context (Chen et al., 2006). Importantly, the strategies that children use to interact with peers can change based on how peers interpret and reward these strategies (e.g., by playing with or rebuffing a child's bids to play). Thus, although behaviours in line with children's ethnic group may initially

inform how children interact with their peers, peers' reactions also play an important role in shaping children's behaviours.

### **Associations between Ethnic Awareness and Peer Interactions**

**Awareness-Driven Model.** Quintana's (1998) social-cognitive theory of ethnic understanding informs the awareness-driven model. The awareness-driven model examines the hypothesis that children's sense of ethnic awareness predicts the frequency of their prospective peer interactions. According to the social-cognitive theory of ethnic understanding (Quintana, 1998), children's feelings of relatedness and belonging to one's ethnic group will promote success in relating to and interacting with peers. For example, children aged 8-11 who identified with multiple ethnic groups showed more positive social interactions with their peers (Rutland et al., 2011). It may be that children who identify themselves as biracial feel connected to both their ethnic and national heritages and seek out positive peer interactions because they are able to take the perspective of children from varying ethnic groups and are more confident in their ability to positively interact with peers.

Studies also suggest that having an ownership or sense of belonging to an ethnic group contributes to more positive evaluations of peers of the same ethnic group and feeling less discriminated by other peers (Huo, Molina, Binning, & Funge, 2010; Spears Brown & Chu, 2012). Relatedly Wong, Eccles, and Sameroff (2003) found that the negative effects of ethnic discrimination on children's self-esteem were buffered by a more proficient sense of ethnic awareness. From these findings, I hypothesize that children with a more proficient sense of ethnic awareness may find it easier to interact with peers because they may perceive themselves as confident, which can enhance self-esteem (Umaña-Taylor et al., 2009).



**Peer-Driven Model.** The contextual-developmental and group socialization perspectives (Chen, 2011; Rubin et al., 2006) inform the peer-driven model. The peer-driven model tests the hypothesis that the frequency of peer interactions at the start of preschool predict children's prospective sense of ethnic awareness. Interacting with peers in an ethnically diverse setting such as preschool may help nurture children's emerging sense of ethnic awareness. Ethnic group membership and peers both relate to one another, according to the contextual-developmental perspective (Chen & French, 2008). Positive interactions with peers may help children gain a more proficient sense of ethnic awareness because children may feel affirmed in their ability to belong to a group of peers (Chen & Rubin, 2011). For example, frequently interacting with same-ethnicity peers has been found to strengthen adolescents' sense of ethnic identity (Phinney et al., 2001). Thus, positive peer interactions may predict children's emerging sense of ethnic awareness. On the other hand, children's peer interactions characterized by conflict and tension may lead to negative appraisals about their ability to belong to a group. For instance, when children receive hurtful or discriminatory comments from their peers, this may negatively predict their sense of ethnic awareness (Rivas-Drake, Hughes, & Way, 2009; Rutland et al., 2011).

**Transactional Model.** Developmental systems theories (Bronfenbrenner, 1977; Sameroff, 2000) informs the transactional model. The transactional model tests the proposal that children's sense of ethnic awareness and peer interactions mutually influence each other. Drawing from the evidence presented for both the awareness-driven and peer-driven models, it is possible that when children experience more frequent positive peer interactions and less frequent peer conflict this positively predicts their subsequent sense of ethnic awareness. Reciprocally, a proficient sense of ethnic awareness may positively predict later positive peer interactions and negative predict later peer conflict. Although evidence supports bi-directional associations

between sense of ethnic identity and peer interactions in adolescence (Phinney et al., 2001; Rivas-Drake et al., 2009; Spears Brown & Chu, 2012), few studies have examined the transactional associations between these constructs in early childhood. With a sample of ethnically diverse early adolescents, Rivas-Drake et al. (2009) found that there was a coupling of ethnic identity and peer interactions within the same time frame (i.e., these constructs were concurrently related), yet transactional associations (i.e., mutual associations over time) have not been tested across time (e.g., from the fall to spring of a school year), nor have these associations been examined with younger children.

### **Moderators of the Associations between Sense of Ethnic Awareness and Peer Interactions**

**Ethnicity.** Given the current study's focus on an emerging sense of ethnic awareness, it is important to consider whether there are differences in the constructs of sense of ethnic awareness and peer interactions among ethnic minority children and ethnic majority children. According to Quintana's (1998) social-cognitive theory of ethnic understanding and empirical studies (e.g., Aboud, 2003), young children can distinguish between ethnic groups by around ages 4-5. Studies indicate that ethnic minority children (e.g., Latin American) commonly have a more proficient sense of ethnic identity than ethnic majority children (e.g., Caucasian; Fuligni, Witkow, & Garcia, 2005; Juang & Syed, 2010). Beyond these mean level differences, it is unclear whether the strength of associations between sense of ethnic awareness and frequency of peer interactions differ between ethnic minority and ethnic majority children. Studies on ethnic identity and children's social development indicate that these associations do not differ between ethnic minority and ethnic majority children (Schwartz, Zamboanga, Weisskirch, & Rodriguez, 2009; Syed & Juang, 2014). Thus, there is a need to investigate whether ethnicity moderates the association between sense of ethnic awareness and peer interactions in early childhood.

**Immigration Status.** For children who have immigrated to a new country, incorporating dual ethnic identities is a distinct challenge (Berry, 2005; Phinney et al., 2001). Developing a proficient sense of ethnic awareness may benefit immigrant children as they interact with peers from diverse backgrounds. For example, having a proficient sense of ethnic identity can buffer the negative effects of stereotype threat (i.e., the propensity to conform to stereotypes about one's social group) for adolescent immigrants (Appel, Weber, & Kronberger, 2015). However, it has been found that being an immigrant can be a disadvantage for peer interactions. Immigrant youth tend to experience more negative peer interactions than non-immigrant youth, especially when classrooms are less densely populated with immigrant youth (Plenty & Jonsson, 2016). One form of negative interactions for immigrant children who are also in the ethnic minority is ethnic victimization (e.g., exclusion because of skin colour, racial slurs; Hoglund & Hosan, 2012; Volk, Craig, Boyce & King, 2006). It is possible that young immigrant children from ethnic minority backgrounds experience more conflictual peer interactions during the preschool year than non-immigrant children. As well, their sense of ethnic awareness might be more strongly related to the frequency of their peer interactions than for non-immigrant children.

### **The Current Study**

The current study examines three models testing the directional associations between children's sense of ethnic awareness and the frequency of positive peer interactions and peer conflict; awareness-driven, peer-driven, and transactional (see Figure 1). Child ethnicity (ethnic majority and ethnic minority) and immigration status (immigrant and non-immigrant) are examined as moderators of the associations between sense of ethnic awareness and peer interactions. The research questions are: (1) Does children's sense of ethnic awareness predict the prospective frequency of their peer interactions across the preschool year, accounting for the

stability of these constructs over the year and their concurrent associations? (2) Does the frequency of children's peer interactions predict their prospective sense of ethnic awareness across the preschool year, accounting for the stability of these constructs over the year and their concurrent associations? (3) Do sense of ethnic awareness and peer interactions transact over the preschool year, after accounting for the stability of these constructs and their concurrent associations? (4) Do child ethnicity and immigration status predict sense of ethnic awareness and peer interactions, and moderate the associations between sense of ethnic awareness and peer interactions?

It is expected that children's sense of ethnic awareness will be positively associated with the frequency of their positive peer interactions and negatively associated with the frequency of peer conflict concurrently and prospectively, and that sense of ethnic awareness and peer interactions will be reciprocally related across the preschool year (Huo et al., 2010; Phinney et al., 2001; Rutland et al., 2011). Thus, I hypothesize that the transactional model will best describe the prospective associations between children's sense of ethnic awareness and peer interactions. It is further expected that ethnic minority children and immigrant children will show a more proficient sense of ethnic awareness than ethnic majority children and non-immigrant children, respectively, and that the associations between sense of ethnic awareness and peer interactions will be stronger for ethnic minority children and immigrant children than for ethnic majority children and non-immigrant children, respectively.

## CHAPTER II

### **Methodology**

#### **Design and Participants**

The current study was part of a larger longitudinal project that examined setting-level predictors (e.g., family and school) of children's school readiness across the transition from preschool to kindergarten. Participants were 231 children (50.2 % girls; average age = 4.04 years,  $SD = 0.44$  years) in 23 preschool classrooms located in nine early learning centres. The centres were in one of two early learning programs. Both programs served low-income families, but for one preschool program, families could also pay to enroll their child. Both programs operated three-hour morning and afternoon sessions and used similar activities to support children's social, emotional, and cognitive learning. The sample of children was ethnically diverse (40.3% Canadian/European, 22.7% West/South Asian, 15.3% East/Southeast Asian, 11.6% Black/African Canadian, 4.2% Aboriginal, 3.7% Latin American, and 2.3% mixed ethnicities). Based on parent reports, 15% of children lived in single parent households, 51.7% of mothers and 21.9% of fathers were not employed, and 20.5% of mothers and 19.2% of fathers did not graduate from high school. In addition, 34.9% of children were born outside of Canada, 69.3% of families had one parent (mother or father) born outside of Canada, and 79.1% of families spoke a language other than English at home "once in a while" to "all the time".

#### **Procedures**

Following University Research Ethics and School Board approval, consent packages were sent home in the predominate languages spoken by families (e.g., English, Bengali, Arabic) to all parents of children in the participating preschools informing them of the study and seeking active consent for their participation and their child's. Researchers attended parent meetings to

inform parents about the research activities and to answer any questions. Parents were asked to return their consent form whether or not consent was granted. Consent was requested for children new to the school or who had not previously returned a consent form. In total, 70.1% of parent consent forms were returned and the majority of these parents (83.6%) granted consent. Of all eligible preschool children, the consent rate was 58.6% (range = 58-59% across program type, 46-72% across preschools, and 33-78% across classrooms).

Data were collected on two occasions during one school year, with each data collection period lasting about three months across the nine schools. Baseline data (Wave 1) were collected in fall and early winter of preschool (October-February). Follow up data (Wave 2) were collected in early spring of the preschool year (April-June), with approximately four months of time between assessments. At both waves, data collection visits were rescheduled within a two-week period for absent children. Of the overall sample of 231 children, there were 213 who consented at Wave 1, 18 new entrants at wave 2 and 15 lost to attrition at Wave 2. The retention rate was 92.5%.

At each wave parents completed surveys rating their household demographics and their child's sense of ethnic awareness. At each wave trained research assistants completed structured 40-minute observations of each participating child's interactions with peers, teachers, and their task engagement.

## **Measures**

**Sense of Ethnic Awareness.** Parents reported on the proficiency of their children's sense of ethnic awareness using items adapted from the Sense of Identity Questionnaire (SIQ; Janus & Hopkins, 2012; see Appendix A). The sense of ethnic awareness measure consisted of three dimensions: sense of belonging (7 items; e.g., "has relationships with extended family"), sense of

community (7 items; e.g., “takes part in our cultural practices and traditions”), and sense of place (4 items; e.g., “can name other cultural or ethnic groups in our community”). Adaptations from the original SIQ questionnaire were made. For example, the SIQ was originally a teacher-reported measure. In the current study, parents reported on their children’s sense of ethnic awareness. As well, specific items were adapted. Specifically, items that referred to the Aboriginal context were changed to refer to a broad cultural context (e.g., items that referred to Northern Canadian or “on the land” experiences were changed to “cultural experiences”). In the current study parents rated how much each statement described each child on a four-point scale: 0 (*Not at all*), 1 (*Rarely*), 2 (*A little*), 3 (*Mostly*), and 4 (*A lot*). Each dimension demonstrated moderate to high internal consistencies across waves: Cronbach’s  $\alpha$  for sense of belonging were W1 = .66, W2 = .70; sense of community were W1 and W2 = .83; and for sense of place were W1 and W2 = .62.

**Peer Interactions.** Trained research assistants observed participating children’s peer interactions using the Individualized Classroom Assessment Scoring System (inCLASS; Downer et al., 2010). The inCLASS observational instrument is designed to assess the frequency of individual children’s behaviours across three domains: peer interactions, teacher interactions, and task orientation. Within the peer interactions domain there are four dimensions: peer sociability, communication, assertiveness, and peer conflict. Peer sociability refers to proximity, positive emotions, cooperation and popularity with peers (Downer et al., 2010). An example of a child who is more frequently sociable would be a child who gives compliments, smiles, and is close in proximity with others. Peer communication refers to initiating and maintaining conversation with other children as well as using language to express various emotions and opinions (Downer et al., 2010). For example, a child who frequently communicates in the classroom responds to

peers' questions, asks questions in return, and shares their ideas with others. Peer assertiveness refers to initiating and leading interactions with other children (Downer et al., 2010). For instance, a child who frequently displays assertiveness will join groups of peers and suggest new ways of playing and might even explain the rules of the game. Peer conflict refers to negative, tense or resistant interactions with one or more peers (Downer et al., 2010). An example of frequent conflict among peers is yelling, grabbing toys, and physical fighting with peers. The first three dimensions (sociability, communication and assertiveness) are included as indicators of a latent positive peer interactions domain in the current study.

Research assistants ( $n = 18$ ) were trained over a two-day period to conduct structured observations of children's interactions with peers, teachers, and their task orientation on the inCLASS (Downer et al., 2010). All researchers were required to meet inter-rater reliability standards prior to conducting observations. Structured observations of the participating children occurred over a two to three-hour period in each participating classroom at each wave. Each participating child was observed for four 10 minutes segments with a 5 minute coding block between each observation segment, for a total of a 40 minute observation per child. The observations occurred during regularly structured and unstructured classroom time when the primary teacher and majority of children were present. Where possible, observers rotated their observations among participating children in the classroom such that two to three children were observed over a two- to three-hour period in the classroom. The inCLASS dimensions were rated on a scale that ranged from 1 (*low*) to 7 (*high*). For data analyses, this scale was recoded to a 0-6 point scale for a meaningful zero. Scores for each dimension were averaged across the coding segments within dimension.



To establish inter-rater reliability, research assistants double coded 18% of all possible child observations at both waves. Inter-rater reliability ( $\kappa$ ), or the proportion of time that observers were within one score for each dimension, was moderate to high at each wave for the positive peer interactions dimensions:  $\kappa$ s for sociability were W1 = .93, W2 = .84; communication were W1 = .96, W2 = .87; and for assertiveness were W1 = .99, W2 = .87. For peer conflict, inter-rater reliability was also high across waves:  $\kappa$ s were W1 and W2 = .97. The positive peer interaction domain had high internal consistency across waves (Cronbach's  $\alpha$  were W1 = .89, W2 = .90) and peer conflict was moderately correlated across waves ( $r = .20, p < .01$ ).

**Baseline covariates.** Baseline covariates included child gender (boys = 0; girls = 1), child age, child ethnicity (ethnic majority: Canadian, Eastern/Western European = 0; ethnic minority: Arab/West Asian, South Asian, Southeast Asian, Black/African Canadian, Latin American, Aboriginal, mixed ethnicities = 1), and child immigration status (non-immigrant = 0; 1<sup>st</sup> or 2<sup>nd</sup> generation = 1). Ethnic minority and ethnic majority were determined by selecting the most representative ethnic group of the sample as the majority group (Canadian, Eastern/Western European; 40.3%) and the remaining ethnic groups composed the minority group. For immigration status, first generation refers to whether the child was born outside of Canada. Second generation refers to a child who was born in Canada but has at least one parent who was born outside of Canada.

**Moderators.** Child ethnicity (ethnic minority vs. ethnic majority) and child immigration status (non-immigrant vs. 1<sup>st</sup> or 2<sup>nd</sup> generation immigrant) were tested as moderators of the associations between sense of ethnic awareness and peer interactions.

## CHAPTER III

### Results

#### Data Analysis Plan

Data analyses are presented in five sections. First, confirmatory factor analysis (CFA) was used to assess the construct validity of the three sense of ethnic awareness dimensions and the latent positive peer interactions domain at Wave 1. Second, measurement invariance of the three sense of ethnic awareness dimensions and the latent positive peer interactions construct was tested to examine whether the factor structure of the constructs was comparable across groups, such as ethnic minority and ethnic majority groups. Third, descriptive statistics of the key constructs and the bivariate correlations among these constructs were examined for the overall sample, by child ethnicity (ethnic minority and ethnic majority), and by immigration status (non-immigrant and immigrant).

Fourth, a series of autoregressive, lagged path models were tested to determine the best fitting model of directional associations between sense of ethnic awareness and peer interactions. The baseline path model included the autoregressive paths for each construct (e.g., peer interactions from Waves 1 to 2) and the concurrent associations between sense of ethnic awareness and peer interactions. The awareness-driven model added a directional cross-time regression path from Wave 1 sense of ethnic awareness to Wave 2 peer interactions to test whether children's sense of ethnic awareness at the beginning of the preschool year predicted differences in children's peer interactions at the end of the preschool year. Alternatively, the peer-driven model added a directional cross-time regression path from Wave 1 peer interactions to Wave 2 sense of ethnic awareness to test whether peer interactions at the beginning of preschool predicted differences in children's sense of ethnic awareness at the end of the

preschool year. The transactional model included all the regression paths and concurrent correlations identified above to test whether children's sense of ethnic awareness and peer interactions were reciprocally related and predicted differences in each other at the end of the preschool year.

Last, multiple-group models were used to test whether the autoregressive paths, concurrent associations, and cross-time regression paths in the best fitting models differed by child ethnicity (ethnic minority and ethnic majority). The autoregressive paths, concurrent associations, and cross-time regression paths were constrained to be equal across ethnicity or immigration status first. The fit of these models was then compared to the fit of models where the estimates for the autoregressive, concurrent, and the cross-time paths were sequentially allowed to vary by ethnicity (Widaman, Ferrer, & Conger, 2011). In the multiple-group models the regressions on child ethnicity were removed to assess ethnicity differences in the path coefficients.

All analyses were conducted using Mplus 7.3 (Muthén & Muthén, 2015). For the factor invariance and multiple-group models, model fit was assessed with the Chi-Square statistic ( $\chi^2$ ) and the following approximate fit indices: Confirmatory Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), and the Bayesian Information Criterion (BIC; Kline, 2011). The guidelines for interpreting model fit are: Non-significant chi-square values signify good fit of the data to the model; CFI values of .95 or greater signify excellent model fit and values of .90-.94 signify adequate fit; and RMSEA and SRMR values of .05 or lower signify excellent model fit, while values of .06-.08 indicate adequate model fit (Kline, 2011). Chi-square difference tests ( $\Delta\chi^2$ ) were conducted to compare the fit of the nested models (e.g., the awareness-driven vs baseline model) and to test differences

in the multiple-group models (e.g., whether regression paths differed across ethnic groups). Non-significant chi-square values indicate that the fit of the more constrained model was comparable to the fit of the less constrained model (Kline, 2011). The Bayesian Information Criteria (BIC) was used to compare fit of non-nested models (e.g., awareness-driven vs. peer-driven) where models with a lower BIC value (with a 10-point difference or more) indicate better fit to the data.

**Missing Data.** Some children were missing parent-reported and observation data. In total, 154 (66.7%) of children had parent-reported data on sense of ethnic awareness and 207 (86.6%) of children had observational data on their peer interactions across the one-year study. Missing parent data were due to survey non-completion. Missing observational data were due to ongoing child absences or scheduling conflicts. Children were included in the analyses if data were collected on them in at least one out of the two waves. To account for missing data, full information maximum likelihood estimation was used.

### **Confirmatory Factor Analysis (CFA)**

As shown in Table 1, the CFA models for each dimension of sense of ethnic awareness at Wave 1 demonstrated adequate fit to the data: sense of belonging,  $\chi^2(5) = 10.60, p < .05$ ; CFI = .96, RMSEA = .09 (.00 - .16); SRMR = .05; sense of community,  $\chi^2(14) = 42.22, p < .01$ ; CFI = .90, RMSEA = .12 (.08 - .16); SRMR = .06; and sense of place,  $\chi^2(2) = 5.35, p < .05$ ; CFI = .94, RMSEA = .11 (.00 - .22); SRMR = .04. Items that showed poor factor loadings were dropped (range = .15 - .30; Kline, 2011; see Appendix A). Sense of ethnic awareness was tested as a latent construct at Wave 1. Absolute fit indices were not obtainable as the model was just-identified. The factor loadings observed were acceptable (range = .79 - .89; Kline, 2011). A measurement model of the sense of ethnic awareness latent construct with the factor loadings constrained to be equal across Waves 1 and 2 was assessed to provide absolute fit indices.

However, this measurement model did not fit the data well:  $\chi^2(8) = 39.72, p < .01$ ; CFI = .95, RMSEA = .15 (.10 - .19); SRMR = .04. Thus, the three distinct dimensions of sense of ethnic awareness rather than a latent sense of ethnic awareness construct were used for further analyses.

The CFA model for the latent positive peer interactions construct at Wave 1 was also just-identified. Thus, absolute fit indices were not obtainable. To examine model fit of the positive peer interactions construct, factor loadings were used and were above the acceptable range (.83 - .92; Kline, 2011). A measurement model of the positive peer interactions latent construct with the factor loadings constrained to be equal across Waves 1 and 2 was assessed to provide absolute fit indices. This measurement model fit the data well:  $\chi^2(8) = 12.91, p > .05$ ; CFI = .99, RMSEA = .05 (.00 - .10); SRMR = .03. Based on the findings from the sense of ethnic awareness and positive peer interactions CFA models, it was concluded that the factor structure for the three sense of ethnic awareness dimensions and the latent positive peer interactions construct demonstrated construct validity and would be further tested for measurement invariance across ethnic groups (see Appendix A for complete item factor loadings).

### **Measurement Invariance Across Ethnic Groups**

Measurement invariance in the three sense of ethnic awareness dimensions and the latent positive peer interactions across ethnic groups at Wave 1 was examined in three consecutive steps (Widaman et al., 2011). First, the configural invariance model allowed all factor loadings and intercepts of the sense of ethnic awareness and positive peer interactions indicators to be freely estimated across ethnic minority and ethnic majority groups. Second, the metric invariance model constrained the factor loadings of the sense of ethnic awareness and positive peer interactions indicators to be equal across ethnic minority and ethnic majority groups. Third, the

scalar invariance model constrained the factor loadings and intercepts of the sense of ethnic awareness and positive peer interactions indicators to be equal across ethnic minority and ethnic majority groups. As shown in Table 1, metric invariance was achieved for sense of place and scalar invariance was achieved for sense of belonging, sense of community, and positive peer interactions. These findings indicated that the factor structure of the three sense of ethnic awareness dimensions and latent positive peer interactions construct was comparable across the ethnic minority and ethnic majority groups.

### **Descriptive Statistics**

On average, parents reported low to moderate proficiency of each dimension of children's sense of ethnic awareness (sense of belonging, sense of community, and sense of place) and observers reported low frequency of each dimension of children's peer interactions (sociability, communication, assertiveness, and conflict; see Table 2). Ethnic minority children were reported to have a more proficient sense of belonging than ethnic majority children at Waves 1 and 2 (see Table 3). Similarly, there were few differences between immigrant and non-immigrant children; non-immigrant children were observed to communicate with peers more frequently than immigrant children at Waves 1 and 2 (see Table 3).

Bivariate correlations between the criterion constructs indicated that each dimension of children's sense of ethnic awareness (sense of belonging, community, and place) showed moderate to high stability from Wave 1 to Wave 2 ( $r_s = .55-.70, p < .05$ ; see Table 4). The dimensions of positive peer interactions showed low to moderate stability from Wave 1 to Wave 2 ( $r_s = .16 - .37, p < .05$ ), and peer conflict showed low stability from Wave 1 to Wave 2 ( $r = .20, p < .05$ ). Children's sense of belonging at Wave 2 and sense of community at Waves 1 and 2 were negatively correlated with children's peer conflict at Waves 1 and 2. Unexpectedly, the

dimensions of children's sense of ethnic awareness were not correlated with the positive peer interaction dimensions at Waves 1 and 2.

The strength of the bivariate correlations between the sense of ethnic awareness and peer interactions dimensions was compared across ethnic groups and immigration status (see Tables 4 and 5). Fisher's  $z$ -tests were used to test differences in the strength of correlation coefficients across groups. Of the 91 correlations, only two were significant (0.02%) and thus these are not interpreted.

### **Autoregressive, Lagged Path Models**

Next, a series of autoregressive, lagged path models were tested to assess the directional associations between each dimension of children's sense of ethnic awareness and their peer interactions (see Figure 1). Each set of models was tested separately for each dimension of sense of ethnic awareness (sense of belonging, sense of community, and sense of place). As well, each construct at Wave 1 was regressed on child age, gender, and ethnicity.

**Baseline models of ethnic awareness and peer interactions.** Consistent with the bivariate correlations, each dimension of children's sense of ethnic awareness was moderately stable from the fall to the spring of preschool ( $\beta_s = .55-.63, p < .01$ ). Positive peer interactions showed moderate stability from the fall to the spring of preschool ( $\beta = .35, p < .01$ ). Peer conflict also showed low stability from the fall to the spring of preschool ( $\beta = .18, p < .01$ ).

**Sense of ethnic awareness and positive peer interactions.** In total, there were nine path models run to test the directional associations between each dimension of sense of ethnic awareness and children's positive peer interactions. For all three dimensions of sense of ethnic awareness, the awareness-driven model fit the data best (see Table 8). Accounting for the concurrent associations between sense of ethnic awareness and peer interactions and the stability

paths, sense of belonging, sense of community, and sense of place each predicted greater prospective frequency of positive peer interactions (see Figures 2 to 4). These models explained 17-18% of the variance in the sense of ethnic awareness dimensions at Wave 2 and 32-48% of the variance in the latent positive peer interactions construct at Wave 2.

**Sense of ethnic awareness and peer conflict.** There were nine separate path models testing the directional associations between each dimension of children's sense of ethnic awareness (sense of belonging, sense of community, and sense of place) and peer conflict. The peer-driven model fit the data best for sense of belonging and sense of community (see Table 8). Peer conflict predicted lower prospective proficiency of sense of belonging and sense of community but not sense of place (see Figures 5 to 7). These models explained 47-49% of the variance in sense of ethnic awareness at Wave 2 and 5% of the variance in peer conflict at Wave 2.

**Baseline Covariates.** At Wave 1, girls were reported by parents to have a more proficient sense of ethnic awareness than boys across all dimensions (sense of belonging, sense of community, and sense of place;  $\beta_s = .29-.44, p < .05$ ). Positive peer interactions were also observed to be more frequent for girls than for boys ( $\beta = .29, p < .05$ ) whereas peer conflict was observed to be more frequent for boys than for girls ( $\beta = -.23, p < .01$ ). Ethnic minority children were reported by parents to have a more proficient sense of belonging than ethnic majority children ( $\beta = .30, p < .05$ ).

### **Moderators**

Last, a series of multiple-group models were used to test the differences in the autoregressive paths, concurrent associations, and cross-time regression paths in the best fitting path models between ethnic minority and ethnic majority children and between immigrant and



non-immigrant children. Results indicated that there were no significant differences in the autoregressive stability paths, concurrent associations, or in the cross-time regression paths between ethnic minority and ethnic majority children or between immigrant and non-immigrant children (range for ethnicity  $\Delta\chi^2(3-5) = 0.11 - 2.13, p > .05$ ; range for immigration status  $\Delta\chi^2(4-7) = 4.75 - 8.07, p > .05$ ).

## CHAPTER IV

### **Discussion**

The purpose of the current study was to investigate how children's emerging sense of ethnic awareness relates to the frequency of their peer interactions, including positive peer interactions and peer conflict, over a preschool year with a sample of ethnically diverse children. One goal of this study was to address gaps in the literature on children's emerging sense of ethnic awareness in early childhood. Sense of ethnic awareness includes three dimensions: children's ability to make connections to members of their ethnic group (sense of belonging), knowledge of the practices of their ethnic group (sense of community), and experiences with practicing aspects of their culture outside of the home (sense of place; Janus & Hopkins, 2012). Sense of ethnic awareness was hypothesized to provide the foundation for ethnic identity that typically becomes more established in early adolescence (Phinney et al., 2001; Quintana, 1998). A second goal was to examine how this sense of ethnic awareness relates to children's peer interactions in preschool when children generally begin to interact with peers in more purposeful ways (Rutland et al., 2011). A series of theoretically informed models investigated whether an awareness-driven, a peer-driven, or a transactional model of association best explained how children's sense of ethnic awareness and peer interactions were associated over a preschool year. The current study found that both sense of ethnic awareness and peer interactions predicted differences in each other across the preschool year, such that a more proficient sense of ethnic awareness at the start of preschool predicted more frequent positive peer interactions by the end of preschool. Conversely, more frequent peer conflict at the start of preschool predicted a less proficient sense of ethnic awareness by the end of preschool. These associations did not differ

between ethnic minority and ethnic majority children or between immigrant and non-immigrant children.

### **Benefits of Sense of Ethnic Awareness for Children's Positive Peer Interactions**

Sense of ethnic awareness at the beginning of preschool was related to more frequent positive peer interactions by the end of preschool. This finding was consistent across all three dimensions of ethnic awareness (sense of belonging, community, and place). This converges with findings from a study that identified stronger associations between ethnic identity and peer liking in early adolescence than in childhood (Rutland et al., 2011). The current study extends this previous research by demonstrating that young children's sense of ethnic awareness also matters for their ability to engage in frequent positive peer interactions in early childhood. This suggests that early knowledge and sense of connectedness to one's ethnic group may contribute to children's feelings of confidence which may, in turn, enhance children's self-esteem. This greater self-esteem may explain why these children more frequently interact positively with peers (Umaña-Taylor et al., 2009).

Quintana's (1998) social-cognitive theory of ethnic understanding may explain the current findings that children's sense of ethnic awareness was related to more frequent positive peer interactions at the end of the preschool year. Children who experience relatedness and connection to their ethnic group may also show more proficient social and cognitive abilities, such as approaching and relating to peers and understanding peers' perspectives. These abilities may provide children with the skills to engage in more frequent sociable, communicative, and assertive interactions with other children in the classroom.

According to studies on in-group and out-group evaluations, young children make distinctions between ethnic groups and show preferences toward in-groups (i.e., members of

their own ethnic groups; Aboud, 2003). This ability to distinguish between ethnic groups may be tied to children's sense of ethnic awareness. If children can distinguish between ethnic groups, then they may attend to characteristics that are associated with their own ethnic group and other ethnic groups. In turn, children's ability to recognize differences between ethnic groups may also help them be more accepting of children from other ethnic groups. In ethnically diverse classrooms, recognizing differences among ethnic groups may encourage children to interact more frequently and positively with ethnically diverse peers. This suggests that children's ability to distinguish between ethnic groups and their emerging sense of ethnic awareness are beneficial to their ability to relate positively with peers.

An emerging sense of ethnic awareness may also help children gain more competence in their school readiness skills, particularly ethnic minority children (De Feyter & Winsler, 2009). School readiness includes a set of social, emotional, and cognitive competencies that are needed to be successful in school (De Feyter & Winsler, 2009). The current study found that parents of ethnic minority children rated their children as showing a more proficient sense of belonging than ethnic majority children. Given the positive association between sense of ethnic awareness and prospective positive peer interactions, it may be that ethnic minority children are likely to enter preschool with a set of competencies that help them engage in positive interactions with peers in school.

### **Risks of Peer Conflict for Children's Sense of Ethnic Awareness**

In the current study, more frequent peer conflict at the start of preschool negatively predicted children's sense of ethnic awareness (sense of belonging and community) by the end of the preschool year. Interestingly, peer conflict did not predict children's sense of place. These findings are supported by research that found adolescents experience a decrease in their ethnic

identity when they are treated negatively by peers (Rivas-Drake et al., 2009). Conflict with peers may increase children's feelings of disconnection from their peer group. Children who experience substantial conflict with peers tend to feel lonelier and isolated in school (Asher & Paquette, 2003). Taken together, the current findings and past studies indicate that negative peer experiences may interfere with children's emerging sense of ethnic awareness.

Children's sense of belonging and community, such as their ability to make connections with and know about the practices of their ethnic group, are formed through interactions with their family and groups that support the child outside of school. When children feel hurt via conflict and aggression they experience with peers, this might undermine their overall feelings of membership to a group. In turn, they may display a less proficient sense of ethnic awareness. Consistent with a contextual-developmental perspective, children's experiences with peers may be a mechanism that changes the way they appraise their own behaviours due to their ethnic backgrounds (Chen, 2011). More specifically, a loss of relatedness and connection in one social domain (i.e., peers) may be related to a loss of relatedness in another social domain (i.e., ethnic group membership).

The lack of association between peer conflict and children's sense of place provides further support for the loss of connection to a group hypothesis. Sense of place is a measure of whether children have had the chance to practice traditions within their ethnic group in the community or at school. In this way, children's proficiency in their sense of place may not be related to the frequency of peer conflict, because their sense of place is based more on knowledge of their traditions than the relationships they have formed with members of their ethnic group.

### **Child Ethnicity and Immigration Status**

In the current study, ethnic minority children were reported by parents as having a more proficient sense of ethnic awareness in each dimension than ethnic majority children. This is in line with previous findings from the United States that suggest ethnic minority children and adolescents tend to have a more established ethnic identity (Fuligni et al., 2005; Rivas-Drake et al., 2014). These complementary findings suggest that fostering a sense of ethnic awareness is a practice that is encouraged more among ethnic minority groups than ethnic majority groups.

There were also some group differences in peer interactions between immigrant and non-immigrant children. Immigrant children showed less frequent communication with peers compared with non-immigrant children. This converges with research that suggests children from immigrant backgrounds often speak a language other than English at home (Chen & Tse, 2010). Indeed, in the current study, about 79% of households spoke a language other than English most of the time. Thus, differences in the frequency of peer communication might be related to the degree to which immigrant children have in the opportunity to converse in English.

Unexpectedly, child ethnicity and immigration status did not moderate the associations between sense of ethnic awareness and peer interactions. These findings suggest that sense of ethnic awareness relates similarly to peer interactions for both ethnic minority and ethnic majority children and for immigrant and non-immigrant children. These findings may be explained for ethnic minority and ethnic majority groups in light of social-cognitive theory on ethnic understanding (Quintana, 1998). When children first start to develop their perceptions and understanding of ethnicity, their feelings of membership to their ethnic group is still somewhat fluid and thus may not differ between ethnic minority and ethnic majority children.

The strength of associations between ethnic awareness and peer interactions was also similar for immigrant and non-immigrant children. It may be that sense of ethnic awareness provides both immigrant and non-immigrant children with the social and cognitive skills or the self-esteem needed to initiate positive peer interactions, in line with social-cognitive theory on ethnic understanding and evidence from the adolescent literature on ethnic identity (Quintana, 1998; Umaña-Taylor et al., 2009). Further, these social and cognitive skills or self-esteem may be undermined when either immigrant or non-immigrant children have conflicts with peers, consistent with the contextual-developmental perspective (Chen, 2011). Overall, the consistency of these findings suggest that the availability of peers can be a new and exciting social aspect of preschool, for both immigrant and non-immigrant children and underscores the salience of peers for all children.

### **Strengths of the Current Study**

The current study contributes to the literature on children's early social development in several ways. First, this study advances scholarship on the sense of ethnic awareness, a precursor to ethnic identity, as research has primarily focused on ethnic identity in adolescence (e.g., Rivas-Drake et al., 2014) to the exclusion of these foundational abilities. Second, data from multiple informants were used to investigate how children's sense of ethnic awareness and peer interactions were associated over the preschool year. Specifically, parents reported on children's sense of ethnic awareness and observers rated children's peer interactions. The child observations provided a robust and objective measure of children's peer interactions in a natural classroom setting. Third, the Sense of Identity Questionnaire that was adapted for the current study has been used with Canadian populations in Northern communities to assess children's feelings of belonging, community, and place (Janus & Hopkins, 2012). In the current study, this

measure showed a similar factor structure to what was established in the original study and across ethnic minority and ethnic majority groups in the current study. Fourth, this study included a sample of ethnically diverse children and families. This helps to generalize these findings to children of ethnically diverse backgrounds.

### **Limitations and Future Directions**

There were also some limitations to the study. First, only parents rated children's sense of ethnic awareness and children were not directly asked about their sense of ethnic awareness. While young children can report on ethnic awareness to some degree, such as through guided interviews and tasks related to conceptual knowledge of ethnic awareness (Connolly, 2011; Rogers et al., 2012), this was not considered feasible in this study. Future studies could measure children's sense of ethnic awareness through self-reports or structured games as well as parent and teacher reports to provide a more comprehensive understanding of children's ethnic awareness across the home and school settings. A second limitation concerns the adaptation of questions from the Sense of Identity Questionnaire (Janus & Hopkins, 2012). Janus and Hopkins (2012) asked teachers to identify items that describe children's sense of ethnic identity within a predominantly indigenous setting (i.e., large population of Aboriginal children living in Northern Canada). The current study adapted the wording of questions to apply to a more ethnically diverse Canadian sample. Future studies need to further identify the validity of these adaptations with a larger sample of ethnically diverse children and families in Canada. Further scholarship in young children's emerging sense of ethnic awareness needs to consider multiple perspectives (e.g., parents, community members, and school staff) as well as children's own ratings.

Third, the current study did not take into account the ethnicity of children's peers in the classroom. Several studies acknowledge that there are differences in peer interactions between



children who are members of the same ethnic group compared to children of differing ethnic groups (Huo et al., 2010; Verkuyten & Thijs, 2001). If the ethnicity of the peers children interacted with was assessed it may provide additional information on how ethnic awareness is important for interactions between same-ethnicity peers and different-ethnicity peers. It may be that children's positive interactions with same-ethnicity peers are predicted by a more proficient sense of ethnic identity as children tend to favour members of the same ethnic group over members of a different ethnic group (Pfeifer et al., 2007).

Fourth, the current study only examined how ethnic awareness and peer interactions are associated across the preschool year with two data collection points. A temporal design that includes at least three time points would help to examine developmental change in these constructs (Collins, 2006). For instance, assessing these constructs across two school years with four data points would provide information on how children's sense of ethnic awareness and peer interactions persist or change from preschool to kindergarten.

A fifth limitation concerns within-group differences in ethnic awareness. Rivas-Drake et al. (2014) reviewed the socio-emotional benefits of ethnic identity development in four of the most currently represented ethnic minority groups in the United States (i.e., African American, Latino, Pacific Islander, and Native American) to highlight how ethnic identity may have different implications for each ethnic group. In Canada, the representation of ethnic groups differs from the United States and differs across communities and provinces. To better understand the implications of ethnic awareness for Canadian children, it is important to focus on within-group processes that may best support children's proficiency in their ethnic awareness within different ethnic groups. Future studies that examine ethnic awareness also need to

adequately sample multiple ethnic groups to examine differences in ethnic awareness across ethnic groups.

Lastly, future studies could examine the mechanisms by which children's more proficient sense of ethnic awareness contributes to more frequent peer interactions and assess whether different mechanisms relate sense of ethnic awareness to positive peer interactions and peer conflict. For instance, ethnic identity is negatively related to adjustment problems for adolescents (Rivas-Drake et al., 2014). Potentially, a more proficient sense of ethnic awareness might contribute to fewer adjustment problems in young children as well. This difference in adjustment problems might explain why some children experience more frequent positive interactions or conflict with their peers.

### **Conclusions and Applications of the Current Study**

The current study found that children's sense of ethnic awareness predicted the frequency of children's later positive peer interactions. Alternatively, greater frequency of peer conflict negatively predicted children's prospective sense of ethnic awareness. When children have a sense of belonging and community to their ethnic group this likely feeds their self-esteem and can give rise to more frequent positive peer interactions during preschool. Schools can incorporate and encourage children's understanding of their ethnicity. For example, teachers who promote children's ethnic awareness in their classrooms tend to promote more positive attitudes towards individuals of different ethnic groups (Huo et al., 2010). Moreover, ethnic diversity in preschools may foster children's ability to interact with peers from similar or diverse ethnic backgrounds (Munniksma, Scheepers, Stark, & Tolsma, 2016). Given the benefits of having a more proficient sense of ethnic awareness, children could be supported early on to be aware of

their ethnicity across home and school contexts with the belief that this will give rise to a more integrated ethnic identity during adolescence (Phinney et al., 2001).

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Table 1

*Measurement Invariance Across Ethnic Groups at Wave 1*

Variables	Model Fit Indicators						
	$\chi^2(df)$	BIC	CFI	RMSEA (90% CI)	SRMR	Range of Loadings	$\chi^2\Delta(df_{diff})$
<i>Sense of Belonging</i>							
CFA (2 items dropped)	10.60 (5), $p > .05$	2460.61	.96	.09 (.00 - .16)	.05	.30 - .84	
Configural	20.51 (10), $p < .05$	2474.81	.92	.12 (.04 - .20)	.07	.16 - .86	
Metric	23.44 (14), $p > .05$	2457.85	.93	.10 (.00 - .16)	.08	.22 - .85	2.93 (4), $p = .57$
<b>Scalar</b>	<b>26.08 (18), <math>p &gt; .05</math></b>	<b>2440.62</b>	<b>.94</b>	<b>.08 (.00 - .14)</b>	<b>.08</b>	<b>.24 - .85</b>	<b>2.64 (4), <math>p = .62</math></b>
<i>Sense of Community</i>							
CFA	44.22 (14), $p < .01$	3257.29	.90	.12 (.08 - .16)	.06	.51 - .77	
Configural	72.54 (28), $p < .01$	3261.74	.85	.15 (.11 - .19)	.08	.48 - .80	
Metric	80.96 (34), $p < .01$	3240.35	.84	.14 (.10 - .18)	.09	.47 - .80	8.42 (6), $p = .21$
<b>Scalar</b>	<b>94.15 (40), <math>p &lt; .01</math></b>	<b>3223.72</b>	<b>.82</b>	<b>.14 (.10 - .17)</b>	<b>.10</b>	<b>.48 - .79</b>	<b>13.19 (7), <math>p = .07</math></b>
<i>Sense of Place</i>							
CFA	5.35 (2), $p > .05$	1864.17	.94	.11 (.00 - .22)	.04	.35 - .61	
Configural	8.66 (4), $p > .05$	1862.64	.93	.13 (.00 - .25)	.05	.18 - .90	
<b>Metric</b>	<b>9.95 (7), <math>p &gt; .05</math></b>	<b>1849.02</b>	<b>.95</b>	<b>.08 (.00 - .18)</b>	<b>.05</b>	<b>.34 - .75</b>	<b>1.29 (3), <math>p = .73</math></b>
Scalar	22.44 (10), $p < .05$	1846.60	.80	.13 (.06 - .21)	.10	.31 - .75	12.49 (3), $p < .05$
<i>Positive Peer Interactions</i>							
CFA <sup>a</sup>		1173.49				.83 - .92	
Configural <sup>a</sup>		1108.28				.80 - .92	
Metric	1.98 (2), $p > .05$	1099.91	1.00	.00 (.00 - .21)	.04	.82 - .92	
<b>Scalar</b>	<b>2.49 (4), <math>p &gt; .05</math></b>	<b>1090.07</b>	<b>1.00</b>	<b>.00 (.00 - .13)</b>	<b>.04</b>	<b>.82 - .92</b>	<b>0.51 (2), <math>p = .77</math></b>

*Note.* Model in boldface represents the highest level of invariance achieved. <sup>a</sup>Just-identified model; only BIC values and standardized loadings are reported.

Table 2

*Descriptive Statistics*

<b>Variables</b>	<b><math>\alpha</math></b>	<b><i>N</i></b>	<b>Mean</b>	<b><i>SD</i></b>	<b>Range</b>
<b>Sense of Ethnic Awareness</b>					
<i>Sense of Belonging</i>					
Wave 1	.71	152	1.81	0.94	0.00-4.00
Wave 2	.65	137	2.08	0.83	0.00-4.00
<i>Sense of Community</i>					
Wave 1	.83	152	1.70	0.92	0.00-3.88
Wave 2	.83	137	2.07	0.85	0.00-4.00
<i>Sense of Place</i>					
Wave 1	.62	152	1.62	0.84	0.00-3.75
Wave 2	.62	137	2.02	0.82	0.00-3.75
<b>Positive Peer Interactions</b>					
<i>Sociability</i>					
Wave 1	na	198	1.80	0.98	0.00-4.50
Wave 2	na	207	2.17	1.11	0.00-5.00
<i>Communication</i>					
Wave 1	na	198	0.93	0.85	0.00-3.75
Wave 2	na	206	1.71	1.09	0.00-5.00
<i>Assertiveness</i>					
Wave 1	na	198	0.61	0.73	0.00-3.50
Wave 2	na	206	0.86	0.84	0.00-4.00
<b>Peer Conflict</b>					
Wave 1	na	198	0.25	0.45	0.00-2.75
Wave 2	na	206	0.24	0.38	0.00-1.75

*Note.* na = not appropriate.

Table 3

*Descriptive Statistics by Ethnicity and Immigration Status*

Variables	Ethnic Majority			Ethnicity			<i>F</i>	Non-Immigrant			Immigration Status			<i>F</i>
	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>		<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	
<b>Sense of Ethnic Awareness</b>														
<i>Sense of Belonging</i>														
Wave 1	60	1.63	0.96	89	1.94	0.88	3.96*	42	1.67	0.99	107	1.88	0.92	1.54
Wave 2	54	1.88	0.83	83	2.22	0.81	5.54*	46	1.93	0.86	89	2.15	0.81	2.18
<i>Sense of Community</i>														
Wave 1	60	1.64	0.97	89	1.76	0.88	0.62	42	1.63	0.91	107	1.74	0.92	0.45
Wave 2	54	2.01	0.77	83	2.10	0.91	0.29	46	2.07	0.78	89	2.04	0.89	0.04
<i>Sense of Place</i>														
Wave 1	60	1.66	0.83	89	1.62	0.85	0.10	42	1.73	0.73	107	1.59	0.88	0.87
Wave 2	54	2.10	0.73	83	1.97	0.88	0.87	46	2.14	0.78	89	1.95	0.84	1.70
<b>Positive Peer Interactions</b>														
<i>Sociability</i>														
Wave 1	70	1.96	1.03	113	1.75	0.95	1.97	44	2.01	1.02	111	1.85	0.96	0.89
Wave 2	84	2.21	1.07	116	2.14	1.13	0.17	49	2.21	0.99	115	2.21	1.16	0.00
<i>Communication</i>														
Wave 1	70	1.07	0.92	113	0.86	0.81	2.50	44	1.19	0.95	111	0.90	0.79	3.87*
Wave 2	83	1.74	1.04	116	1.68	1.11	0.13	49	1.81	1.00	115	1.72	1.13	0.24
<i>Assertiveness</i>														
Wave 1	70	0.75	0.82	113	0.54	0.69	3.68	44	0.67	0.77	111	0.62	0.74	0.18
Wave 2	83	0.86	0.81	116	0.86	0.87	0.00	48	0.85	0.80	115	0.90	0.88	0.11

Table 3

*Continued*

Variables	Ethnic Majority			Ethnicity Ethnic Minority			<i>F</i>	Non-Immigrant			Immigration Status Immigrant			<i>F</i>
	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>		<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	
<b>Peer Conflict</b>														
Wave 1	70	0.32	0.54	113	0.20	0.37	2.87	44	0.32	0.42	111	0.23	0.43	1.36
Wave 2	83	0.22	0.32	116	0.26	0.43	0.38	48	0.23	0.31	115	0.24	0.42	0.02

*Note.* \* $p < .05$ , \*\* $p < .01$ .

Table 4

*Bivariate Correlations*

<b>Variables</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
<i>Sense of Belonging</i>													
1. Wave 1													
2. Wave 2	<b>.70**</b>												
<i>Sense of Community</i>													
3. Wave 1	.82**	.67**											
4. Wave 2	.58**	.81**	<b>.68**</b>										
<i>Sense of Place</i>													
5. Wave 1	.72**	.52**	.71**	.57**									
6. Wave 2	.50**	.66**	.50**	.78**	<b>.55**</b>								
<i>Peer Sociability</i>													
7. Wave 1	-.06	-.10	-.12	-.00	.01	.02							
8. Wave 2	-.05	-.03	-.05	-.07	-.03	-.04	<b>.16*</b>						
<i>Peer Communication</i>													
9. Wave 1	-.09	-.18	-.11	-.05	.08	.03	.76**	.27**					
10. Wave 2	.01	-.04	.02	-.02	.08	.03	.23**	.83**	<b>.37**</b>				
<i>Peer Assertiveness</i>													
11. Wave 1	-.08	-.14	-.11	-.01	.03	.02	.69**	.18*	.77**	.22**			
12. Wave 2	-.08	-.12	-.09	-.13	-.04	-.11	.20**	.67**	.35**	.77**	<b>.24**</b>		
<i>Peer Conflict</i>													
13. Wave 1	-.16	-.30**	-.15	-.29**	-.06	-.20*	-.02	-.09	.13	-.02	-.05	-.01	
14. Wave 2	-.14	-.25**	-.17*	-.28**	-.04	-.22	-.09	.07	.02	.21**	-.01	.31**	<b>.20**</b>

Note.  $N = 106-206$ . \* $p < .05$ , \*\* $p < .01$ .



Table 5

*Bivariate Correlations by Ethnicity*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Sense of Belonging</i>														
1. Wave 1		.65**	.81**	.58**	.72**	.51**	.05	-.04	.01	-.01	.01	-.09	-.28*	-.14
2. Wave 2	.73**		.69**	.86**	.59**	.73**	.09	.06	-.05	.03	-.00	-.16	.28*	-.33
<i>Sense of Community</i>														
3. Wave 1	.82**	.65**		.70**	.72**	.55**	-.05	-.08	-.08	-.05	-.05	-.13	-.24*	-.24*
4. Wave 2	.61**	.76**	.66**		.56**	.80**	.07	-.08	-.03	-.04	.01	-.19	-.30*	-.35**
<i>Sense of Place</i>														
5. Wave 1	.75**	.49**	.71**	.58**		.50**	.06	-.01	.07	.09	.05	-.05	-.20	-.04
6. Wave 2	.57**	.64**	.45**	.75**	.61**		.12	-.00	.06	.04	.07	-.11	-.33**	-.29**
<i>Peer Sociability</i>														
7. Wave 1	-.11	-.32*	-.16	-.13	-.06	-.22		.08	.78**	.23*	.69**	.17	-.13	-.14
8. Wave 2	-.06	-.13	-.02	-.02	-.07	-.14	.33**		.16	.82**	.12 <sup>a</sup>	.69**	-.12	.05
<i>Peer Communication</i>														
9. Wave 1	-.13	-.28	-.11	-.07	.10	-.10	.73**	.41**		.33**	.74**	.27**	.04	-.04
10. Wave 2	.03	-.10	.10	.03	.06	-.01	.25*	.84**	.40**		.26**	.81**	.02	.21*
<i>Peer Assertiveness</i>														
11. Wave 1	-.09	-.23	-.12	-.03	.02	-.14	.69**	.27*	.78**	.16		.22*	-.18	-.02
12. Wave 2	-.10	-.04	-.05	.01	-.04	-.11	.28*	.63*** <sup>a</sup>	.46**	.69**	.28*		.09	.30**
<i>Peer Conflict</i>														
13. Wave 1	.04	-.32*	-.01	-.27	.14	-.01	-.04	-.03	.15	.04	-.00	-.11		.29**
14. Wave 2	-.17	-.13	-.07	-.11	-.02	-.01	.02	.11	.17	.24*	.05	.34**	.16	

Note.  $N = 44-116$  \* $p < .05$ , \*\* $p < .01$ , <sup>a</sup>Fisher's z-test comparisons indicated strength of correlation differs significantly between ethnic majority and ethnic minority children ( $p < .05$ ). Ethnic majority below diagonal and ethnic minority above diagonal.

Table 6

*Bivariate Correlations by Immigration*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>Sense of Belonging</i>														
1. Wave 1		.69**	.82**	.63**	.74**	.55**	-.02	-.01	-.05	.03	.03	-.07	-.17	-.19
2. Wave 2	.73**		.67**	.85**	.53**	.69**	.02	.05	-.03	.02	-.01 <sup>a</sup>	-.11	-.13**	-.29**
<i>Sense of Community</i>														
3. Wave 1	.80**	.71**		.72**	.73**	.53**	-.06	.01	.00	.07	.03	-.04	-.20*	-.18
4. Wave 2	.56**	.75**	.69**		.56**	.77**	.06	-.00	.03	.04	.07	-.12	-.33**	-.29**
<i>Sense of Place</i>														
5. Wave 1	.71**	.54**	.70**	.59**		.53**	.04	-.02	.12	.08	.14	-.05	-.07	-.09
6. Wave 2	.50**	.71**	.53**	.82**	.58**		.11	.03	.12	.08	.17	-.10	-.25*	-.27*
<i>Peer Sociability</i>														
7. Wave 1	-.12	-.33	-.24	-.14	-.12	-.20		.12	.77**	.18	.68**	.11	-.05	-.10
8. Wave 2	-.13	-.23	-.22	-.26	-.08	-.22	.40*		.24*	.83**	.12 <sup>a</sup>	.66**	-.06	.05
<i>Peer Communication</i>														
9. Wave 1	-.36*	-.39*	-.35*	-.17	-.06	-.12	.73**	.51**		.34**	.75**	.33**	.11	.01
10. Wave 2	-.03	-.20	-.11	-.23	.06	-.13	.36*	.81**	.53**		.20*	.79**	-.00	.20*
<i>Peer Assertiveness</i>														
11. Wave 1	-.36*	-.43*** <sup>a</sup>	-.52**	-.22	-.35*	-.32	.65**	.53*** <sup>a</sup>	.72**	.32		.21*	-.04	-.00
12. Wave 2	-.10	-.16	-.22	-.20	-.00	-.15	.39*	.70**	.46**	.71**	.38*		.07	.31**
<i>Peer Conflict</i>														
13. Wave 1	-.13	.01	-.03	-.14	-.07	-.03	-.06	.05	.21	.19	-.08	-.06		.22**
14. Wave 2	.00	-.13	-.18	-.23	.23	-.08	-.04	.35*	.16	.51**	.02	.35*	.18	

Note.  $N = 33 - 107$ . \* $p < .05$ , \*\* $p < .01$ , <sup>a</sup>Fisher's z-test comparisons indicated strength of correlation differs significantly between non-immigrant and immigrant children ( $p < .05$ ). Non-Immigrant below diagonal and immigrant above diagonal.

Table 7

*Auto-Regressive Lagged Path Models Fit Indices for Positive Peer Interactions*

Model	$\chi^2$ (df)	CFI	RMSEA (90% CI)	SRMR	BIC	Model Comparisons: $\Delta\chi^2$ (df)
<i>Positive Peer Interactions</i>						
Sense of Belonging						
1. Correlational	113.03(41), $p < .01$	.92	.09 (.07-.11)	.08	3174.10	
<b>2. Awareness-Driven</b>	<b>108.35 (40), <math>p &lt; .01</math></b>	<b>.92</b>	<b>.09 (.07-.11)</b>	<b>.08</b>	<b>3174.79</b>	<b>vs. Correlational: <math>\Delta\chi^2 = 4.68</math> (1), <math>p &lt; .05</math></b>
3. Peer-Driven	110.05 (40), $p < .01$	.92	.09 (.07-.11)	.08	3176.48	vs. Correlational: $\Delta\chi^2 = 2.30$ (1), $p = .13$
4. Transactional	105.24 (39), $p < .01$	.92	.08 (.07-.11)	.08	3177.06	vs. Correlational: $\Delta\chi^2 = 7.79$ (2), $p < .05$ vs. Belonging-Driven: $\Delta\chi^2 = 3.11$ (1), $p = .08$ vs. Peer-Driven: $\Delta\chi^2 = 4.81$ (1), $p < .05$
Sense of Community						
1. Correlational	110.30 (41), $p < .01$	.92	.09 (.07 - .11)	.07	3191.12	
<b>2. Awareness-Driven</b>	<b>105.36 (40), <math>p &lt; .01</math></b>	<b>.92</b>	<b>.09 (.07 - .11)</b>	<b>.08</b>	<b>3191.55</b>	<b>vs. Correlational: <math>\Delta\chi^2 = 4.94</math> (1), <math>p &lt; .05</math></b>
3. Peer-Driven	110.23 (40), $p < .01$	.92	.09 (.07 - .11)	.08	3196.41	vs. Correlational: $\Delta\chi^2 = 0.07$ (1), $p = .79$
4. Transactional	105.32 (39), $p < .01$	.92	.09 (.07 - .11)	.08	3196.87	vs. Correlational: $\Delta\chi^2 = 4.98$ (2), $p = .08$ vs. Community-Driven: $\Delta\chi^2 = 0.04$ (1), $p = .84$ vs. Peer-Driven: $\Delta\chi^2 = 4.91$ (1), $p < .05$
Sense of Place						
1. Correlational	114.15 (41), $p < .01$	.91	.09 (.07 - .11)	.08	3187.66	
<b>2. Awareness-Driven</b>	<b>109.24 (40), <math>p &lt; .01</math></b>	<b>.91</b>	<b>.09 (.07 - .11)</b>	<b>.08</b>	<b>3188.13</b>	<b>vs. Correlational: <math>\Delta\chi^2 = 4.91</math> (1), <math>p &lt; .05</math></b>
3. Peer-Driven	114.13 (40), $p < .01$	.91	.09 (.07 - .11)	.08	3193.01	vs. Correlational: $\Delta\chi^2 = 0.02$ (1), $p = .89$
4. Transactional	109.22 (39), $p < .01$	.91	.09 (.07 - .11)	.08	3193.47	vs. Correlational: $\Delta\chi^2 = 4.93$ (2), $p = .09$ vs. Place-Driven: $\Delta\chi^2 = 0.02$ (1), $p = .89$ vs. Peer-Driven: $\Delta\chi^2 = 4.91$ (1), $p < .05$

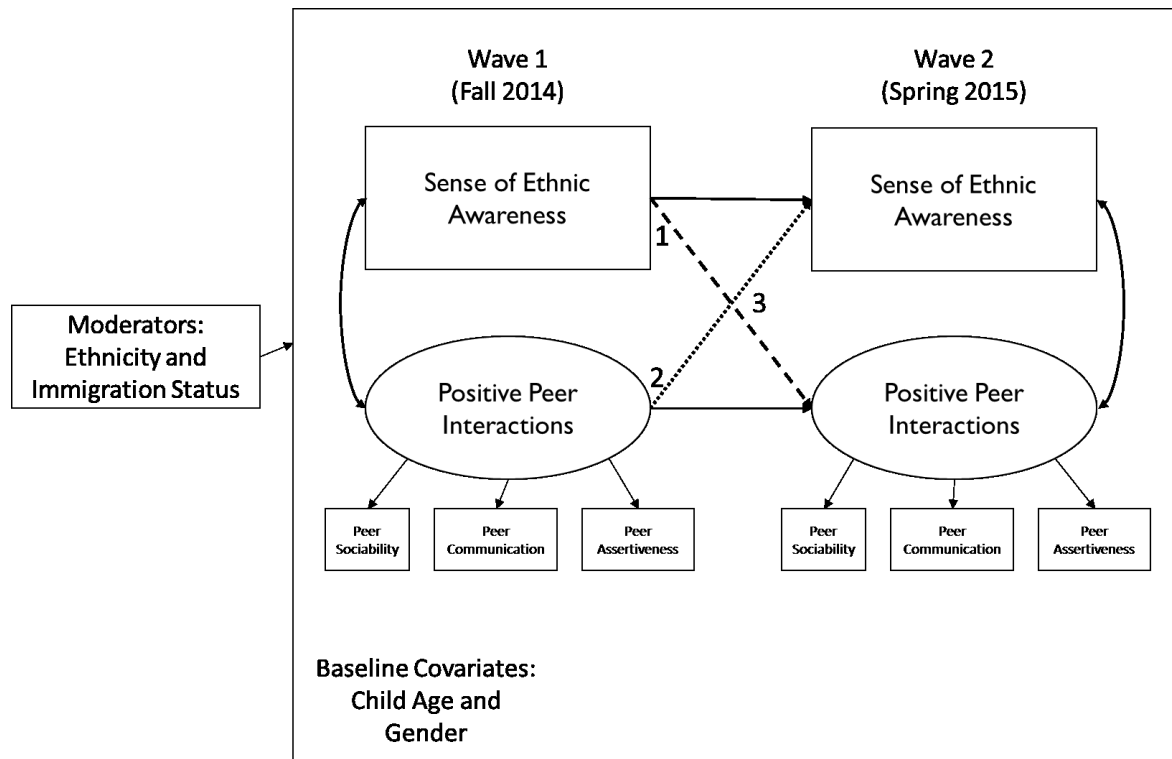
*Note.* Best fitting models are shown in boldface.

Table 8

*Auto-Regressive Lagged Path Models Fit Indices for Peer Conflict*

Model	$\chi^2$ (df)	CFI	RMSEA (90% CI)	SRMR	BIC	Model Comparisons: $\Delta\chi^2$ (df)
<i>Peer Conflict</i>						
Sense of Belonging						
1. Correlational	19.30 (8), $p < .05$	.90	.08 (.03 - .13)	.05	1128.88	
2. Awareness-Driven	18.32 (7), $p < .05$	.90	.08 (.04 - .14)	.05	1133.27	vs. Correlational: $\Delta\chi^2 = 0.85$ (1), $p = .35$
<b>3. Peer-Driven</b>	<b>13.88 (7), <math>p &gt; .05</math></b>	<b>.94</b>	<b>.07 (.00 - .12)</b>	<b>.04</b>	<b>1128.83</b>	<b>vs. Correlational: <math>\Delta\chi^2 = 5.16</math> (1), <math>p &lt; .05</math></b>
4. Transactional	13.22 (6), $p < .05$	.89	.08 (.02 - .13)	.04	1149.75	vs. Correlational: $\Delta\chi^2 = 1.65$ (2), $p = .44$ vs. Belonging-Driven: $\Delta\chi^2 = 0.80$ (1), $p = .37$ vs. Peer-Driven: $\Delta\chi^2 = 3.51$ (1), $p = .06$
Sense of Community						
1. Correlational	18.25 (8), $p < .05$	.90	.08 (.03 - .13)	.06	1146.19	
2. Awareness-Driven	16.64 (7), $p < .05$	.91	.08 (.03 - .13)	.05	1149.95	vs. Correlational: $\Delta\chi^2 = 1.60$ (1), $p = .21$
<b>3. Peer-Driven</b>	<b>13.73 (7), <math>p &gt; .05</math></b>	<b>.93</b>	<b>.07 (.00 - .12)</b>	<b>.04</b>	<b>1147.04</b>	<b>vs. Correlational: <math>\Delta\chi^2 = 4.51</math> (1), <math>p &lt; .05</math></b>
4. Transactional	12.14 (6), $p > .05$	.94	.07 (.00 - .13)	.04	1150.82	vs. Correlational: $\Delta\chi^2 = 4.03$ (2), $p = .13$ vs. Community-Driven: $\Delta\chi^2 = 2.43$ (1), $p = .11$ vs. Peer-Driven: $\Delta\chi^2 = 0.48$ (1), $p = .48$
Sense of Place						
<b>1. Correlational</b>	<b>16.62 (8), <math>p &lt; .05</math></b>	<b>.87</b>	<b>.07 (.02 - .12)</b>	<b>.05</b>	<b>1142.07</b>	
2. Awareness-Driven	16.61 (7), $p < .05$	.86	.08 (.03 - .13)	.05	1147.77	vs. Correlational: $\Delta\chi^2 = 0.01$ (1), $p = .92$
3. Peer-Driven	10.03 (7), $p > .05$	.93	.07 (.00 - .13)	.04	1134.13	vs. Correlational: $\Delta\chi^2 = 3.31$ (1), $p = .07$
4. Transactional	12.89 (6), $p < .05$	.94	.07 (.01 - .13)	.04	1133.20	vs. Correlational: $\Delta\chi^2 = 0.45$ (2), $p = .80$ vs. Place-Driven: $\Delta\chi^2 = 0.44$ (1), $p = .51$ vs. Peer-Driven: $\Delta\chi^2 = 2.86$ (1), $p = .09$

*Note.* Best fitting models are shown in boldface



*Figure 1.* Hypothesized directional associations between children’s sense of ethnic awareness and peer interactions across the preschool year. *Note.* Numbers refer to the directional models assessed. The awareness-driven model examines whether sense of ethnic awareness contributes to prospective peer interactions (1); the peer-driven model examines whether peer interactions contribute to prospective sense of ethnic awareness (2); the transactional model examines whether sense of ethnic awareness and peer interactions mutually contribute to each other over the preschool year (3). All models include the stability paths and the within-time correlations. Peer conflict was modeled as a manifest variable.

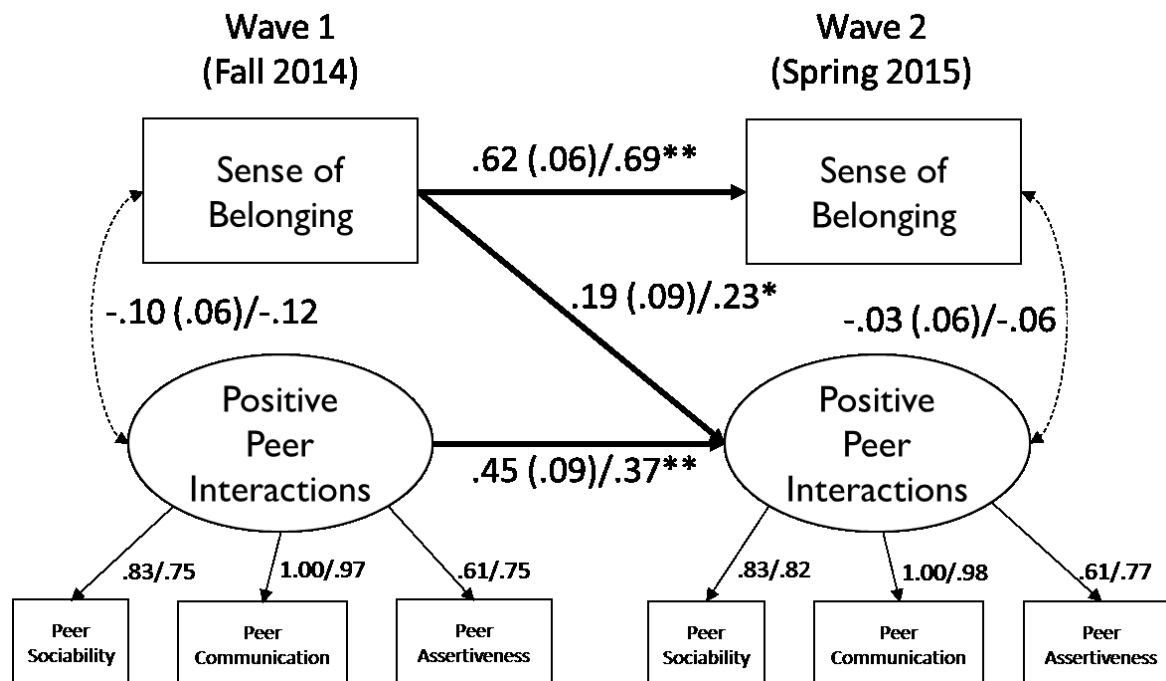


Figure 2. Awareness-driven model: Sense of belonging and positive peer interactions.

Unstandardized (standard error)/standardized estimates presented. Standardized factor loadings are presented. Dashed lines indicated non-significant paths. Model fit:  $\chi^2(4) = 108.35, p < .01$ ; CFI = .92; RMSEA = .09 (.07, .11); SRMR = .08. \* $p < .05$ , \*\* $p < .01$ .

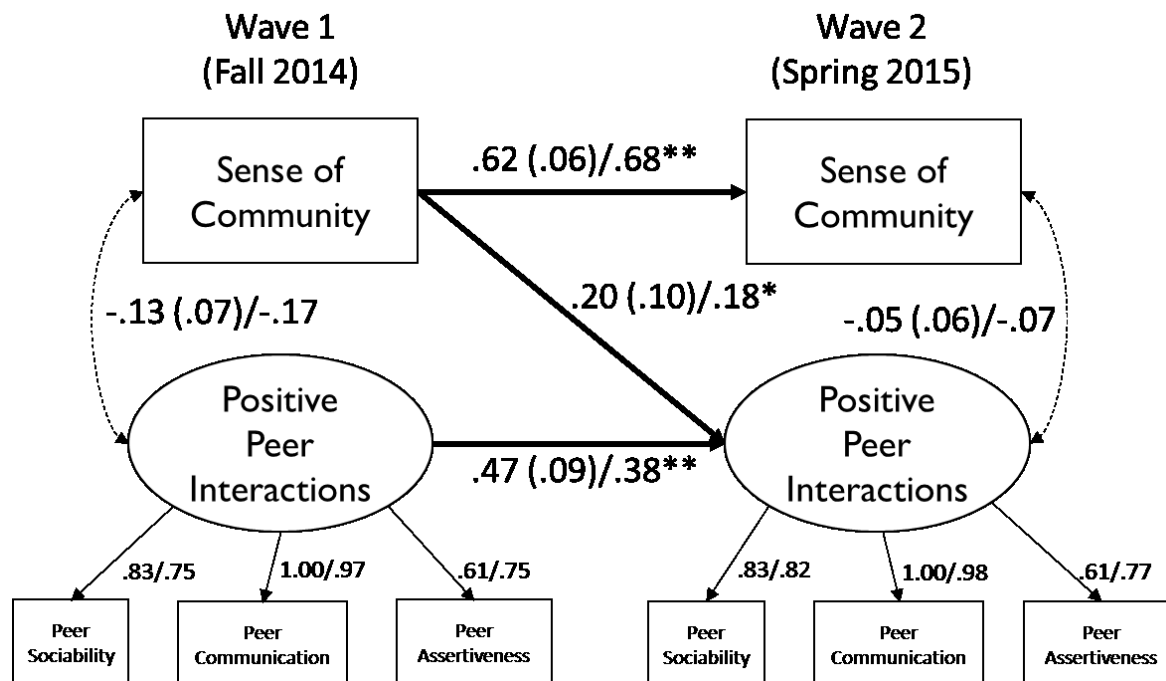


Figure 3. Awareness-driven model: Sense of community and positive peer interactions.

Unstandardized (standard error)/standardized estimates and factor loadings presented.

Standardized factor loadings are presented. Dashed lines indicated non-significant paths. Model

fit:  $\chi^2(40) = 105.37, p < .01$ ; CFI = .92; RMSEA = .09 (.07, .11); SRMR = .08. \* $p < .05$ , \*\* $p <$

.01.

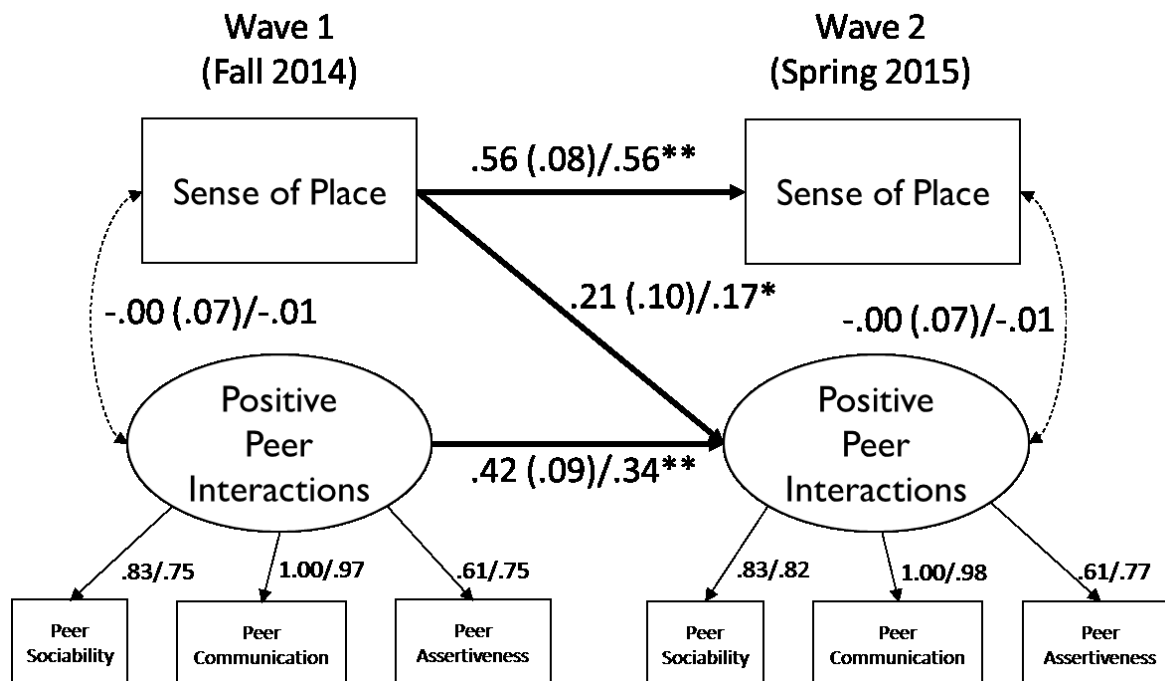


Figure 4. Awareness-driven model: Sense of place and positive peer interactions.

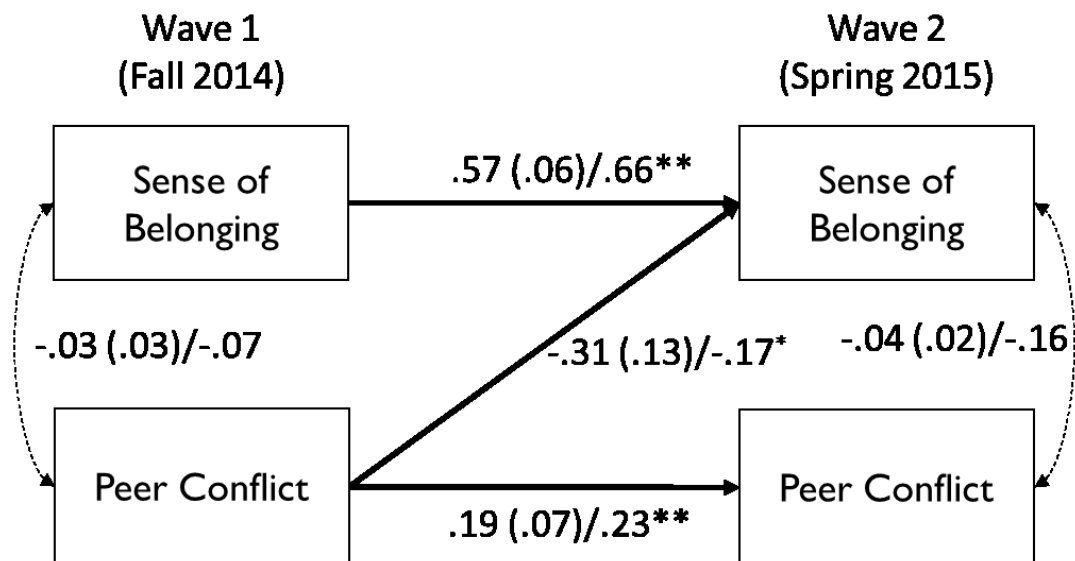
Unstandardized (standard error)/standardized estimates and factor loadings presented.

Standardized factor loadings are presented. Dashed lines indicated non-significant paths. Model

fit:  $\chi^2(40) = 109.24, p < .01$ ; CFI = .91; RMSEA = .09 (.07, .11); SRMR = .08. \* $p < .05$ , \*\* $p <$

.01.





*Figure 5.* Peer-driven model: Sense of belonging and peer conflict. Unstandardized (standard error)/standardized estimates presented. Dashed lines indicated non-significant paths. Model fit:  $\chi^2 (5) = 9.71, p < .01$ ; CFI = .96; RMSEA = .07 (.00, .13); SRMR = .04. \* $p < .05$ , \*\* $p < .01$ .

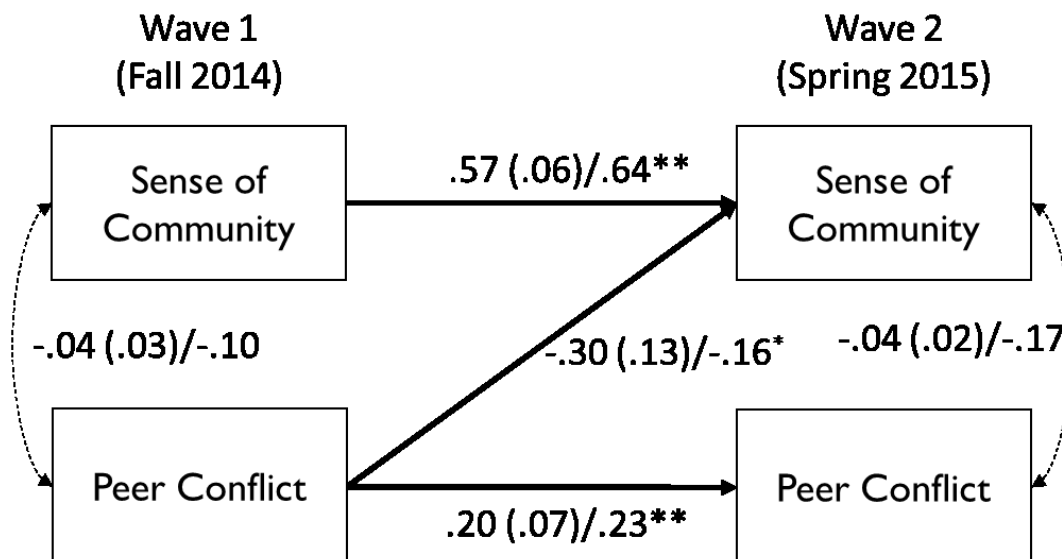
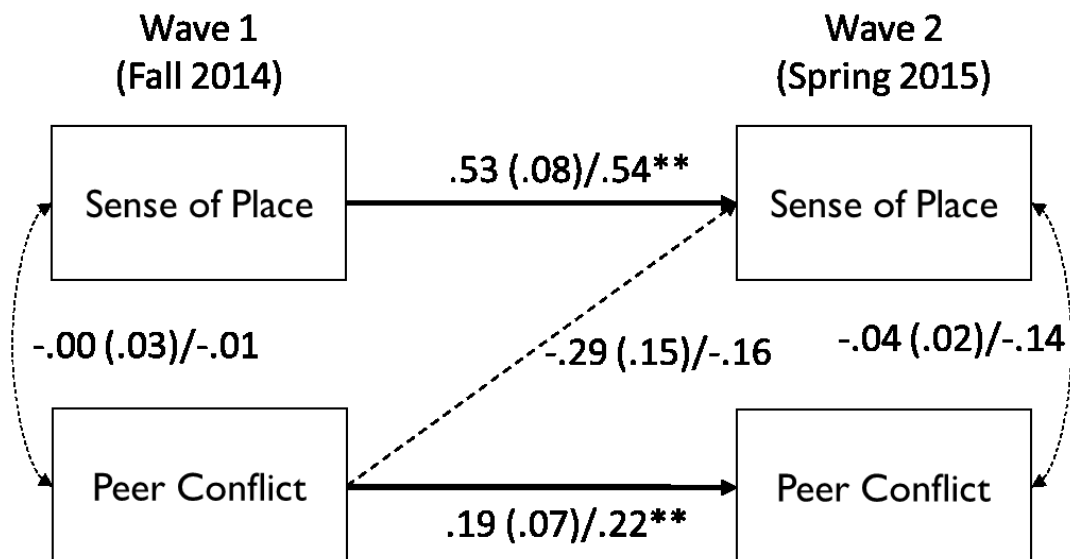


Figure 6. Peer-driven model: Sense of community and peer conflict. Unstandardized (standard error)/standardized estimates presented. Dashed lines indicated non-significant paths. Model fit:  $\chi^2 (5) = 11.66, p < .01$ ; CFI = .94; RMSEA = .08 (.02, .14); SRMR = .05. \* $p < .05$ , \*\* $p < .01$ .



*Figure 7.* Peer-driven model: Sense of place and peer conflict. Unstandardized (standard error)/standardized estimates presented. Dashed lines indicated non-significant paths. Model fit:  $\chi^2 (5) = 10.03, p < .01$ ; CFI = .93; RMSEA = .07 (.00, .13); SRMR = .04. \* $p < .05$ , \*\* $p < .01$ .

## APPENDIX A

**Construct Indicators and Factor Loadings for Sense of Ethnic Awareness**

Construct Indicators	Belonging	Community	Place
1. Can name our cultural or ethnic group.		.67	
2. Can name other cultural or ethnic groups in our community.			.59
3. Feels like he or she belongs to our cultural or ethnic group.	.79		
4. Recognizes differences between cultural or ethnic groups.		.60	
5. Knows about the holidays or festivities of our cultural or ethnic group.			.61
6. Is proud of our cultural or ethnic group.	.84		
7. Wears the traditional clothing our cultural or ethnic group.		.51	
8. Has had the chance to practice our culture in school.			.35
9. Has a traditional name.	.30		
10. Knows about our cultural or ethnic practices and traditions.		.78	
11. Has had the chance to practice our culture in our neighborhood or community.			.56
12. Has a connection to our local cultural community groups.	.43		
13. Knows what it means to be a family.	na		
14. Takes part in our cultural practices and traditions.		.57	
15. Has relationships with extended family.	na		
16. Knows the history or traditional stories of our cultural or ethnic group.		.68	
17. Knows and shares stories about our family.	.50		
18. Is able to recognize traditional foods of our cultural or ethnic group.		.67	