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“WILL SCHOOL FEEL LIKE HOME?”: A PANDEMIC STUDY ON TEMPERAMENT AND PEER ENGAGEMENT IN PRESCHOOL WITH A FOCUS ON SOUTH ASIAN AMERICAN CHILDREN

BY

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DISSERTATION

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ABSTRACT

This dissertation aims to explore how South Asian American (SAA) children's temperament affects their engagement with peers. It also investigates their parent's perceptions about how acculturation may be affecting their children's peer engagement. Existing literature on SAA children ages three through five, particularly their temperamental traits or peer interactions, is not easily available, and this study attempts to help fill this gap. Using a mixed-methods design, this research explores three main questions – 1) how do teachers' and parents' ratings for child temperament differ for children of different ethnicities? 2) what kind of peer engagement styles do SAA children exhibit, and how do these styles differ based on temperamental differences? and 3) what are SAA parents' perceptions about their children's cultural socialization and how it affects their peer engagement? Data for the study comes from a sample of six children ages three to five from a preschool center in a large mid-western state in the United States (66% female; 50% South Asian American, 33% White, 16% Multiple Races). The collected data included demographic information from the parent about the child and their family, temperament data from teachers and parents, observational data on children's peer interactions in the classroom, and interviews with parents asking them about their home culture and their children's peer interactions. Findings showed that parents of all children whose home culture could be categorized as collectivistic scored their children higher on negative affect than teachers. This trend was not present for the two White (individualistic culture) children in the sample. This underlines the cultural nature of temperament. Parents and teachers may view the same behavior differently based on their cultural background. Children's temperamental traits did have effects on their peer engagement processes, but observations showed that in some cases, the children also learned how to deal with those issues constructively. Parent interviews

discussed how native language and the concept of respect for elders affected children's overall peer interactions. Additionally, the effect of the pandemic on children's peer engagement is examined. The possibilities of utilizing the findings for practical applications are discussed.

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জয় মা

This dissertation is dedicated to the memory of Dida, my maternal grandmother

With whom I shared so many temperamental traits

Who showed me that being sensitive is a gift

Who proved that being quiet didn't make you bad at engaging with peers

Who helped me hold on to my roots

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CHAPTER 1: INTRODUCTION

Temperament may be defined as the foundation for later personality wherein the interaction between temperament and overall life experiences together lead to certain personality characteristics (Rothbart, 2007). Research shows temperament is one of the more biologically based individual differences in behavior which together with environmental and contextual experiences (including peer engagement), help shape personality across the lifespan (Kagan & Snidman, 1999; Rothbart, 2007; Thomas et al., 1970). Longitudinal studies plainly demonstrate that temperamental characteristics show substantial continuity over time and can predict later behavioral patterns (Caspi, 2000; Kochanska et al., 2007; Shigeto et al., 2014). Another essential part of every individual's life are peers, particularly friends who frequently act as buffers against varied negative outcomes (Bollmer et al., 2005; Criss et al., 2017; Laursen et al., 2007; Rubin & Coplan, 1998). Peer relationships are unique social relationships which are voluntarily formed by two individuals where both participants share a measure of power; peer engagement encompasses the process of social transactions between two such peers (Bukowski et al., 2018; Santos & Vaughn, 2018). Existing research examining temperament and peers finds clear links between the two, such that children with difficult or inhibited temperamental characteristics face a greater chance of peer exclusion and peer victimization than do children exhibiting easy temperamental characteristics (Gülay, 2012; Tarullo et al., 2011). However, most of the studies on temperament and peer engagement use solely quantitative measures, focus on children with 'challenging' traits, and do not consider contextual/environmental factors (e.g., Gunnar et al., 2003; Russell et al., 2003). This means we lose out on a significant amount of rich data. Given that temperament and peer engagement are such central elements of individual development (Bukowski et al., 2018; Christenson & Havsy, 2004; Rothbart, 2007; Shiner, 2015),

understanding the associations between temperament and peer engagement has significant implications for supporting young children navigating the social aspect of classrooms by understanding why children with certain temperaments thrive with peer engagement while others struggle.

In addition to the role played by temperament and peer relationships in our lives, understanding culture to better comprehend human development has also been a key topic in research, and may be defined as "networks of knowledge" for a group of people, which include certain shared ideas and routines about the world around us (Barth, 2002; Hong, 2009). Numerous researchers have discussed how culture cannot be overlooked and must indeed be a part of all research rather than only being utilized for cross-cultural comparisons (Kashima, 2016; Rogoff, 2003; Shweder, 1991). The bidirectional interaction between children and their culture helps determine their 'goodness of fit' (Lerner, 1991); if a child's temperament matches the cultural ideal, they are seen to have a desirable temperament, but if a child's temperament deviates from the cultural ideal, they have low goodness of fit and are 'difficult' children by those cultural standards (Klein & Ballantine, 1991). A similar phenomenon occurs with culture and peer engagement – if a child is well aligned with the culture of the majority, peers find it easier to engage with them as it is acceptable/recognizable behavior to them (for e.g., Chen et al., 2006). Hence, the relationship between temperament and peer engagement cannot be holistically studied without explicitly understanding the cultural background.

Research regarding cultural differences in temperament has been undertaken by several researchers, though they are usually done in a cross-cultural framework, usually comparing one country to another (e.g., Chen et al., 2006; Gartstein et al., 2006; Kirchhoff et al., 2019; Oakland et al., 2011). Research regarding cultural differences in peer engagement or peer relationships is

also present in existing literature, and these studies also employ a cross-cultural approach (e.g., Tulviste et al., 2010; Wade & Kidd, 2018). However, such studies for a diaspora are very few, and those that are available utilize a sample of older children, especially adolescents. For example., Kawabata and Crick (2013) discuss how European American children and Asian American fourth grade children experience aggression with peers, Kiang et al. (2011) look at mixed-ethnicity friendships among Asian American ninth and tenth graders, and Menzer et al. (2010) talk about peer exclusion and victimization between European American and Asian American sixth grade children. Although this existing literature helps to some extent in providing an understanding of how temperament and peer engagement are conceived in these different cultures, there is still a lack of research exploring the experience of preschool children from certain cultural groups, especially within a diaspora.

To understand children's cultural backgrounds, we must understand how they are socialized at home, a process that usually begins with parents or primary caregivers (Kuczynski and Grusec, 1997). Cultural socialization may be broadly defined as parents passing on native cultural values, beliefs, and language, and for young children this process is easiest to understand from a parent's perspective (Hughes et al., Suárez-Orosco et al., 2018). The process of assimilation or acculturation may be smooth and largely innocuous for some individuals who immigrate to a new country from their country of origin (Birman and Addae, 2016; Suárez-Orosco et al., 2018), but there are still subtle differences in their behaviors and attitudes as compared to individuals who originally belong to the culture of the place of resettlement; the goals of human development vary based on cultural beliefs and values (Rogoff, 2003), and hence would also differ for these people living in a different cultural setting from their culture of origin. Also, looking at García Coll and colleagues' (1996) Integrative Model to understand

development of minority children, it is clear that all children bring certain cultural ideas to the classroom, which increases the need for more research on different populations so that we are more knowledgeable about their home context. Additionally, children who immigrate at a young age or second-generation immigrant children must not only succeed at age-appropriate overall development, but also learn how to balance their native culture and a potentially conflicting host culture, which may understandably cause confusion or make them struggle in school (Suárez-Orosco et al., 2018). Hence, this should hold true for South Asian American (SAA) preschool children as well and warrant more research on them, although research for this particular population of children is difficult to come by.

Based on the above information, the next question that arises is: what is the need for separate research on SAA children? There were nearly 5.4 million South Asian Americans living in the United States in 2017, and there was about a 40% increase in their population from 2000 to 2010 (American Community Survey, 2017; Census Data, 2010). A significant percentage (between 5-10% depending on the different countries of origin) of this growing population is under five years of age (American Community Survey, 2013-2015). Given the large number of preschool aged SAA children who are either already a part of the preschool system, or who will be a part of this system soon, it is important to conduct research into whether children from this community are able to effectively adjust into the schooling system, or whether schools may need to provide specific supports for them.

To provide context to this entire study, it is important to note that we are currently dealing with a novel worldwide experience of living through a pandemic. As we live through the third year of a global pandemic, preschool centers have had to deal with a distinctive cohort of children (particularly those from diasporas) who have spent a significant amount of time at

home; ergo they might have acclimatized to certain household practices or expectations (from home caregivers) which do not necessarily translate to the classroom (Bakopolou, 2022; Gayatri, 2020; Hong et al., 2022). This brings the importance of cultural studies into stark relief because without a deeper understanding of home cultures, teachers may sometimes be unable to interact with their students due to cultural differences.

Therefore, the study of temperament, peers, and the cultural variations in the study of temperament and peers can provide crucial insights into how children perform in classrooms, how they engage with peers, and ultimately help teachers or caregivers provide the supports that children might need, particularly when they live in a diaspora (where their home culture is different from the culture of where they live and attend school). This current study aims to fill the existing gap in the literature about SAA children in preschool and contribute towards the complex discussion around cultural differences in temperament and resulting peer interactions. Towards this end, the research questions posed in this study are – 1) How do teachers' and parents' ratings for child temperament differ for children of different ethnicities? 2) What kind of peer engagement styles do SAA children exhibit, and how do these styles differ based on temperamental differences? 3) What are SAA parents' experiences regarding their children's cultural socialization and how do they see it affecting their peer engagement?

CHAPTER 2: LITERATURE REVIEW

The literature review is divided into four main sections. First, I begin by discussing what existing literature shows about temperament and why it is important to study child temperament as a factor affecting children's behavior and outcomes in school. Within this section, I discuss the different temperamental traits and the concept of temperamental continuity. Second, I will explore the importance of peer engagement in early childhood development. This will include the role of familiar/preferred peers versus unfamiliar peers, and the ways in which these relationships shape a child's social skills and later behaviors, which in turn may predict the social success an individual may have as an adolescent and as an adult. After peers, I will also discuss the relation between temperament and peer engagement in literature. In the third part of the review, I will discuss the role of culture in psychology, how it has evolved, and the current understanding of cultural psychology. This section will also include information about how culture interacts with temperament, peers, and parenting. Fourth, I will focus on research on the South Asian American (SAA) diaspora, specifically dealing with preschool aged children.

Temperament

Conceptual definition of temperament

Historically, temperament researchers have been unable to reach a consensus on a definition of temperament. For example, Thomas and Chess (1977) defined temperament as unique, individual differences in how a child reacts to his/her environment and described it as something that could be equated to a 'behavioral style' and provided information about 'goodness of fit' with the environment. Mary K. Rothbart, another prolific temperament researcher, believed temperament should be understood more through a constitutional approach (Rothbart & Derryberry, 1981). More specifically, she defined temperament as individual

differences in emotional, motor, and attentional reactivity. All these traits are assumed to have a constitutional basis, wherein 'constitutional' refers to the enduring biological traits of individuals which are influenced by context over time (Rothbart et al., 2000; Rothbart & Derryberry, 1981). Several other theorists provided their own conceptualizations of temperament. In an attempt at consistency, a discussion was held in 1987 between several key temperament researchers of the time (namely H. H. Goldsmith, A. H. Buss, R. Plomin, M. K. Rothbart, A. Thomas, and S. Chess) and a consensual definition of temperament was developed. Specifically, this group noted that temperament "consists of relatively consistent, basic dispositions inherent in the person that underlie and modulate the expression of activity, reactivity, emotionality, and sociability" (Goldsmith et al., 1987, p. 524). This conceptualization also states that while temperament is believed to be relatively impervious to context early in life, context and experiences may become far more salient over time.

However, with additional research over time, this definition was contested as well. In particular, researchers speculated as to what other traits could be added to the ones listed in the definition above (Rothbart et al., 2007), noted the lack of complexity in this definition around biological factors affecting development, and questioned whether temperamental traits were actually continuous (Shiner, 2015). Hence, work towards a general definition of temperament continued. In more recent times however, Shiner and colleagues (2012) discussed the Goldsmith et al. (1987) definition of temperament on the 25th anniversary of its publication and provided a revised definition of temperament. They described it as early emerging basic dispositions which are a product of interactions between biological and contextual/environmental factors over time.

Despite repeated efforts, there is still no consensus on the definition of temperament. As a result, researchers have used different definitions and various inherent traits to suit their study;

the result has often been inconsistency in the links between temperament and other developmental traits. It is also important to note that the discussion around temperament has been limited to theorists in the Western world, and therefore may not be culturally relevant around the world. For the purposes of this dissertation, I will be defining temperament according to Rothbart's (2007) definition of individual differences in emotional, motor, and attentional reactivity. However, to fully understand the basic elements that constitute temperament, we must discuss the different traits that it consists of.

Temperamental traits

Following efforts to identify a global definition of temperament, researchers shifted their focus to specific traits they believed reflected an individual's temperament. One of the first classifications of temperament was provided by Thomas, Chess, and Birch (1970), where they describe nine dimensions or temperamental traits – sensitivity, intensity of reaction, activity level, adaptability, approach/withdrawal, persistence, rhythmicity, quality of mood, and distractibility. They believed that individuals fall along a continuum on each of these traits, resulting in innumerable possible combinations and thus a wide variety of temperaments (Thomas & Chess, 1977). They also suggested that these nine traits can be further grouped into three typologies: Easy (adjust easily to new situations, quickly establish routines), Difficult (slow to adjust to new experiences, likely to have intense, negative reaction to some stimuli), and Inhibited or Slow-to-warm (mild negative responses to new stimuli, but slowly adjusts with repeated exposure). Although Thomas and Chess pioneered the research focusing on temperamental traits, the numerous possible combinations of traits made it difficult to identify an individual's temperament and thus a more simplified approach was needed.

In an attempt to follow up on the work of Thomas, Chess, and Birch (1970), Rothbart suggested that temperament could instead be described in terms of three main traits: Effortful Control, Surgency/Extraversion, and Negative Affectivity (Rothbart, 1981; Rothbart et al., 2001). Effortful control includes inhibitory control, attention focusing, perceptual sensitivity, and low intensity pleasure (Rothbart & Putnam, 2002) and reflects a child's ability to make decisions without giving in to impulsive urge. Children with high effortful control are able to effectively plan future actions by modulating their behavior (Rothbart, 2007). Surgency/extraversion can be identified by high activity level, impulsivity, and high-intensity pleasure-seeking and reflects children who tend to be highly active, constantly exploring, and may disregard rules (Rothbart & Putnam, 2002). Negative Affectivity is comprised of sadness, frustration, fear, and difficulty in soothing and reflects children's tendency to exhibit negative emotions and their ability to deal with such emotions (Rothbart & Putnam, 2002). Although Rothbart's typology provides a more simplified approach to understanding temperamental traits than did Chess and colleagues' nine dimensions, at the same time it also offers far greater specificity in the behaviors and traits deemed central to an individual's temperament than do the categories of easy, difficult, and slow to warm. It also avoids classifying children outright as 'easy' or 'difficult', but rather focusing on specific characteristics. This typology is commonly used by researchers in studies of temperament, and I will be utilizing this typology for this dissertation as well.

Temperamental continuity over the lifespan

Temperament can be observed in children as young as two to four months of age and is therefore referred to as one of the more biologically based individual traits (Kagan, 1997; Thomas et al., 1970). In addition, many researchers believe temperament to be the initial state from which personality develops (Rothbart, 2007; Shiner, 2015). There is a significant body of

literature demonstrating the stability of temperamental traits across the lifespan. For example, in one of the most well-known longitudinal studies of temperament, Caspi (2000) used the Dunedin Study (a sample of over 1,000 children in New Zealand, followed from birth to adulthood) to show that temperamental traits measured at three years of age predict personality and behavioral outcomes such as self-control, harm avoidance, stress reaction, and well-being across adolescence and young adulthood. Similarly, Shigeto et al. (2014) showed that family characteristics and child temperament measured at 13 months of age in the Midwestern US predicted child behavior with parents at 36 months of age. In yet another article, Kochanska et al. (2007) reported that American children with a 'fearless temperament' had more positive relationships with mothers as they grew up. Extensive data presented by Roberts and DelVicchio (2000) in a meta-analysis of 152 longitudinal studies also showed substantial consistency in personality and temperamental traits in childhood, as well as later in life. Given that temperamental traits show considerable continuity over time, they may be particularly useful for early identification of individuals who may be at risk for poor outcomes later in life. As such, careful consideration of environmental factors that may support the development of individuals with various temperamental traits is essential. Given that one of the most influential factors within these environmental factors in children's lives are peers, in the next section I discuss how peer engagement develops over early childhood.

Peer Engagement in Early Childhood

Peer relationships may be conceptualized as unique because of two main reasons – firstly, they are voluntary relationships which can be ended by either individual whenever they wish, and secondly, peer relationships are typically non-hierarchical as both participants hold equal power and neither has authority over the other (Laursen & Bukowski, 1997). Will S. Monroe's

qualitative study from 1898 is considered one of the first (if not the very first) studies on peer relations, and it illustrates why the study of peers has been and continues to be significant. He studied 2,336 children between the ages of 7-16 in the United States and asked children, "What kind of a chum do you like the best?". The results showed no generalizability or uniformity as children wished for varied qualities in their friends, hence emphasizing the vast individual differences that make up peer research as a whole. This underscores the need to study peer engagement in different contexts and cultures to grasp the variability of the process.

Bukowski and colleagues (2018) identify three broad features of research on peer relations which aid in understanding the process – personal orientation, structural properties, and social complexity. Personal orientation refers to whether an individual is moving towards others (for e.g., being sociable or altruistic), against others (for e.g., causing conflicts, victimizing others), or away from others (for e.g., withdrawing or avoiding others). Structural properties can be explained as the positive or negative links between individuals in a peer group (for e.g., those who are liked are accepted by peers, those who are disliked are rejected by peers). Finally, social complexity may be explained as the different experiences that individuals bring to a peer relation at individual, dyad, and group levels (Rubin et al., 2015). At an individual level each person has varied characteristics (for e.g., age, sex/gender, race/ethnicity, temperament), goals (for e.g., why they want to interact with a particular peer), and past experiences they use to function. As a dyad, an interaction between two people is not only affected by their individual differences but also by several contextual aspects (where the interaction is happening, who else is nearby) of the interaction. These peer interactions then lead to peer relationships with set expectations from each peer. Finally, these peer dyads exist within larger groups with varying definitions of boundaries (for e.g., classrooms, social interest groups) and certain broader expectations of their

group members which may affect the peer relationship (Bukowski et al., 2018; Rubin et al., 2015). For my dissertation, I will be focusing on the feature of social complexity at all three levels of experiences – individual (temperament), dyad (cultural differences between two peers), and group (how classroom environment affects peer engagement).

Development of peer engagement

To better understanding the different ways in which peers are engaged with each other, we must explore the developmental trajectory of the process. Preschool is usually the first time children begin forming somewhat stable peer relationships, but research has shown that engagement with peers begins in its basic form during infancy (Brownell & Brown, 1992; Williams et al., 2010). Some researchers believe that for infants born in a hospital, the first interaction with other infants is the matching of negative affect, which is termed "contagious crying" – when one baby cries in the nursery, other babies begin crying as well (Sagi & Hoffman, 1976). Subsequently, babies as young as two months of age can share mutual glances and by six months they can babble and smile at peers (Hay et al., 1982; Mueller & Vandell, 1979; Vandell et al., 1980). Around the age of 18 to 24 months, a large proportion of peer engagement can be considered negative (e.g., poking a peer in the eye or pulling his/her hair) but peer researchers believe that all types of interactions – positive or negative – are important signs of social interest among children this age (Brownell, 1990). Once children reach preschool, however, negative engagement typically drops significantly in favor of more positive social behaviors (Radke-Yarrow et al., 1983; Vandell et al., 2006).

In addition to more positive interactions, studies have shown that the frequency of engagement also increases during preschool, refuting the theory forwarded originally by Piaget (1959), which suggested preschoolers were socially unaware. Parten (1932) was one of the first

to describe different categories of 'social participation' among children. She suggested that social participation exhibits a developmental progression from non-social interactions (such as engaging in solitary play, or being an onlooker while others play) to substantially more social behaviors (such as beginning from parallel play and moving up to cooperative group play). Rubin and Coplan (1998) modified the five categories of social participation that emerged out of Parten's (1932) to reflect more recent understandings of development and engagement. The first category is 'unoccupied behavior', where a child is explicitly seen to have an absence of intent in their actions, which is usually observed as blankly staring at something/someone, or as aimlessly walking around the space they are in. Second is 'onlooker behavior', which can be observed when the child is looking at and listening to other children's play, but not attempting to get actively involved in the same. The third category is 'solitary play', where the child is playing by themselves, at least three feet away from any other child, and paying little to no attention to anyone else. Fourth is 'parallel play', where the child is playing within three feet of another child, but the two are not actively playing with each other (this is the most common form of play for preschoolers). The last category is 'group play', where the child is actively playing with others in a group, and everyone is acting towards a common goal for the game being played (Rubin & Coplan, 1998).

Children are more likely to engage in behaviors from the latter categories of peer social engagement as they grow up because they begin playing in "cognitively and socially more mature fashions" (Rubin & Coplan, 1998). With time, play transitions from the relatively simplistic parallel play to complex cooperative play, with the children following mutually agreed upon scripts (Rubin et al., 1998). Examples of scripts include children pretending to cook meals for each other, taking care of their 'babies' (dolls), driving to work by car (chairs set up in two

rows to mimic car seats), etc. With age, the complexity of these roles and scripts increases (Levin & Rubin, 1983; Mueller, 1972; Vandell et al., 2006). As a result, these instances of pretend play can provide children a safe space to learn how to articulate and communicate to their peers what they mean, how to compromise and negotiate with others, and how to deal with conflicts if they arise (Howes et al., 1992; Vandell et al., 2006). Of course, with the growing complexity and refinement in preschoolers' peer interactions comes an increase in relational aggression, especially in the context of a child trying to gain control of an interaction by showing negative affect. Such interactions, however, need not be seen as problematic, necessarily, as they may be a sign of important cognitive and social development (Vaughn et al., 2003). Overall, peer engagement grows with time, and the next section explores the significance of these relationships in individual's lives.

Importance of peer engagement for development

Although there are several cultural aspects to peer relationships (which I will discuss in a later section), there is one theme that permeates the literature – the crucial role peers play in various individual social and behavioral outcomes (Bukowski & Raufelder, 2018; Gorrese & Ruggieri, 2013). Studies have shown that high-quality friendships can help reduce bullying behaviors in children with existing externalizing problems (Bollmer et al., 2005) and that prosocial peer behavior may stop adolescents in dangerous and violent neighborhoods from engaging in antisocial behaviors (Criss et al., 2017; Smith et al., 2001). Laursen et al. (2007) corroborate these findings in a sample of seven to nine-year-old Finnish children. Specifically, they found friendship to be a buffer against possible social isolation and internalizing/externalizing problems. Research has also shown that overall peer acceptance can facilitate academic skill development (Kiuru et al., 2015). Research has also demonstrated strong

detrimental effects on children's behavioral outcomes and mental health when they face peer rejection (Hay et al., 2004). For example, Trentacosta and Shaw (2009) found a positive association between peer rejection and antisocial behavior in a sample of boys ages 8-11 in the eastern United States. Coie and colleagues (1992) found that peer rejection and childhood aggression in third grade predicted adolescent maladjustment in a sample of about 600 children from the US (Coie et al., 1992).

Early childhood is a fundamental time in an individual's life as it is when children begin to learn how interpersonal relationships are formed and maintained, something that affects the person for their whole life (Christenson & Havsy, 2004; Hartup, 1989; Piaget, 1926, 1932). Indeed, peer groups in early childhood are a way to acquire and implement social skills. For example, peer interactions provide a unique learning environment in which children can learn how to take other's perspectives, how to cooperate and resolve conflicts, and how to understand concepts such as mutual respect, reciprocity, and fairness (Rubin & Coplan, 1998). Preschoolers who tended to spend time in closer proximity to peers were also more likely to have reciprocated friendships as compared to children who did not (Santos et al., 2015). Vaughn and colleagues (2016) also found that when American and Portuguese preschool aged children engaged with peers socially, they exhibited more socially competent behavior and were more accepted by peers. Children who do not experience adequate peer interactions during early childhood may be at risk of developing externalizing (e.g., aggression, delinquency) and internalizing problems (e.g., depression, low self-esteem) later in life (Bollmer et al., 2005; McElwain & Volling, 2005; Rubin & Coplan, 1998). For example, "dependable and enduring peer affiliations" in Kindergarten in the US can attenuate depressive behaviors at an older age, while peer disengagement in kindergarten may predict depressive behaviors in higher grades (Schrepferman

et al., 2006). Effects such as these can be seen within fairly short periods of time as well. For example, preschool children in northeast US who faced peer rejection were more likely to participate in relational victimization within a few months of initial observations (Godleski et al., 2015). Although considerably more research on the importance of peers has been conducted with older children, it is evident that early peer engagements set the stage for later social interactions for varied cultural groups. I will discuss more cultural examples in a later section. Given the significance of peers in children's development, researchers have only recently begun to contextually study the effects of individual differences in more biologically based traits like temperament on the formation and maintenance of these relationships among preschool-aged children – something we explore further in the next section.

Temperament and peers

The associations between temperament and peers are important to understand in order to know how the two concepts affect each other. To begin with, it is important to discuss how the literature talks about the relationship between temperament and peers. Earlier studies suggest that temperament essentially acts as an important factor to increase "goodness of fit" of the child with his/her environment (Thomas & Chess, 1977). Included in this 'environment' are peers, and there are some studies that found relationships between children's temperament and their frequency and quality of interaction with peers (Acar et al., 2015; Degnan et al., 2010; Keogh & Burstein, 1988). Indeed, children with overall difficult or inhibited temperamental traits face challenges in their peer engagement and these challenges may have life-long consequences. For example, in a study by Gülay (2012), Turkish kindergarten-age children with more difficult/inhibited (high levels of aggression, asocial behavior, and fear-anxiety) temperamental traits faced peer exclusion and peer victimization, while children with easier (such as high level

of approach, persistence, and rhythmicity) temperamental traits displayed more prosocial behavior. Using samples of Chinese and Canadian children, Chen and colleagues (2006) found that in both countries, children high on 'shyness-inhibition' were far more likely to receive negative responses from peers during play than were non-shy children. Szewczyk-Sokolowski and colleagues (2005) also found in a study of 98 preschoolers in the United States that children with difficult temperamental traits were more likely to get negative nominations from peers on sociometric tests.

These negative experiences with peers may be explained, in part, by how difficult or inhibited children attempt to engage with peers (Neuharth-Pritchett, & Ma, 2006; Pekdogan, & Kanak, 2016; Rubin et al., 2005). For example, difficult children may be too aggressive in their interactions, hence making peers feel disinterested in responding (Gunnar, et al., 2003; Rubin et al., 2005; Russell et al., 2003). Inhibited children, on the other hand, may be so tentative in their interest in peers that their peers do not understand how to react, or simply overlook them (Rubin et al., 2005).

Clearly there is an ample body of research on temperament and peers, especially among older children, but the majority of this research has focused on how children with different temperamental traits experience trouble in social relationships. More importantly, they have done so without considering how environmental factors affect these interactions. There is very little literature which talks about the contextual reasoning behind why interactions for children with certain temperamental traits looks a particular way. A reason for this gap in our understanding is due to limitations in the available tools which are used to measure peer interactions. A majority of existing tools focusing on peer engagement are quantitative, strip away contextual information, and depend on parent or teacher reports (Banerjee, 2020). Hence, using a qualitative

observation tool can provide far more depth to such findings than quantitative measures. In this dissertation, I will try to fill this gap by utilizing a qualitative view of peer engagement which helps place the interaction in context, including cultural context. To do so effectively, I will first discuss how and why culture is a crucial component of psychological research.

Culture

To understand the trajectory of how the concept of culture has been perceived in psychological research, it is important to understand how the scholarship around culture itself has changed over time. The study of culture can be traced back to the ancient Greeks, who discussed it as pertaining to differences in "the lifeways of the many peoples" that they encountered. Historically, the root of the word 'barbarian' was innocuous – it was used to refer to these people who were different, ergo including those from different cultures (Cole & Gajdamaschko, 2007; Rogoff, 2003). Currently, the Cambridge Dictionary defines 'barbarian' with a far less neutral connotation – "a member of a group of people from a very different country or culture that is considered to be less socially advanced and more violent than your own" (Cambridge Advanced Learners Dictionary, 4th ed.); this suggests a negative change in the way other cultures were viewed. The change in this word's definition occurred because communities which were 'different' began to be viewed as deficient, savage, lower in the social hierarchy, and in some cases not even human (Cole & Gajdamaschko, 2007). This perception of the 'other', particularly of different races as the "racialized other", as somehow lesser (stereotypically associated with cannibalism, animal drives, and sexual abandon) steeped into cultural research in the form of ethnocentrism, especially with European researchers in the eighteenth and nineteenth centuries (Jahoda, 1999; Rogoff, 2003). Some researchers attempted to remain less judgemental, but they were a minority at the time when Europe had begun exploring

the world and colonizing different parts of it. One of these researchers was Johann Herder, who introduced the term 'Völk' to refer to a community with shared language and traditions, and this is considered one of the first instances of cultural relativism. This refers to the idea that cultural standards differ from one community to another, and hence no culture can be judged using a single universal standard (Cole & Gajdamaschko, 2007; Spiro, 2001).

With time, social science researchers gradually became comfortable with culture-based studies and began studying human identity and how it was influenced by culture. Vygotsky was one such researcher, and he believed that the common core of culture which characterized all humans was that they used tools, signs, language, and technologies to interact with their environment; he therefore believed identity to be influenced by a sociocultural system (Cole & Gajdamaschko, 2007; Vygotsky et al., 1981). Another researcher was Mary Ainsworth, who flipped the usual process of using Western concepts to study non-Western societies. In the early 1950s, she studied Ugandan infants and their caregivers and what the childrearing practices were like, to ultimately study attachment. Afterwards, she tried replicating that study in the US, but was unable to get similar results. As a result, she created the 'Strange Situation' procedure to evoke similar reactions from the babies as she had seen in Uganda (Keller, 2013). In spite of her efforts to replicate the study by using an experimental approach, Ainsworth was unable to replicate the findings from Uganda where she measured attachment based on how a baby responded to being left alone by their mother; in the US, she believed that the babies were so used to their mothers coming and going that they were less likely to cry when the mothers left the room (Ainsworth et al., 1978).

Hence, although the focus of social science research shifted from disparaging understudied cultures to becoming curious about different cultures, these studies still attempted

replication rather than exploration. Given the continuing emphasis on 'us versus them' within the realm of cultural research, when psychology began utilizing cultural perceptions in its research, there was a propensity to perform cross-cultural studies.

Cultural psychology versus cross-cultural psychology

Schweder (1991) describes cultural psychology as "the study of the way cultural traditions and social practices regulate, express, and transform the human psyche, resulting less in psychic unity for humankind than in ethnic divergences in mind, self, and emotion" (p. 73). He differentiates it from what he calls 'General Psychology', as the latter carries the basic assumption of trying to achieve a universal, general view of the psyche, as opposed to understanding the way in which the sociocultural environment creates subtle differences in different people (Schweder, 1991). Many researchers also differentiate cultural psychology from cross-cultural psychology. Cross-cultural studies typically choose measures which have been utilized in a certain culture (usually in the Western world) and then implement the same measure in another cultural group in order to explore the possibility of a 'psychic unity', or in other words a generalizable result (Dvorakova, 2016; Schweder, 2006). Greenfield (1997) describes the difference between cross-cultural psychology and cultural psychology as follows –

> The methodological ideal of the paradigmatic cross-cultural psychologist is to carry a procedure established in one culture…to one or more other cultures in order to make a cross-cultural comparison. In contrast, the methodological ideal of the paradigmatic cultural psychologist is to derive procedures for each culture from the lifeways and modes of communication of that culture. Any cross-cultural comparison is secondary to such culturally differentiated procedures. (p. 308)

Therefore, although cross-cultural studies provide us with information about different cultures, the aim is usually still to use an established measure from the Western world and compare its effectiveness in a non-Western setting. On the other hand, cultural psychology attempts to gain an in-depth understanding of a particular cultural group with the aim of learning more about it and how it affects its people's identities, behaviors, and attitudes. Ultimately, the emerging idea is that culture is so inextricably entangled in every person's life that it is impossible to study a person's psyche without considering culture (Kashima, 2016), and for children in particular, it is difficult to navigate the world without coming in contact with culture as they are "cultural participants" from the moment they are born (Rogoff, 2003).

Having a cultural framework for research becomes particularly important when doing research with non-western cultures. As a majority of academic research still deals with Western cultures, it would seem easy to generalize findings and expect similar results from different Western societies, but that is not the case. These differences do not appear exclusively in widely disparate cultures and can in fact be observed in cultures which are traditionally considered as belonging to the same category, such as Western versus non-Western. This is important as it shows that we cannot equate findings from one culture to another simply because they belong to a larger group together, that is, findings for Asian Americans in general cannot apply to all Asian populations, same as findings for one Western culture cannot apply to all Western cultures. García Coll and colleagues (1996) discussed in their Integrative Model of child development that children from minority communities in the United States needed a theory of child development which centered the concepts of social position and social stratification rather than considering them as peripheral factors. Understanding minority children's experiences in a more holistic fashion would help researchers move away from a solely deficit-based approach and rather look

at the strengths of the cultural differences they brought to the classroom. Figure 2.1 shows the Integrative Model in its entirety, and we can see how migration and acculturation can closely affect a child's development, which in turn would affect their behavior, academic performance, and social skills in school.

In addition to the difficulty in generalizing findings for different cultures, it is also important to understand that when individuals live in a diaspora, the effect of culture becomes more complex. A 'diaspora' may be defined as "a group of people who spread from one original country to other countries, or the act of spreading in this way" (Cambridge Advanced Learners Dictionary, 4th ed.), such as when immigrants settle in a new country. There is research to show that immigrants undergo a long process of adjustment to the new culture while also holding on to their own culture. While in the past the idea of assimilation was more popular in such situations, it is becoming more common for immigrants to acknowledge the benefits of acculturation – "acquisition of the culture of the resettlement country through tacit absorption and deliberate teaching" (p. 4, Birman & Addae, 2015). The concept of acculturation has also made biculturalism more popular, wherein people adjust to the culture of their new surroundings, while also maintaining their culture of origin. Consequently, this puts added 'acculturation press' on immigrants which refers to the pressure of having to maintain a dual set of cultural beliefs, rules, behaviors, and attitudes in the appropriate settings (Birman & Addae, 2015; Suárez-Orozco et al., 2018; Umaña-Taylor & Hill, 2020). Hence, this means that there is more of a push from parents to help their children maintain their home culture, and this in turn will have an effect on how these children function in schools. These differences are therefore important to study and take into consideration for the sake of these children's overall performance and adjustment in the classroom.

Cultural aspects of Temperament, Peers, and Parenting

Cultural differences in temperament, peer interaction styles, and parenting styles have a large impact on how we understand children's individual differences and so that we use that knowledge to better support them in different spheres. In this section, I will go over literature regarding 1) how culture affects the study of temperament (between cultures and within a diaspora), 2) how culture affects the study of peer engagement (between cultures and within a diaspora), and 3) how parenting styles or beliefs vary by culture.

Culture and temperament. The bidirectional interaction between children and their culture helps determine their 'goodness of fit' (Lerner, 1991); if a child's temperament matches the cultural ideal, they are seen to have a desirable temperament, but if a child's temperament deviates from the cultural ideal, they have low goodness of fit and are 'difficult' children by those cultural standards (Klein & Ballantine, 1991). Hence, it is important to remember this and practice cultural relativism when studying temperament in different cultural settings. In particular, acknowledging the culture that a child brings with them when they come to school can have a huge impact on how they perform in school (García Coll et al., 1996). This is an outcome that affects not only young children but may have effects into adulthood (Ruedas-Gracia, 2019).

As discussed earlier, cultural differences do not occur only between disparate cultures, but also amongst cultures which may be traditionally grouped together according to certain characteristics. Applying this idea to temperament we find that there is evidence to show that there are differences within temperamental traits among cultures which are usually seen to be similar to each other. For example, Super and colleagues (2008) discuss how the conception of a 'difficult' child has culture-specific patterns based on how parents in the seven Western countries (namely Australia, Italy, Netherlands, Poland, Spain, Sweden, and the United States)

define such a child. In another article by Kirchhoff and colleagues (2019), children from Germany and the US were compared, and they found differences in a range of temperamental traits – some were higher for German toddlers (for e.g., soothability, perceptual sensitivity) while some were higher for American toddlers (for e.g., partner engagement, attention shifting). In yet another study, Kerr and colleagues (1996) compared childhood shyness in Swedish and American children and found differences in how it affected both groups; although shy boys in both the US and Sweden married later and had children later than their non-shy counterparts, shyness also affected the career of boys in the US but did not have the same effect on Swedish shy boys. Hence, these studies provide crucial evidence that cultural differences are quite common, and not necessarily limited to Western versus non-Western societies.

Within the literature pertaining to Asian cultures, there are also a number of comparative/cross-cultural studies. For example, Gartstein and colleagues (2006) explored a comparison of temperamental traits between individualistic and collectivistic societies by comparing China, US, and Spain. They found significant differences between China and the US, while Spain and the US did not have as many differences. Another study is by Chen and colleagues (2006) which discusses the differences in how Chinese preschool children react to shy inhibited peers versus how Canadian children react to temperamentally shy inhibited children. One more study is by Oakland and colleagues (2011) who compared Indian and American middle-school children on four bipolar temperament styles but found cross-cultural differences only in one style – Indian children preferred practical versus imaginative, unlike the children in the US.

There are few studies looking at how home culture affects a child's temperament, particularly within a classroom setting. In particular for children of Indian origin, there seems to

be very little to be found. Although studies for temperamental differences exist for other Asian communities (for e.g., Lee & Doan, 2020; Louie et al., 2013), they cannot be generalized to acquire a proper understanding of children of Indian origin in the diaspora. As we saw with studies comparing temperament in Western cultures, there are subtle variances even within similar ethnic groups. In order to make sure that studies were not being overlooked due to the use of the wrong search terms, a thorough literature search was conducted, as described later in this review.

Therefore, there is data to show that the differences in temperamental traits have been studied in Asian societies as well, and significant variances have been found. However, these studies are all cross-cultural and do not discuss the distinctive situation which arises in communities living in a diaspora.

Culture and peer engagement. The research around cultural differences in peer engagement discusses many facets of peer relationships. Similar to the idea of 'goodness of fit' (Lerner, 1991) as described for temperament in this document (p. 19), the way in which individuals interact with peers in a certain culture depends on what is seen as culturally appropriate for that culture, and whether or not a certain peer is following those cultural norms; if they follow those norms, their goodness of fit is high, and more peers are likely to engage with them, but if they do not follow the cultural norms, their peers may not wish to associate with them even if it is simply because they are confused by it (especially for young children). There are a number of cross-cultural studies which display this. For example, the work by Chen and colleagues (2006) shows how children who have shy-inhibited temperamental traits faced higher peer rejection in Canada versus in China, and one way to explain it could be the difference in how shyness is judged in a Western culture (such as Canada) versus in a non-Western, Asian

culture (such as China). In another study by Betts and colleagues (2014), they discuss how Japanese children ascribed their peers with higher trustworthiness, especially regarding secret-keeping versus American children, and the reason behind this could be the cultural differences in what is normative about appropriate disclosure in the two cultures. In yet another study of children (aged between two to eleven years of age) by Wade and Kidd (2018), it was found that Bolivian children's exploration was boosted and facilitated by peers while children from the US did not show similar findings; this could be because the Bolivian children are more likely to participate in informal learning with their peers and hence find the presence of peers facilitative of exploration while American children are more used to learning in less cooperative scenarios. Therefore, in many ways, the differences between peer engagement styles for different cultures is based on cultural ideals and norms held by their cultures, and how those ideals and norms affect their judgement of a peer's actions.

In the same way as the literature on cultural differences in temperament, literature for cultural differences in peer engagement also shows how these differences are visible for most cultures, irrespective of whether they are explicitly disparate. So, the three examples provided above were all cultural comparisons between a culture which is traditionally seen as 'collectivistic' versus a culture that is seen as 'individualistic', and they had clearly differing findings based on culture. However, there are some studies within similar cultures which also demonstrate differences between peer behaviors. Tulviste and colleagues (2010) looked at a sample of Estonian, Finnish, and Swedish children between the ages of four to six and found some cultural differences in peer talk such as Estonian children using more directive language versus Finnish and Swedish children. Tamm and colleagues (2017) found, in a sample of 894 Estonian, German, and Russian adolescents, that Russian children were more likely than

Estonian or German children to comply with parent's requests for chores when faced with having to choose between their peers and their parent's request.

Research about peer engagement in a diaspora, particularly for Asian American communities, usually utilizes samples consisting of older children, and still focusses heavily on cross-cultural analyses. These studies also do not directly discuss the process of peer engagement, but rather refer to the factors surrounding peer relationships such as peer aggression or basis of peer choice. For example, Kawabata and Crick (2013) looked at a sample of fourth grade Asian American and European American students and found that Asian American children were less likely to engage in physical or relational aggression with peers as compared to European American children, and they also experienced such forms of aggression less than their European American counterparts. Menzer and colleagues (2010) also found similar results with their sample of 980 sixth grade students. A study by Kiang and colleagues (2011) on a sample of 180 9th and 10th grade students found evidence that shared culture, language, and ethnic discrimination led a number of Asian American children to choose same-ethnicity peers.

Therefore, we can see that research about cultural differences in peer engagement is usually cross-cultural, for older children, and does not include enough research about communities in the diaspora, particularly the South Asian American (SAA) community. Given our understanding of how culture interacts with young children's peer engagement, in the next section I will explore another proximal relationship for young children, parents.

Culture and parenting. Parents are children's first socializing agents, and they are uniquely placed to teach their children how to interact with the world due to several factors including being designated by society as their children's guardian, and their typically close proximity to children which provides them the opportunity to monitor children's actions and in turn also discipline them in case their actions are deemed anti-social or inappropriate (Kuczynski and Grusec, 1997). Grusec and Davidov (2019) discuss how the effect of culture on parental socialization can be significant in a variety of ways. First, culture may dictate the goals that parental socialization seeks to fulfill, and therefore different cultures will have different goals of socialization. Second, depending on the culture, society may have different expectations for children's developmental timelines, hence forcing parents to work on specific skills earlier or later as compared to other cultures. Third, alongside different expectations, there might be a preference for different childrearing practices or parenting styles depending on cultural values. Fourth, due to cultural differences the same parental behavior may be construed differently in different contexts and therefore have different consequences (Grusec & Davidov, 2019). Hence, parenting processes are affected by culture, and as a result children in a diaspora grow up with a certain cultural aspect of socialization at home and then potentially face a starkly different cultural landscape in their schools.

Existing literature explores the different ways in which parenting affects different factors in children's lives, including peer engagement, and there is evidence to show effects in varied cultural settings. Parental involvement generally leads to positive outcomes for children, such as in a study by Ahmetoglu and colleagues (2014) which studied 442 Turkish children with an average age of five years and found evidence that parental involvement led to positive peer interactions. Xiao et al. (2021) looked at 1066 fifth to eighth grade students in China and found

that adaptive parenting attenuated the relationship between shyness and internalizing problems. In yet another study, Seçer and colleagues (2012) sampled 200 Turkish children (aged 5-6) and their mothers, and found that when mothers have low self-efficacy, children are prone to aggression and therefore more likely to be rejected by peers.

There are also studies that show how insensitive/authoritarian parenting can negatively affect children's peer relationships, and this is also apparent through studies in different cultural settings. Ringoot et al. (2022) studied 862 Dutch families and found that firstly, maternal sensitivity during 14 months of age was linked with children's self-regulation, and lower self-regulation caused higher peer relationship problems at age 6; secondly, paternal harsh discipline at a young age was also associated with peer relationships problem at six years of age. Gagnon and colleagues (2013) studied 63 preschool children in the US and found evidence that children with high reactivity who had authoritarian parents showed higher levels of disruptive play and lower levels of interactive play with peers. On the other hand, Cheung and Lim (2022) conducted a meta-analysis on 27 studies which included children between 3-17 years of age, included children from Singapore for at least part of the sample, and had at least parenting variable and one child outcome. They found that certain parenting behaviors that are considered negatively in Western studies may not always lead to poorer child outcomes in Singapore, hence suggesting a protective effect of culture related to how parental control is interpreted.

The common thread in all the studies described above is that parents can affect peer engagement, and these effects depend on the cultural beliefs that the parents hold. Indeed, the way in which parents socialize their children and interact with their children can affect the way in which those children interact with peers. Therefore, it is important to explore parents' perspectives about their children's social relationships in order to best understand the child's

home culture and how they engage with others in a classroom which does not necessarily follow all the same beliefs or hold the same expectations as their home culture.

Research on South Asian American children in preschool

A quick, preliminary literature search for psychological research on SAA preschool children (particularly their temperament and peer engagement) brings up a few results, but most articles do not pertain to the SAA diaspora or preschool children, and very few explore temperament or peer engagement. Given this information, I conducted a detailed literature search using several different variations of search terms in order to find the literature that I was looking for. The literature search was done using the University of Illinois Library search system, and on the 'APA PsychInfo' database in order to find articles which would contain terms which are typically used on psychology (for e.g., temperament). The original idea for this study was to sample Asian Indian American children. When beginning the search for existing literature on students of Indian descent, I used the term 'Indian American'. The search results for this term were not useful as it presented numerous articles only about Native American children, who are still sometimes referred to as 'American Indians' in formal research. This complicated the search for studies on children of Indian descent who are born in the United States as the search engine did not always provide valid results.

In order to find a solution to this confusion between Indian American and American Indian children, the next I term used was just 'Indian students preschool', which provided a fair few articles. However, once again, a majority of the articles were about American Indian/Native American children; amongst the 50 search results on the first page, 32 were regarding Native Americans. There were 12 studies about Indian students which were conducted in India, and the rest were about preschool children in general. Using 'Indian student' returned similar results.

In an attempt to distinguish between 'Indians' originating from America and 'Indians' originating from the country of India, the next search term I used was 'Asian student'. This search revealed some interesting things. There were studies of different Asian communities, including Indians, but very few, if any, of these studies were from the diaspora. However, there were some studies which used the term 'Asian Indian', and hence this was the next search term. Using this term provided a far more useful set of results, with studies about Asian Indian students from both India, and also some studies from the diaspora of Asian Indian Americans.

The next step was to add the age group for which literature was required, and hence the new search term was 'Asian Indian preschool'. This returned a number of resulting articles with topics ranging from self-competence to feeding issues to medical studies. Given that the studies were now all related to Asian Indian students, I added another word to the search term – temperament. Unfortunately, the search for 'Asian Indian preschool temperament' returned no results. Broadening the search by including more age groups by removing the word 'preschool' still did not provide any research on temperament within Asian Indians.

To confirm that nothing was being potentially overlooked, I met with a librarian who specializes in Education literature at the university library so that I could search for this literature again in her presence (virtually). The databases chosen for the search were 'APA PsychInfo', 'ERIC', and 'Sociological Abstracts'. The 'ProQuest Dissertations & Theses Global' database was also referred to for the last set of searches. A screenshot of the different keywords is provided in Figure 2.2 and illustrates the scarcity of literature for Asian Indian American children in preschool. The few pieces of literature that were present for each category were about topics other than temperament and peer engagement, and most of the literature was for older children (particularly adolescents) or children living in India.

Given the small number of studies on Asian Indian American children, I decided to broaden the search to include South Asia (India, Pakistan, Bangladesh, Nepal, Bhutan, Sri Lanka, and the Maldives) as a whole. There are many cultural similarities between these countries, and as my aim was to explore cultural effects, I searched for literature on South Asian diasporas. Using the term 'South Asian American' created the same issue as using the term 'Indian American' – a majority of the articles were about Southeast Asian communities in the US or about Asian communities in general rather than talking about the South Asian diaspora.

The next step was to try to parse out the separate diasporas within the umbrella term of South Asian American to see if it was an issue of terminology, and therefore using more straightforward search terms might solve the issue. To begin the process, the next set of search terms were 'Pakistani American', 'Bangladeshi American', and 'Sri Lankan American'. The results were similar to studies about Asian Indian Americans as there were minimal studies on diasporic communities from Pakistan, Bangladesh, and Sri Lanka and most of the studies were about children in these countries instead of those living in the US. It is not surprising that these studies are few. The Asian Indian American population is the biggest amongst all the diasporic communities from South Asia. If studies on this population are not readily available, it is unlikely that such studies will be available for the other South Asian diasporas with relatively smaller population sizes in the US. Consequently, this is a clear gap in the literature that needs to be filled.

The Current Study

Based on the review of literature, there are certain things which clearly require attention. There is a need for more research on SAA preschool children in order to fill the existing gaps in literature as it is quite difficult to find studies on temperament and peer engagement within that

population. Also, there is still an overall lack of understanding about how different temperamental traits may affect children's peer interactions, particularly for younger children in diasporic communities. Additionally, utilizing parents' accounts of children's peer engagement and how they believe their cultural beliefs may play a role could help create a much deeper understanding of children's classroom peer-related behaviors. In order to explore these topics, this study aims to answer the following research questions –

- How do temperament scores differ for children based on ethnicity/culture?
- What kind of peer engagement styles do SAA children exhibit? How do these styles differ based on temperamental differences?
- What are the experiences of SAA parents regarding their children's cultural socialization and how it affects their peer engagement?

CHAPTER 3: METHODS

Research Design

The current study utilizes a mixed methods study design, with the purpose of triangulation. Triangulation may be described as a way to seek correspondence between results from different methods in order to answer a broad research question or questions (Greene, 2007). The quantitative data in the study comes from a temperament measure which provides information about how teachers and parents perceive a child's temperamental makeup. The qualitative data for this study comes from observations of the participants using a qualitative observation tool which records how these children engage with their peers (Banerjee, 2020), and from interviews conducted with parents of a subsample of children about their perceptions about their home culture and how it might be affecting their children's peer interactions. Bringing together these quantitative and qualitative findings and inspecting them in conjunction with the demographic information (race/ethnicity and home culture) about the participants will help answer the three research questions posed – 1) how do temperament scores differ for children based on ethnicity/culture? 2) how do SAA children's peer engagement styles differ by temperament? and 3) what are the experiences of SAA parents regarding their children's cultural socialization and how it affects their peer engagement?

Research paradigm

This research follows the paradigm of Social Constructivism. The American Psychological Association Dictionary of Psychology defines this paradigm as one which "recognizes knowledge as embedded in social context and sees human thoughts, feelings, language, and behavior as the result of interchanges with the external world" (APA Dictionary of Psychology, n.d., Social constructivism). For the purposes of this study, I believe that using this

paradigmatic lens to view the findings facilitates a process of understanding which centers context and culture. The thrust for psychological research has historically been to qualify itself as a science and therefore focus on a more Positivist research paradigm which looks upon knowledge as something present in nature which can then be 'discovered' by a researcher rather than being something produced and affected by the individual. This tends to strip the individuals in a study of any sense of agency as the priority is the pursuit of generalizability and universality. Quantitative measures sometimes perpetuate this paradigm due to the reduction of data from individuals into numbers. Although this current study does use a quantitative measure to understand the children's temperamental make-ups, I believe that the way in which this quantitative data is used in this study helps distance it from its positivistic roots to an extent in two main ways. Firstly, the small sample size reduces the possibility of attempting generalizations using numerical data. Secondly, the numerical data is analyzed with the aim of better understanding each individual child and therefore provides a better opportunity to individualize the data. Overall, the focus for all analyses is to contextualize and individualize the data as much as possible and help see the participants as holistic individuals who have a role in constructing their reality while also interacting and dealing with their environment.

Reasons behind using a mixed methods approach

The need for a mixed methods study (versus a purely quantitative study) arises because, as can be seen in the literature, research about peer engagement has traditionally been done using quantitative measures, but these studies lose out on substantial amounts of rich data as they do not focus on contextual information. The addition of the qualitative observation tool and the parent interviews to the quantitative information about child temperament helps create a far more holistic picture of how these concepts affect SAA children as compared to only looking at

quantitative data. This study would also not feel complete as a purely qualitative study because temperament may be difficult to ascertain as an outside observer, and it is important to draw from the information that adults closest to the children (teachers and parents) have about their temperamental traits. Hence, a mixed methods approach best suits these research questions and helps answer them satisfactorily.

The study has a 'QUAL + quant' design. This notation refers to a study where the qualitative and quantitative data is collected simultaneously, and the research relies more on the former while being complemented by the latter (Morse, 1991). Hence, there is an unequal status to the different pieces of data, even though they are collected at the same time; the qualitative data will be given more importance than the quantitative data. This is because while it is imperative to have the quantitative temperament data in order to understand the children's behavior, the qualitative data will provide more overall information towards answering the research questions posed for this study.

Participants

Data was collected from a sample of six preschool children (66% female, three to five years of age, $M_{age} = 4$) from one preschool center in a large midwestern state. This sample comprised of three SAA children (two Asian Indian American, one Bangladeshi American) and three children of other ethnicities (two White, one Mixed race/ethnicity). Each of the three SAA children were in different classrooms and one other child from each of those three classrooms was sampled. The three non-SAA children were picked by the teachers of each classroom as someone who 'matched' the SAA child in that classroom in terms of age and sex in order to reduce the possibility of differences being attributed to sex or differing developmental stages.

There were no inclusion/exclusion criteria other than the purposive sampling of SAA children for half of the sample.

Justification for sample selection

There are two main reasons for choosing a sample with half SAA children and half children of other races/ethnicities. Firstly, given that the sample for this study is already quite small, and therefore the number of SAA children is even smaller, it was important to include more children in the study. But tied into this reason is the fact that the data from all the children was analyzed with an individualized approach and the different races/ethnicities could be seen as what are referred to in experimental studies as a 'control group'. As this study is neither experimental nor is it trying to implement any intervention or test any treatment which would require a division between focus/treatment group and control group, I use this term loosely only to convey that although these children of non-SAA races/ethnicities serve an important role in this study to answer the first research question, their particular race/ethnicity will not be a factor which affects the findings of this study. Hence, the only criteria used for picking the children of non-SAA races/ethnicities was that they should be the same age and sex as the SAA child participating from their classroom.

Secondly, there are some conscious decisions which help delineate this study from usual cross-cultural studies. The reason for having a diverse sample is to be able to draw certain basic conclusions about how temperament quantitatively differs for children of different ethnicities and cultures, especially because the demographic information being collected for this study is slightly more detailed (in terms of cultural background. For example, how would you describe your home culture/culture of origin you most identify with). Having this detailed information helps provide a broad overview of how temperamental traits differ for children based on culture

of origin. Also, even though there is rich data about children from multiple races/ethnicities, the focus of the study still remains the SAA children, hence differentiating it from a typical cross-cultural study which only seeks to show the dissimilarities between two cultures rather than focusing on contributing to knowledge about one culture in particular.

Note about sample size

The original research plan for this study was to include about 30 children, roughly half of whom would be Asian Indian American children, and the rest would be children of other ethnicities. Due to the pandemic, the recruitment and sampling process for this study occurred much differently than what would be the case for research studies in general. When the decision was made to explore how the study could be continued even during the pandemic, the first step was to reach out to local preschool centers in order to gauge their willingness to participate (including allowing a researcher to enter the school during a period of physical distancing) and the number of Asian Indian American children who might be enrolled there. The preschool center where data was ultimately collected was chosen because they had access to a technology where videos of the children could be recorded *in situ*, which made the worries about physical distancing a moot point as I would not be required to enter the classrooms, and therefore making it possible to collect data during a time when most schools understandably had extremely strict rules and regulations about allowing outsiders in classrooms. The initial email and phone conversations that occurred with the preschool center also included a conversation about how many Asian Indian American children were enrolled at their center, and I was told the number would be around 11. Later, once the Institutional Review Board (IRB) process had been completed (see Appendix A.1) and recruitment began, it was discovered that due to a misunderstanding, the preschool center had taken 'Asian Indian American' to mean children

whose parents originated from the larger Southeast Asian region such as Nepal, Pakistan, Thailand, Philippines, and Singapore. The actual number of Asian Indian American children at the center was about five, four of whom were possible to sample, and two of whom assented to participate. The third child sampled as Asian Indian American was actually Bangladeshi American. As it is uncommon to differentiate between the separate Asian countries when asking about race/ethnicity, the school did not have data about this third child's parents' country of origin, but they knew that his home language was Bengali, a language that is spoken in India as well. Bangladeshi culture has many similarities with Indian culture due to historical reasons, and therefore I decided to keep this child in the sample and change my use of the term 'Asian Indian American' to 'South Asian American'. Although the misunderstanding about the term 'Asian Indian American' affected the sample size drastically, it also brought to the forefront an important point – research on Asian Indian American and South Asian American children is so sparse and uncommon that the terminology is generally confusing. This strengthens the need for more research on these children, even if it is with a small sample.

Measures

Data for this study was collected in four parts – temperament data (using the Child Behavior Questionnaire; Rothbart et al., 2001), demographic data from parents, qualitative observational data collected from the children which is coded based on the Peer Engagement Qualitative Tool (Banerjee, 2020), and finally parent interviews. The timeline for collecting the data is explained in the 'Procedure' section.

Quantitative measures

Children's temperamental reactivity and regulation was measured using the parent version and teacher version of the Child Behavior Questionnaire (CBQ; Rothbart et al., 2001).

Teachers were asked to fill out the Child Behavior Questionnaire – Teacher Form (Putnam & Rothbart, 2006; see Appendix B.1) for all six children, and parents were provided with the Child Behavior Questionnaire – Short Form (Putnam & Rothbart, 2006; see Appendix B.2) to fill out for their own child. Parents and teachers were asked to respond to a set of 94 questions about the child's behaviors in the past six months using a 7-point Likert scale (1 = extremely untrue of this child to 7 = extremely true of this child). Sample items include: 'Seems to be at ease with almost any person', 'Is quite upset by a little cut or bruise', and 'Often rushes into new situations'. Initially, a total of 15 subscales reflecting a range of traits are derived from the tool. These scales can be grouped into the three higher order constructs reflecting Effortful Control (Attentional Focusing, Inhibitory Control, Low Intensity Pleasure, Perceptual Sensitivity, and Smiling/Laughter), Surgency/Extraversion (Activity Level, High Intensity Pleasure, Impulsivity, Positive Anticipation, and reversed dimension of Shyness), and Negative Affectivity (Anger, Discomfort, Fear, Sadness, and reversed dimension of Soothability). The CBQ provides "a highly differentiated assessment of temperament in children" (Rothbart et al., 2001) and demonstrates adequate reliability (α=0.75; Clark et al., 2002; Langua, 2003).

Parents also filled out a demographic questionnaire (see Appendix B.3) about themselves and their children. This included information such as the race/ethnicity of the parent and the child, the immigrant generation they belonged to ("When did your family/ancestors move to the US?"), and specific questions about the home culture they identify with most closely ("How would you describe your home culture/culture of origin you most identify with?" and "Based on the home culture you identify with, is there a more specific community within that population that you identify with?"). These questions included examples with them to help convey what was being asked.

Qualitative measures

Children were observed using the Peer Engagement Qualitative Tool (Banerjee, 2020) which collects in-depth data on peer interactions, with particular attention to the context, affect, and content of the interaction. Figure 3.1 provides a snapshot of the PEQT (see Appendix C.1). The context includes information on both situational context (e.g., where the interaction is happening, such as at the art table, the library, or the playground) and social context (e.g., the peers and adults who are in close proximity). The affect includes both emotional (e.g., sad, happy, fearful, angry, interested) and behavioral (e.g., approach, avoidance, neutral, impulsive) affect. The content of the interaction describes the type of engagement (e.g., conversation, negotiation, parallel play, role play). Every child is observed for a cycle of at least 60 minutes divided into 12 slots of five minutes each.

Given the current pandemic and in order to reduce the amount of contact that the researcher needed to have with children and other adults, these observations were done through video and audio recordings. The preschool where data was collected had access to a Swivl device. This device is an iPad mini paired with a Swivl robot which is a rotating base that holds the iPad. The base is paired wirelessly with a small tracker remote that the child wears around their neck on a lanyard. The remote serves as a 'marker' of where the child is in the classroom and the Swivl base rotates to follow the marker, and therefore, the child. This means that if the child gets up from one area of the classroom and moves to another space, the Swivl rotates to follow such that the child will always be in the video recording even if they move around the classroom. This primary recording device (iPad + Swivl base) is situated to face the target child. The center also provided a secondary camera which was not on a Swivl base. This second camera had to be manually moved by a research assistant working for the preschool center to

follow and face the focus child. The audio and video recordings obtained from these devices were sent as a single video with a split screen. These were then coded by two separate trained coders using the qualitative observation tool, and that coded data was analyzed.

Parents of two SAA children agreed to participate in parent interviews. The interview guide (see Appendix C.2) explored several topics such as the parent's perceptions and experiences regarding adapting to a new culture, their home culture, how it is similar to or different from the home culture they grew up with, their child's connection to their home culture, and how they felt their children's interactions with peers was affected by their cultural background. The interviews were semi-structured and if a topic of interest came up, it was followed up for more in-depth information. Interviews lasted roughly for an hour each, and they were conducted over the video calling platform, Zoom. Permission was taken from the parents to record the interview so that it could be transcribed later. Additional thoughts about the interview were recorded as a memo after the interview was completed.

Procedure

Table 3.1 presents a simplified timeline for when the different measures were collected. The decision to collect parent interviews was made after the data collection had already begun, so it took longer to recruit participants for the same.

The process of data collection began with recruitment. All recruitment was done through the preschool center, and I did not personally interact with any parents or teachers. Due to the fact that video recordings were being made, assent for video recording had to be taken for each child in the classroom, irrespective of whether or not they were a part of the sample. In order to recruit those who would participate in the actual study, a brief informational letter was sent to parents with a note asking them to inform the center if they would be willing to let their children

be observed and also fill out a couple of questionnaires focused on their children if they consented. Once the parents agreed to participate, consent forms were sent home to them with the children. A few weeks after recruitment was completed, participating parents received a personalized email which detailed the questionnaires they had to complete along with links to the same. Teachers of the three classrooms from which children were sampled were also sent informational sheets explaining the study and their role in it. Once they had signed consent forms, they were sent an email with details and links to the questionnaires they had to complete.

After consent/assent was acquired, video recordings began for the sample of children. For the current study, children were observed either twice or thrice for one hour each time, and each observation cycle was conducted on a separate day. The preschool center decided when recordings would occur based on the availability of the children (depending on when they would be in school) and the availability of the research assistant (who would carry out the process of furnishing the child with the remote on the lanyard and also move the cameras around the classroom as needed to follow the child). Due to these logistical issues, only two children in the sample could be observed thrice while all other children were observed twice.

Recruitment for SAA children was done on a rolling basis as some SAA children were absent from school when recruitment first began, and their parents were contacted once they were back in school. This meant that there was a period of about a month before the total sample size was obvious. Once it was clear as to how many children would be part of the study, I decided to reach out to parents for in-depth interviews so that it would be possible to gain more rich, qualitative data on what the parents thought about whether certain cultural specificities were affecting their children's interactions with peers. Once the amendment was approved by the

Institutional Review Board (IRB; see Appendix A.2), another informational email was sent out to parents of participating children, and two parents agreed to do a virtual interview.

Data Analysis

After all data was collected (temperament measures and demographic survey forms from parents and teachers, observational data recordings from children, and interviews with parents), the quantitative data was scored, cleaned, put into usable datasets, and analyzed using the SPSS software. The observational data was transcribed and simultaneously coded by two separate coders using the PEQT. Next, it was changed into documents which could be used in a Computer Assisted Qualitative Data Analysis Software (CAQDAS), in this case the software called MAXQDA, to be coded a second time. Figure 3.2 provides a visual representation of the process of morphing the data from the PEQT forms into documents for MAXQDA and the process of coding the data within the software.

An iterative process of coding was employed for the observational data. The first step was a priori coding which may be described as the process of generating codes based on existing literature, independent of the data. The second step was open coding which may be described as closely considering and comparing small segments of data with one another to come up with certain descriptive codes (Silver and Lewins, 2014). The third step was axial coding which is a process of going through the data a second time (after open coding) and considering the data in a more abstract manner and deciding whether to merge certain codes or separate some codes into more specific components (Silver and Lewins, 2014). Once coding felt complete and adequate, the analysis process was begun through vertical retrieval (within the data for each child separately) and then horizontal retrieval (finding similarities between different children). Parent

interviews were also coded in MAXQDA and followed a similar process except for the absence of a priori coding.

Identity as a researcher

It is important for me to specify certain things which affect my reflexivity and explain my positionality as a researcher. There are several reasons why I chose these research questions. Firstly, I was an inhibited child who grew up to be an inhibited adult. There are several personal experiences which emphasized the significance of my temperament in daily activities and how I react to my environment. Given these experiences and the challenges I faced as an inhibited child, I wanted to study temperament with the particular focus towards creating workable suggestions for teachers about how to support children with specific temperamental traits. As a result, it is possible that I interpret certain actions in the observational data (particularly from children who may have been rated as inhibited or seem inhibited from the observations) in a different way as compared to someone who did not experience an inhibited temperament as a child. Secondly, as an Indian who grew up in India and moved to the US as an adult, I naturally wanted to learn more about SAA children in the United States, and the lack of information about the same drove me to pick this sample. In this case as well, there is the possibility that I make certain interpretations based on the cultural knowledge that I share with these children. In some cases, this might be based on a subconscious analysis, but that same analysis may seem unfounded to someone else. Hence, in order to provide clarity and present all necessary information to readers, my aim is to utilize 'transparency in motion' – keeping a record about *in situ* decisions about data analysis and the way in which the data is coded within the software (Davidson et al., 2017) so that there is transparency about why certain decisions are made, and why certain pieces of data are coded in a particular manner.

CHAPTER 4: RESULTS

The results for this study will be divided into four sections. Table 4.1 presents a brief overview of the total data collected for this study. In the first section, I will present the major quantitative findings from the Child Behavior Questionnaire data collected from teachers and parents. This includes the overall temperamental construct/trait scores each child received from the teacher and parent forms of the Child Behavior Questionnaire, descriptive statistics on each of the temperament constructs, and the children's scores on the subscales which make up the higher order constructs of the CBQ.

The second, third, and fourth sections will each be a separate case study based on the three different classrooms where observational data was collected. These case studies will include data from the classroom observation videos, parent interviews, and will also be supplemented by the quantitative data. It is important to note that the case studies are presented in a different format from the usual case study – the 'case' does not refer to a single individual, but rather an understanding of a classroom environment, and two students within that environment. Towards the second half of the case study, I will focus on the SAA child in that classroom, but it is important to read the case studies in totality in order to gain a better understanding of the children. For two of the case studies, there will be some additional information from parent interviews about the SAA child in the classroom. Hence, Section II will discuss Classroom A (Maddie and Sonali), Section III will cover Classroom B (Ritwik and Dan), and Section IV will explore Classroom C (Divya and Selena). All children's names used in the case studies have been changed to protect confidentiality.

Section I: Quantitative findings

Descriptive statistics for the CBQ constructs are shown in Table 4.2, and the separate scores for all children for the main constructs of the CBQ are presented in Table 4.3. The tables are both divided into two sections – the first section provides scores from the Teacher form of the CBQ, and the second section provides scores from the Parent form of the CBQ. The SAA children in the sample are Sonali, Ritwik, and Divya (all names changed to protect confidentiality).

The mean values for the three temperamental traits – Surgency/Extraversion, Negative Affect, and Effortful Control – from the CBQ range within the middle to high values. This suggests that this sample of children in general exhibits moderate levels of surgency/extraversion, experiences moderate levels of negative affect, and shows moderate levels of effortful control. Standard deviations for the teachers' reports were higher as compared to the parents' reports, which suggests that teachers' scores for their students were spread over a broader range of scores versus parents who tended to give scores closer to the mean. Parents generally scored children higher on all constructs as compared to teachers.

With respect to the CBQ scores (Table 4.3), there was one finding of particular interest. All parents scored their children higher on negative affect as compared to teachers' scores, but SAA children in particular had much larger differences between their parent and teacher scores. Sonali has the smallest difference in scores (scored 0.74 points more on the parent form versus the teacher form), followed by Divya (scored 1.3 points more on the parent form versus the teacher form), and finally Ritwik (scored 2.67 points higher on the parent form versus the teacher form) who has the largest difference in scores. If we take Ritwik's score and interpret it with respect to the Likert scale on the questionnaires, it means his teacher rated statements about

negative affect as being 'quite untrue of this child' (score of 2.1) while his parent rated statements about negative affect as being close to 'slightly true of this child' (score of 4.77). In contrast to these scores, the non-SAA children in the sample were scored very similarly by their teacher and parent on negative affect – particularly Maddie (scored 0.03 points higher on the parent form versus the teacher form), and Dan (scored 0.3 points higher on the parent form versus the teacher form) – although Selena had a larger difference in scores (scored 0.98 points higher on the parent form versus the teacher form).

To better understand the ways in which SAA parents believed their children exhibited negative affect, we must take a look at the subscale scores from the CBQ, as presented in Table 4.4. The table shows the subscales which make up each of the three constructs – Surgency/Extraversion, Negative Affect, and Effortful Control – and the separate scores that the children got on each of these subscales. Formal definitions for each subscale are provided in Appendix D.

- For Ritwik, the subscale scores for Fear (6.33 on parent form versus 1.33 on teacher form) are especially interesting. This five-point difference suggests that Ritwik's parent believes that feelings of worry, unease or nervousness are 'quite true' of Ritwik, while his teacher believes these feelings are 'extremely untrue' of Ritwik. His parent also rated him higher than his teacher for anger/frustration (4 on parent form versus 1.33 on teacher form), and sadness (4.86 on parent form versus 1.86 on teacher form).
- For Divya, there are several subscale scores within negative affect with fairly large discrepancies between parent and teacher scores – anger/frustration (5.17 on parent form versus 2.17 on teacher form), discomfort (5.83 on parent form versus 3.5 on teacher

form), soothability (2.83 on parent form versus 5 on teacher form), and sadness (6.14 on parent form versus 3.86 on teacher form).

The large discrepancies seen on Ritwik and Divya's teacher versus parent CBQ subscale scores are a sign that these findings need more attention. I will attempt to explain these findings in the case studies for these children by analyzing classroom behaviors which may exemplify these temperamental traits.

Section II – Classroom A

The first case study is about Classroom A. The class consists of 11-12 children between three and five years of age. There are two main teachers for the classroom, and they are both White. This is helpful to keep in mind to better understand their cultural similarities or differences with the children sampled from their classroom and how those similarities or differences may affect their CBQ scores for the children. The classroom also has a varying number of teaching assistants at different times of different races/ethnicities, and hence there are about three to four adults in the classroom at any given time. This number is significant for this study because this means that there are a lot of opportunities for the children to interact with adults during their time at school. It also indicates that children in this classroom are more likely to get adult guidance in varying situations as compared to a classroom where the number of adults present in the classroom is lower. These interactions include adults guiding children towards activities that they could engage in, mediating arguments between children, or engaging in conversations when the children are curious about something in their surroundings. Overall, this means that children are less likely to be disengaged and spend time wandering around the classroom (particularly during free play time) as they try to decide what activity they want to

participate in, but at the same time it also reduces the possibility of certain peer interactions which can occur when a child is surveying their options and trying to make a decision.

The setup for the classroom is clear and the space is moderately sized where each center gets ample room for a set number of children to be able to play there without interference from others if they so choose. There are about nine to ten centers depending on the activities being conducted on the day, and each center has a set number of children (about three to four) who are allowed to be there at a time.

The two children observed in this classroom are four-year old girls, Maddie and Sonali. CBQ scores for these children are provided in Table 4.3. They are not each other's preferred friends but do have mutual friends which results in them regularly playing in proximity of each other. I will focus on each child separately to discuss their temperament and peer engagement styles.

Maddie

Maddie is a White four-year old girl. A graphical representation of her CBQ scores is presented in Figure 4.1. Maddie's parents described their home culture/culture of origin as 'US American' and filled out 'Midwestern' on the question asking whether there is a specific community they identified with more closely within their overall home culture/culture of origin. Maddie's parents also specified that their ancestors moved to the United States of America more than three generations ago, and therefore for the purposes of this case study we can assume that there is a high match between home culture and school classroom culture.

Maddie scores in the moderate to high score range for all three traits of surgency/extraversion, negative affect, and effortful control, which means that she can be classified as a fairly 'easy' child with a tendency to sometimes exhibit extraverted behaviors. These scores are also mostly close to the mean for the sample. As Figure 4.1 clearly shows,

Maddie's Effortful Control scores are the only ones which show substantial discrepancy between teacher and parent scores – her teacher scored her 4.11 (close to 'neither true nor false of this child') while her parent scored her 5.55 (between 'slightly true of your child' and 'quite true of your child'). If we take a closer look at Table 4.4 under the subscales for Effortful Control, we see that the two subscales with the largest difference in scores for teacher and parent forms are 'inhibitory control' (4.17 for teacher form versus 6.17 for parent form; defined as "the capacity to plan and to suppress inappropriate approach responses under instructions or in novel or uncertain situations" (see Appendix D)) and 'low intensity pleasure' (4.63 for teacher form versus 6.38 for parent form; defined as "amount of pleasure or enjoyment related to situations involving low stimulus intensity, rate, complexity, novelty and incongruity" (see Appendix D)). I will talk specifically about Maddie's inhibitory control skills as we can see how they link to her peer engagement skills in the classroom as well.

Before beginning with Maddie's observations, it is important to note the attitude Maddie has towards the cameras recording her. Throughout the observation period, Maddie looks at the camera curiously, but does not try to interact with it in any way. She notices when it follows her as she walks past it, but there is usually a neutral expression on her face. However, at the end of the first day of observations while cleaning up toys at a table, she tells the peer at the table with her, "Let's hurry up and clean up. That camera is recording me, and I don't even know why". Although there does not seem to be any negative emotions towards the camera overall, it is clear that Maddie was quite confused and possibly curious about why she was being recorded. Some of her unoccupied behaviors on the first day may be attributed to this confusion, but it seemed to dissipate on the second and third day.

There are certain instances from the classroom observations where it is easy to see Maddie struggling with inhibiting a particular action. For example, during a counting activity with mini marshmallows, a teacher sat with Maddie and guided her through a counting activity. Although Maddie completed the activity, the marshmallows had begun melting due to the prolonged contact with warm skin and became sticky. Maddie was curious about this and exclaimed that the marshmallows were sticky, and the teacher explained that they were getting warmer and therefore getting sticky because they had sugar in them. Maddie was amused by the fact and told some others in her vicinity about what was happening and continued playing curiously with the marshmallows. At this point, her hands had gotten very sticky, and the teacher asked her to go and wash her hands. Maddie went to the washbasin, washed her hands, and then came back to the activity table. She continued squishing the marshmallows, and the teacher told her to stop squishing the marshmallows because they were making her hands sticky again. Maddie did not reply to the teacher and continued playing. The teacher asked her again, and then a third time, followed by, "Maddie, I need you to listen to my words, what did I say?" This was followed by a sulky response from Maddie that she should stop. This conversation was a clear indicator that Maddie probably struggles with following directions or controlling/inhibiting her impulses sometimes.

The above observation is bolstered by the high 'impulsivity' subscale score (6.5; defined as 'speed of response initiation' (see Appendix D)) on Maddie's parent form. Although her teacher form score for impulsivity is lower (4.33), we do see signs of Maddie's impulsive behavior in observations. For example, Maddie and a boy named James were playing with connecting blocks on an activity table. The primary teacher came and sat with the two children and asked Maddie what she was making. Maddie did not reply, so the teacher asked her again, to

which she exclaimed, “It’s not ready!”. The teacher acknowledged her and then asked James what he was making. The teacher and James began a conversation where he describes that he’s building a leaf/snow blower. At this point, Maddie interjects saying, “I have a snow blower!”, and the teacher acknowledges her before returning to her conversation with James. Within a few seconds, Maddie presents her constructed piece to the teacher (who is still in conversation with James) and says, “Here’s a cat toy”. The teacher replies and says that her cat is at home, and Maddie returns to playing by herself. This incident can be interpreted as Maddie impulsively interrupting an ongoing conversation multiple times. It can also be seen as a way for Maddie to include herself in a conversation or engage with someone. The latter argument is substantiated by certain other observations in the classroom as well.

There are a few separate instances which demonstrate Maddie’s eagerness to socially engage with someone else. Firstly, there a two separate instances on separate days where Maddie requests the research assistant (tasked with monitoring the process of classroom video recordings) to read a book to her, and then asks the RA questions about her (Where does she live? Does she live “up there” (referring to observation deck)?), or compliments her in some way (hair accessories, earrings). Although Maddie is the one who requests the activity, other children join them at both times. Hence, Maddie utilizes the activity of reading a book as a way to interact with the RA, and actually ends up being disruptive with these interactions as there are multiple other children listening to the story as well. However, the underlying reason behind her impulsive manner of interacting with the RA seems to be to form a social connection with her.

Given Maddie’s impulsivity and inhibitory control scores, it would be easy to assume that she would consistently display such behaviors in all her peer interactions as well. However, classroom observations show that Maddie is adept at engaging with peers, and she is particularly

good at articulating her thoughts when there is a situation where conflict may potentially occur. There are two instances where this is visible. In the first situation, Maddie is playing with another girl, Jade, and they are both called to wash their hands after an activity. Jade is sharing a story and then Maddie giggles at a certain part. Jade isn't happy with that and says, "Don't laugh at me, Maddie, it isn't funny". Maddie stops laughing and then replies, "When it's funny, we can laugh". Jade replies, "When it's funny, we can laugh, but this is not funny". The conversation ends and both go to separate tables, but neither of them seem negatively affected by the conversation; the reason they part ways seems to be because they choose different activities. Although this instance doesn't necessarily showcase Maddie diffusing a conflict, it is notable that she inhibited a behavior that her peer disliked (laughing), presented her reason behind why she behaved in that manner, but also stopped the action that her peer took issue with. In a child who is low on inhibitory control or highly impulsive, we would expect to observe less restraint. The second instance also highlights this behavior. Maddie wanted to participate in a special guided activity with a teacher, but she had to wait her turn and the teacher had told her she would be next in line. In this time, she moved to a different center to occupy her time. Once she was done with her current activity, she moved back to the special activity table where another boy was already standing. Maddie stood close to the boy, looking at the teacher guiding another child with the activity. The boy said to Maddie, "Hey, Maddie, no pushing!". Maddie moved a little away from the boy and said, "Well, I'm sorry, but I'm next". This is another clear example of Maddie curtailing a behavior that a peer did not like and presenting her reasoning for that behavior.

There is consistency in how Maddie initiates and responds to social situations with peers, but she is calm in general. This may help explain the supposedly confusing differences in her

CBQ subscale scores from her teachers and parents – while her parents scored her high on impulsivity, they also scored her high on inhibitory control, and the opposite was true for her teacher's scores on these subscales, i.e., her teacher scored her low on impulsivity and low on inhibitory control as well. It seems puzzling how someone might score similarly on their ability to inhibit certain behaviors and on their tendency to commit impulsive behaviors as it would seem that if you score high on one then you should score low on the other. If we consider the CBQ, this may be explained by the fact that impulsivity does not necessarily refer to inappropriate actions that always need to be inhibited, and hence a child might score similarly on both. If on the other hand we look at the observations, they suggest that a reason for these scores might be that although Maddie may struggle with her inhibition and impulses, it does not occur across the board for all of her actions. Also, as the observations have shown, Maddie has different ways of engaging with adults and her peers, so it is possible to assume that her overall interactions at home might be different from in the classroom.

Overall, Maddie is a fairly easy child with certain struggles with inhibiting her impulses. Her peer engagement skills (particularly her ability and willingness to communicate cordially with peers in potentially conflicted situations) are able to help her maintain amicable or neutral relations with peers even when there might be a lapse in inhibitory control which is disliked by a peer. Maddie's case presents an intriguing point – although children may have certain behavioral tendencies as a part of their temperament, these tendencies do not automatically affect their peer interactions. It is important to mention that this does not necessarily mean that temperament has no effect on peer interactions – for Maddie, we can clearly see that her temperamental traits result in certain behaviors which may potentially lead to issues in peer engagement, but she avoids those situations by verbally articulating her thoughts effectively and explaining her

actions so that these actions are not seen in a negative light by her peers. It is interesting to note that Maddie employed these explanations only with her peers and not with adults; in situations where she is being asked by an adult to focus and listen to instructions, she does not try to explain her actions, but rather follows the instructions only when she is admonished.

Sonali

Sonali is a South Asian American four-year old girl. A graphical representation of her CBQ scores is presented in Figure 4.2. Sonali's parent described their home culture/culture of origin as 'Indian' and filled out 'Bengali' on the question asking whether there is a specific community they identified with more closely within their overall home culture/culture of origin. Bengali is a language spoken largely by people from the Indian state of West Bengal which is in the eastern part of the country. Sonali's parents moved to the United States of America from India 14 years ago, hence making Sonali a second-generation immigrant. Therefore, for the purposes of this case study we can assume that there is the possibility of a lower match between home culture and school classroom culture as compared to someone whose parents may have been born in the US.

Sonali scores in the middle to high ranges for all three traits of surgency/extraversion, negative affectivity, and effortful control. Her scores suggest that she is an easy child with an ability to control her impulses and plan her actions well. Sonali scores higher than the sample average on both effortful control and negative affectivity, but lower than the sample average on surgency/extraversion. The largest discrepancy between Sonali's teacher and parent CBQ scores (see Table 4.3) is on negative affectivity (3.73 on the teacher form versus 4.47 on the parent form). Drawing data from the CBQ subscales in Table 4.4, there are two specific negative affectivity subscales where Sonali received the most varied teacher and parent scores –

‘discomfort’ (4.17 for teacher form versus 6 for parent form; defined as “amount of negative affect related to sensory qualities of stimulation, including intensity, rate or complexity of light, movement, sound, texture” (see Appendix D)) and ‘sadness’ (3 for teacher form versus 5 for parent form; defined as “amount of negative affect and lowered mood and energy related to exposure to suffering, disappointment and object loss” (see Appendix D)). It is hard to see these traits in action through the classroom observations, and in fact Sonali rarely displays any discomfort or sadness in the three hours of observations she participated in. This does not mean that these scores are wrong, but rather it might be easier to understand through other traits. I will discuss this point later after examining Sonali’s peer engagement style.

Sonali’s attitude towards the camera is mostly positive. Over the course of her observations, she comes up to it a handful of times and looks at herself, does a silly dance, and makes faces before moving on with her activity. Based on the available information, it seems unlikely that the presence of the camera affected her behaviors to a significant degree.

Sonali plays with a few different peers, but her preferred peer seems to be Rachel. There are several interactions between the two girls where we see that Sonali is very sensitive to Rachel’s feelings and how she can include her in her game, even if it means changing what she is playing. In terms of the CBQ, this can be referred to as ‘perceptual sensitivity’ (a subscale for effortful control; defined as ‘detection of slight, low-intensity stimuli from the external environment’ (see Appendix D)) and she scores highly on this trait on both teacher and parent forms. Sonali usually exhibits a lot of excited/energetic behaviors, but Rachel seems to be much calmer in her behaviors in comparison. When Sonali comes up with a new game/activity which she wants to start playing immediately, if Rachel seems more cautious and needs more encouragement to begin, Sonali proactively helps her feel comfortable. For example, during a

day on the playground, after the class has had a water break, Sonali wanted to play a game of tag with Rachel, so she went up to her and said, “Catch me!” and ran away. Rachel looked at Sonali for a moment, and then skipped away in a different direction. Sonali saw this and came back to Rachel. Shortly after this, they found a big bug which captured everyone’s attention, so there was no further conversation about the game of tag, but Sonali stayed with Rachel and then asked her what she wanted to play. In another instance, Sonali and Rachel are participating in pretend play where the former is a ‘baby’, and the latter is the ‘mommy’. Rachel tried to remove a chair that Sonali was using, to which she responded by exclaiming that it was her ‘thing’ (something inaudible on the video audio). Rachel didn’t say anything, but her expression saddened, her head dropped, and she walked away from the game setup to play by herself. Sonali realized in a moment that Rachel was hurt and so she went to her and asked, “Mommy, will you pet me?”. Rachel seemed mollified by this gesture, and they went back to playing together. In both these instances mentioned above, Sonali is very perceptive of Rachel’s actions and feelings, and she proactively works towards helping her feel included in whatever activity is ongoing.

Within her interactions with Rachel, Sonali also likes to guide her friend and show her how to do certain things. For example, on the jungle gym out on the playground, Sonali was showing another girl, Geet, how to balance herself on her arms on one area of the gym. Rachel came up and asked, “Can I try?”. Sonali got off the bars and explained to Rachel how she should do it, following it up with, “You have to be strong enough to do it”. Rachel tries to do it, succeeds, and then Sonali goes ahead and shows her a way to jump off the jungle gym from the side. Rachel was wearing a fluffy dress on that day, so she decided to just climb down the stairs instead rather than jumping down, and before she could come down, Sonali quickly said that she could come down to a lower platform using the stairs and then do a small jump instead,

following it with a demonstration which Rachel copied. On a separate day, Sonali and Rachel had been working on a painting at the painting center, and Sonali had washed her hands a few minutes before Rachel did. Sonali asked Rachel if her hands were clean, and they both examined Rachel's hands. Sonali told her, "You should wash again", and goes with her to the basin to instruct her how to wash her hands with soap. This caring, helping behavior is also visible in another instance with a different peer. All the children are taking a water break on the playground, and Sonali, Maddie, and James are sitting on a table with their water bottles. James was unable to open his water bottle top. He asks Maddie for help as she is sitting next to him. Maddie is unable to figure it out, and then Sonali asks, "Can I see? Press that button, then it opens", and then she shows James how to do it. This example shows Sonali's ability to initiate a constructive, helpful interaction with a peer without being disruptive.

Sonali is good at initiating interactions and games and is very skilled at creating games for pretend play and negotiating with peers about what roles everyone will play. For example, Sonali, Grace, Geet, Jade, and Javier were all at the housekeeping center. The class had heard the 'Bear hunt' action song in the morning and talked about camping with their teacher during circle time, and Sonali was pretending to pack a bag for camping. While she was doing so, others were asking her what she was doing, and then she explained the game and told others what roles they would have. Jade explained that they should follow a certain story and everyone agreed. Javier wanted to be the bear, and the four girls pretended to be campers. It is also important to note that while Sonali is good at leaving space for peers to contribute their preferences for any given activity, she is also able to effectively communicate if she does not like something that a peer is doing. For example, during the same camping roleplay described above, at one point Jade said

something (inaudible in the video audio) which Sonali did not like, and she clearly communicated that to Jade.

Additional information about Sonali's peer engagement comes from the interview with her parent. During the parent interview, Sonali's mother shared that she finds it important to teach Sonali about respecting her elders, a cultural value that is extremely important to Indian households. This value translates in Sonali's interactions with SAA peers as she has learned that when she is playing with peers older than her, she must refer to them using an honorific 'didi' (older sister) or 'dada' (older brother) following their name. As this is not a cultural expectation in the American culture, Sonali does not follow this rule for her American playmates, but knows that she must do so for her SAA peers. Sonali's mother shared that she has observed Sonali changing the way in which she refers to a peer based on whether they are part of the SAA community or not. She described a play date that Sonali had with another SAA child, Mohua, who is slightly older than Sonali and so she would refer to her using her nickname followed by 'didi'. Sometimes, the two girls were joined by Mohua's American friend, Sara, and when she was present, Sonali would refer to both Mohua and Sara by their first names. Sonali's mother remembered discussing this with Mohua's mother because it was not something they had told Sonali to do, but something she had observed and implemented in her interactions according to her own understanding of the cultural differences between South Asian and American norms. Sonali's mother also discussed how she is able to take or relinquish control during play depending on who she is playing with, which is visible in her classroom interactions as well.

Given our current understanding of Sonali's peer engagement style, it is easier to consider how and why her parent's high negative affect score may be understood. She does not exhibit much negative affect in the classroom observations and therefore it is difficult to provide

an explanation for the high negative affect score on her parent's CBQ form. However, if we consider Sonali's high perceptual sensitivity, it may help explain the high parent score on the 'discomfort' subscale; a child who is acutely aware of stimuli in her surroundings may also have specific experiences which cause discomfort because of how sensitive she is to them. Another way to explain this is to consider that how certain emotions are valued differs culturally, and so a behavior that does not seem 'negative' from the teacher's point of view may be seen as negative through Sonali's parent's cultural lens. The interview with Sonali's mother highlights how there are differences in how certain actions are viewed by a child who goes through a process of acculturation versus one who does not go through that process.

Overall, Sonali is a temperamentally 'easy' child who enjoys engaging with peers. She seems to like taking on the role of a guide with her preferred peer, and that caring behavior shows up in interactions with other peers as well. She is very good at utilizing her negotiation skills to make sure peers around her are included in games and also listening to what other peers want to do. This is also evident from her mother's account of how Sonali is able to change the level of control she has over play depending on her peer – if she is with a quieter peer, Sonali is happy to take charge and make decisions, but if she is with a more opinionated peer, she is happy to go with the flow. Although she is good at listening to her peers' inputs during play, she is also able to clearly articulate to peers when she does not like something they are doing. In addition to her classroom behaviors, Sonali also utilizes her cultural knowledge – both her home culture and the culture of the country she was born in – to make decisions about how she should interact with certain peers. Hence although we may not see it in the classroom, Sonali has learned the difference between what is appropriate when with those who are part of the SAA diaspora and what is appropriate with those outside of that diaspora.

Section III – Classroom B

This case study is about Classroom B. The class consists of about 10 children between two to three years of age. There are two main teachers in the classroom, and they are both White. Similar to Classroom A, there are a varying number of teaching assistants in this classroom at different times, but the maximum number of adults in the classroom is usually no more than three. Hence, the children in the classroom are usually interacting with the two main teachers. Given that this is a younger classroom, it also makes sense that there is a higher possibility of children interacting with adults or engaging in parallel play rather than playing with peers as it is developmentally appropriate. As the two children observed in this classroom are amongst the older children in the classroom, they do engage with peers who are as old as them, but they also interact with their teachers or the teaching assistant for a substantial amount of time. An important thing to note for this case study is that the children in this classroom have spent most of their lives during a pandemic, and the classroom observations were done at a time when they had just begun attending school regularly for the first time in their life. Therefore, it is crucial to remember that fact when analyzing their interactions and behaviors.

The classroom itself is clearly laid out and it is a large room with a lot of open space. Most of the centers utilize carpets as play space, and there are three separate large rugs with different toys on shelves surrounding the rugs which form the main centers, in addition to three to four tables where specific activities (such as painting, crafts, or small blocks) are conducted with a teacher usually present. There is ample space in any given center for a number of children to engage in parallel play without intruding on each other's space.

The two children observed in this classroom are three-year old boys, Dan and Ritwik. Both boys play together a lot but do not necessarily seem to be each other's preferred peers. I

will focus on each child separately in order to better understand their temperament and peer experiences in the classroom.

Dan

Dan is a White three-year old boy. A graphical representation of his CBQ scores is presented in Figure 4.3. Dan's parents answered the question about their home culture/culture of origin as 'American' and put 'Midwestern' on the question asking about whether they identified more closely with a specific community within that overall home culture/culture of origin. Dan's family has been in the United States of America for more than three generations, and hence for the purposes of this study, we can assume a high match between home culture and school classroom culture.

Dan's attitude towards the cameras is quite neutral as he does not interact with them much at all. His set of observations were done after his classmate, Ritwik, so it is possible that by this point, he is desensitized to its presence as he has seen it several times before. Therefore, we can assume that the presence of the camera did not affect Dan's overall classroom behaviors significantly.

Dan scores in the moderate to high range of scores for all three traits of surgency/extraversion, negative affectivity, and effortful control, which means that he can be classified as an 'easy' child with largely positive affect. As is clear from Figure 4.3, his teacher and parent scores are extremely close with the biggest difference being on his negative affectivity scores – 3.22 on teacher form versus 3.52 on parent form. In general, Dan's teacher and parent both seem to hold similar conceptions about his behaviors, and this lends credibility to the assumption that he probably experiences a high degree of match between his home culture and the classroom culture.

As a peer, Dan is quite easygoing. He is polite to all peers and offers help even when he isn't asked for it by a peer or an adult. For example, in one instance, Dan was playing with a toy car on the carpet, and a girl had sat down next to him and brought a basket of Lego bricks with her. Dan was still engrossed in his pretend play scenario with his car, but after a minute, he notices that the girl next to him is searching for something in the basket and has been doing so for a while. He observes her for a moment, and then asks, "What are you looking for?", and the girl replies she's looking for a Lego person. Dan instantly offers to help her look and they both search through the basket until they find the required piece. In another scenario, Dan, Ritwik, and Alan are playing with blocks on a table while a teacher sits with them. Dan is building a tower of some sort with the blocks, and then he grabs a block at the same time that Alan was reaching for it. Alan says he wants that block, and Dan immediately gives it to him and grabs a different block. The teacher says to Dan, "That was very nice of you to do that" and everyone continues playing. Then, Alan and Ritwik have an argument over a block and while they are tussling and pulling at the block they both want, they knock over a bunch of other blocks to the floor. The teacher solves the issue between Alan and Ritwik, asks them both to pick up the blocks. She also requests Dan to help them, which he does without question, even though he did not create that mess. Hence, these examples show that Dan is even-tempered and is happy to go with the flow even when new situations are thrown his way.

Another skill that helps Dan effectively engage with his peers is that he is a good communicator. Whenever he is doing an activity such as painting, drawing, or building with blocks, he is very clear about what he is making and explains in a fair amount of detail when asked by an adult. when it comes to blocks, he usually names his builds. On the day that he was building with blocks on the table, he created what he referred to as a 'hooker' – a device with an

imaginary hook at the end which he could use to pull things towards himself and use as an apparatus to pick things up. He used this tool when he was asked to help Alan and Ritwik clean up all the blocks that had fallen on the floor. When both teachers asked him about it on separate occasions, he explained in detail about what he had made. On the next day, he was working on building a "cookie maka(?)". When he used that term to describe it to the teacher, she did not understand what he was saying, and after a while asked if he meant a cookie jar, and Dan agreed that it was like a cookie jar.

Dan's communication skills are helpful in peer interactions as well. Due to the fact that Dan is in a classroom with a lot of younger classmates, there is a lot of parallel play which is developmentally appropriate for children that age. However, Dan and Ritwik spend a fair amount of time playing together on one day, and although Ritwik has a slightly hard time articulating his thoughts, Dan is patient with him and provides him with options until he can get his point across.

Overall, Dan is an easy child who is able to use his verbal skills effectively in the classroom to interact with peers. Although Dan himself does not seem to face any conflict situation or exhibit any negative affect during his observations, he is able to help some peers who are struggling. This is a wonderful example of how peers can be positive, protective factors for children who are struggling in varied ways.

Ritwik

Ritwik is a South Asian American three-year old boy. A graphical representation of his CBQ scores is presented in Figure 4.4. Ritwik's parents answered the question about their home culture/culture of origin as 'Bangladeshi' and put 'Bengali' on the question asking about whether they identified more closely with a specific community within that overall home culture/culture of origin. Ritwik's family has been in the United States of America for 13 years, and hence for

the purposes of this study, we can assume that there would probably be a low level of match between home culture and school classroom culture.

Ritwik scores in the moderate to high range of scores for surgency/extraversion, and effortful control. However, there is a large difference in his negative affectivity score on the two forms – 2.1 on the teacher form versus 4.77 on the parent form. To better understand this difference in scores, we can take a closer look at Table 4.4 under negative affectivity, and there are three subscales on which Ritwik has received very different scores from his teacher and parent – anger/frustration (1.33 on teacher form versus 4 on parent form; defined as 'amount of negative affect related to interruption of ongoing tasks or goal blocking' (see Appendix D)), fear (1.33 on teacher form versus 6.33 on parent form; defined as 'amount of negative affect, including unease, worry or nervousness related to anticipated pain or distress and/or potentially threatening situations' (see Appendix D)), and sadness (1.86 on teacher form versus 4.86 on parent form; defined as 'amount of negative affect and lowered mood and energy related to exposure to suffering, disappointment and object loss' (see Appendix D)). Although it is difficult to notice Ritwik exhibiting sadness in the observations for this study, there are certain examples where I will discuss how anger/frustration and fear may be interpreted from the situation.

Ritwik's attitude towards the cameras is quite neutral and more so positive than not. He does not interact with the camera a lot, but when he notices it swiveling around to follow him, he will stop and see himself, strike a pose or make a face at it before moving on with his activity. On the first day, he also brought some toys he was playing with up to the camera as if to show it to the camera. In all, we can assume that the presence of the camera did not affect his overall classroom behaviors significantly.

Ritwik engages in a lot of parallel play and does not want to always interact with peers even if they initiate conversations with him. He does respond to teachers if they say something to him, but it may just be through a nod of the head rather than a verbal response. For peers, he sometimes just completely ignores the person when they try to talk to him. In some cases, when he himself tries to initiate a conversation, it may not always work out. For example, in one instance, Ritwik goes up to Celia and says, "Hey Celila, what are you doing?". Celia replies, "My name is not Celila, it's Celia". Ritwik corrects himself and asks her again, but she only halfheartedly mumbles out a reply, so he moves on to a different center. It is not surprising that Ritwik has trouble with the names of his classmates as he probably hasn't had any experience with anything other than Bengali names till now. Due to the pandemic, it is possible to assume that this semester is his first time spending time in a space with so many other people, and so it is understandable that he is learning how English is used in the US in daily parlance, and how to socialize with others.

In one conversation between Dan and Ritwik, it is clear to see that the latter struggles to communicate his want at the moment. While playing a game of pretend fishing, the two boys have fishing rods with magnets on the end, and a collection of fishes made of magnetic materials. They both sit on chairs and continue 'fishing'. At one point, Dan gets off his chair and crouches down to reach for something, and then Ritwik asks Dan for a particular object. He points at it, but as Dan picks out different things from the jumble of toys on the carpet, every time he ends up picking up the wrong piece. Dan keeps asking Ritwik whether he wants a fish or a rod or a block, patiently naming the different things on the carpet, but Ritwik only continues to point rather than verbally describing what he wants. This process seems to agitate and frustrate Ritwik a little bit, but when Dan finally picks up the correct object at the sixth try, Ritwik seems relieved and

pleased. Play continues as before. This incident makes it clear that Ritwik hasn't had the same opportunities as Dan to develop his English vocabulary, which can lead to certain moments of frustration. However, when provided with some help, he is able to convey his thoughts.

Ritwik's inability to sometimes convey his thoughts to a peer or to a teacher sometimes seem to cause feelings of frustration in him. In some instances, it seems like the presence of masks makes it harder for others to understand him. Due to the fact that I am used to hearing English spoken with a South Asian accent, I could identify certain terms that Ritwik would say during conversations with teachers, but as they were slightly muffled by the mask and said in a different accent, the teacher would not understand what he was saying. For example, during one instance, Ritwik is playing with some bug figures and he particularly likes the butterfly. He has been playing with the bugs for a while when the primary teacher sits down with him and asks him what he's doing. Ritwik explains a whole story about a mama ant and a baby ant to her. The teacher keeps up with most of the story, but with some parts she asks him to repeat himself a few times, and if she asks him too many times, he seems to begin getting frustrated. In another instance, after having just completed a sand art activity, the teacher comes to him and asks what he's made. He begins by saying, "Dinosaur". When the teacher has written his name on the sheet and says that she can see how it looks like a dinosaur, Ritwik suddenly changes his mind and says it's a teapot. The teacher looks at the art again and is able to identify a handle and spout. Ritwik immediately follows up by saying, "No, it's a circle and a square and a circle". Although he expresses frustration in certain situations, Ritwik is also persistent, so he usually perseveres in such situations – whether it is a conversation where the other person cannot seem to understand him, or an activity which he cannot complete – and ends up achieving a desired outcome in the end. Also, as the second example illustrates, Ritwik does not necessarily have trouble expressing

himself as long as the conversation does not require specific terms that he does not know yet, or words that sound different in his accent and hence are hard for his American teachers and peers to understand.

There are also some situations where Ritwik exhibits a response which seems akin to fear. This usually happens when another child is trying to take a toy he is playing with. Ritwik instantly gets highly agitated and exclaims, “No, it’s mine, it’s mine, no, it’s mine!” until the other child relinquishes the item. He recovers from the heightened arousal quickly too, but there are three separate instances where he exhibits this exact reaction and almost seems scared that unless he fights for his possession of a toy, he will not be able to play with it. It is difficult to know the reason behind this reaction, but the behavior is corroborated by Ritwik’s mother during her interview. She shares that Ritwik’s elder sister sometimes gets irritated with him because he doesn’t share things with her. Ritwik’s mother did not provide additional details about this occurrence, but it is possible that given that Ritwik is expected to share at home where one could assume there would only be one unit of a certain toy or object, he thinks he has to make sure to hold on to a toy he likes at school because there might not be another one he can play with, even when that is not the case. Additionally, for a child of Ritwik’s age, we can expect some situations where two peers fight over a toy and need adult intervention to resolve the issue; this is developmentally appropriate. Therefore, this behavior would not seem out of place for Ritwik’s teacher. However, South Asian cultures do not look upon children’s negative affect as acceptable in most circumstances, so this difference might explain why Ritwik’s parent believes he exhibits higher anger/frustration while his teacher does not feel the same way.

As is evident from the observations, Ritwik is experiencing some struggles in the process of practicing his social skills and learning how to interact with peers in the classroom. This was a

major concern for his mother when she did her interview. She admitted that she had signed up for the interview so that she could get some input on how she could help him feel more comfortable going to school. She said, "He'll ask me, Maa will my teacher talk to me in Bengali? Will school feel like home? I don't want to go. I can't talk to others". She also explained how Ritwik may be teased by other children when he uses certain English terms which do not mean the same thing in the US as they do in Bangladesh (for e.g., 'shorts' are referred to as 'half pants'). This is a tough situation and brings up a crucial point about how first-time preschool children from non-English speaking households may have struggled in adjusting to in-person classes. They did not have any chances to get used to and learn from social situations where they could communicate with local English speakers. Then, once preschools opened up again, these children had to go into classrooms where everyone speaks English, and they are expected to do so as well. As with Ritwik, the issue here does not seem to be that he cannot understand or communicate in English at all, but more the fact that he will need some time before he learns the terms for all the objects in the classroom, how to pronounce all his peers' names, and more about what he can expect in a classroom alongside what is expected of him in that space.

Overall, Ritwik is a mostly 'easy' child with a tendency for exhibiting negative affect in specific situations. Ritwik's case is crucial to help us understand the stark ways in which young, bilingual or multilingual children may have struggled in the transition from lockdown to being in classrooms. However, his case also gives us hope that even with language differences, when children are eager to connect with peers, they figure out ways to express themselves and convey their messages in whatever way is possible. This situation also underlines the importance of supportive peers (such as Dan) who will be patient and helpful with peers (such as Ritwik) who are learning their new environment and language requirements. In addition to his language

differences, Ritwik's case points out how different valuations of different emotions are culture-specific, such as with the topic of sharing. This explains the large differences between the teacher and parent CBQ scores to an extent.

Section IV: Classroom C

This last case study is set in Classroom C. This class has 11-12 students between three to five years of age. There are two main teachers – the head teacher identifies as White, and the second teacher (based on video) is non-White. This is the only classroom with at least one of the two main teachers who is not White, but it is also important to note that the CBQ forms were filled out by the head teacher and therefore present her perspectives of the children's temperamental traits. The number of teaching assistants or teacher's helpers in this room are usually limited to two additional adults for the duration of the classroom observations.

The setup for this classroom is also clear. The size of this classroom seems to be the smallest amongst the three classrooms observed in this study, but similar to Classroom A, there are about 9-10 centers depending upon the special activities being conducted on a specific day. The centers are slightly small due to the lack of space, which means that children usually have at least one other person, peer or adult, in their proximity even if they are engaged in parallel play. Due to the number of adults present in comparison to children and the compact space, there is a much higher possibility of peer engagement in this classroom as children are more likely to be in proximity of peers in addition to having opportunities for unstructured activities due to the lower number of adults to guide/monitor activities.

The two children observed in this classroom are five-year old girls, Selena and Divya. Although the two girls do not seem to be each other's preferred peers, they do have mutual playmates and therefore play together many times during the course of observations. The basic

CBQ construct scores for the girls is presented in Table 4.3. I will focus on each child separately to discuss their temperament and peer engagement styles.

Selena

Selena is a five-year old girl of Mixed race (White and Hispanic). A graphical representation of her CBQ scores is presented in Figure 4.5. In the questionnaire asking about their home culture/culture of origin and whether there is a specific community they identified with more closely within their overall home culture/culture of origin, Selena's parent answered 'none specifically' for both questions. They did provide information that one parent had ancestors who moved to the US more than three generations ago and the other parent had moved from Puerto Rico to the US about 15 years ago as an adult. It is therefore harder to determine whether Selena's home culture and school culture would match completely, but with the presence of one parent who grew up in the US and one who did not, it can be expected that Selena finds it easier to fit in with the classroom culture as compared to a classmate both of whose parents are immigrants. However, we must also keep in mind that Selena's home culture is a mix of both parents' cultural beliefs, and that is why we cannot assume a full match between home culture and classroom culture.

Selena scores in the moderate to high level for both surgency/extraversion and effortful control and scores on the lower end for negative affectivity, which means that she can be classified as an 'easy' child. Her scores are mostly close to the mean. As is evident in Figure 4.5, Selena's CBQ scores show discrepancies between the teacher and parent form on all three constructs and her parent scored her higher on negative affectivity and effortful control as compared to her teacher, but lower on surgency/extraversion as compared to the teacher. Although the discrepancy on her surgency/extraversion scores is not large, the discrepancy on

negative affectivity scores (2.98 for teacher form versus 3.96 for parent form) and effortful control scores (4.58 for teacher form versus 5.71 on parent form) is larger. In order to better understand these discrepancies, we can refer to Table 4.4 for the subscales under these two constructs. We see that the largest differences under negative affect are on anger/frustration (4 on teacher form versus 1.67 on parent form; defined as 'amount of negative affect related to interruption of ongoing tasks or goal blocking' (see Appendix D)) and fear (zero on teacher form versus 4 on parent form; defined as 'amount of negative affect, including unease, worry or nervousness related to anticipated pain or distress and/or potentially threatening situations' (see Appendix D)). The largest difference in subscale scores under effortful control is on perceptual sensitivity (4 on teacher form versus 6.67 on parent form; defined as 'detection of slight, low-intensity stimuli from the external environment' (see Appendix D)). For the 'fear' subscale, a score of zero means that the teacher did not have the opportunity to observe this student in any scenario that is described in the CBQ which deals with fear. Therefore, we can disregard that score. I will discuss how the subscales of anger/frustration and perceptual sensitivity shows up in her observations.

Regarding Selena's attitude towards the camera, it can be described as wholly positive. It was quite obvious on the first day of recording that Selena was excited because of the presence of the two cameras which were recording her. She was excited about the first camera, and then exclaimed out loud when she realized there was a second one. She interacted with the cameras a bit on the first day but did not pay much attention to it on the second day. Hence, we can assume that the camera's presence did not affect her usual behaviors.

Selena is a confident girl who effortlessly engages with several different peers and with adults in the classroom. She is well-liked by her peers, and she engages in elaborate

conversations with peers and adults alike. For example, on her first day being observed, she was sitting at the breakfast table with two other girls and one boy, and they were all eating their breakfast. Selena waved to the Swivl camera, and non-verbally encouraged her peers at the table to do so as well, which they did. This was followed by a long conversation with a quiet boy at the table, Rowan. Rowan and Selena were arguing about how many letters there are in the alphabet – Rowan said 26 and Selena said 29. She turned around to look at the letters hanging on the wall and said, "It's 29, here, I'll show you", and continued by counting the letters one by one. In the end, she turned to Rowan and said, "Yeah, there's 26, I was wrong". To this, Rowan said something muffled on the audio which sounded like, "Told you so", and Selena replied, "Well, I already said you were right!". The conversation paused as both got busy eating, and then resumed when Selena saw the camera moving to follow her movements and pointed it out to the rest of her table mates. She wondered out loud whether it was moving because of an invisible ghost. At this point, Selena asks permission from her teacher to leave the table as she is done eating and then slowly throws away her trash, washes her hands, gets her mask from her cubbie, and then goes to join Rowan on the carpet. The researcher monitoring the camera is sitting close to the carpet, and Selena asks her several questions about the remote she has to wear for the camera, what it does, and how its connected to the camera. The researcher patiently answers most of the questions and then admits that she doesn't really know how to explain the last one. Selena seems satisfied with this, and then tells Rowan, "This is my magic necklace!". Rowan replies that the necklace isn't Selena's but the researcher's. Selena replies, "I know, I was just making a joke!". At this point, some other children have also come to the carpet, and Rowan asks Selena if she thinks he'll be able to wear the 'necklace' too. Selena replies, "Yeah, maybe you can wear it tomorrow", but Rowan says he doesn't think the researcher will come tomorrow.

Selena thinks she will be and says that she will ask her. She says, “Excuse me” thrice, trying to get the researcher’s attention, and then finally gets up from the carpet and goes to her to ask if she will be there tomorrow. Researcher replies in the affirmative, and Selena goes back to sit on the carpet. She again asks the researcher, “Can Rowan wear this tomorrow?”. The researcher says that she still has to wear it tomorrow. On hearing this, Selena turns to Rowan and says, “Oh, sorry, Rowan. Maybe after tomorrow”. Then she says something which is muffled on the audio, Rowan’s response is also muffled, but it is followed by Selena saying, “I’m kidding, I’m kidding!”. This whole conversation shows the effortless manner in which Selena carries out conversations with a peer, Rowan, and with an adult, the researcher. This lengthy conversation also shows some of her perceptual sensitivity as she is perceptive to Rowan’s quietly expressed displeasure at two points of time and makes sure to clarify that she is joking so that he isn’t actually displeased with her.

Although Selena exhibits a level of sensitivity to her peer in the above conversation, there are instances where she seems inattentive and distracted due to some reason. These examples can help us understand why the teacher might not see Selena as exhibiting a lot of perceptual sensitivity. In this example, the children are all sitting together during carpet time, and have just listened to a story and a song on the iPad. Selena is in high spirits, singing along to the song and humming it even after it is over. Then, the teacher explains that today’s epical activity will be drawing their favorite thing to do at school. She then asks what is everyone’s favorite thing to do at school. Selena raises her hand and then waits patiently until the teacher calls on her. She says that camping is her favorite thing to do. The teacher seems to acknowledge that Selena is actually going on a camping trip with her family at the end of that school day, but then clarifies that she would like Selena to say what her favorite thing at school is, but Selena seems confused

and says, “Camping is my only favorite thing”. Teacher asks if there’s anything else that she does at school which she likes at all, and Selena replies, “There’s nothing I like more than the other, but I like things at school”. On further probing, Selena says that she likes drawing at school, and the teacher says that maybe she can draw herself drawing for the special activity in that case. After this, when everyone is doing the special activity, Selena ends up drawing swirls. When the teacher comes and asks her to describe her drawing so that she can write a description on it, Selena explains that she’s drawn swirls because she likes them. The teacher seems confused and asks her whether swirls are her favorite thing about school. Selena replies, “Yeah, swirls and coloring books”.

This whole exchange with her teacher shows us how children can take up a certain meaning of a word, and it is hard for them to see it differently. As an outsider analyzing these videos, I assume that Selena was told by some adult that the word ‘favorite’ means best of all, and she understood that to mean that she can only have one favorite thing in the world. On the surface level, this conversation seems to suggest that Selena is distracted and not paying attention to her teacher’s attempts to make her understand what she likes to do at school, ergo not understanding the low-intensity stimuli (in this case, her teacher’s reaction to Selena’s inability to identify her favorite thing at school) in her environment. But, if I use my assumption to look at this situation, it is possible that the issue is not that Selena isn’t picking up on her teacher’s attempts, but rather she does not yet have the cognitive flexibility to understand that ‘favorite’ might mean something a little different from one single thing which you love above all else in the world. It is tough to guess why this confusion arises simply based on this one conversation but shows us how the discrepancy in this particular subscale score might have arisen. Also, it is true that this conversation is not with a peer, so does not provide much information about her

peer engagement skills but provides overall context about Selena's way of interacting with another person, and therefore I thought it was important to include.

Although Selena has a fairly big difference in anger/frustration scores on her CBQ forms, this is not something that shows up in the duration of her observations for this study. There is one example where she and her friend, Mia, are negotiating about the kind of pretend play storyline they will follow, they do not fully agree and there is a small altercation where Mia tries taking something away from Selena, and they both pull at it, with Selena exclaiming, "No, that's mine, that's mine!". As the teacher was close by, she was able to come and stop the altercation, but Selena continues being irritated with Mia till the end of the recording when she is clearing away the toys before lunch. This incident happened on the same day as the conversation about favorite things with the teacher, and it is possible that the confusion caused by that conversation made Selena feel sad and irritated, which then showed up when playing with her friend.

Overall, Selena is an easy child who is skilled at holding a conversation and including others in that conversation. She is usually sensitive to cues in her environment, which can be seen when she has a conversation with someone quieter/less energetic than her. On the other hand, it is possible that she does not do well with change; there may be certain situations where she is unable to think of a single situation differently once she has accepted it in a certain configuration in her mind. This may ultimately affect her engagement with peers as well, but it is not easily observable in the data available for this study.

Divya

Divya is a five-year old South Asian American girl. A graphical representation of her CBQ scores is presented in Figure 4.6. Divya's parent filled out 'Indian' on the question asking about their home culture/culture of origin, and filled out 'Uttar Pradesh' on the question about

whether there is a specific community they identified with more closely within their overall home culture/culture of origin. Uttar Pradesh is a state in the north of India, where Hindi is the main spoken language. Divya's parent also said that their parents had moved to the US from their country of origin, hence making Divya a third-generation immigrant. As her family has been in the US for a long time, we can assume that Divya would experience quite a high match between home culture and classroom culture. However, her parent also identified their home culture clearly as 'Indian', which suggests a strong identification with the country of origin. So, similarly to Selena, it is difficult to understand the degree to which Divya's home culture does or does not match with the school classroom culture. For the purposes of this study, I will assume that there is a moderate match between home and classroom culture but with some strong cultural differences.

Divya scores in the moderate to high level for all three constructs of surgency/extraversion, negative affectivity, and effortful control, which suggests that she is a fairly 'easy' child, but with a tendency to exhibit certain negative affect behaviors. Her scores are mostly close to the mean. As is evident in Figure 4.6, Divya's CBQ scores show some discrepancies between the teacher and parent form on all three constructs, but the largest one is on negative affectivity – 3.5 on teacher form versus 4.8 on parent form. Taking a closer look at Table 4.4 for the subscales under negative affectivity shows us the largest score differences on anger/frustration (2.17 on teacher form versus 5.17 on parent form; defined as 'amount of negative affect related to interruption of ongoing tasks or goal blocking' (see Appendix D)), discomfort (3.5 on teacher form versus 5.83 on parent form; defined as 'amount of negative affect related to sensory qualities of stimulation, including intensity, rate or complexity of light, movement, sound, texture.' (see Appendix D)), soothability (5 on teacher form versus 2.83 on

parent form; defined as ‘rate of recovery from peak distress, excitement, or general arousal’ (see Appendix D)), and sadness (3.86 on teacher form versus 6.14 on parent form; defined as ‘amount of negative affect and lowered mood and energy related to exposure to suffering, disappointment and object loss’ (see Appendix D)). Using the observations of Divya’s peer engagement, we can further explore some of these subscale scores.

To begin, it is important to note that out of all the children, Divya was the most displeased with a camera following her in the classroom. Whenever she passed by the Swivl camera and saw it moving to follow her, she would give it a sulky look and then try to find a spot where it could not see her. When asked by a preferred peer, Mia, on the first day of observations about what the remote around her neck was, Divya replied, “I don’t know, and I don’t even like it”. She seemed less upset about it on the second day of observations, but still wasn’t fully happy with it as many of the other children had been. This is an important thing to note because due to this unhappiness about the camera, Divya seems to be exhibiting a low level of negative affect (particularly similar to the discomfort subscale) through most of her observations. Divya does exhibit positive affect during some interactions with peers, so it is apparent that she is not exhibiting negative affect all the time. However, it is important to keep this note about the camera-consciousness in mind while reading her case.

Divya seems like a quiet child, but one who engages with peers when she wants to. She does seem less likely to initiate an interaction with a peer but is happy to engage with a peer who initiates a conversation with her. For example, Divya is sitting at the writing table with three other girls, they are all engrossed in their activity. At one point, one of the girls, Siobhan, asks another girl, Mia, whether she is doing the activity correctly, and the three girls other than Divya begin chatting about it. Divya tries to join the conversation and says how the activity is supposed

to be done correctly, and Mia agrees with her. Siobhan, who was doing it wrong, explains why she is doing it her own way, and Divya simply says, “Okay” and goes back to her activity. In another instance, Divya is sitting at the craft table with Mia and Erica, who are both peers that Divya regularly engages and plays with. They are all working on their craft project. Divya and Erica, who seem to be friends, begin chatting about how weird it is that they’ve reached the letter ‘X’, and they only have two more letters to go. At this point, Mia says something funny about her craft project, and Divya laughs. The craft project requires glue to stick some paper pieces, but one specific piece for each project is actually a sticker. Mia uses glue for her sticker as well, and Divya sees it and tells her that it is a sticker. Mia does not reply. After a minute, Divya asks Mia why she didn’t remove the sticker paper and stick it down that way, and Mia replies, “I don’t know”. While this activity continues, Mia starts humming a song, and Divya asks her what song she’s singing, and Mia explains which song it is. Then she also talks about a show about unicorns. Divya looks surprised and says, “We both like unicorns, don’t we?”. Mia does not reply to her and begins humming her song again. Divya finishes her activity and moves to a different center. These examples show that although Divya is usually quiet, she tries to initiate conversations with friends even if they are not consistently receptive.

Divya’s friendship with Mia appears to be complicated, but it provides evidence of her soothability. As seen in the last few examples, although Divya really seems to like Mia and wants to talk to her, Mia does not necessarily reciprocate the friendship in the same way. However, Mia also seeks out Divya at several points of time, so it does not seem like Divya’s advances are wholly unwanted. In one example, Mia goes to Divya at the blocks center, and asks her why she isn’t playing with her. This happens right after the craft activity described above, where Mia had not been responding to Divya’s attempts at conversation, so she moved to a

different center. Therefore, when Mia asks why she doesn't want to play with her, Divya exclaims, "I do want to play with you!" and they proceed to play together. In another instance, Divya and Mia are at the drawing table with three other children. All children are supposed to draw a picture of their friend. One of the other girls at the table draws Divya, and then gives her the sheet of paper so that she can spell out her name on it to identify the drawing as her. Divya has drawn Mia, and she calls her name multiple times to write her name on her drawing, but Mia ignores her as she is talking to someone else. Divya stops trying to get her attention after a while. Later, she strikes up a conversation with Mia about a purple marker, to which Mia says something inaudible. Divya replies, "I wouldn't do that, Mia!". Conversation stops, and then after another while, Divya asks Mia for her name tag (presumably to copy her name onto her drawing), but Mia doesn't respond. Towards the end of the activity, Divya tells Mia, "You're taking a long time to give me your nametag", and Mia responds, "You have to wait till you're finished!". Divya declares she's finishes, and Mia still ignores her. At this point, the teacher has come to their table, and she solves the situation by asking Mia whether she can share the letters in her name with Divya, and Mia complies. These incidents show that although Divya feels upset when ignored by Mia, she is very good at self-soothing and does not lose her temper. This fits in with the high effortful control score that Divya's teacher gave her.

Overall, Divya seems to be a somewhere in between an inhibited and easy child. Observations show that although she struggles in her interactions with one particular friend, Mia, that is because of Mia's unresponsiveness and not because Divya is unable to engage with her. Although Divya's conversations with Mia do not always go positively, she does well on interactions with other peers. She is usually quite subdued and plays by herself a substantial amount of time during the observations, but in some cases this seems like a way to not say much

while on camera. It is only after she remembers she is being recorded that she looks unhappy and goes to do a quiet activity by herself. But when she is not conscious of the camera, she is quiet, but capable of having conversations with certain familiar peers in the classroom. Divya's interactions with Mia do show that although she shows flashes of negative affect, she controls those feelings quite quickly and soothes any negative emotions. Therefore, based on classroom observations it is difficult to understand the high negative affectivity score that she gets from her parent. One way to understand it would be the cultural differences between how certain emotions are viewed in different cultures. Hence, certain emotions/actions that seem neutral in the classroom setting may be construed as negative in her home setting.

CHAPTER 5: DISCUSSION

The current study revealed some intriguing findings. I will first discuss the findings related to the three research questions, followed by additional findings, limitations of the study, future directions, and an overall conclusion.

First research question: How do teachers' and parents' ratings for child temperament differ for children of different ethnicities?

First, I did not find differences in temperament between the six children in the sample based on ethnicity/culture, but there were subtle trait differences for each child. All six children in the sample may be categorized as 'easy' children as they all scored in the middle to high range on effortful control and did not score more than a middle range on surgency/extraversion or negative affectivity. However, for Maddie, Ritwik, Selena, and Divya, there were certain temperamental traits which differentiated them from a purely 'easy' child on at least one of the two (teacher and parent) CBQ forms. For example, Maddie's teacher and parent form differed on her effortful control score, and she interestingly showed signs of impulsiveness and inhibitory control on different instances. This shows that discrepancies in teacher and parent CBQ forms do not inevitably mean that one is wrong, but rather provides the perspective that while temperament differences exist, children begin learning from a young age how to control certain traits that they comprehend as socially unacceptable, based on the context they are in. Research exists which shows that teacher scores usually match more with classroom behaviors and correlate with academic outcomes (Rudasill et al., 2014). Rothbart's (2007) CBQ measure is not necessarily meant to categorize children into watertight groups, so it is understandable that making these decisions is not straightforward. Indeed, this is the reason why I chose the CBQ for this study as it provides more nuance and subtlety to our understanding of these children rather

than expecting them to fit into one group. It helps individualize the children and be relativistic in our understanding of them.

The second major finding for the first research question was that parents consistently rated their children as exhibiting higher negative affectivity as compared to teachers' ratings. However, the difference in teacher and parent scores were largest for the three SAA children and the one child who identified as mixed race (White and Hispanic). This could be interpreted as a difference between households which are from individualistic cultures versus collectivistic cultures. South Asian and Hispanic cultures are both considered collectivistic in nature (Gudykunst, 1998; Verma, 1999), and there is ample literature regarding the differences in how emotions are viewed in such cultures (Eid & Diener, 2001; Hofmann, 2013; Liddell & Williams, 2019; Tsai et al., 2006). Given this information, it is possible to assume that parents from collectivistic cultures see certain emotions/behaviors from their children as 'negative' as compared to their children's teachers who are White (and therefore come from an individualistic culture) and may not necessarily see those same emotions/behaviors as 'negative'.

Second research question: What kind of peer engagement styles do SAA children exhibit, and how do these styles differ based on temperamental differences?

The broad finding for this research question was that the child who could be categorized as 'easy' – Sonali – had an easier time engaging with her peers and even with adults. She was caring and easygoing with peers, but was also able to express her dislike if a peer behaved in a manner that she disagreed with. It is easier to see how Sonali's easy temperamental makeup affects her peer engagement if we compare her to her classmate, Maddie. They are both in a classroom that, as discussed, has a substantially high adult-child ratio, so we would expect that *all* children in this classroom would consistently engage in productive, constructive behaviors

and there would be fewer instances of unoccupied or onlooker behavior (Parten, 1932). However, Maddie still finds herself in situations where she does something impulsively, is admonished for it, corrects her behavior, and then roams around unoccupied, away from adults, while she decides what to do next. This unoccupied behavior sometimes even leads to conflict situations with peers when she is unable to inhibit an impulsive behavior which is disliked by her peer. On the other hand, Sonali's 'easy' temperament is evident in her effortless interactions with peers and shows how the difference in temperamental traits affects how she engages with peers even when the context in which the interaction is occurring is the same as Maddie's context.

For Divya and Ritwik's cases, they are both easy children to a large extent, but display a certain level of negative affect in some situations. Similarly, to Sonali, Divya and Ritwik's classmates are both easy children and do not face many hurdles while engaging with peers. Divya and Ritwik both have certain struggles in their peer interactions, but both of them also overcome those struggles in the best ways they know. Research has shown that children who exhibit some form of negative affect are more likely to face peer problems (Chen et al., 2006; Gülay, 2012; Szewczyk-Sokolowski et al., 2005), but the added nuance of the observations shows that in the case of Divya and Ritwik, although the children's temperamental traits affect their interactions, in some instances they also learned how to deal with these potential issues constructively.

Third research question: What are the experiences of SAA parents regarding their children's cultural socialization and how do they see it affecting their peer engagement?

The third research question focused on SAA parents' views on their children's cultural socialization and how it might affect their peer engagement. It is important to note that both parents who agreed to the interview identified themselves as belonging to the Bengali

community even though one of them is from India and one from Bangladesh. This means we obtained a somewhat narrow cultural view as both these parents shared highly similar ideas about their cultural beliefs and expectations for their children. Parent interviews clearly communicated a focus on acculturation rather than assimilation with regard to their children's home environment. Although both mothers discussed several foundational cultural practices which they wanted their children to inculcate, they also acknowledged that living in the US meant that the children automatically learned the culture of the US as they were constantly immersed in it. Two of the SAA cultural beliefs that emerged as crucial during the interviews were that the children should know their mother tongue (specifically to communicate with grandparents or family back in the home country) and that they should respect their elders. Both of these beliefs show up as underlying explanations for why the SAA children interacted with their peers in a certain manner. For Ritwik, the emphasis on his native language being used at home combined with the little opportunity he had had to converse with others in English (due to the pandemic), resulted in him struggling to engage with peers. For Sonali, the concept of respect for elders was exemplified in an example from her mother in which she explained how Sonali knows that she has to use certain honorifics when addressing SAA peers who are older than her but need not do the same with American peers. The key thing of note here is that she has extrapolated this information herself and created a framework within which she can function while following the acculturation ideas from her parents. There are research studies about the South Asian American identity and how deep-rooted these ideas can be, particularly when parents have a strong role in transmitting those ideas to their children (Mehra, 2002; Patel, 2022; Tiwari, 2022). This study helped uncover some of the cultural nuances of the SAA community and how it affects children's engagement with peers.

Additional findings

There were a few additional findings which do not necessarily answer any of the three research questions directly, but they help further our understand of the context in which this study was conducted.

Academic understanding of terms referring to diaspora communities

The sampling process for this study highlighted the need for more academic conversation around particular ethnic and cultural groups which are not the focus of research. Due to the relatively small number of psychological studies on the SAA and Asian Indian American diaspora, it is understandable that these terms may cause confusion to those who do not conduct research about these populations. Therefore, it follows that more research is needed about these populations for this very reason – to introduce more people to these terms so that they do not seem confusing or open to interpretation. Apart from academic literature, there has been an increasing amount of news articles about the confusion those in the South Asian American community themselves feel about the term that best describes everyone (Kambhampaty, 2020; Venkatraman, 2021). Therefore, this is a topic that will potentially grow in importance over time as well.

Pandemic

The pandemic added several layers of complexity to this study. Due to pandemic lockdowns, children who began preschool online did not have the same opportunities to engage with peers as other children who attended some sort of school or childcare setting before the pandemic began. Therefore, children who converse mostly in their native language at home cannot always express themselves adequately in a classroom where only English is spoken (exacerbated by the need for masks which may muffle speech and hide certain facial cues),

leading to frustration and consequent unwillingness to go to school. For several of the children's observational data, it is apparent that they have to repeat themselves during certain conversations because their voices are muffled by their masks. In addition to the difficulties in verbal expression, young children might also have difficulty understanding emotional cues when half of someone's face is covered, therefore leading them to hesitate in engaging (Giordano et al., 2022). Hence, these factors combine with the inexperience of children who speak English as a second language and culminate in a situation where these children may feel disinclined to attend school at all.

Limitations and future directions

The process of conducting a research study during a pandemic was tough, and it affected several levels of the study as a whole. The small sample size curtailed the possibility of conducting certain quantitative statistical analyses. I do not think that quantitative data from a larger dataset would necessarily replace the in-depth, rich qualitative data in the study. However, given the low availability of accessible research on SAA children, I believe the addition of studies with large datasets would help provide more foundational information on the community. This would help build the breadth of data that scholars generally bank on in order to conduct further studies, and also provide context for more qualitative studies to help strengthen the depth of data for this population.

With regards to the video recording mode of observations, there were pros and cons to the method. The presence of the Swivl technology allowed data for this study to be collected even during a pandemic, which was extremely helpful. As the Swivl recording process seemed somewhat new to the preschool center, there were also certain complications in the beginning which got resolved with time. For example, the Swivl robot did not always synchronize with the

remote and got stuck in place while the child moved around. Also, the microphone on the remote works well, but is prone to getting muffled/blocked when pressed up against a child's clothes. The microphone also did not perform well outside on the playground, particularly when a child is moving around energetically or when it is windy, causing severe audio disturbances. Overall, the option to 'conduct observations' in this way was highly appreciated and an effective piece of technology which can clearly help improve research experiences on a large scale. But at the same time, particularly for this study, it does not allow for the same depth of understanding that comes from being in the classroom in person. Additionally, as seen in the case studies, not all children saw the camera as a neutral or positive presence in the classroom, and this should be kept in mind for all such studies; recordings should begin with an age-appropriate explanation of why they are being recorded and any questions they have should be answered.

For future studies, I have several new research questions borne out of the findings of this study which I want to pursue, but my primary goal is to improve upon certain aspects of the research design. First, the recruiting process will require more attention. It will be important to correspond with the school extensively to make sure that the sampling criteria is clear and there are no misunderstandings about the definition of the community to be studied. Second, in addition to more careful sampling, recruiting a larger sample will also be key to creating opportunities for gathering in-depth data on more SAA children so that the nuanced understanding of this cultural group can continue. Third, in the future it would be preferable to conduct studies such as this current one *in situ* (collecting observation data in person in the classroom). Naturally, the reason this could not happen for the current study was not a factor inside of any researcher's control (i.e., the global pandemic) and therefore this cannot be guaranteed for future studies either. However, this study has demonstrated that technological

methods of observational data collection require some improvements before they can provide the same level of detail as a researcher collecting data in a classroom. Fourth, I would like to utilize future studies to work more closely with teachers in the form of focused group discussions about how the findings from my research could translate in the classroom, and whether it could be helpful to them in the long run. This ensures that theoretical findings can actually have constructive impacts on classroom processes.

Conclusion

By virtue of being designated one of the more biological aspects of our psychological makeup, temperament has been traditionally treated as unchangeable, watertight categories that individuals are placed in, and that accompanies the belief that these categories are hence easily quantifiable and generalizable. However, qualitative analyses are important to show the mutability of temperament based on context and cultural expectations, and that is why this mixed methods study is crucial for ultimately creating workable suggestions for teachers to support those children whose temperament may cause difficulties in their classroom interactions, such as engaging with peers. This study also challenges the traditional approach of the 'East versus West' narrative which tends to lump together geographically proximate cultures even though they have numerous nuanced differences. This work is an effort to emphasize research which centers diverse cultural voices from around the world in order to better cater to children from all cultures. The more we explore the subtle nuances in different cultures, the better we can cater to children from these different cultures. The ultimate aim is to collaborate with teachers to translate these theoretical findings into real world supports for children in the classroom to create effective learning environments which foster and enrich the social and academic lives of all children.

TABLES AND FIGURES

Tables

Table 3.1

Timeline for data collection

Measure	Summer 2021	Fall 2021
Child Behavior Questionnaire		
Demographic Questionnaire		
Observations		
Parent Interviews		

Table 4.1

Overview of data collected

Name	Class room	Child Behavior Questionnaires	Demographic Questionnaire (filled by parent)	Observations (Total hours of video recorded)	Parent interview
Maddie*	A	Teacher and parent	Yes	3	No
Sonali*	A	Teacher and parent	Yes	3	Yes
Ritwik*	B	Teacher and parent	Yes	2	Yes
Dan*	B	Teacher and parent	Yes	2	No
Divya*	C	Teacher and parent	Yes	2	No
Selena*	C	Teacher and parent	Yes	2	No

**All names changed to protect confidentiality*

Table 4.2

Descriptive statistics for CBQ constructs from teacher and parent forms

		N	Minimum	Maximum	Mean	Standard deviation
CBQ (Teacher)						
	Surgency/Extraversion	6	3.44	5.36	4.1900	.68635
	Negative Affect	6	2.10	4.20	3.2883	.71873
	Effortful Control	6	4.04	5.51	4.7467	.60169
CBQ (Parent)						
	Surgency/Extraversion	6	3.64	4.90	4.2483	.50976
	Negative Affect	6	3.52	4.80	4.2917	.49564
	Effortful Control	6	5.01	5.71	5.4067	.29139

Table 4.3

Individual scores for CBQ constructs from teacher and parent forms

Name	CBQ (Teacher)			CBQ (Parent)		
	Surgency/ Extraversion	Negative Affect	Effortful Control	Surgency/ Extraversion	Negative Affect	Effortful Control
Maddie*	4.77	4.2	4.11	4.84	4.23	5.55
Sonali*	4.01	3.73	5.21	4.03	4.47	5.56
Ritwik*	3.73	2.1	4.04	3.64	4.77	5.54
Dan*	3.93	3.22	5.03	3.94	3.52	5.07
Divya*	3.44	3.5	5.51	4.14	4.8	5.01
Selena*	5.26	2.98	4.58	4.9	3.96	5.71

**All names changed to protect confidentiality*

Table 4.4
CBQ Subscale scores

Name*	Surgency/Extraversion					Negative Affect	
	Activity level	Approach/Positive Anticipation	High Intensity Pleasure	Impulsivity	Shyness	Anger/ Frustration	Discomfort
Maddie*_P	4.86	5.83	5.67	6.5	2.33	4.33	2.33
Maddie*_T	5.57	4.67	5.83	4.33	3.33	3.33	5.83
Sonali*_P	4.29	6.17	4.5	3.83	3.5	3	6
Sonali*_T	4.71	6	3.33	3.67	4.33	2.83	4.17
Ritwik*_P	4.71	5.83	3.5	5.5	0.83	4	3
Ritwik*_T	3.43	2.5	3.5	3	5	1.33	1
Dan*_P	4.43	4	4	4.17	3.17	3.5	3.83
Dan*_T	4.57	3.67	4	3.67	3.5	1.67	5.67
Divya*_P	3.71	4.67	3.83	4.5	4.5	5.17	5.83
Divya*_T	3.43	4	2.17	3	5.17	2.17	3.5
Selena*_P	5.29	6.83	5.67	6.33	2.33	1.67	4.83
Selena*_T	5.86	4.83	5.5	5.83	3.83	4	3.5

*Note: When a subscale in the table is followed by ' _P' , it refers to the parent scores, and when followed by ' _T' it refers to the teacher scores. (*All names changed to protect confidentiality)*

Table 4.4 (contd.)

CBQ Subscale scores

Name*	Negative Affect			Effortful Control				
	Soothability	Fear	Sadness	Attentional Focusing	Inhibitory Control	Low Intensity Pleasure	Perceptual Sensitivity	Smiling and Laughter
Maddie*_P	6	5.33	3.14	3.5	6.17	6.38	6.17	6.5
Maddie*_T	4.5	3.33	4	2.33	4.17	4.63	5.33	5.33
Sonali*_P	4.17	4.17	5	5.5	4.5	5.25	7	6.`7
Sonali*_T	4.83	3.83	3	5.33	4.67	5.5	5.33	5.33
Ritwik*_P	5.67	6.33	4.86	3.67	5.83	6	6.67	6.67
Ritwik*_T	5	1.33	1.86	5.17	4.83	4	2.17	5.67
Dan*_P	4.83	2	3.43	4.33	4.83	6.13	5	5.33
Dan*_T	4.83	1.67	2.29	5.5	4.83	5.63	4.17	6
Divya*_P	2.83	4	6.14	4.67	3.83	5.88	5.67	4.83
Divya*_T	5	3	3.86	6.67	6.33	4.38	4.67	5.83
Selena*_P	5.17	4	4.14	3.83	5.83	6.5	6.67	6.83
Selena*_T	3.67	0	3.71	5.17	4.17	5	4	6.5

Figures

Figure 2.1

Integrative model for the study of developmental competencies in minority children (García Coll et al., 1996)

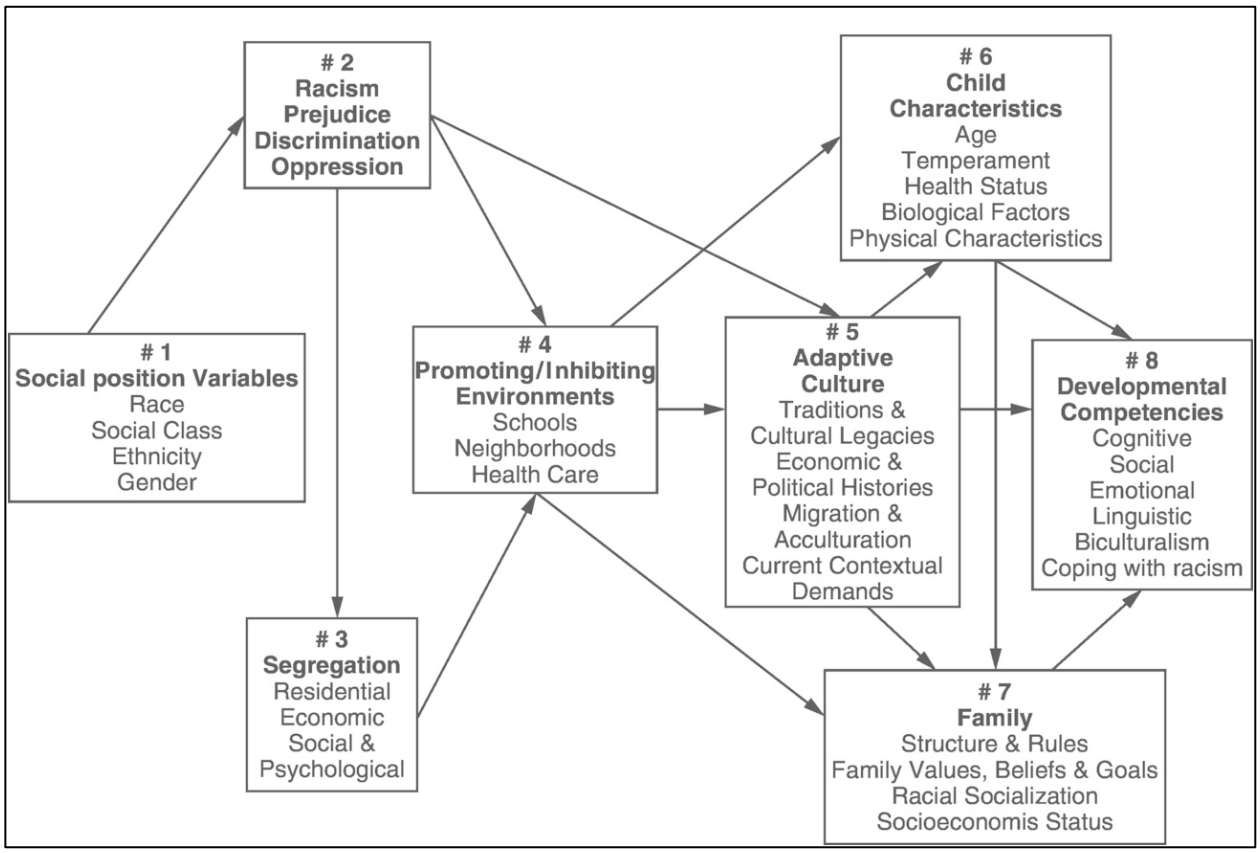


Figure 2.2

Screenshot of search results for AIA preschool children

	Set	Search	Databases	Results	Actions
	S13	"asian indian" AND noft(preschool) AND noft(peers)	ProQuest Dissertations & Theses Global	8	Actions
	S12	"asian indian" AND preschool AND noft(peers)	ProQuest Dissertations & Theses Global	154	Actions
	S11	"asian indian" AND preschool AND noft(inhibited OR difficult)	ProQuest Dissertations & Theses Global	38	Actions
	S10	"asian indian" AND preschool AND noft(temperament)	ProQuest Dissertations & Theses Global	15	Actions
	S9	"asian indian" AND preschool AND temperament	ProQuest Dissertations & Theses Global	345	Actions
	S8	"asian indian" AND preschool AND noft(peers)	3 databases	10	Actions
	S7	"asian indian" AND preschool AND noft(inhibited OR difficult OR easy)	3 databases	3	Actions
	S6	"asian indian" AND preschool AND (inhibited OR difficult OR easy)	3 databases	59	Actions
	S5	"asian indian" AND preschool AND temperament	3 databases	11	Actions
	S4	"asian indian" AND preschool Limits applied	3 databases	83	Actions
	S3	"asian indian" AND preschool	3 databases	103	Actions
	S2	asian indian american preschool Limits applied	3 databases	916	Actions
	S1	asian indian american preschool	3 databases	1,129	Actions

Figure 3.1

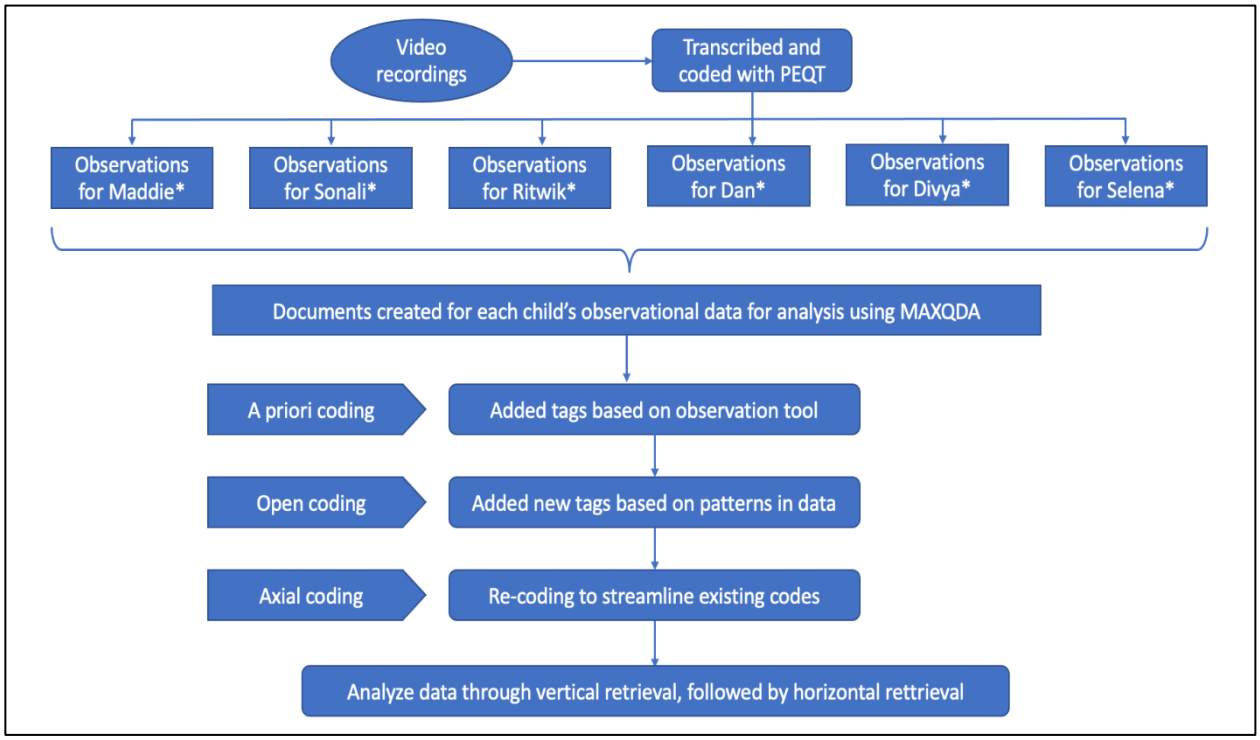
Snapshot of Peer Engagement Qualitative Tool

Child: **Total children present:** **Date:**

	Context		Affect		Content
	Situational	**Social**			
OBS 1	Art Blocks Science Housekeeping Carpet Playdoh Sensory Gym Meals Playground Other	Peers Adults	**Emotional** Happy Sad Angry Interested Fearful Surprised Disgust Acceptance	**Behavioural** Acting out Acting in Approach Avoidance Tired/listless Impulsive Distracted Self-soothing Neutral	Conversation | Argument | Negotiation | Role play | Parallel play
OBS 2	Art Blocks Science Housekeeping Carpet Playdoh Sensory Gym Meals Playground Other	Peers Adults	**Emotional** Happy Sad Angry Interested Fearful Surprised Disgust Acceptance	**Behavioural** Acting out Acting in Approach Avoidance Tired/listless Impulsive Distracted Self-soothing Neutral	Conversation | Argument | Negotiation | Role play | Parallel play
OBS 3	Art Blocks Science Housekeeping Carpet Playdoh Sensory Gym Meals Playground Other	Peers Adults	**Emotional** Happy Sad Angry Interested Fearful Surprised Disgust Acceptance	**Behavioural** Acting out Acting in Approach Avoidance Tired/listless Impulsive Distracted Self-soothing Neutral	Conversation | Argument | Negotiation | Role play | Parallel play

Figure 3.2

Process of preparing data for MAXQDA, coding process, and analyses



**All names changed to protect confidentiality*

Figure 4.1

Bar graph depicting CBQ scores for Maddie

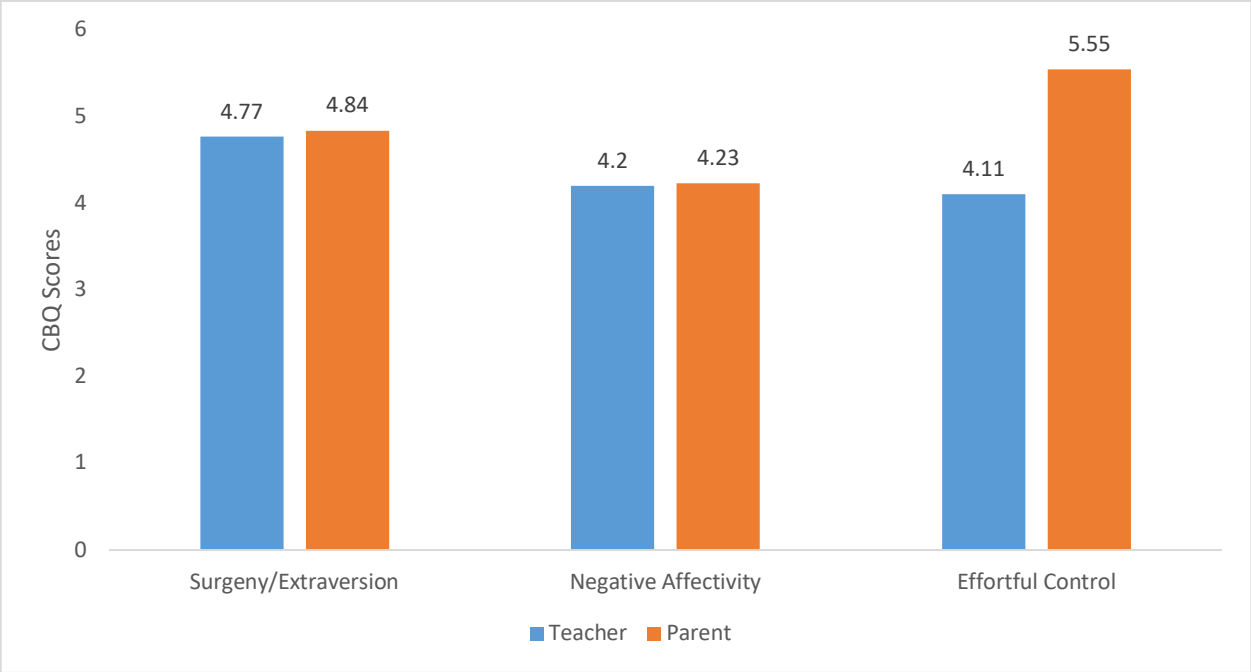


Figure 4.2

Bar graph depicting CBQ scores for Sonali

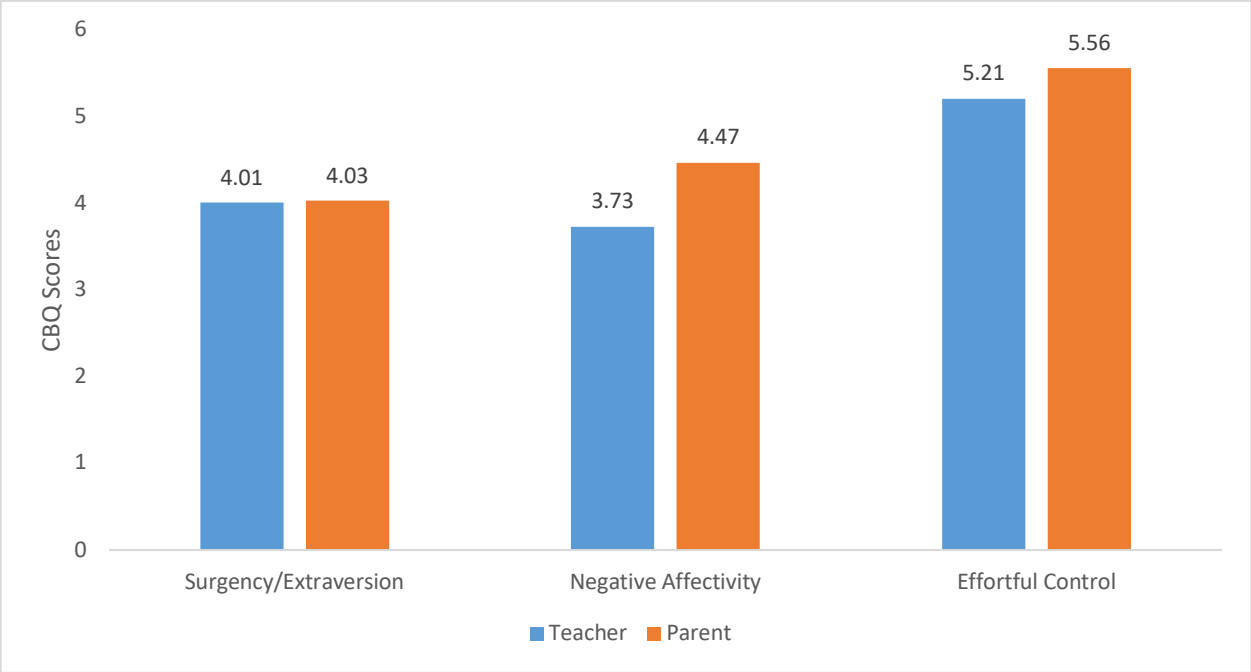


Figure 4.3

Bar graph depicting CBQ scores for Dan

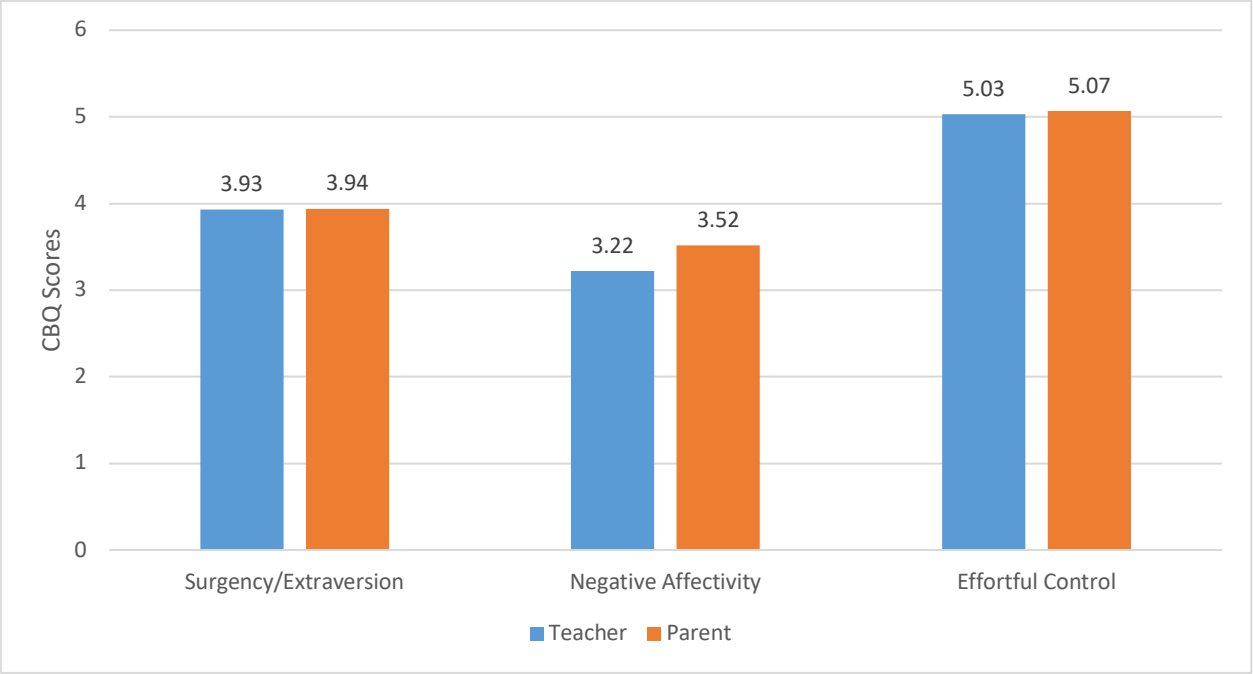


Figure 4.4

Bar graph depicting CBQ scores for Ritwik

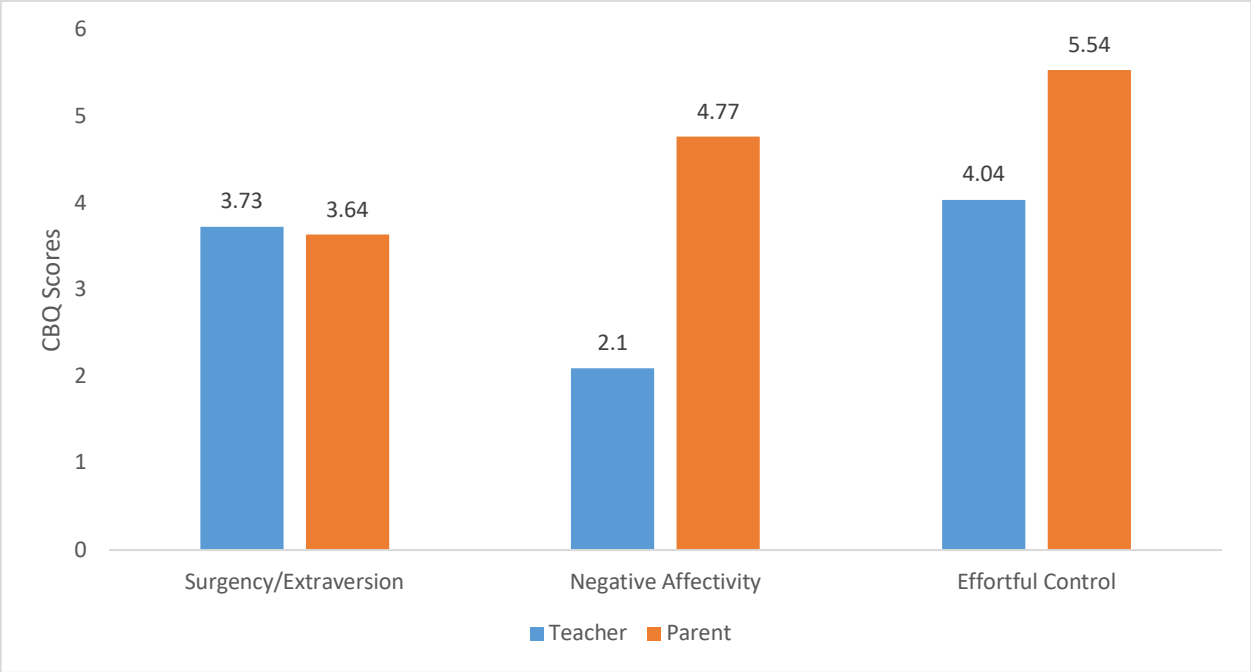


Figure 4.5

Bar graph depicting CBQ scores for Selena

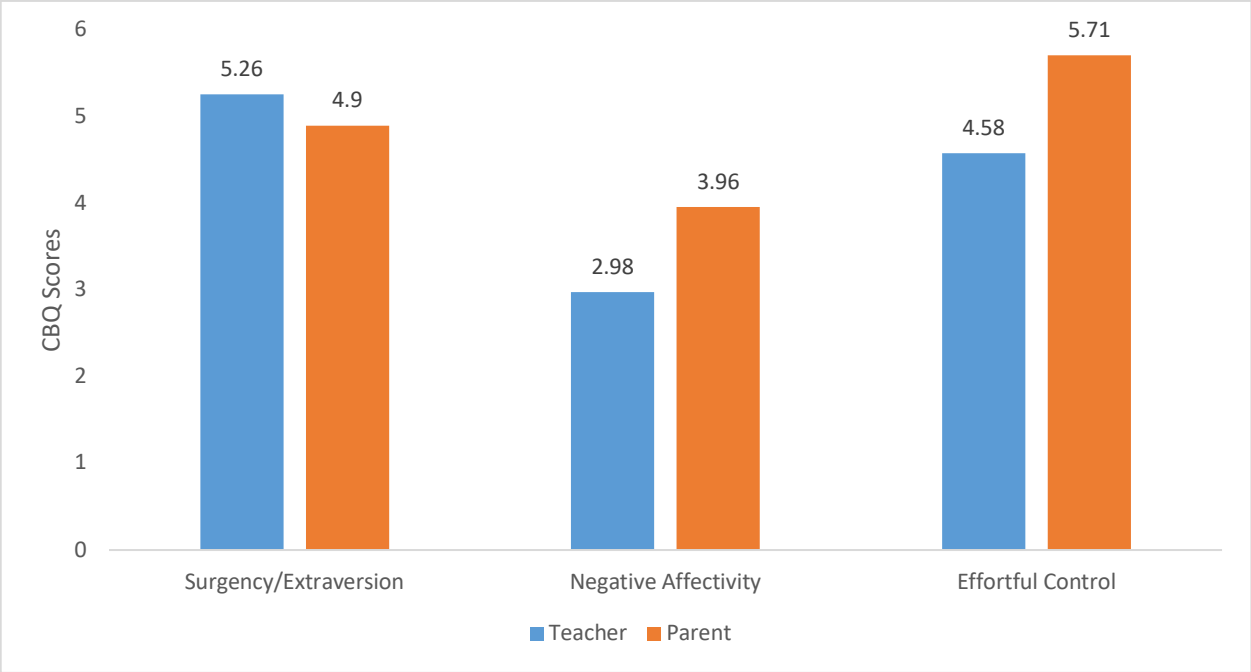
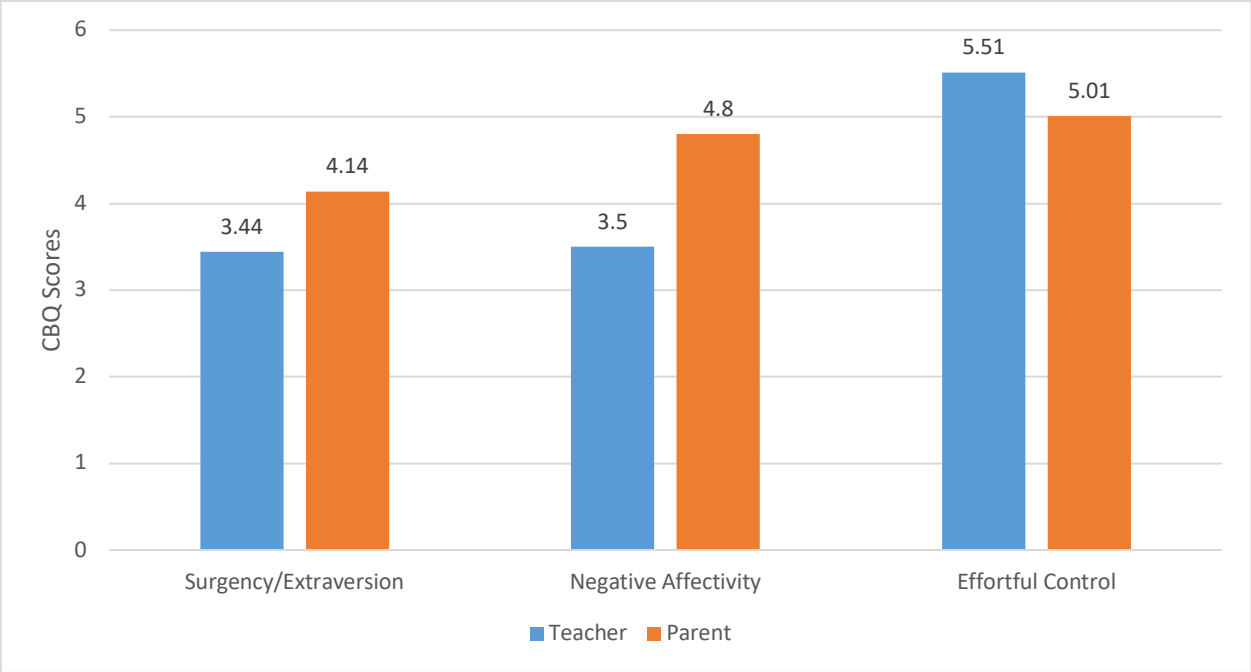


Figure 4.6

Bar graph depicting CBQ scores for Divya



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APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

A.1 Original IRB approval letter

ILLINOIS

OFFICE OF THE VICE CHANCELLOR FOR RESEARCH & INNOVATION
Office for the Protection of Research Subjects
805 W. Pennsylvania Ave., MC-095
Urbana, IL 61801-4822

Notice of Approval: New Submission

February 23, 2021

Principal Investigator	Nidia Ruedas-Gracia
CC	Sanchari Banerjee
Protocol Title	*A Mixed Methods Approach to Exploring Temperament and Peer Engagement: Cultural Insights*
Protocol Number	21602
Funding Source	Unfunded
Review Type	Expedited 6, 7
Approved Subparts	D
Status	Active
Risk Determination	No more than minimal risk
Approval Date	February 23, 2021
Closure Date	February 22, 2026

This letter authorizes the use of human subjects in the above protocol. The University of Illinois at Urbana-Champaign Institutional Review Board (IRB) has reviewed and approved the research study as described.

The Principal Investigator of this study is responsible for:

- Conducting research in a manner consistent with the requirements of the University and federal regulations found at 45 CFR 46.
- Using the approved consent documents, with the footer, from this approved package.
- Requesting approval from the IRB prior to implementing modifications.
- Notifying OPRS of any problems involving human subjects, including unanticipated events, participant complaints, or protocol deviations.
- Notifying OPRS of the completion of the study.

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
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A.2 IRB amendment approval letter

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Office of the Vice Chancellor for Research & Innovation

Office for the Protection of Research Subjects
805 W. Pennsylvania Ave., MC-095
Urbana, IL 61801-4822

Notice of Approval: Amendment #01

August 16, 2021

Principal Investigator	Nidia Ruedas-Gracia
CC	Sanchari Banerjee
Protocol Title	*A Mixed Methods Approach to Exploring Temperament and Peer Engagement: Cultural Insights*
Protocol Number	21602
Funding Source	Hardie Dissertation Award
Review Type	Expedited 6, 7
Approved Subparts	D
Amendment Requested	• Adding interviews with parents • Updating funding information • Adding remuneration for parent interviews and participating classrooms • Minor revisions to demographic questionnaire
Status	Active
Risk Determination	No more than minimal risk
Approval Date	August 16, 2021 (amendment approval date)
Closure Date	February 22, 2026

This letter authorizes the use of human subjects in the above protocol. The University of Illinois at Urbana-Champaign Institutional Review Board (IRB) has reviewed and approved the research study as described.

The Principal Investigator of this study is responsible for:

- Conducting research in a manner consistent with the requirements of the University and federal regulations found at 45 CFR 46.
- Using the approved consent documents, with the footer, from this approved package.
- Requesting approval from the IRB prior to implementing modifications.
- Notifying OPRS of any problems involving human subjects, including unanticipated events, participant complaints, or protocol deviations.
- Notifying OPRS of the completion of the study.

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

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APPENDIX B: QUANTITATIVE MEASURES

B.1 Child Behavior Questionnaire – Teacher Form (Putnam & Rothbart, 2006)

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University of Oregon
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Children's Behavior Questionnaire-Teacher Form
Short Form as modified with permission by Teglasi

Participant No. _____

Today's Date _____

Sex of Child _____

Date of Child's Birth:

_____ _____ _____
Month Day Year

Age of Child _____ _____
Years months

Instructions: Please read carefully before starting:

On the next pages you will see a set of statements that describe children's reactions to a number of situations. We would like you to tell us what the above named child's reaction is likely to be in those situations. There are of course no "correct" ways of reacting; children differ widely in their reactions, and it is these differences we are trying to learn about. Please read each statement and decide whether it is a "true" or "untrue" description of the child's reaction within the past six months. Use the following scale to indicate how well a statement describes the child:

Circle #	If the statement is:
1	extremely untrue of this child
2	quite untrue of this child
3	slightly untrue of this child
4	neither true nor false of this child
5	slightly true of this child
6	quite true of this child
7	extremely true of this child

If you cannot answer one of the items because you have never seen the child in that situation, for example, if the statement is about the child's reaction to your singing and you have never sung to the child, then circle NA (not applicable).

Please be sure to circle a number or NA for every item.

University of Illinois at Urbana-Champaign
Institutional Review Board

Approval Date: February 23, 2021
Closure Date: February 22, 2026
IRB #21602

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

The child:

1. Seems always in a big hurry to get from one place to another.

   I 2 3 4 5 6 7 NA

2. Gets angry when told s/he has to remain still during rest time.

   I 2 3 4 5 6 7 NA

3. Is not very bothered by pain.

   I 2 3 4 5 6 7 NA

4. Likes going down high slides or other adventurous activities.

   I 2 3 4 5 6 7 NA

5. Notices the smoothness or roughness of objects s/he touches.

   I 2 3 4 5 6 7 NA

6. Gets so worked up before an exciting event that s/he has trouble sitting still.

   I 2 3 4 5 6 7 NA

7. Usually rushes into an activity without thinking about it.

   I 2 3 4 5 6 7 NA

8. Cries sadly when a toy he or she likes gets lost or broken.

   I 2 3 4 5 6 7 NA

9. Becomes quite uncomfortable when cold and/or wet.

   I 2 3 4 5 6 7 NA

10. Likes to play so wild and recklessly that s/he might get hurt.

    I 2 3 4 5 6 7 NA

11. Seems to be at ease with almost any person.

    I 2 3 4 5 6 7 NA

12. Tends to run rather than walk from place to place.

    I 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

The child:

13. Notices it when others are wearing new clothing.

1 2 3 4 5 6 7 NA

14. Has temper tantrums when s/he doesn't get what s/he wants.

1 2 3 4 5 6 7 NA

15. Gets very enthusiastic about the things s/he does

1 2 3 4 5 6 7 NA

16. When practicing an activity, has a hard time keeping her/his mind on it.

1 2 3 4 5 6 7 NA

17. Is afraid when hearing about ideas such as "boogie man" or when hearing about "burglars" or others who pose a threat.

1 2 3 4 5 6 7 NA

18. When outside, often sits quietly.

1 2 3 4 5 6 7 NA

19. Enjoys funny stories but usually doesn't laugh at them.

1 2 3 4 5 6 7 NA

20. Tends to become sad if plans (for a special event or activity) don't work out.

1 2 3 4 5 6 7 NA

21. Will move from one task to another without completing any of them.

1 2 3 4 5 6 7 NA

22. Moves about actively (runs, climbs, jumps) when playing indoors.

1 2 3 4 5 6 7 NA

23. Is afraid of loud noises.

1 2 3 4 5 6 7 NA

24. Seems to listen to even quiet sounds.

1 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

The child:

25. Has a hard time settling down after an exciting activity.

I 2 3 4 5 6 7 NA

26. Enjoys quiet, soothing activities.

I 2 3 4 5 6 7 NA

27. Seems to feel depressed when unable to accomplish some task.

I 2 3 4 5 6 7 NA

28. Often rushes into new situations.

I 2 3 4 5 6 7 NA

29. Is quite upset by a little cut or bruise.

I 2 3 4 5 6 7 NA

30. Gets quite frustrated when prevented from doing something s/he wants to do.

I 2 3 4 5 6 7 NA

31. Becomes upset when friends are getting ready to leave the classroom

I 2 3 4 5 6 7 NA

32. Comments when someone (teacher, classmate) has changed his/her appearance.

I 2 3 4 5 6 7 NA

33. Enjoys activities such as being chased, spun around by the arms, etc.

I 2 3 4 5 6 7 NA

34. When angry about something, s/he tends to stay upset for ten minutes or longer.

I 2 3 4 5 6 7 NA

35. Is not afraid of the dark.

I 2 3 4 5 6 7 NA

36. Takes a long time in approaching new situations.

I 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

The child:

37. Is sometimes shy even around people s/he has known a long time.

I 2 3 4 5 6 7 NA

38. Can wait before entering into new activities if s/he is asked to.

I 2 3 4 5 6 7 NA

39. Enjoys "snuggling up" next to an adult

I 2 3 4 5 6 7 NA

40. Gets angry when s/he can't find something s/he wants to play with.

I 2 3 4 5 6 7 NA

41. Is afraid of things such as fire or the loud noise of a fire drill

I 2 3 4 5 6 7 NA

42. Sometimes seems nervous when talking to adults s/he has just met.

I 2 3 4 5 6 7 NA

43. Is slow and unhurried in deciding what to do next.

I 2 3 4 5 6 7 NA

44. Changes from being upset to feeling much better within a few minutes.

I 2 3 4 5 6 7 NA

45. Plans for new activities or changes in routine to make sure s/he has what will be needed.

I 2 3 4 5 6 7 NA

46. Becomes very excited while planning for new activities such as field trips.

I 2 3 4 5 6 7 NA

47. Is quickly aware of some new item in the class room.

I 2 3 4 5 6 7 NA

48. Hardly ever laughs out loud during play with other children.

I 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

The child:

49. Is not very upset at minor cuts or bruises.

1 2 3 4 5 6 7 NA

50. Prefers quiet activities to active games.

1 2 3 4 5 6 7 NA

51. Tends to say the first thing that comes to mind, without stopping to think about it.

1 2 3 4 5 6 7 NA

52. Acts shy around new people.

1 2 3 4 5 6 7 NA

53. Has trouble sitting still when s/he is told to (story time, etc.).

1 2 3 4 5 6 7 NA

54. Rarely cries when s/he hears a sad story.

1 2 3 4 5 6 7 NA

55. Sometimes smiles or giggles playing by her/himself.

1 2 3 4 5 6 7 NA

56. Rarely becomes upset when listening to a sad story

1 2 3 4 5 6 7 NA

57. Enjoys just being talked to.

1 2 3 4 5 6 7 NA

58. Becomes very excited before a special class event (e.g., outing, picnic, party).

1 2 3 4 5 6 7 NA

59. If upset, cheers up quickly when s/he thinks about something else.

1 2 3 4 5 6 7 NA

60. Is comfortable asking other children to play.

1 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

The child:

61. Rarely gets upset when told s/he has to remain quiet during rest times.

1 2 3 4 5 6 7 NA

62. When drawing or coloring in a book, shows strong concentration.

1 2 3 4 5 6 7 NA

63. Is afraid of the dark.

1 2 3 4 5 6 7 NA

64. Is likely to cry even if a little bit hurt.

1 2 3 4 5 6 7 NA

65. Enjoys looking at picture books.

1 2 3 4 5 6 7 NA

66. Is easy to soothe when s/he is upset.

1 2 3 4 5 6 7 NA

67. Is good at following instructions.

1 2 3 4 5 6 7 NA

68. Is rarely frightened by "monsters" in stories or films.

1 2 3 4 5 6 7 NA

69. Likes to go high and fast when pushed on a swing.

1 2 3 4 5 6 7 NA

70. Sometimes turns away shyly from new acquaintances.

1 2 3 4 5 6 7 NA

71. When building or putting something together, becomes very involved in what s/he is doing, and works for long periods.

1 2 3 4 5 6 7 NA

72. Likes being sung to.

1 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

---

The child:

73. Approaches places that s/he thinks might be "risky" slowly and cautiously.

1 2 3 4 5 6 7 NA

74. Rarely becomes discouraged when s/he has trouble making something work.

1 2 3 4 5 6 7 NA

75. Is very difficult to soothe when s/he has become upset.

1 2 3 4 5 6 7 NA

76. Likes the sound of words, such as nursery rhymes.

1 2 3 4 5 6 7 NA

77. Smiles a lot at people s/he likes.

1 2 3 4 5 6 7 NA

78. Dislikes rough and rowdy games.

1 2 3 4 5 6 7 NA

79. Often laughs out loud in play with other children.

1 2 3 4 5 6 7 NA

80. Rarely laughs aloud in the classroom.

1 2 3 4 5 6 7 NA

81. Can easily stop an activity when s/he is told "no."

1 2 3 4 5 6 7 NA

82. Is among the last children to try out a new activity.

1 2 3 4 5 6 7 NA

83. Doesn't usually notice odors such as perfume, smoke, cooking, etc.

1 2 3 4 5 6 7 NA

84. Is easily distracted when listening to a story.

1 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

The child:

85. Is full of energy, even during quiet times.

1 2 3 4 5 6 7 NA

86. Enjoys sitting on adult's lap.

1 2 3 4 5 6 7 NA

87. Gets angry when called away from an activity or game before s/he is ready to quit.

1 2 3 4 5 6 7 NA

88. Enjoys riding a tricycle or bicycle fast and recklessly.

1 2 3 4 5 6 7 NA

89. Sometimes becomes absorbed in a picture book and looks at it for a long time.

1 2 3 4 5 6 7 NA

90. Remains pretty calm about upcoming desserts like ice cream.

1 2 3 4 5 6 7 NA

91. Hardly ever complains when ill with a cold.

1 2 3 4 5 6 7 NA

92. Looks forward to special class events, but does not get too excited about them.

1 2 3 4 5 6 7 NA

93. Likes to sit quietly and watch people do things.

1 2 3 4 5 6 7 NA

94. Enjoys gentle rhythmic activities, such as rocking or swaying.

1 2 3 4 5 6 7 NA

Please check back to make sure you have completed all the pages of the questionnaire. Thank you very much for your help!

B.2 Child Behavior Questionnaire – Short Form (Putnam & Rothbart, 2006)

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University of Oregon
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Children's Behavior Questionnaire
Short Form Version I

Subject No. _____

Today's Date _____

Sex of Child _____

Date of Child's Birth:

_____ _____ _____
Month Day Year

Age of Child _____ _____
Years months

Instructions: Please read carefully before starting:

On the next pages you will see a set of statements that describe children's reactions to a number of situations. We would like you to tell us what your child's reaction is likely to be in those situations. There are of course no "correct" ways of reacting; children differ widely in their reactions, and it is these differences we are trying to learn about. Please read each statement and decide whether it is a "true" or "untrue" description of your child's reaction within the past six months. Use the following scale to indicate how well a statement describes your child:

Circle #	If the statement is:
1	extremely untrue of your child
2	quite untrue of your child
3	slightly untrue of your child
4	neither true nor false of your child
5	slightly true of your child
6	quite true of your child
7	extremely true of your child

If you cannot answer one of the items because you have never seen the child in that situation, for example, if the statement is about the child's reaction to your singing and you have never sung to your child, then circle NA (not applicable).

Please be sure to circle a number or NA for every item.

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1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

My child:

1. Seems always in a big hurry to get from one place to another.

   1 2 3 4 5 6 7 NA

2. Gets angry when told s/he has to go to bed.

   1 2 3 4 5 6 7 NA

3. Is not very bothered by pain.

   1 2 3 4 5 6 7 NA

4. Likes going down high slides or other adventurous activities.

   1 2 3 4 5 6 7 NA

5. Notices the smoothness or roughness of objects s/he touches.

   1 2 3 4 5 6 7 NA

6. Gets so worked up before an exciting event that s/he has trouble sitting still.

   1 2 3 4 5 6 7 NA

7. Usually rushes into an activity without thinking about it.

   1 2 3 4 5 6 7 NA

8. Cries sadly when a favorite toy gets lost or broken.

   1 2 3 4 5 6 7 NA

9. Becomes quite uncomfortable when cold and/or wet.

   1 2 3 4 5 6 7 NA

10. Likes to play so wild and recklessly that s/he might get hurt.

    1 2 3 4 5 6 7 NA

11. Seems to be at ease with almost any person.

    1 2 3 4 5 6 7 NA

12. Tends to run rather than walk from room to room.

    1 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

My child:

13. Notices it when parents are wearing new clothing.

    1 2 3 4 5 6 7 NA

14. Has temper tantrums when s/he doesn't get what s/he wants.

    1 2 3 4 5 6 7 NA

15. Gets very enthusiastic about the things s/he does

    1 2 3 4 5 6 7 NA

16. When practicing an activity, has a hard time keeping her/his mind on it.

    1 2 3 4 5 6 7 NA

17. Is afraid of burglars or the "boogie man."

    1 2 3 4 5 6 7 NA

18. When outside, often sits quietly.

    1 2 3 4 5 6 7 NA

19. Enjoys funny stories but usually doesn't laugh at them.

    1 2 3 4 5 6 7 NA

20. Tends to become sad if the family's plans don't work out.

    1 2 3 4 5 6 7 NA

21. Will move from one task to another without completing any of them.

    1 2 3 4 5 6 7 NA

22. Moves about actively (runs, climbs, jumps) when playing in the house.

    1 2 3 4 5 6 7 NA

23. Is afraid of loud noises.

    1 2 3 4 5 6 7 NA

24. Seems to listen to even quiet sounds.

    1 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

My child:

25. Has a hard time settling down after an exciting activity.

1 2 3 4 5 6 7 NA

26. Enjoys taking warm baths.

1 2 3 4 5 6 7 NA

27. Seems to feel depressed when unable to accomplish some task.

1 2 3 4 5 6 7 NA

28. Often rushes into new situations.

1 2 3 4 5 6 7 NA

29. Is quite upset by a little cut or bruise.

1 2 3 4 5 6 7 NA

30. Gets quite frustrated when prevented from doing something s/he wants to do.

1 2 3 4 5 6 7 NA

31. Becomes upset when loved relatives or friends are getting ready to leave following a visit.

1 2 3 4 5 6 7 NA

32. Comments when a parent has changed his/her appearance.

1 2 3 4 5 6 7 NA

33. Enjoys activities such as being chased, spun around by the arms, etc.

1 2 3 4 5 6 7 NA

34. When angry about something, s/he tends to stay upset for ten minutes or longer.

1 2 3 4 5 6 7 NA

35. Is not afraid of the dark.

1 2 3 4 5 6 7 NA

36. Takes a long time in approaching new situations.

1 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

My child:

37. Is sometimes shy even around people s/he has known a long time.

I 2 3 4 5 6 7 NA

38. Can wait before entering into new activities if s/he is asked to.

I 2 3 4 5 6 7 NA

39. Enjoys "snuggling up" next to a parent or babysitter.

I 2 3 4 5 6 7 NA

40. Gets angry when s/he can't find something s/he wants to play with.

I 2 3 4 5 6 7 NA

41. Is afraid of fire.

I 2 3 4 5 6 7 NA

42. Sometimes seems nervous when talking to adults s/he has just met.

I 2 3 4 5 6 7 NA

43. Is slow and unhurried in deciding what to do next.

I 2 3 4 5 6 7 NA

44. Changes from being upset to feeling much better within a few minutes.

I 2 3 4 5 6 7 NA

45. Prepares for trips and outings by planning things s/he will need..

I 2 3 4 5 6 7 NA

46. Becomes very excited while planning for trips.

I 2 3 4 5 6 7 NA

47. Is quickly aware of some new item in the living room.

I 2 3 4 5 6 7 NA

48. Hardly ever laughs out loud during play with other children.

I 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

My child:

49. Is not very upset at minor cuts or bruises.

1 2 3 4 5 6 7 NA

50. Prefers quiet activities to active games.

1 2 3 4 5 6 7 NA

51. Tends to say the first thing that comes to mind, without stopping to think about it.

1 2 3 4 5 6 7 NA

52. Acts shy around new people.

1 2 3 4 5 6 7 NA

53. Has trouble sitting still when s/he is told to (at movies, church, etc.).

1 2 3 4 5 6 7 NA

54. Rarely cries when s/he hears a sad story.

1 2 3 4 5 6 7 NA

55. Sometimes smiles or giggles playing by her/himself.

1 2 3 4 5 6 7 NA

56. Rarely becomes upset when watching a sad event in a TV show.

1 2 3 4 5 6 7 NA

57. Enjoys just being talked to.

1 2 3 4 5 6 7 NA

58. Becomes very excited before an outing (e.g., picnic, party).

1 2 3 4 5 6 7 NA

59. If upset, cheers up quickly when s/he thinks about something else.

1 2 3 4 5 6 7 NA

60. Is comfortable asking other children to play.

1 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

My child:

61. Rarely gets upset when told s/he has to go to bed.

1 2 3 4 5 6 7 NA

62. When drawing or coloring in a book, shows strong concentration.

1 2 3 4 5 6 7 NA

63. Is afraid of the dark.

1 2 3 4 5 6 7 NA

64. Is likely to cry when even a little bit hurt.

1 2 3 4 5 6 7 NA

65. Enjoys looking at picture books.

1 2 3 4 5 6 7 NA

66. Is easy to soothe when s/he is upset.

1 2 3 4 5 6 7 NA

67. Is good at following instructions.

1 2 3 4 5 6 7 NA

68. Is rarely frightened by "monsters" seen on TV or at movies.

1 2 3 4 5 6 7 NA

69. Likes to go high and fast when pushed on a swing.

1 2 3 4 5 6 7 NA

70. Sometimes turns away shyly from new acquaintances.

1 2 3 4 5 6 7 NA

71. When building or putting something together, becomes very involved in what s/he is doing, and works for long periods.

1 2 3 4 5 6 7 NA

72. Likes being sung to.

1 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

My child:

73. Approaches places s/he has been told are dangerous slowly and cautiously.

1 2 3 4 5 6 7 NA

74. Rarely becomes discouraged when s/he has trouble making something work.

1 2 3 4 5 6 7 NA

75. Is very difficult to soothe when s/he has become upset.

1 2 3 4 5 6 7 NA

76. Likes the sound of words, such as nursery rhymes.

1 2 3 4 5 6 7 NA

77. Smiles a lot at people s/he likes.

1 2 3 4 5 6 7 NA

78. Dislikes rough and rowdy games.

1 2 3 4 5 6 7 NA

79. Often laughs out loud in play with other children.

1 2 3 4 5 6 7 NA

80. Rarely laughs aloud while watching TV or movie comedies.

1 2 3 4 5 6 7 NA

81. Can easily stop an activity when s/he is told "no."

1 2 3 4 5 6 7 NA

82. Is among the last children to try out a new activity.

1 2 3 4 5 6 7 NA

83. Doesn't usually notice odors such as perfume, smoke, cooking, etc.

1 2 3 4 5 6 7 NA

84. Is easily distracted when listening to a story.

1 2 3 4 5 6 7 NA

1	2	3	4	5	6	7	NA
extremely untrue	quite untrue	slightly untrue	neither true nor untrue	slightly true	quite true	extremely true	not applicable

My child:

85. Is full of energy, even in the evening.

1 2 3 4 5 6 7 NA

86. Enjoys sitting on parent's lap.

1 2 3 4 5 6 7 NA

87. Gets angry when called in from play before s/he is ready to quit.

1 2 3 4 5 6 7 NA

88. Enjoys riding a tricycle or bicycle fast and recklessly.

1 2 3 4 5 6 7 NA

89. Sometimes becomes absorbed in a picture book and looks at it for a long time.

1 2 3 4 5 6 7 NA

90. Remains pretty calm about upcoming desserts like ice cream.

1 2 3 4 5 6 7 NA

91. Hardly ever complains when ill with a cold.

1 2 3 4 5 6 7 NA

92. Looks forward to family outings, but does not get too excited about them.

1 2 3 4 5 6 7 NA

93. Likes to sit quietly and watch people do things.

1 2 3 4 5 6 7 NA

94. Enjoys gentle rhythmic activities, such as rocking or swaying.

1 2 3 4 5 6 7 NA

Please check back to make sure you have completed all the pages of the questionnaire. Thank you very much for your help!

B.3 Parent Demographic Questionnaire

Demographic Information Form

Subject No.:

Date:

1. What ethnicity do you belong to?
    - Native American Indian or Alaska Native
    - Asian
    - Black or African American
    - Native Hawaiian or Other Pacific Islander
    - White
    - Unknown
    - Mixed
2. What ethnicity does your child belong to?
    - Native American Indian or Alaska Native
    - Asian
    - Black or African American
    - Native Hawaiian or Other Pacific Islander
    - White
    - Unknown
    - Mixed
3. When did your family/ancestors move to the US?
    - More than two generations of my ancestors were born in the US
    - My great grandparents moved to US from country of origin
    - My grandparents moved to US from country of origin
    - My parents moved to US from country of origin
    - I moved to the US from country of origin (please specify below how many years ago you came to the US)
4. How would you describe your home culture/culture of origin you most identify with (for e.g., Italian, Croatian, Ethiopian, Ghanaian, Indian, Filipino, Mexican, Latino, American, etc.)?
    - _____
5. Based on the home culture you identify with, is there a more specific community within that population that you identify with? (For example, if you identify as Indian, you may further identify as Gujarati, Bengali, Haryanvi etc., or if you identify as American, you may further identify as Illinoisian, New Yorker, Oregonian etc.)
    - _____
6. What is your marital status?
    - Single
    - Married
    - Divorced

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APPENDIX C: QUALITATIVE MEASURES

C.1 Peer Engagement Qualitative Tool (first two pages; Banerjee, 2020)

Child: **Total children present:** **Date:**

	Context		Affect		Content
	Situational	**Social**			
OBS 1	Art Blocks Science Housekeeping Carpet Playdoh Sensory Gym Meals Playground Other	Peers Adults	**Emotional** Happy Sad Angry Interested Fearful Surprised Disgust Acceptance	**Behavioural** Acting out Acting in Approach Avoidance Tired/listless Impulsive Distracted Self-soothing Neutral	Conversation | Argument | Negotiation | Role play | Parallel play
OBS 2	Art Blocks Science Housekeeping Carpet Playdoh Sensory Gym Meals Playground Other	Peers Adults	**Emotional** Happy Sad Angry Interested Fearful Surprised Disgust Acceptance	**Behavioural** Acting out Acting in Approach Avoidance Tired/listless Impulsive Distracted Self-soothing Neutral	Conversation | Argument | Negotiation | Role play | Parallel play
OBS 3	Art Blocks Science Housekeeping Carpet Playdoh Sensory Gym Meals Playground Other	Peers Adults	**Emotional** Happy Sad Angry Interested Fearful Surprised Disgust Acceptance	**Behavioural** Acting out Acting in Approach Avoidance Tired/listless Impulsive Distracted Self-soothing Neutral	Conversation | Argument | Negotiation | Role play | Parallel play

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	Context		Affect		Content
	Situational	**Social**			
OBS 4	Art Blocks Science Housekeeping Carpet Playdoh Sensory Gym Meals Playground Other	Peers Adults	**Emotional** Happy Sad Angry Interested Fearful Surprised Disgust Acceptance	**Behavioural** Acting out Acting in Approach Avoidance Tired/listless Impulsive Distracted Self-soothing Neutral	Conversation | Argument | Negotiation | Role play | Parallel play
OBS 5	Art Blocks Science Housekeeping Carpet Playdoh Sensory Gym Meals Playground Other	Peers Adults	**Emotional** Happy Sad Angry Interested Fearful Surprised Disgust Acceptance	**Behavioural** Acting out Acting in Approach Avoidance Tired/listless Impulsive Distracted Self-soothing Neutral	Conversation | Argument | Negotiation | Role play | Parallel play
OBS 6	Art Blocks Science Housekeeping Carpet Playdoh Sensory Gym Meals Playground Other	Peers Adults	**Emotional** Happy Sad Angry Interested Fearful Surprised Disgust Acceptance	**Behavioural** Acting out Acting in Approach Avoidance Tired/listless Impulsive Distracted Self-soothing Neutral	Conversation | Argument | Negotiation | Role play | Parallel play

C.2 Parent Interview Schedule

Parent Interview Guide

- Begin with introductions
  - Ask for permission to record interview
  - Briefly explain purview of study, aims, reasons for interview
- How long have you lived in the US?
  - (For those who grew up in another country and immigrated to the US) How was your experience adapting to the culture in the US?
- How would you describe your home culture? How similar is it to the home culture you grew up with?
- Have you had specific conversations with your child regarding your home culture? About culture in the US? Assimilation versus acculturation?
- Do you think your child feels connected to your home culture? Do they have trouble balancing their familial cultural identity with the culture here in the US?
- Does your child have friends from the same culture/ethnicity as yours? Different cultures/ethnicities? Have you noticed any differences in the way in which the children interact based on their home culture?
- What do you think are the main ways in which your child differs in their interaction styles versus children of other cultures? Does it affect their interactions in any major ways?

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APPENDIX D: CHILD BEHAVIOR QUESTIONNAIRE SUBSCALE DEFINITIONS

From Putnam & Rothbart (2006)

Scale	Definition
Activity Level	Level of gross motor activity including rate and extent of locomotion.
Anger/Frustration	Amount of negative affect related to interruption of ongoing tasks or goal blocking.
Approach/Positive Anticipation	Amount of excitement and positive anticipation for expected pleasurable activities.
Attentional Focusing	Tendency to maintain attentional focus upon task-related channels.
Discomfort	Amount of negative affect related to sensory qualities of stimulation, including intensity, rate or complexity of light, movement, sound, texture.
Falling Reactivity/Soothability	Rate of recovery from peak distress, excitement, or general arousal.
Fear	Amount of negative affect, including unease, worry or nervousness related to anticipated pain or distress and/or potentially threatening situations.
High Intensity Pleasure	Amount of pleasure or enjoyment related to situations involving high stimulus intensity, rate, complexity, novelty and incongruity.
Impulsivity	Speed of response initiation.
Inhibitory Control	The capacity to plan and to suppress inappropriate approach responses under instructions or in novel or uncertain situations.
Low Intensity Pleasure	Amount of pleasure or enjoyment related to situations involving low stimulus intensity, rate, complexity, novelty and incongruity.

Perceptual Sensitivity	Detection of slight, low-intensity stimuli from the external environment.
Sadness	Amount of negative affect and lowered mood and energy related to exposure to suffering, disappointment and object loss.
Shyness	Slow or inhibited approach in situations involving novelty or uncertainty.
Smiling and Laughter	Amount of positive affect in response to changes in stimulus intensity, rate, complexity, and incongruity.