

ATTUNE WITH BABY:  
AN INNOVATIVE ATTUNEMENT PROGRAM  
FOR PARENTS AND FAMILIES WITH INTEGRATED EVALUATION

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By  
Sara Beth Lohre  
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This dissertation, by Sara Beth Lohre, has been approved by the committee members signed below who recommend that it be accepted by the faculty of the Antioch University Seattle at Seattle, WA in partial fulfillment of requirements for the degree of

DOCTOR OF PSYCHOLOGY

Dissertation Committee:

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Bill Heusler, Psy.D., Chairperson

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Sheldon Berger, Ph.D.

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Melissa Curran, Ph.D.

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Date

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ABSTRACT

ATTUNE WITH BABY:

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FOR PARENTS AND FAMILIES WITH INTEGRATED EVALUATION

Sara Beth Lohre

Antioch University Seattle

Seattle, WA

Infants speak in their own language; sounds, screeches, cries, and howls that help them to communicate their caregiving needs. Unaware, parents may develop a checklist of caregiving approaches to the baby. The infant tells the adult directly what they need, and waits for the parent to respond. Infant talk may change from soft and quiet to loud and aggressive; coos and cries become crying and screams as the infant's caregiver—communicating the intensity of emotion, urgency of their request, or their frustration with varied and sometimes inadequate, failed, or missing caregiving patterns the infant has no choice but to accept. When the caregiver's response is slow, missing, irrelevant, inconsistent, or incorrect, the infant's level of stress increases. Stressed themselves, frustrated, and confused, parents and caregivers may neglect the child, or respond with abuse. According to the U. S. Department of Health and Human Services (2006), abuse and neglect have lasting effects on the child's development. Parents and caregivers of an infant need support. The purpose of this Attune With Baby Intervention is to teach parents and caregivers infant language so they hear, more quickly understand the infant's request, and respond appropriately, coordinating care with the infant before the infant and caregiver become stressed. Parents and caregivers attune with infant in the context of a family support program encompassing training, support, developmental assessment,

referrals and connection to community resources, and other families. The program is implemented, developed, and evaluated by psychologists and doctoral students in psychology. This dissertation is available in open access at AURA, <http://aura.antioch.edu/> and Ohio Link ETD Center, <https://etd.ohiolink.edu.etc>.

*Keywords:* attunement, attachment, family, caregiver, parents, parent, sibling, grandparents, sibling, infant, infant language, linguistics, baby talk, preverbal, cries, crying, needs, parenting stress, family support program, abuse, neglect, child abuse prevention, child neglect prevention, family stress, treatment, intervention, program, evaluation, assessment, training, psychologist, elementary school, ecological model

## **Dedication**

This dissertation is dedicated to Tooz and Egil, Amy and Arkisha, John, Benjamin, Hannah, James, Tilli, and to John and Mary.

## **Acknowledgements**

My focus of doctoral study is clinical psychology, however, during this process I often wished that I had multiple doctoral degrees in order to adequately describe the connections I am proposing. Between the time I began this work and as I type this dedication, I have access to millions more research studies than just one year ago. Researchers from more nations are sharing their knowledge and collaborating with other researchers around the world. Witnessing this gives me hope, especially given the tense nature of the political and behavioral climate in this world. I have appreciated that researchers are using valuable database sites that allow free access to their work in progress—perhaps because they remember the financial reality of being a student and they want the help the world to change. I am incredibly grateful to theorists through time and space who inspired me to put these ideas together for the purpose of social change.

I am indebted to my dissertation committee: to my first chair, Tien, a masterful teacher and guide; Bill, whose encouragement, thoughtful feedback, patience and kindness got me to the finish line; Melissa, a brilliant researcher whose feedback gave me strength and courage to articulate my ideas; to Sheldon, whose technical acumen, humor, attention to detail, kindness, and sobering reminders pushed me to stop treading water and triumphantly do the turn on the last lap; and to Nancy for her support and expertise.

Thank you, dearest Jill, for co-coordinating attunement with me, for your passion, loving humor, and guidance of the kismet submarine holding somatic mammaling with Martine, and Andrea, Lisa, Julia, Victoria, Angie, Nicole, Lauren, and Julia; for Luata, and attuned big feels; for Manu, whose humor, spells and needles keep me tuned in to me; to Truus and Lynn, each my refuge during wild storms; for Laura and Ida, who reflect the depth of love required to inspire and teach others and let my dance commence; for Dawn, who modeled improvisational abandon,

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I had a vision . . . infants of all cultures riding beasts, face to face--mirror neurons flashing. The infants, co-coordinating attunements with other infants—speaking in one tongue together, were calming the threats of nuclear war, global warming, genocide, all violence, neglect, and abuse by teaching their adults to listen their bodies to hear again.



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## **Chapter I: The Complexities of the Caregiving Needs of Infants**

### **Infant Caregivers Face Challenges**

Infants' needs change constantly. Sometimes babies want to be fed or have their pants changed. They feel cold, hot, or otherwise uncomfortable, and need help to return to homeostasis. They need help getting to sleep; they need help burping. Sometimes more than one need must be addressed simultaneously. These infant needs require attention, a timely response, and skills. Parents and caregivers believe they must figure out which infant need must be addressed, and in what order. Often, parents must respond quickly—sometimes in the middle of the night with little sleep. Parents may feel they must guess what to do next. Caregivers are not always sure how to respond to the baby.

**Caregivers are seeking support and guidance.** Each parent's response to caregiving needs is different. To understand their new infant's needs many parents read books, blogs, websites, and scour the internet for resources. According to Amazon.com (September 1, 2016), there were more than 100 bestselling resources on parenting infants that hold bestseller status without solicited reviews. One pregnancy resource, available in book format, as a website and an app, claims to reach over 11 million parents, including updated information on prenatal screening and the Zika virus. Millions of dollars are spent each year on parenting self-help resources. In a 2015 study conducted by Pew Research Center, of a nationally representative sample of 1,807 parents with a child younger than six years old in the United States, researchers found that 43% of parents often or sometimes seek parenting advice on websites, books, and magazines, 20% use social media, list serves or online message boards (p. 39). Navigating through the myriad of self-help books, websites, and social media tools developed for parents by psychologists, psychotherapists, medical doctors, other parents—experts who may often

contradict each other or who prescribe approaches that may be confusing, labor-intensive, ineffective or even harmful to the infant—may leave the parent even more confused. The learning curve is steep for new parents with so much new information, new behaviors and expectations, and a new day and night reality very different from the one they used to know. Many parents are seeking information on how to parent.

**Cues may be missing.** Parents may look for clues from the infant, such as body language—pointing, gesturing, or familiar faces—smiles or grimaces to help them identify the caregiving needs of the infant. Parents may feel that they intuitively know what a child needs, but many parents seek advice from family members. Pew Research Center (2015) found that 57% of partnered parents rely heavily on each other for parenting advice, 44% of parents reported that they have some support from friends or extended family for parenting, but only 33% of parents with a child under six years relies on family members for parenting advice (p. 37). Parents may not know who to turn to for parenting guidance.

**Caregiving responses change.** Caregiver responses may change constantly. Not only are the infant's needs always changing, but the infant-caregiving procedure is also changing. What the infant needs right now is not likely what the infant needed an hour ago or will need 10 minutes from now. Caregiving strategies may not look identical each time the caregiver utilizes them. The parent and child may be in the car, driving to the store when the infant needs a diaper change; the parent cannot respond to the infant's need immediately as they might at home. The infant-caregiving procedure may change based on whether the caregiver has had sleep or food. The parent may have returned home from a long, hard day at work and they do not notice the infant's cries for help as much as they notice their own needs. The caregiving procedure may shift when a familiar nonverbal cue from the infant causes the caregiver to give a particular

approach a try. If a parent puts the infant on a feeding or napping schedule, the procedure may change completely. The infant may not know what to expect from the parent or caregiver.

**Consistency may be missing.** Creating consistency in infant caregiving can be challenging in the modern world, especially as care may be divided between multiple providers, including parents, extended family, siblings, day care providers, and babysitters. The infant must adapt to varied approaches between caregivers. Infants with more than one parent or caregiver may have many caregiving approaches operating simultaneously. The procedure will change each time a different person is caregiving. This infant-caregiving system or a combination of systems that do not complement or validate each other—with all their confounding variables—may cause the infant to feel they do not know how, when, or whether their needs will be addressed.

**Caregiving approaches may conflict.** Caregiving approaches are influenced by culture, models, experience, information, training, the child's behavior, the caregiver's knowledge of infant development and their experience of parenting, including as a child, the caregiver's comfort and ability with the role of caregiver, trial-and-error, and many other factors. Each parent and caregiver's experience, approach to relationships, responses to stress, learning, and ideas about infant needs are different; therefore, it seems unlikely that any two caregivers would naturally take the same approach to parenting an infant. While diversity in parenting styles seems to be the norm and may benefit the child's development, consistency and shared understanding are key to any functional relational system and those may not result from different parenting styles. Systems that take up valuable time, are not always accurate, that do not address the infant's needs accurately or reliably, are not optimal for the infant or the caregiver.

**Statement of the problem.** Parents may be unaware that they can receive helpful, caregiving guidance directly from their infant, which may help to protect the infant from abuse and neglect.

### **The Plan for an Innovative Attunement Program**

In this paper, I will present a plan for an innovative program designed to engage and support all families who are expecting an infant, through awareness to valuable information their own infant will provide to them to make the experience of caring for that newborn less stressful. The embedded intervention is infant language training, practice with infant language decoding, and family support. In this program, an Attunement Therapist (AT) —a doctoral student in psychology—will work with the family in-home and at the Family Support Center (FSC), located in a public elementary school in the family’s neighborhood. Training parents and caregivers together may increase consistency in attunement strategies and aid in the development of trust for the infant. The AT will develop a relationship with each of the caregiving members in the infant’s support system who will work together to ensure healthy development of the infant, first and foremost, in the context of caregiving for the infant—the family home.

**Attune With Baby Intervention.** An innate caregiving guidance tool that is unique to the needs of each infant exists that could help caregivers to identify and respond to the needs of their child. The usefulness of the tool depends on the caregiver’s ability to listen and respond—to attune—to the infant’s specific request for care. Infants speak a language that has been observed cross-culturally which elicits coordination of attunement. The infant may ask for food, to be burped, to be changed, or with help getting to sleep. The specific requests for help coming from the infant—when heard and decoded by the caregiver—will invite and suggest coordinated interactions with shared intentions. The infant speaks to the caregiver with intention: to

synchronize behavior with emotional attunement so that the caregiver will help by meeting the infant's needs.

***Somatic reflexes.*** Through coordinated caregiving attunements, the infant practices relating to a loved one, asking for help, learning what to expect from others, and responding to caregivers. The infant's innate somatic reflex prompts the child to communicate their need through infant language.

***Infant language.*** The infant speaks their need to the caregiver and waits for a reaction. The infant may attempt to speak the language that the parent is speaking, demonstrating a desire to understand and connect. The infant may communicate emotional encouragement through loving gestures such as hugs or kisses, and even holding the parent's face in their hands and looking into the parent's eyes. At first, the infant may use volume, tone, and gestures to indicate the urgency of the need. The infant cannot meet the parent's needs; however, they may try to if they cannot get their needs met. Coordinated caregiving attunements may be associated with trust-building, emotion regulation, learning, cognitive development, language acquisition, somatic awareness, and attachment.

## **Program Intentions and Goals**

**Abuse and neglect prevention.** Caregiving members of the infant support system will learn infant language through an Attune With Baby Intervention to assist in preventing abuse and neglect. This approach to caregiving utilizes the newborn's knowledge to inform caregiving based on the infant's verbal response to its own innate somatic reflex, rather than depending on multiple caregiving approaches across providers which can be experienced as inconsistent, confusing, or fail to meet the infant's needs. Through attunements, infant caregivers may experience less stress and exhibit more confidence in caregiving which may assist in building



trust with the infant. The AT will provide language training, assistance in identification of appropriate caregiving responses, and feedback to support attunement amongst all family members and infant caregivers. The AT will assist the family in coordinating and connecting with other needed support services, including individual and family therapy, parenting groups, and connection to families in their community—expanding the infant’s support system.

**Family support toward attunement.** In order to ensure attunement and create consistency in infant response approaches across infant caregivers of diverse family structures, four goals will be met by the Attunement Therapist (AT) including in order to support the needs of the infant:

1. Family engagement
2. Assessment of the infant’s support system
3. Strengthen the infant’s support system through the implementation of the  
Attune with Baby Intervention
4. Expand the infant’s support system.

### **Author’s Experience and Bias**

**Barriers to healthy child development.** For almost 20 years I have been teaching adults and working in various counseling roles with diverse populations. Before I was trained to be a psychotherapist, I worked as a nanny for a few families, and entertained the idea of teaching elementary school students. My work as a student teacher at a magnet school in the Midwest did not last long because I could not understand how any one person could summon the energy to keep up with 30 or more children all day for nine months at a time. I developed great respect for innovative teaching and awareness of neurodiversity, including autism spectrum disorders, learning, attention, and focus issues linked with trauma. It is this experience that led me to

develop the understanding that children face incredible relational learning barriers which often become evident in the classroom; such barriers must also be addressed, and may even be prevented, in the family home.

***Missing support for children.*** As a student teacher, I witnessed some teachers sending children to special education classes because they did not like their behavior—mostly children of color. I was saddened and angered by teachers who without any formal mental health training diagnosed children with attention disorders, mood disorders, and personality disorders, and suggested to their parents that they see a primary care physician for medication that could help them “function better” at school and at home. I saw an administrator and a student's teacher shame a student in front of his whole class, and his single working mother in front of other parents for “failing to parent” when her son reportedly misbehaved and she could not attend a meeting to discuss his behavior due to the scheduling of her three jobs to make ends meet. No other support was offered to the mother or family—no resources or referrals. Her young child was permanently suspended from school and the public was made aware of all their family issues without her permission, response, or engagement.

I wondered why no psychologists, besides one “school psychologist” (not actually a psychologist), were available to provide support for teachers, families, and students. I never saw social workers or other community health providers at the school unless someone had done something wrong. To suggest that one school counselor and one school nurse should be adequate support for hundreds of children, teachers, and staff who spent more hours of their lives together than at home, reflects lack of understanding of the needs of children and those who support them.

***Stigma.*** Stigma made sense to me. Access to mental health support is difficult and unlikely, suggested for children whose parents would not attend a family session, even though it

was clear that the family problems were showing up in the classroom. Teachers appeared to spend much of the day on behavioral management, including assigning time outs, restricting or removing free time, recess, and lunch, which seemed to have a relationship to the few times students directly asked teachers for help. Exercise and self-care were unlikely adaptive coping strategies introduced, taught, or modeled for stress release in this environment or any other. The educational system was not designed to prepare children for the lives they are already living, but many children need help to survive and basic needs left unmet are barriers to learning.

I decided that teaching children was not for me and that my time might be better spent working with parents to help them get and keep living wage work to support their families and be able to spend quality time with their children. I gained experience working with many populations in transition, including welfare recipients and criminal offenders returning home from incarceration, to find work and raise their children. I witnessed broken government systems that tiered client caseloads like the insurance companies I had worked for right out of college. I began to understand and work to address complex barriers, including psychological, developmental, disability, cultural and language barriers, systemic racism, sexism, homophobia, and ageism, as well as discrimination against welfare recipients, homeless, people of color, documented and undocumented immigrants, single mothers and fathers, criminal offenders, and those addicted to substances. I learned more there from clients and social workers, government, and private sector workers about what gets in the way for people than in all my professional development and graduate work that prepared me to be a psychotherapist, first at the master's level, and throughout my doctoral training.

**Community-based support for diverse populations.** I went on to direct programming with diverse faith-based groups organizing to support living wage work for congregation and

community members. We took a visible— at the time, radical—political stance on social issues such as affordable housing, living wage jobs for low-wage workers, and driver's licenses and bank accounts for undocumented immigrants toward the healthy development of families. We walked the picket lines and helped to end the largest restaurant and hotel workers' strike in history, and lobbied hard for what is now mental health parity, HR 6983 (Civic Impulse, 2017). I initiated, assisted with community organizing, lobbying support for nine existing pieces of legislation allowing skilled workers with experience and expertise working in the trades who were facing barriers to using their experience without a college degree, to test into their fields. I learned that the best time to organize people toward change is when they are angry or fearful. The best activists are those who lie awake at night, worrying because of their own circumstance, holding a strong desire for relief from stress. Volunteers are wonderful, but someone who will benefit from a systemic change has greater motivation to enact change, and they likely have great ideas about how to make change that reflects their culture and identity. This organizing of diverse workers brought labor unions, and blue, and white collar workers together to support their families around 9/11 when tensions were heightened, discrimination was high, and lack of understanding for the experience of “the other” was the norm. Something wonderful can happen when people with shared experience work together on social change.

I engaged in work with immigrants seeking asylum and opportunity in the United States. Many clients had come from war-torn countries where they were tortured, and lost their homes and family members. This work gave me pause. The horrors that some people have endured are unfathomable to the average American and it can be difficult to find psychotherapists who have clinical experience that addresses the deep level of trauma of torture and violence that goes on in the world outside of these borders. I became adept at helping clients to reduce posttraumatic

stress, develop self-care practices based on their coping that fit with their cultural experience, acclimate, and connect with community supports. I rallied community leaders to identify resources, to create spaces of inclusion, and identify safe environments where people could work living wage jobs and receive support healthy development, express grief, and heal. I came to understand that immigrant families, families living in poverty, and families who are not two married heterosexual parents with 2.5 children face incredible challenges in raising children, but these challenges are familiar to all parents. All parents must make time for their children, provide emotional support, and financial resources to provide for their children in order to create stability and connections which support the infant's survival through adulthood. I learned that the best possible future for all families begins with the thoughtful, attuned care of its children beginning infancy.

***Experience with government systems.*** During my first graduate school experience, I worked with two forensic psychologists and their court-ordered clients, youth and adults with trauma histories who demonstrated violent or other anti-social behavior. I had the opportunity to support work in competency hearings, to co-facilitate support groups, and to engage programming in court-ordered housing for youth removed from their family homes. I noticed that many government programs address the needs the government planners have assessed; rarely are participants asked about their perception of the problems and their experience of the program until they have graduated from it, usually with few, if any, new skills, resources or support to address what led them there, often to find themselves right back there again.

***Lack of adequate support.*** Many government programs that interface with families who are clearly lacking support to raise healthy children, such as jails and prisons, juvenile detention, chemical dependency treatment programs, and child protective services, may address transition

issues, but do not work to improve parenting and quality of family life so that things might be different when the child or adult returns home. In other families, a parent's financial resources and social stigma may block a child's interface with government support, even when a child is in danger. The parent may seek parenting support from a psychotherapist who does not learn the severity of the child's situation or who does not report it. Front line social service workers encounter many hurdles as they attempt to address the challenges children face given budget cuts, and lack of adequately trained support professionals. Caregiving needs are not adequately addressed.

Our society tiptoes around parenting failures and makes jokes about them, instead of addressing them and teaching parents and caregivers effective strategies. Our systems fail to teach people how to parent before they become parents, and do not provide adequate support long enough for lasting change to take hold. A few hours of guidance in the hospital before the baby goes home, and an hour-long appointment every few months does not adequately support the healthy development of an infant. Family support issues are very political, unless you look at them from the child's point of view.

***Children are not safe.*** Children who face abuse and neglect experience no space as safe, inside or outside of their bodies. Danger is always lurking. They do not own their experience; it is dictated to them. It may be normal for them not to see or acknowledge authority at all through adulthood when authorities did not take care of them. They may shut down what their body tells them, and learn to trust no one, including themselves. They may spend most of their adult lives in survival mode, trying to remove barriers others think they have placed in their own way, when in fact they may only be repeating the behavioral patterns modeled to them . . . the very patterns that they survived.

I remember participants of all the programs I worked with being asked to share the stories of their traumas with people who had never been directly supportive of them, including a photo, video, or a public talk, after it was determined they had been successful program participants. I noticed the lack of community relationships, even in faith congregations, prevented people from sharing their experiences, contacts, job leads, their homes, a meal, and resources. Clients often agreed to share their experience to thank people who usually had nothing at all to do with the progress they made in the program. The participants—we were not to call them clients—were apprehensive, afraid, embarrassed, and did not understand how doing so would benefit them. Most of the time it did not benefit them or participants who entered the program after them.

This sharing of life experience without a relational context fueled stereotypes, discrimination, and put the experience of struggling parents and their decisions on display for judgment by others they could not relate to who would not help them. It makes sense to me now why stigma in parenting support exists. A parent who has encountered Child Protective Services is more likely to be in poverty. I learned through my experience sitting with clients in therapy sessions and hearing stories from students that plenty of middle class and upper class parents are just as abusive and neglectful toward their children, but financial resources often protect them from having to share their stories, or engage in therapy or any family support services. I saw that parents often do not know how to do parenting better than what they received. The perceived consequences of asking for help in raising children prevent many parents from giving their children a fighting chance at a healthier family. Families of different socioeconomic and ethnic backgrounds can live in the same community with similar family problems, but the way their families are treated may be radically different.

**Toward healthy child development: creating safe space.** Over the years, I witnessed frequently that community building is critical in developing adult awareness and acceptance of diversity and difference when attachment figures have not been a safe base (Main & Cassidy, 1988). In the last few years I worked with students to develop a student and alumni group that provides student retention support, professional development, social and professional networking opportunities, mentorship, and leadership. My work with students on the development of social justice projects brings great joy, but more than that, I appreciate the support they provide for each other. The support had been missing for many, and is now moving them to change and grow at a rapid pace. As a result, I have developed greater empathy, awareness, relational skills and gratitude for the opportunity to reinvest my time and gifts.

**Attuned support.** I see many adult students struggling with significant mental and physical health issues, relationship problems, financial hardships, undiagnosed learning barriers, and traumatic histories. I have witnessed that traditional therapeutic relationships are not always very healing or helpful. Sometimes psychotherapists do not return calls for help or abandon their client when the client needs attunement most. Many therapists I have met and heard about in session have no idea how to attune. Boundaries can be challenging, especially when the psychotherapist has a traumatic history of their own. Attunement skill development requires practice that is not usually available or affordable in therapeutic contexts.

Even though the Patient Protection and Affordable Care Act (2010) has helped millions, many adults cannot afford to take care of themselves. Finding a psychotherapist in a small town, even one with many therapists, may be surprisingly difficult. Common life problems require accessible solutions and support. Developing programming and identifying resources that are available to all are important efforts toward reducing the stigma of asking for help. Teaching



infants that it is good to ask for help through attunements can set them on a path toward healthy development and improve the lives of all who engage in their important learning. These are some of my experiences and biases that have informed this dissertation.

Infants need their parents and caregivers to be attuned listeners. I was drawn to infant language when I heard Priscilla Dunstan's story—that she has a musical gift for sound. I share that gift. At age four I could play music on the piano after hearing it once. My gift for sound has fueled my passions for auditory learning and understanding, helpful for a psychotherapist. What I have heard from perhaps every client or participant I have ever spent time with are the ways in which not feeling heard, not receiving a response from a loved one, and not having your needs met, hurts. Asking for help is a risk; it takes courage, hope, and belief that someone will respond, especially when no one has responded in the way you needed them to before. Responding to a request for help can lift an emotional and physical weight; it can reflect love, caring, thoughtfulness, patience, and kindness. My auditory gift has helped me immensely in my life and work to identify patterns, to hear pain and joy, to navigate the world of complex communication, and listen—attuned—for what must be spoken. The work of this intervention is not just about listening. It is about meeting the words of another human with intention to act together to meet the needs of that other human. It is about the coordination of attunement—the work of two humans who intend to connect.

What follows is a theoretical framework including defining core theory and concepts that support this program design.

### **Theoretical Framework That Supports This Attunement Program**

The theories that inform this program design, intervention, and evaluation are rooted in human biology, psychology, sociology, social work, and speech and linguistics, are discussed

hereafter and followed by the author's clinical examples, hypotheses, and observations of infant experience.

### **Infant observation.**

Infant observation is the research tool that is primary to the evaluation of this program. The study of infant observations and reflexes across disciplines—the way it has been done in the past—sets the foundation for my theory of the evolutionary tie of infant language to attunement and attachment.

**Darwin.** Long before Charles Darwin wrote *On the Origin of Species* (1859) and *The Descent of Man* (1871), he discussed the implications of the idea that languages share a common ancestry, in his first letter (Letter 346), (University of Cambridge, 2016), on the subject of language evolution, written to his sister Caroline Darwin just before he set off on his voyage around the world.

You tell me you do not see what is new in Sir J. Herschel's idea<sup>1</sup> about the chronology of the Old Testament being wrong. I have used the word Chronology in dubious manner, it is not to the days of Creation which he refers, but to the lapse of years since the first man made his wonderful appearance on this world—As far as I know everyone has yet thought that the six thousand odd years has been the right period but Sir J. thinks that a far greater number must have passed since the Chinese, the [space left in copy], the Caucasian languages separated from one stock. (Darwin, 1937, as cited by Bolles, 2007)

Darwin, referred to the notion of universal language discussed by Herschel, a British astronomer who built his own telescope, discovered Uranus and infrared radiation.

Darwin, the father of ten children, made observations of his own infants (University of Cambridge, 2017). According to Lorch and Hellal (2010), Darwin's notebooks included his

thoughts on children, language, and behavior development. Darwin's notebook entries (1838–1839), included a response to Gardiner's (1832) book, *The Music of Nature, or, An Attempt to Prove That What Is Passionate and Pleasing in the Art of Singing, Speaking, and Performing Upon Musical Instruments is Derived from the Sounds of the Animated World*. Gardiner (1832) wrote, "Children have no difficulty in expressing their wants, pleasures or pains, by their cries..." (p. 31). In this work, Gardiner (1832) included a musical variety of human cries, including Rossini's (1820–1828) composition of the sobbing of a child, *Ebbere per mia memoria* (p. 196), and the discordant minor sounds of a spoiled child (p. 195), from *Gazza Ladra*. In response, Darwin "thinks so it must have been in the dawn of civilization—thinks many words, roar, scrape, crack, etc." (Darwin, 1938-1939, as cited by Lorch & Hellal, 2010, p. 143). Gardiner (1832), who was a British composer, continued, "From all that has been handed down to us, it is evident that the most ancient languages were composed of simple sounds, as a simplicity of thought produces a simplicity of expression" (p. 32). In this one exchange with Darwin, Gardiner referred to the epigenetic nature of language and its tie to cognition and emotion.

**Taine.** Lorch and Hellal (2010) note that another influence on Darwin was the publication of Hippolyte Taine's diary study of language acquisition and development in Taine's own infant daughter, first in French in 1876, and then in English in 1877, in the journal *Mind*, which included ideas published in French as early as 1870 and 1871 in English. Taine (1877) observed cries as reflexes and infant language:

From the first hour, probably by reflex action, she cried incessantly...At about three and a half months, in the country, she was put on a carpet in the garden; there lying on her back or stomach, for hours she kept moving about her four limbs and uttering a number

of cries and different exclamations, but vowels only, no consonants; this continued for several months... The sounds (both vowels and consonants), at first very vague and difficult to catch approached more and more nearly to those that we pronounce, and the series of simple cries came almost to resemble a foreign language that we could not pronounce. (p. 252)

Lorch and Hellal (2010) hypothesized that Taine (1877), using evolutionary terminology, suggested that the repetition of reflex actions were led by “gradual selection” to “intentional” action” (p. 252) and that this was perhaps an appeal to Darwin that led to the quick publication of *A Biographical Sketch of an Infant* (1877), one of the first infant psychology studies. Darwin stated that his infant study was an observation of his own child, 37 years earlier. Darwin (1877) wrote,

The noise of crying or rather of squalling, as no tears are shed for a long time, is of course uttered in an instinctive manner, but serves to show that there is suffering. After a time the sound differs according to the cause, such as hunger or pain,” (p. 292)

suggesting that he had observed an infant reflex and resulting language reflecting a state change. As Darwin (1877) believed the needs of the infant were communicated through instinctive cries, he wrote:

Finally, the wants of an infant are at first made intelligible by instinctive cries, which after a time are modified in part unconsciously, and in part, as I believe, voluntarily as a means of communication, by the unconscious expression of the features, by gestures and in a marked manner by different intonations, lastly by words of a general nature invented by himself, then of a more precise nature imitated from those which he hears; and these latter are acquired at a wonderfully quick rate. An infant understands to a certain extent,

and as I believe at a very early period, the meaning or feelings of those who tend him, by the expression of their features. There can hardly be a doubt about this with respect to smiling; and it seemed to me that the infant whose biography I have here given understood a compassionate expression at a little over five months old. When 6 months and 11 days old he certainly showed sympathy with his nurse on her pretending to cry (pp. 293–294).

Darwin's observations identified infant cries as communication—a language constitutional to the infant, not learned through social interaction. Lorch and Hellal (2010) identified that the “Biographical Sketch” was a methodologically innovative research approach: Darwin, making use of an exact timescale while he selected, edited and organized his observations by category rather than chronologically; a method copied by later psychologists. Lorch and Hellal observed that although Darwin took a case study approach to observation, he was aware that more data was needed to lead to any meaningful generalization, a point he discussed in correspondence with the American Association of Social Science. Lorch and Hellal (2010) noted that Darwin's work was profoundly influential in prompting the publication of other studies of language development in infants (Bramwell, 1887 as cited by Ellis, 1984; Ribot, 1882, 1881). In 1882, the year before Darwin died, the Education Department of the American Social Science Association (1882) in Boston made a plea to mothers of American children to record observations of their child's life and development, suggested as invaluable to psychologists in the future. The infant observations of Taine (1877), Darwin (1877), and others were included as samples.

***Piaget.*** Another observer of infants, Jean Piaget, a Swiss biologist and psychologist, also talked about reflexes in infants. Piaget described (1936) observing the rooting reflex—touch the

infant's cheek and the infant turns toward the side that was touched and makes sucking movements. Piaget wrote, "They [observations] make it possible for us to understand how a system of pure reflexes can comprise psychological behavior as the systematization of their functioning" (p. 29). Piaget thought that behavior is adapting, with reflexes mediating the infant's survival. He hypothesized that infants acquire knowledge through sensory experiences attributed to reflexes. Piaget (1965) stated, "The reflexes and the very morphology of the organs with which they are connected constitute a sort of anticipatory knowledge of the external environment, an unconscious and entirely material knowledge but essential to the later development of real knowledge" (p. 30).

Piaget's Cognitive Development theory evolved over several years (1936, 1952, 1956, 1965), and included discussion of such Simple Reflexes in the Sensorimotor Stage that lasts from birth to 18 months. In his chapter, titled "The Biological Problem of Intelligence," Piaget (1965) outlined his hypothesis of adaptation and intelligence:

The organism and the environment form an indissoluble entity, that is to say, beside chance mutations there are adaptational variations simultaneously involving a structure of the organism and an action of the environment, the two being inseparable from each other. From the point of view of awareness, that means that the subject's activity is related to the constitution of the object, just as the latter involves the former. This is the affirmation of an arid deducible interdependence between experience and reasoning. (p. 16).

Piaget (1965) noted: "From its beginnings, due to the hereditary adaptations of the organism, intelligence finds itself entangled in a network of relationships between the organisms and the environment" (p. 19). Piaget's (1965) conceptualization of primitive reflexes contradicts

the behaviorist idea that a stimulus elicits behavior. In the infant, the reflexive states are not individual, they are a part of a larger historical sequence of complex, multimodal adaptations, the earliest of which is heritable. He wrote:

What is striking about this is that such activities from the start of their most primitive functioning, each in itself and some in relation to others, give rise to a systematization which exceeds their automatization. Almost since birth, therefore, there is “behavior” in the sense of the individual's total reaction and not only a setting in motion of particular or local automatizations only interrelated from within. In other words, the sequential manifestations of a reflex such as sucking are not comparable to the period starting up of a motor used intermittently, but constitute an historical development so that each episode depends on preceding episodes and conditions those that follow in a truly organic evolution. In fact, whatever the intensive mechanism of this historical process may be, one can follow the changes from the outside and describe things as though each particular reaction determined the others without intermediates. This comprises total reaction, that is to say, the beginning of psychology. (pp. 24–25)

Corballis (2010) wrote, “The emergence of spoken language requires the further insight that speech itself can be regarded as a gestural system . . . Is language at root a matter of grasping?” (p. 33). Infant language is a gestural system. The infant, using a few vocalizations, is asking for help to address specific caregiving needs. Through the gesture of infant language, the baby communicates a here-and-now state-of-being, a request for help reflecting intention, emotion, and cognition tied to a somatic movement, that is a gesture. Also, part of the movement involved is a primitive reflex, shared with neonates, as is the grasp.

This complex sequence of adaptations is a shared theme of the developmental theories

used to frame this program and its goals.

**Bowlby and Ainsworth: attachment.** Around this same time that Piaget was using a different developmental lens, Bowlby began developing the Theory of Attachment (Ainsworth & Bowlby, 1991; Bowlby, 1958, 1959, 1960). Inge Bretherton (1992), who documented and wrote on the origins of attachment theory, noted that John Bowlby, trained in psychoanalysis and object relations, “Reviewed data from existing empirical studies of infants’ cognitive and social development, including that of Piaget” (1951, 1954). Bretherton (1992) recorded that Bowlby became interested in the work of Lorenz (1935) on the imprinting of geese and other birds. Piaget and Lorenz were fellow participants with Bowlby in a series of meetings between 1953 and 1956 of the “Psychobiology of the Child” study group”; the group’s meetings were published by Tavistock Publications (Bretherton, 1992, p. 769). Bretherton (1992) discovered that Bowlby also drew on his experience facilitating a weekly support group for young mothers in London (p. 769) in the development of his ideas. Bowlby’s (1958, 1959, 1960) first formal statement of attachment theory was built on concepts from ethology and developmental psychology. Ethological methods, observation in the natural environment, are a common thread in the theoretical underpinnings of this program proposal.

Bretherton (1992) followed that Bowlby borrowed from Freud (1905, 1953) the notion that mature human sexuality is built up of component instincts, and “proposed that 12-month-olds’ unmistakable attachment behavior is made up of a number of component instinctual responses that have the function of binding the infant to the mother and the mother to the infant. These component responses,” tied to reflexes, “mature relatively independently during the first year of life and become increasingly integrated and focused on a mother figure during the second 6 months” (pp. 10–11). Bowlby (1958) theorized that five “instinctual responses” make up



attachment behavior (sucking, clinging, following, crying, and smiling; p. 362). Bowlby's (1959) discussion follows:

My reason for preferring the term “instinctual response” to “instinct” or “part-instinct” will perhaps be clear. In psycho-analysis the term “instinct” (an un-fortunate translation from the German “Trieb”) has been used to denote *a motivating force*. The term “instinctual response” used here describes something very different: it denotes an *observable pattern of behaviour*. Although this pattern results from the activation of a structure (which, since we know next to nothing of its neurological basis, is best conceived in purely psychic terms), the question of the nature and origin of the energy involved is deliberately left open. (p 362)

Bretherton (1992) noted that Bowlby, moving away from Freud's psychic energy model, used ethology to ground his theory as he discussed the identification of the stimuli which elicit the various species-specific behavior patterns in fish and birds. Bretheron stated (1992), “In so far as many of these behaviour patterns mediate social behaviour— courtship, mating, feeding of young by parents and following of parents by young—much light has been thrown on the nature of social interaction” (p. 363). Bowlby (1958) pointed out that in many species it has been shown that behavior in service to mating and parenthood is:

Controlled by the perception of sign stimuli presented by other members of the same species, such as the spread of a tail or the colour of a beak, or a song or a call, the essential characteristics of which are those of fairly simple *gestalten*. (p. 363)

Bowlby (1958) noted that sign-stimuli, which could be external or intrapsychic, also called social releasers, are essential in the activation of a social response. During the period of

acclimation to the newborn, the parent(s) and caregivers are observing and many notice many of the infant's signals. Ainsworth (1989) wrote,

At birth, the infant is equipped with a repertoire of species-characteristic behaviors that promote proximity to a caregiver. Most conspicuous among these are signaling behaviors, such as crying, that operate to activate caregiving behavior, attracting the caregiver to come near (p. 710).

***Emotion and attunement.*** From birth to three months, synchronistic co-ordinations of emotional communication, biological responses, and caregiving experiences—attunements—begin between infant and mother(s), infant and father(s), infant and caregivers. Bowlby (1958) theorized that humans experience activation of the instinctual response system in ourselves. Bowlby (1958) wrote, “When the system is active and free to reach termination, it seems, we experience an urge to action accompanied, as Lorenz (1950) has suggested, by an emotional state peculiar to each response” (p. 364). Bowlby (1958) believed there is an emotional experience tied to each of the instinctual responses, “When, however, the response is not free to reach termination, our experience may be very different: we experience tension, unease and anxiety” (p. 364). This experience may be what was earlier discussed in this paper as “the bad,” a potential precursor to meltdown, described by Tronick (2009).

The possibility of instinct response (Bowlby, 1959), or reflex language (Dunstan, 2012, 2011), as the mediating variable of attachment is suggested here. Bowlby (1958) stated, “It is my thesis that in human infants the *crying response* is probably so designed that it is terminated not only by food but also by other stimuli connected with the mother's presence, initially probably kinesthetic or tactile” (p. 366). Infant needs include hunger, however, addressing hunger in the infant does not meet all or most of the infant needs.

***Attachment theory in practice.*** Bretherton (1992) outlined the practical application of attachment theory by Ainsworth (1963, 1967), who had worked at Tavistock Clinic, was familiar with Bowlby's favor of an ethological lens in attachment, and went on to conduct the first ethological study of mother-infant attachment in Uganda, called the Ganda Project, before Bowlby's theory was published. Bretherton (1992) asserted that the reciprocal sharing of Ainsworth's data analysis and Bowlby's (1969) reformulation of Attachment Theory contributed to a refreshed collaboration between the two theorists. Bretherton (1992) documented that Ainsworth and her colleagues observed "the emergence of characteristic mother-infant interaction patterns during the first 3 months" (Ainsworth, 1982, 1983; Ainsworth, Blehar, Waters, & Wall, 1978) and separately analyzed crying (Bell & Ainsworth, 1972, p. 775).

***Infant cries as attachment behavior.*** Bell and Ainsworth (1972), divided attachment behaviors (Ainsworth, 1967; Bowlby, 1958, 1969) that promote proximity to the mother into two main classes: active behaviors, "through which an infant himself achieves proximity or maintains contact once it has been attained" and signaling behaviors, "that stimulate his mother to come into closer proximity or contact with him" (p. 1172). As a result of their study, Bell and Ainsworth (1972) concluded, "In the first year, crying is a signal that promotes proximity and contact with the mother by activating her behavior" (p. 1172).

To address concerns that "a spoiled child" might result from all the attachment, Bell and Ainsworth (1972) noted, "Crying is not viewed as a behavior to be reinforced or extinguished in isolation from other signaling behaviors, but as one manifestation of an emergent communication system," and point to the adaptive qualities of the behavior:

A baby . . . not only learns to affect the behavior of others in his environment through his signals and communication, but is also biased from the beginning toward the

development of abilities that will make him increasingly competent and self-reliant. (p. 1189).

Teaching parents and caregivers to be aware of the emergent communication system is one of the goals of this program.

*All caregivers are crucial.* This program includes caregivers in Attune With Baby training and in the family support program because of the diverse reality of modern family structures. Bowlby (1958) made a point to state,

Although . . . I shall usually refer to mothers and not mother-figures, it is to be understood that in every case I am concerned with the person who mothers the child and to whom it becomes attached rather than to the natural mother (p. 350).

Bowlby (1951) emphasized the role of social networks; he called to society to provide support for parents:

Just as children are absolutely dependent on their parents for sustenance, so in all but the most primitive communities, are parents, especially their mothers, dependent on a greater society for economic provision. If a community values its children it must cherish their parents. (p. 84)

This program is designed to expand the infant support context, to provide parents and caregivers with the support that they need, and to connect the family with community resources and professionals with relevant skills, training, and experience.

**Infant language development: Winnicott.** According to Jacobs (1995), Donald Winnicott, an English pediatrician and psychoanalyst, was a member of “The Middle Group” of the psychoanalytic movement, along with Bowlby and others and spent time at Tavistock Clinic. Winnicott, like Bowlby, had been trained by Melanie Klein, and he too had ideas of his own.

Winnicott (1941) observed infants for more than 40 years. In his theory of the Parent-Infant Relationship, Winnicott (1960b) noted that the word infant [infans] implies “not talking” (p. 587-588). The term infant dates back to 1350–1400; is Latin for “unable to speak.” Winnicott (1960b) continued, “The corollary is that it refers to a phase in which the infant depends on maternal care that is based on maternal empathy rather than on understanding of what is or could be verbally expressed” (p. 588). Maternal empathy is not a universal, as will be discussed later in this dissertation. Infants can and do speak a universal language. Empathy may not be dependent on language, however, somatic reflexes, such as those shared between the mother and infant in utero, may be linked. Somatic reflexes are tied to universal infant language.

**Chomsky and universal grammar.** In 1965, Noam Chomsky described an innate mental capacity, a Language Acquisition Device (LAD) to account for children’s innate predisposition to acquire and produce language. Chomsky’s (1956) theory, Generative Grammar, has extended the concept of universal grammar (UG), an idea dating back to Roger Bacon’s observations in Overview of Grammar (1902, 1245) and his Greek Grammar (1268) which pose that all languages are built upon a common grammar.

Hinzen (2012) outlined “three recent prominent and widespread criticisms of universal grammar:

1. UG has no coherent formulation and is indeed unnecessary (Tomasello, 2005, 2008).
2. UG is in conflict with biology: it cannot have evolved by standardly accepted Neo-Darwinian evolutionary principles (Christiansen & Chater, 2008).
3. There are no linguistic universals: UG is refuted by abundant variation at all levels of linguistic organization, which lies at the heart of human faculty of language (Evans & Levinson, 2009; Levinson & Evans, 2010).

**Hypothesis I—Infant language is a universal grammar.** The following are the correlates to this author's hypothesis that Dunstan Infant Language (2011), discovered in 1989, is a universal grammar as described by Chomsky (1956).

1. UG's formulation is a universal infant language spoken from birth that elicits attunement toward attachment and healthy development. It is not preverbal.
2. UG is not in conflict with biology. One infant language that has been cross-culturally observed exists. Many words of this infant language have been decoded; however, the primary caregiving commands comprise 11 easy-to-hear words. The language arises from somatic reflexes which are tied to an infant's cognitive, emotional, biological, and sensory perceptual experiences of caretaking. The infant's linguistic request for attunement assists in their survival.
3. Infant language is a linguistic universal.

Priscilla Dunstan was the first to decode verbal infant language in context from infant birth. Dunstan (2011) began developing her theory of the Dunstan Infant Language and decoding infant language in 1989. Infant language is the cue that provides the most information about the infant's needs and experience, while serving an evolutionary purpose of assisting to assure the infant's survival. Infants are not preverbal. The infant is verbal. The infant's language emerges from the activation of the innate somatic reflexes, eliciting attunement from their caregiver. The infant's body tells them what they need and communicates the need to the caregiver. These early somatic reflexes produce and elicit emotion in the infant, setting the relational foundation for the communication, learning, and attachment.

Winnicott (1960b) wrote, "It is axiomatic in these matters of maternal care of the holding variety that when things go well the infant has no means of knowing what is being properly

provided and what is being prevented” (p. 590). The infant does have a means of knowing what is being properly provided and provides feedback which becomes a positive feedback loop, if the caregiver is attuned.

**Language barriers may be overcome with attunement.** When we do not speak the same language as someone that we encounter and we need something from them, we must find a way to connect. At first, a language barrier creates a somatic-emotional shift toward relational communication for survival. We may observe how to get what we need, then we use our eyes, the tone or volume of our voice, gestures, even words they do not know, but we try any way we can, to communicate and attempt to get our needs met. Not knowing the language they speak puts us at a disadvantage. Even though we carry with us valuable knowledge and insight from the past, the person whose help we need cannot understand us. We are most vulnerable. This person might choose not to help us and walk away, or they might play charades with us and work with us to form a biological, emotional, and cognitive connection that helps us to get our needs met. A conversation like this one is the story of infant language attunement.

Infants speak language that may be the oldest existing universal language. As newborns, they do not yet speak the cultural language of their families; however, they can and do communicate verbally using infant language. The infant is not journeying from absolute dependence, as Winnicott (1960a) believed. Infants bring this knowledge of their hereditary past with them from the womb to their family of origin, or to the caregivers who raise them. The universal cultural application of this language is the foundation for inclusive support community.

From this position, I will reflect the pieces of existing theories which do fit with this knowledge and inform this program’s methodologies.

***Infant compliance.*** Winnicott (1960a) believed that the infant's compliance—a response to the mother's lack of awareness of the child's needs—was the first stage of the false self, which continues to develop when the caregiver's attempts are inadequate or failed; the infant begins to give up (p. 133). Daniel Stern, like Winnicott, spent years observing infants, and he also theorized from an object relations perspective. Stern (1985) added depth and hope to Winnicott's discussion through his discussion of the concept of Attunement.

### **Attunement**

Stern, Hofer, Haft, and Dore (1985) documented that the term “attunement,” also called affect matching, synchrony, concordance, and behavior meshing, has been used to describe the phenomenon of coordinated behavior between mothers and infants by John Bowlby (1969) and later Daniel Stern (1985), who affirmed and expanded on Bowlby's conceptualization of an attachment relationship between mother and child. Bartling, Kopp, and Lindenberg (2010) noted, “Stern was the first to refer to affectively contingent interactions between mother and infant as “affect attuning” (p. 1).

Stern's (1985) construct, *affect attunement* “encompasses three interactional stages: (a) the mother identifies her infant's inner feeling-state; (b) she conveys this same feeling back to the infant without using imitation; and (c) the infant comprehends the mother's response as referring to the original affective state” (Stern, 1985, as cited in Jonsson et al., 2001, p. 377). This describes an attunement that reflects the exchange of communication about somatic emotional needs and intention consistent with the Dunstan Infant Language training.

Stern (1985) described “nonattunement” as “selective attunements” as learning opportunities, and “misattunements” as parental attempts to change behavior. I have not applied Stern's terms to this program as they seem cumbersome and require explanation for a novice



caregiver that is time consuming. The goal of the attunement program is not to teach psychological terms to families, but to help families to understand and master attunement. For the purposes of this dissertation and for the program, I have applied the term “failed attunements.” The term “failed” is a judgment word, which may be more reflective of the serious nature of attunements that are either not quality or missing. I did not apply misattunements to this program design. Calling attention to the parents’ mistakes would not be helpful to their learning process. Despite these changes, the sentiments projected by these terms have been considered.

**Failed emotional attunement.** Kuhl (2011) stated, “Studies on people with varying capacities and disabilities will help us understand how brains evolved to link Who and What in an increasingly complex social world”; where the “Who” is voice recognition, and the “What” is speech perception, (p. 530). As a psychotherapist, I worked with a young girl named Alice who had been diagnosed with clinical depression by a previous set of family therapists. Alice told me that the co-therapists had diagnosed Alice in front of her family members during a session after hearing Alice’s mother’s complaints. Alice’s parents confirmed this. As I got to know Alice’s family I realized that her mother was neurotypical, trying to manage high anxiety and resulting depression. Alice and her father had undiagnosed autism spectrum disorder (ASD; American Psychiatric Association, 2013, p. 50). Alice’s mother was looking for a new diagnosis for her daughter’s problems, as her mother saw them, and I was the chosen therapist. Alice’s mother would often complain in session in front of her daughter about her daughter’s “inability to follow directions,” “to understand cues,” and “to adapt to the environment” she was living in with her parents—phrases Alice’s mother had picked up on an autism website.

One of the presenting issues Alice’s mother had identified was that she wanted help with

Alice's behavior at home. When Alice's uncle and his family would come over to the house—a frequent occurrence—Alice's mother reported that Alice would behave very differently. Alice's mother would say, also in front of Alice, that “I wish my daughter could just behave like she does when my family is visiting all the time.” Alice's uncle's family would visit two to three weekends a month and the families would travel together several times a year. On a regular basis, I asked Alice's family to wait outside the therapy office while I talked with her; I sensed that Alice was missing attunement: she needed the intentional one-to-one time she was not getting in her family.

Therapist: Do you think you behave differently when your mother's family visits?”

Alice: Yeah, of course. My mom is very anxious all the time. She takes medication for it and wants me to. When my mother's family is around, my mother is nice to me. She gets all nervous around my aunt and uncle. She wants them to think she's perfect or something so I guess that's why she wants me to take medication, so I will behave the way she wants me to.

Therapist: Would you say your mother is nice to you usually?

Alice: She's not nice. She's mean.

Therapist: What does she do that's “mean”?

Alice: Everything! She says one thing and does another. She doesn't say the right things. She never tells me nice things, but she wants me to tell her nice things all the time. She wants everything her way all the time and she doesn't care how it makes anyone feel. She makes me play the violin for two hours a day.

Therapist: Are you good at playing the violin?

Alice: Yeah. I'm really good.

Therapist: What would you like to do instead of playing the violin?

Alice: Spend time with my friends.

Therapist: You don't?

Alice: No, I tried to bring friends home and she stands at the door with a mean look on her face and tells me to turn around and walk them home.

Therapist: She did?

Alice: Yes.

Therapist: How did that make you feel?

Alice: I don't know...

Therapist: [moving closer in] What feelings did you have when your mother sent you to take your friends home?

Alice: [silence]

Therapist: Do you remember what it felt like in your body when your mother was facing you, telling you to take your friends home?

Alice: Hm. Oh yes! I got really hot—my face I mean.

Therapist: Anything else you remember about your body?

Alice: My hands got hot.

Therapist: How about your head?

Alice: I remember looking down on the ground because I tripped.

Therapist: Do you think you felt mad?

Alice: Maybe.

Therapist: Ashamed?

Alice: No.

Therapist: Not ashamed? You said you put your head down...

Alice: Why should I feel ashamed when she was mean to me?

Therapist: Maybe you felt ashamed or embarrassed because you had to take your friends home. You put your head down, that may be a signal of shame or defeat coming from your body.

**Lack of somatic attunement.** This is a somatic example that I have encountered in many adults and children, not just those with ASD. They are not aware of the cues that the body gives to themselves and others. It is different than not getting social cues. The adult client may not meet their own basic needs required for optimal physical, cognitive, and emotional functioning. Self-care considerations may be inhibited, dysfunctional, or missing including those involving eating, sleeping, safety, and emotion regulation.

Alice: Hm. Yeah, I felt really embarrassed.

Therapist: Anything else you remember?

Alice: Yeah. I left with my friends and had a great time.

Therapist: So you got to go out with your friends like you wanted?

Alice: No.

Therapist? Huh? You said you left with your friends...

Alice: I walked them home, yeah, so that's all I meant. It wasn't like we went to the movies or something, but you would think we did the way she was acting when I got home. Now I'm grounded. It's like I'm in prison all the time. I always have to stay home or be with her on stupid errands.

Therapist: You're grounded? For how long?

Alice: Yeah. It sucks. 2 weeks.

Therapist: Why are you grounded? Did your mother tell you that you could not bring friends home?

Alice: No.

Therapist: Really?

Alice: I don't know. I don't remember.

Therapist: You don't remember what your mother told you?

Alice: I remember everything my mother tells me.

Therapist: You just don't remember what your mother told you that day?

Alice: I do. [long pause]

Therapist: What did she say?

Alice: She told me that I had to come right home from school and practice my violin.  
[long pause]

Therapist: Anything else?

Alice: That's all.

Therapist: So, you're grounded because you were supposed to come home and practice, and instead you brought your friends over?

Alice: She tells me all the time I can't have friends over.

Therapist: Why is that?

Alice: I don't know. She doesn't want strangers in the house.

Therapist: She doesn't know your friends?

Alice: No, not really.

Therapist: Why is that? Haven't you had the same friends for a long time?

Alice: Yeah, since kindergarten (Alice is now in 6th grade).

Therapist: [looking confused]

Alice: She doesn't want people she doesn't know in the house and she won't get to know them. I tried to bring another friend over in kindergarten and she did the same thing.

Therapist: The last time was six years ago?

Alice: Yeah.

Therapist: How does it make you feel that you're not allowed to have friends over?

Alice: [silence].

Therapist: Alice, how does it feel in your body when I say to you that your mother doesn't allow you to have your friends over?

Alice: [silence]

Therapist: [waiting in silence]

Alice: [client yells] MAD!!!

***Lack of safety.*** This story is very typical of Alice's experience. Her mother is anxious. Her mother does not want strangers around; she does not trust people. Her mother does not allow Alice to explore the social world because she is uncomfortable in it. Alice's mother has no close friendships of her own; she does not model friendship for her daughter. She spends all her time with her daughter while her husband works. Alice's extended family makes her mother very anxious too, but she is familiar with them and will accept her high level of anxiety to engage with others. Alice's mother is extroverted.

Alice is an introvert compared to her mother. Alice needs examples of social interactions and practice with them so that she can navigate the social world around her that exists outside of her family home. Alice's intention, of bringing her friends to the house, was a good one;

however, her action, bringing her friends home, did not produce the results that Alice's logic had produced. Alice wanted to spend time with her friends. She was not allowed to hang out at the park afterschool as her friends' parents allowed; nor was she allowed to go to their homes. Alice wanted her mother to get to know her friends so that they would be allowed to come over. At the end of our session that day, together we negotiated with Alice's mother to allow more social engagement in the safety of the family home.

What quickly became clear was that Alice's family home was not emotionally safe for Alice at all, or for her friends. An agreement to allow Alice to bring her friends back to the house was surprisingly easy to secure; however, the actual playdate went horribly. The mother did not want Alice's friends to stay long so she hollered to Alice from different rooms in the house—embarrassing her and asking Alice to come and help with various chores. Alice became angry that she was being distracted and that her mother was criticizing Alice's every move which led to several arguments, the last of which took place right in front of Alice's friends. Her friends became uncomfortable with the family tension and quickly left on their own. There were repercussions for Alice waiting at school the next day. Her longtime friends shunned her in class and at recess. This continued for more than one month. Alice became even more isolated and she did not make new friends. Alice's friends did not try to talk with her about what had happened. One even taunted and bullied her on the playground—more failed attunements.

Alice's mother created complex rule sets for Alice, which were logical to Alice's mother only. For example, one rule that Alice's mother made was that Alice was allowed to cook in the kitchen if her mother was present, but not if she was not home. Each time Alice asked her mother if she could cook when her mother was home, following her mother's rule, Alice's mother would find excuses why Alice could not follow the rule. "No, you'll make a mess in the kitchen." "No,

you'll waste the food we need to eat this week." "No, you'll get fat eating that," when Alice wanted to make cookies. To Alice, it seemed that no matter what she did—gathering permission or not—Alice was never going to get the approval of her mother and be free to enjoy herself and she stopped enjoying things that used to make her feel happy.

Alice's mother had expertise in punishment. Instead of emotion coaching, a term that Gottman (1998) used to describe the emotion regulation coaching of a parent with a child in response to stressful socioemotional situations, Alice would be sent to her room, more often for hours at a time, to reflect on her behavior. What Alice did during most of those time outs was to perseverate on her emotional life. This punishment was time she spent going over and over conversations in her mind, interactions, failed attunements—doing statistics on attunements—usually to conclude that she was alone, that no one cared for her, and that she should have listened to her mother. These are things Alice said regularly in session. Alice's mother said that she was proud that Alice realized she should listen to her mother. Alice's mother was not attuning to the depth of her daughter's pain. She had so many similar with attunements with her own mother, but she had a very difficult time feeling any empathy for her daughter.

***Lack of emotion regulation.*** Alice was not learning to process emotional problems. She attempted to self-soothe by playing with her dog. Then Alice's dog died suddenly and she slipped into a deeper depression. Alice did not have skills to manage her own stress that involved another person, except for our work in my office. Alice stayed in her room for hours at a time, isolating herself even when she was not being punished. Alice could not motivate herself to leave her room, especially when she had to go to school. The school called home to let her parents know that she was not there, but no one was home except Alice who did not answer either. Sometimes Alice's father would try to pull her out of her shell. He would take her to get ice



cream—a sweet treat. Alice would try to tell him about her feelings and how she thought about her mother. Her father did not engage in this conversation. There were many more failed attunements and it was not long before she stopped accepting his invitations.

The problems in this family were complex, as they are in families. Alice's mother was dealing with an undiagnosed eating disorder as well. Alice was very thin and she was not getting enough food in the tiny-portioned meals offered by her mother. The foods the mother chose were not Alice's choices. Alice was never asked what she liked to eat and if she shared her opinion while she was at the store with her mother who was doing the grocery shopping, Alice's request would be shot down or ignored. Alice was not allowed to push the grocery cart, leave the aisle that her mother was in, learn any food gathering or meal planning skills, and came to loathe grocery shopping and running errands of any kind with her mother. Alice began to challenge her mother's parenting.

One day in the supermarket, Alice had a tantrum after her mother told her that she was not going to cook dinner. Alice had filled a second cart with items for her meal plan from a list she made at home. Alice's efforts were rebuffed by her mother, and Alice threw glass jars off the shelf, stormed out the door, and walked home. Alice's mother was mortified by Alice's behavior and made sure that I understood how difficult it was for her to parent an autistic child. She said this right in front of Alice, despite the fact that I had explained to both Alice's parents many times, with and without Alice present, that this type of interaction would only serve to build a wall between Alice and her daughter; that Alice was making efforts to attune and her mother was not only ignoring them, but she was acting out against them.

***The development of helplessness.*** Alice was no longer allowed on errands with her mother. Alice had come to learn that following the rules does not usually get you what you want

and it does not please others when you follow the rules, especially those most important to your survival. Alice came to believe that there was no benefit to following her mother's rules and there was no hope for connection with her mother—failed attunements. Alice also learned that taking emotional risks would not payoff for her, at least not with people like her family members.

Alice had learned that her own decision making was not important and she began to not trust herself in making food choices, developing her own eating-disordered behavior. Alice would sneak money from her mother's purse to buy food, mostly candy and snacks, at the store on her way home from school, and she would hide whatever she did not eat in her bedroom. Alice's mother found food hidden in her room which led to conflicts about rats Alice's mother said would get into the house, breaking the rules of the house which included "No eating anywhere but the dining room table," and her mother locking her purse in her bedroom with a padlock. Alice continued to become increasingly thin and was brought to the hospital for admittance to an eating disorders program at the insistence of Alice's mother, where Alice's survival was now supervised by changing staff who did not attempt to learn anything about her family dynamics—more failed attunements.

### **Attunements as a Measure of Attachment**

**Predicting attunement outcomes and manifest destiny.** In my work with clients and students I have noticed that people on the autism spectrum and those who have experienced multiple traumas and are hypervigilant, tend to be very good at gathering information and sorting it, including very concise details. They may be excellent at predicting how a scenario will play out long before others. They may remember an experience so well, including each and every sensory detail, and describe a scene from their life that would play back in session like a video

clip. Because of this, Alice's account helped me to see the clues her mother had been missing. Alice's mother's version of their dynamics was void of emotion toward Alice—all facts, and she acknowledged that her overarching feelings about dealing with her daughter were “very anxious” and “fearful.” Alice's mother's version of the story about Alice's friends was this: “Alice was told no friends in the house. She violated the rule I set and therefore, she is grounded for two weeks. She will learn to follow the rules eventually if we do this enough times.” When I asked Alice's mother if she believed that Alice would follow the rules if she was punished enough times for violating them, she said emphatically, “Yes.” My reply to her was that “No, Alice was not going to learn to follow the rules.” What Alice had already learned was that she could not trust her mother; that her mother's wishes for her would not help her to have things in life she wanted or had earned, Alice knew that to get what she wanted she had to avoid authority. This is motivation. When a child learns that their caregivers are unlikely to shift the outcome of a situation based on a change in their behavior, they may stop trying to please the parent. They may become stuck in reality with the rigidity of the parenting they receive. They may come to encourage conflict as this is the only type of engagement they can predict.

***Safety assessment and consistency.*** The punishments also taught Alice that her mother was not a safe person. In fact, Alice assessed that her mother was basically a mean person, and that Alice could only be happy if her mother was unhappy with her. Alice learned that her own model was not consistent or logical. At the same time, Alice's mother thought she was extremely consistent because she always clearly laid out the caveats to her rule system, and when she spoke with her friends and her own therapist about her responses to her daughter's “troubled behavior,” she received validation for her consistency and caring. Alice saw these caveats—exceptions to her mother's rules—as inconsistencies. The caveats were not exceptions that get you an

alternative opportunity; they were just more complex rules with consequences. Alice came to believe that since her mother only wanted her to follow the rules and never learn anything for herself, which was illogical even to Alice, because her mother and father left her alone with most tasks, and did not coach her through the steps of learning a new concept, behavior, or procedure.

More painful to Alice was that her mother was not interested in what Alice wanted; to her, this meant she was not loved. To complicate things, Alice's mother would create barriers to Alice's happiness, which was very emotionally strange to Alice. Alice was conflicted about how she could actually feel happy without guilt when her mother was also unhappy. Alice believed that her mother was mean and unhappy. Based on her experience of her mother's behavior and culminating belief that her mother is a mean person, Alice understood the goal of a mean person was to make others miserable so that they could share in the experiences. This led her to avoid her mother. Alice stopped responding when her mother called her or asked her to help with a chore. Alice stopped following curfew, and conflict escalated as her mother attempted to impose harsher rules to make her daughter fall in line. There was no attunement between them and the father, usually removed and failing to hold healthy boundaries with his wife or his daughter, stepped in to try to mediate. Because no attunements were happening between Alice and her father or with his wife, his attempts failed.

Through our work, Alice's mother came to see that she was probably behaving in ways that felt mean and uncaring to her daughter because of depression—an externalized experience of a preponderance of attunements toward attachment which were missing in her childhood. Alice experienced her mother as though they were on a seesaw where only one person could be up at a time; however, because of their resistance, neither one had been up for a long time. Both were holding steady to control their position; Alice was happy, her mother was not. Alice

perceived that her mother was up if her rules were followed. Alice never saw her mother happy, even when she was following the rules. This was the epigenetic legacy.

***Judgment of attunements: toward a calculation of attachment.*** The judgment of character is a statistical calculation. Character is a global assessment of a person's behavior, intention, and predicted behavior. A preponderance of characterizations of intentioned behavior reflect attachment potential. We collect data on the attunements that we have with another person; isolating the variables of intention deduced by our experience of attunements; their quality and effects: action or behavior, response time, language (what) and (how), emotion, gaze, body language, and emotion. The data we collect on these variables helps us assess whether we judge this person as a good person or not. By good, we mean good for us. We know ourselves best. We know what we want and need for ourselves.

The mathematics of judgment are dependent on attunements. If we have never spent time with the person, and we only have the data that we collected, hearing about someone's behavior secondhand may help us assess their character, behavior, and intention; however, the preponderance of quality attunements will be missing; our conclusions are unsupported. We will have very little and likely not enough data to help us accurately decide whether we would like them around us. If we have other attachment figures to depend on, these statistics will be more complex. Judgment of someone we do not know is simpler math, however, if we add our fantasies, hopes, and wishes, it will be difficult for others to run the same calculations and end up with the same numbers we do. To the trained eye, our calculations may be flawed, inaccurate, or even wrong.

When we know the person we are judging—meaning, if we have more complex data to assess, more variables, which complicate our assessment—we may struggle to accurately

calculate the value of the relationship or the potential harm that may come if we engage it, especially when we are dependent on it for survival. Our mathematical calculations may not follow logic that others can easily understand. We may wonder why a young child, whose parent is neglectful and abusive, says, “I love you, mommy.” The child’s emotional needs endure even when they are not being met. Using language and intention to communicate emotional needs in the absence of consistent, attuned caregiving reflects the complex development of attunement skills in the child. The child may come to predict the sparse caregiving attempts of the parent, turning on a big smile whenever the parent enters the room. Alternatively, her way of responding to the reality of the situation may vary as much as her classmates’ answers to a story problem on a math test. The child’s smile may not increase the parent’s attunement attempts, but it might create a positive neurochemical experience for the child which may feel like hope, as it is tied to a cognitive wish for caregiving. The child’s somatic-emotional response to her mother and her corresponding cognitive wishes or beliefs may be more comforting and more likely to repeat than the somatic-emotional response she has of the mother’s neglect and abuse, especially when dopamine is involved.

In a second example, a psychotherapist may encounter an adult male client who is being verbally, emotionally, and physically abused by his partner, yet he does not leave the dynamic of the relationship. He and his partner have conversations, take care of shared responsibilities, even enjoy vacations and anniversaries together, however, when his partner is under stress, she talks to him disrespectfully, neglects his relational needs, tells him that she is punishing him by responding this way, and sometimes even hits him. His paralysis in moments of stress reflect a pattern from his childhood. He often found himself in similar dynamics with his mother whom he says he loves very much. These examples reflect the complexities of the attachment potential

of attunements that are calculated by each person differently.

Humans can survive with a very low level of attunements; however, their quality of life may be very low, including their health and mental health. The statistical assessment of attunement helps us to judge whether a person will meet our needs or whether they will not be someone we cannot get quality attunement from. We may be used to low quality attunements. Some attunement may be better than low quality attunements; however, thresholds for low quality attunement will vary. Survival cannot be the standard for healthy attachment or attunements.

**A child's attachment assessment.** Alice's assessment of her mother as a mean person is a very firm judgment. Over time, I asked Alice to consider that Alice's mother loves her and probably does not want anyone to be unhappy. My suggested beliefs are inconsistent with the statistics Alice has collected on her mother's behavior, which is Alice's global assessment of attachment with her mother. It is her full experience of her mother. It does not include memories of the day that Alice's mother came to pick her up from school because she was sick, because her mother did not take care of her when they got home. She just told her to go up to bed. Attunement would be taking the child to their bed, helping them to get pajamas on, getting medicine, Kleenex, soup, or any other comfort items, such as blankets and stuffed animals or pets to soothe them. Sitting together with the child, the parent would look into their face, talk kindly and softly to them, and show them affection. The child would be free to speak their mind and bask in the emotional experience of the love that the parent has for the child.

The vast majority of Alice's experience of her mother was neglectful, and that will outweigh, overshadow, and perhaps prune Alice's memories of the few positive attunements. The experience of neglect from both of her parents was repetitive. Alice's early cognitions, her

emotions, and her sensory and somatic experiences of those repetitive events together built strong neural pathways in Alice's brain and become the standard deviation of neglect from their failed or missing attunements. Pervasive neglect is abuse.

One day in session, Alice stated that she had no memories of her mother being happy with her behavior, or who she was. Is it possible that Alice's mother was never communicating to her daughter that she felt happy to be together with her daughter or with who she was? The way that Alice's mother communicated being happy with Alice's behavior was to not interfere if Alice did something well, and to only focus on helping Alice to note if she was making mistakes—critical parenting, not critical as in important, but critical as in “You did this wrong, and that, and of course this.” When this arose, Alice's mother replied, “Alice is so smart, we never needed to help her. She always wanted to do things herself.” Alice's father mentioned that Alice's first word was “No.” Her parents interpreted that to mean that Alice could and wanted to do things alone. We talked about how it might have been Alice's way of setting a boundary, or a pattern of perfectionism in her family that had spilled over, which Alice learned before she spoke full sentences in her family's language.

To Alice, nothing she could do would make her mother happy with her. Alice's mother believed that she was showing love for her daughter because she was helping her daughter to make better choices. She did not realize that the choices she was helping Alice to make would consistently move them further and further apart. Alice did not ask for her mother's advice. She did not want to become like her mother. She did not feel that her mother offered her any way of being in the world that could be pleasing to them both, and therefore, she should do what she wanted to do and leave her mother to continue on with her way of being. Failed attachment left them both feeling depressed and anxious; with each other and themselves.



Alice's mother's kindness was the same kind of abuse that she had received as a child: neglect. Alice's mother was not affectionate, but she fed Alice. She did not feed her child enough food, or what her daughter wanted to eat, but she fed her what she thought Alice should eat. Alice was not getting enough nutrition. It was causing her to have trouble focusing, communicating, and meeting her mother's demands, which validated the cycle of their dynamics, especially when she was exercising at school. Alice would fail to take care of herself the way her mother thought she should and her mother would let her know. Repeat. Therein lies the dilemma.

A child's needs are not based on the parent's assessment of them; they are based on the child's assessment of them. If the parent does not make an intentional habit of listening to what the child wants, except to refuse the child's requests, the parent can never truly meet the child's needs. This is not overindulgence; it is teaching a developing person that who they are and what they need is important in the world. The way that sentiment is fostered and validated with the development of boundaries, teaching, and mentoring, reflects the family's intention toward healthy development—the true survival of the fittest—with daily practice and adaptation to the changing needs of all members. This intervention assists the child's parents and caregivers, as many as the family has available for the job, in listening to the child state their own needs. All caregivers learn to support what the child needs. An infant does not ask for a fancy car, expensive jeans, or a lavish vacation. They only ask for what they need. If they are hungry and the father feeds them and it is not enough food, the child communicates until they get enough food—if the father is listening. If the parents put the child on a regimented feeding schedule with cutoffs when the parents decide the child has had enough—if the child has not received what they need for themselves, they will escalate until the parent gives in or gives up. Neither ensures the healthy survival of the child. No one—infant, child, or adult, client, participant, or patient—

wants to be told what they need.

*Attunement quality reflected.* As Alice grew older things became more difficult. Alice's adherence to her internal rule system, not her mother's, grew stronger. The Autism symptoms were larger than they had appeared in the rearview. Alice's "inability to follow directions," "to understand cues," and "to adapt to the environment," often created incredibly difficult power struggles between Alice and her parents. This day, Alice rode in the car with her mother to therapy. People with ASD may have trouble switching between activities. Alice had been playing with the family dog when her mother told her it was time for therapy. Given what we already know about the content of Alice's therapy sessions, the impetus for her to go may have been missing. Stalling or trying to avoid therapy would be interpreted as an unconscious wish by psychoanalytic or psychodynamic therapists, as would playing with your dog just before therapy.

Father: Alice created quite a bit of conflict in the car with her mother on the way here.

Alice: You weren't even in the car, how do you know?

Father: Your mother told me.

This was Alice's highly logical—at least in session--emotionally detached father's assessment of Alice's behavior to me in front of Alice.

Alice: [turning toward her father] What do you care? You're never around [Alice communicating that she is upset that her father is neglectful of her]? and you don't treat her [point to her mother] well either [Alice's acknowledgement that she understood she had not treated her mother well, emotional awareness to the facts of the situation]. Plus you laughed when she told you what happened! [emphatically] Why do you always play both sides? [Alice's acknowledgement of

her own confusion in the triangle she finds herself in with her parents]. She

[pointing to mother] commanded me to follow her orders again, surprise, surprise.

The child may come to learn to criticize the parents' behavior and logic, reflecting failed or missing attunements back to the parent. This is a method for communicating hurt. It may be an unconscious, veiled, or passive-aggressive invitation for a reattempt at attunement. The child may reflect the cruelty of the perceived judgment using emotion, cruel humor, or stonewalling to the parents. Older children and adults do this as well sometimes using a verbal sound that is not a word, such as cruel laughter, snickering, teeth-sucking, or the z-snap. It is a form of bullying. The parent may not perceive the intentions of what they communicated. They may have engaged in communication of this style for so long—possibly learning it from their own parents, that it has become an automatic response to someone not meeting their needs. Failed attunements are taught in just the way that they are learned.

Alice's mother: It was a polite request that I made in my car—on my dashboard; that's where  
your dirty feet were. You need to learn to respect my rules.

Alice: [looking down] Whatever. You should learn to speak clearly and ask for what you want.

Therapist: I hear there was an issue in the car on the way to session today. Would you like to discuss it?

Alice: [quiet]

Therapist: [quietly waiting]

Alice: She told me to remove my dirty feet from the dashboard [Alice mimicking her mother's voice and rushes to explain all the details of the events described as though she may not have enough time to create a picture for me]. My feet are in

fact, clean, I showered this morning, my clean feet were inside my clean socks which were inside my clean shoes. I keep my white shoes white [lifting her white shoes up off the floor for my inspection].

In work with people on the autism spectrum, I have noticed that this type of logical response is common. Alice described that she had learned at school that girls wore white tennis shoes and shoes should be kept clean. If shoes were not clean, other girls would comment on them and judge each other. Alice's logic supported her experience. What she communicated was that she had been misunderstood and judged by her mother—a sample failed attunement, representative of her global experience with her mother. To a clinician, the explanation Alice gave of her logic suggests that she missed the cues a neurotypical person might have and that she did not understand that her mother was communicating four micro-messages (Rowe, 2008).

***Micro-messages & flooding.*** Rowe (2008) defined micro-inequity, a form of micro-message (along with micro-affirmations), as “apparently small events which are often ephemeral and hard-to-prove, events which are covert, often unintentional, frequently unrecognized by the perpetrator, which occur wherever people are perceived to be ‘different’” (p. 2). Many children with autism and other challenges which make them appear “different” experience corrections which caregivers may perceive as a form of love that is not invited by the child, but perceived by the caregiver to be helpful and even necessary as the purpose of the feedback is to assist the child in appearing more neurotypical so that they can adapt to the environment like a neurotypical. It is the repetitive experience of verbal corrections without attunement that may cause flooding of the brain in the person with autism, and a response of emotional stonewalling that may come more quickly to some than others. The totality of this experience is bullying and abuse. Often, the

parent who engages in this behavior is the one and only advocate the child has. The dependency builds with animosity and the parent may ultimately feel helpless to the dynamics with the child.

In this conflict in the car between Alice and her mother, emotion-based micro-messages were perceived by Alice as judgments regarding her behavior, intention, and character: (1) Alice's mother thought her daughter's behavior was improper; (2) Alice's shoes had been on the ground, therefore, they were dirty, and Alice's mother did not want dirty shoes on the dashboard of her car; (3) Alice's mother did not want Alice to sit with her feet up in the air in the car; and (4) Alice's mother did not like her behavior. When the child—doing statistics—detects any negative intentions or feelings from another person, they may begin to perseverate and flood immediately. This is a threat to survival. The person with ASD then sorts these micro-messages—either micro-affirmations or micro-inequities.

**Anxiety.** Because of the flooding—the effects of prolonged anxiety described by Gottman (1993) and others (Gottman & Katz, 1989; Rachman, 1966) in the context of the family as unexpected, unprovoked negative overwhelming and disorganizing emotions, this experience may happen very quickly for a person with ASD. They may independently assign judgments or negative intentions that have been previously communicated to them by the person they are engaging with or from a primary attachment figure(s) who may not be involved in any way in the unfolding situation that influences and shapes the statistical probability and quality of future attunement invitations on the part of the person on the receiving end of the micro-inequities. I believe this happens for people who are not on the autism spectrum as well. Recent research by Robinson et al. (2016) of typically developing children suggests that the genetics for ASD are in all humans.

Alice: I wash my “dirty shoes” every few days, so why is that b--ch even fussing with me about that?

Therapist: I hear you’re really angry.

Alice: I’m tired of it.

Therapist: Tired of...?

Alice: Tired of her on my back all the time. Tired of my father backing her up and not me, even though he talks to me about her behind her back all the time.

Therapist: Hm. Let’s go back to what you said when your folks were in here. It sounds like you might be angry with your father.

Alice: You think?

Therapist: Yeah. I think and feel. I understand you’re upset. I would be. I noticed that you told you father that you were upset with him for not being around and for not treating your mother well.

Alice: [Laughing] I never said that.

Therapist: You did. You pointed out that he is not around often and that he does not treat your mother well-- like you didn’t in the car today.

Alice: I didn’t treat my mother well? What? Whatever, take her side.

Therapist: I am not taking sides. I am sitting with you now. Let’s talk about what happened in the car. To me, this is how things played out . . . Your mother asked you to follow her rule. For some reason you did not want to.

Alice: So.

Therapist: It made her angry that you did not want to follow her rule.

Alice: She's always angry that I do not want to follow her stupid rules. She puts Post-its all over the house reminding us of all the things we can and can't do like we're children.

Therapist: Let's go back to the car. Why didn't you want to follow her rule today?

Alice: It's stupid. I want to put my feet up. The seat is uncomfortable.

Therapist: You believe her rule is stupid and so you're not going to follow it?

Alice: Yes.

Therapist: So, why did you come with her today?

Alice: I don't know. I guess I shouldn't have.

Therapist: I wasn't suggesting that.

Alice: Well, you don't seem to care that she makes me follow all these stupid rules. I should just not follow them, that's what you're telling me?

Therapist: I wasn't suggesting that either.

Alice: I know you're going to ask me how I felt.

Therapist: Ok, how did it feel to hear her asking you to follow her rules.

Alice: Mad!

Therapist: Good!

Alice: Good?! What do you mean? You want me to be mad?

Therapist: I want you to have a range of feelings and be able to express them.

Alice: Ok, so bring them back in. I'll tell them how I feel.

Therapist: Let's just talk for a bit first. [pause] It's good that you know you felt mad when she asked you to follow her rule. Sometimes it takes you a while to talk your feelings, which is fine. Perhaps you could use that time differently.

Alice: Huh?

Therapist: Perhaps you could have said to your mother "OK."

Alice: No!

Therapist: It's true. You could have. It's an option.

Alice: But it's not OK. I don't want to put my feet down. I like to sit like that.

Therapist: Uh huh, but it's not your car.

Alice: Here we go.

Therapist: Hang in there with me, OK? Let's just talk this through using logic.

Alice: [looking at the therapist]

Therapist: Your mother has lots of rules, some she puts on Post-its at home, is that right?

Alice: Yes, all over the house.

Therapist: Why do you think she does that?

Alice: Because she's crazy. She's mean and crazy and she wants to control everyone all the time.

Therapist: Hm. So, would it have helped you today if your mother had put a post-it on the dashboard?

Alice: [laughing] Yeah. One more Post-it.

Therapist: How about it? One more? I might have some in my desk.

Alice: I can't take one more Post-it.

Therapist: Do the Post-its help you to follow your mother's rules?

Alice: No.

Therapist: Why not? You don't read them?

Alice: Of course not.



Therapist: You don't know what they say? How do you know that the Post-its include messages about what your mother would like you to do?

Alice: Because I've read them before.

Therapist: Oh, so you've read them once and don't look at them again?

Alice: Nope.

Therapist: Why not?

Alice: Because, they're annoying.

Therapist: Would you rather she reminded you herself?

Alice: No.

Therapist: What kind of communication would you like with your mother?

Alice: [pause] I would like for her to say what she means.

Therapist: Say more.

Alice: If she really meant she doesn't want the dirty soles of my shoes on her dashboard, she should have said that to me.

Therapist: Would you have listened?

Alice: I don't know. Maybe. Probably

Therapist: When you explained to me all the details of your white Keds, I noticed that you told me all the rules of the kids at school, and I believe that you follow the rules so they don't bully you about not having clean shoes.

Alice: Yeah I guess.

Therapist: In a way, what you told me is like a Post-it. It is information that I have that tells me how you navigate with your peers so that you stay safe.

Alice: Hm.

Therapist: Your mother makes a Post-it to remind herself and everyone how she will feel safe in the house.

Alice: What?

Therapist: Your mother likes for people to know the rules like she does.

Alice: But her rules are all confusing and make no sense. Also, she says a lot of obvious stuff.

Therapist: Is there anything you like about her rules?

Alice: No.

Therapist: Are you sure?

Alice: Why would anyone like rules? Some people don't need rules. They can figure things out for themselves.

Therapist: Do you like figuring things out for yourself?

Alice: Yes.

Therapist: It seems like you're often good at figuring things out for yourself.

Alice: Yeah, I guess.

Therapist: What if you didn't have to figure out so much by yourself? What if you could tell your mom how you feel, like you do in here?

Alice: Why would I do that? She never helps me.

Therapist: What if she wanted to?

Alice: She doesn't.

Therapist: How do you know.

Alice: I know.

Therapist: Can you tell me how you know she doesn't want to help you?

Alice: Yeah, she's my mom. I live with her. I see what she does. I hear what she says and she doesn't do what she says.

Therapist: So, when I call her back in here and ask her if she wants to help you, what will she say?

Alice: She will say she wants to help me.

Therapist: Wait, why will she say that? I thought you said she doesn't want to help you.

Alice: She will say that because she wants you to hear it.

Therapist: That's the only reason?

Alice: She will say she loves me.

Therapist: Do you think she loves you?

Alice: I don't know.

Therapist: Does she say she loves you?

Alice: Sometimes.

Therapist: Does she show you that she loves you?

Alice: [silence]

Therapist: Do you feel that she loves you?

Alice: No.

Therapist: But you think she might?

Alice: I think she might, but I don't feel she might.

What has been communicated to Alice through her mother's behavior is that her global intention---what she says--is not congruent with her actions. Cognition, emotion, and somatic sensory experience must be congruent in order for the mathematics of attachment to make sense, to be logical.

The clinical example of Alice was included in this dissertation to demonstrate the complexities of individual experience, the challenges of therapeutically addressing family behavior in cultural context where patterns—developed of relational shame to guilt through self-blame—mediate the epigenetic dialogue between the pathology of a family’s stories played out in the human body, a cellular time capsule (J. Ableson, personal communication, October 21, 2005), and the limitations of the therapeutic process. Scientific deduction relies on what is already known in the development of problem solving approaches; for problems that were created by the limits of once-exclusive now “expanded” cultural perspectives.

### **Attunement Begins in Utero**

In a Ted Talk entitled, *The Linguistic Genius of Babies*, Kuhl (2010) described infants as “citizens of the world,” able “to discriminate the sounds of all languages, no matter what country we’re testing, and what language we’re using” (para. 5). These findings are consistent with the cross-cultural observations of infant language by Dunstan (2012).

**Attunements documented in utero.** The fetus develops in the womb inside the somatic-emotional landscape of another. The experiences of the mother are transmitted to the fetus in every possible way through every possible pathway: through the mother’s own eating, hydration, and somatic reflex patterns, to her use of medications or substances, her sexual behavior, her sleeping patterns, the level of noise echoing in the fetus’s living room, the safety or fear she feels, the tone of her voice, the tone of the voices around her, the silence, the music, the residue of the lotion that she rubs on her taut belly skin, the chemicals that she cleans with, the emotional response to learning she is pregnant, and all the emotions she feels or holds through her pregnancy. The fetus is not just waiting in a quiet area for their emergence, but it is adapting, absorbing, co-coordinating, touching, kicking; even crying in utero has been documented

(Gingras, Mitchell, & Grattan, 2010). The somatic coordination of attunement between the mother and child begins in utero.

**Somatic reflexes begin in utero.** Masgatova (2017) documented infants practicing reflexes in utero: kicking, sucking, and gripping. Babies may not be trying to master sounds and language in the womb, but to use their bodies and emergent resources to connect with the world around them for survival. Infant words do not show up all at the same time. Infant words that elicit caregiving emerge at birth; more approximately six weeks later, with a final burst of infant words around 12 weeks after postpartum. Infants use their vocabulary to elicit caregiving until they hold to infant language before transitioning fully to the family language or languages. Mastery or learning may not be the goal of an infant. An infant does not attempt to master attachment, although they may become expert at noticing when the parent is available to respond to their needs.

**Infants take statistics.** Kuhl, Tsao, and Liu (2003) tested whether babies can take statistics on a brand new language. Babies, six to eight months old, whose parents spoke English came to the laboratory to learn Mandarin, were as skilled at Mandarin as same-age babies who had only been exposed to Mandarin. At ten months, the absorption of these statistics hits a developmental tipping point where infants cease to be citizens of the world; they become “culture-bound listeners” like their caregivers. Kuhl (2010) argued, “From a mathematical standpoint that the learning of language material may slow down when our distributions stabilize” (para. 8). Infant distributions may stabilize because the infant’s chances for survival increase with mobility which occurs about the time that infants transition to the family language. Sensorimotor development, which occurs at about the same time that infants transition to the family language, is a new competency that increases survival. Trying to get the caregiver’s

attention is easier when the infant can get to them on their own. As infants begin to move about they climb cupboards, open refrigerator doors, feed themselves, or call 911 with cell phones. Their survival increases suddenly when they can physically navigate the world, even minimally.

In her 2010 Ted Talk, Kuhl described an experiment she conducted aimed at understanding the role the human teacher played in the infant learning. Researchers replaced the human with teacher a teddy bear on a television to teach language. The TV bear produced no learning. Infants will only take statistics when a human is involved; the social brain is taking statistics. A bear on television is not going to climb out of the television and meet the child's need. If the child has a television at home this would be obvious. Infants are counting caregiving attunements. An experiment to track whether the infant is taking stats on the caregiver who turns on the TV for them just before they leave the room could provide more information about the statistics the infant is taking. Kuhl (2010) stated, "Babies absorb the statistics of the language and it changes their brains; it changes them from citizens of the world"—infants who can discriminate all linguistic sounds—to "culture-bound listeners" before their first birthday (para. 5). Infants are absorbing the statistics on emotional attunement.

Kuhl's (2010) research focus is "on the first critical period in development, that is the period in which when babies try to master which sounds are used in their language" (para. 4). Infants master sounds—screams and cries—immediately following the first critical period in utero. Partanen et al. (2013) found that infants are listening in the womb, suggesting that the first critical period is in utero and not as late as the emergence of speech matching the family language, between six and 12 months of age. This author's understanding is that the first critical period of development would be the first period of development, in utero. A child uses language to request attention from a caregiver, playmate, or other living thing who may interact with the

baby. The infant's survival is not dependent on sound. Children who cannot speak survive.

Language development is one method that the child may focus on because they learn that it may increase their competence in getting their needs met.

**Hypothesis II—Attunements are the infant's primary qualitative research method of contextual inquiry toward attachment assessment.** I propose that the infant's verbal solicitation of attunements with a caregiver—invited through infant language elicited by the infant's body through somatic reflexes—is one of the infant's methods for collecting data to assess its own survival potential, laying the foundation for the infant's somatic, cognitive, sensory, and behavioral responses to caregiving.

### **Attunements, Emotions, and Making Sense**

**Barrett and Conceptual Act Theory.** Barrett, Wilson-Mendenhall, and Barsalou (2014) hypothesize that “mental states emerge as the consequence of an ongoing, continually modified constructive process during which stored knowledge with an experiencer (as reactivation and recombination of prior experience, referred to as “top-down” influence) makes incoming sensory inputs meaningful as situated conceptualizations” (p. 86). The infant's somatic, cognitive, and sensory experiences merge, prompting a verbal (behavioral) invitation to caregiving attunements; utilizing infant language as the catalyst for healthy development.

In Barrett's (2014) Conceptual Act Theory,

Emotions (like all mental states) are not assumed to be platonic, physical types (or even a modal physical type), but instead are treated as abstract, conceptual categories that are populated with variable instances optimized for a particular situation or context.

Variability is created when initial physical responses (as affective predictions) are optimized for a particular situation or context as sensory inputs (from the body and the

world) are made meaningful using highly context-dependent and culturally dependent conceptual information about emotion derived from past learning or experience. (p. 296)

Consider the way an infant might feel if they were fed when they first asked to be fed. Now imagine the infant's consistent requests for feeding have been ignored for more than 20 minutes. An adult might have had this experience as well. When the adult eats the food after waiting more than 30 minutes, does the "thank you" mean the same as when the food was provided immediately? Does the food taste the same after a long wait? Is the communicated sentiment between an infant and caregiver going to stay the same? Even if the child feels angry, they might also feel hurt, confused, sad and probably still hungry. When an emotional experience is tied to a biological need through a biological reflex, the caregiver must also meet the child's emotional needs.

Barrett (2014) wrote:

There appear to be at least five sources of the variation that occurs for emotional episodes within a category of emotion: (a) the behavioral adaptations that serve as initial, affective predictions about how to best act in a particular situation; (b) the concepts that develop for emotion; (c) the vocabulary used for emotions; (d) the variation in the types of situations that arise in different cultures; and (e) stochastic processes. (p. 296)

**Building a logic base.** This author suggests that infants may be "taking statistics" for the purpose of building a personal foundational understanding—a logic base—of their own attachment potential. Infant language elicits attunements from caregivers, which are opportunities to lay a healthy foundation for learning, emotion regulation, sensory integration, trust, and optimal cognitive functioning. The problems many children and adults face with mathematics, emotion regulation, and learning, are linked to inadequate caregiving—failed or



missing attunements, the building blocks for healthy development. The safe base, theorized by Main and Cassidy (1988), is at first a solid logic “model,” a person or set of caregivers who mostly behave in predictable and predominantly loving ways toward the child. Many people believe and behave in a way that suggests emotions can be ignored. If emotions are tied to somatic reflexes which are also tied to communication, ignoring emotion would likely cause a person to become disconnected from their needs and ultimately, their identity. If they regularly do not experience attunement, this disconnection would happen much more quickly; damaging judgment, increasing anxiety, and over time, reducing the potential to attune.

Each infant’s family structure, dynamics and experience are unique, which makes it imperative that parenting interventions be customized to address the diverse experiences of children. This program will (1) teach parents to listen to their infant first, then respond to their needs; (2) empower parents to feel competent and confident in their ability to care for their infant; (3) break through social isolation, a common experience of infants, by providing in-home and community-based services and referrals; (4) encourage parents to allow the weight of parenting to be shared by other caregivers; (5) encourage consistency in the reliability and quality of attunements by training all caregivers to identify and respond to infant language, and practicing attunement skills; (6) address the needs of infants and families by expanding their support network—connecting them with psychologists, doctoral students in psychology trained to address stress, parenting, relationships, family dynamics, domestic violence, child abuse and neglect, learning needs and developmental assessment, psychotherapy, and referrals; and (7) connect families with their communities for support long after their work in the program is done.

Pathology is the patterns of disconnection derived from accumulations of abuse and or neglect. Attunements require awareness. Moving from what is known to awareness and mindful

attunement to self and others may be a painful transition that continues long after change is made. That leaves others to decide how to hold the loss of what is most comfortable and known and requires that witnesses to these changes decide which side of danger fulfills their needs, only for a moment. The here-and-now of attunement may be anxiety-provoking to parents who hold tightly to what they know, who want to hold the love and connection they experience in their hearts and minds forever, grateful for the lives they have created against the odds, especially if attunement was missing or chronically failed in their early years. Acknowledging the here-and-now is to move toward acceptance of failure required for learning. The healing attunements of change require acceptance of mistakes, listening without judgment, and intentional, co-coordinated action. Parenting a child requires that you mindfully tend your own experience, not allowing it to take over the space and time needed to attune to the unknown experience, knowledge, and needs of the child so that the child can be themselves.

The following section briefly acknowledges the influence of mirror neurons.

**Mirror neurons.** The discovery of mirror neurons in the macaque monkey by di Pellegrino, Fadiga, Fogassi, Gallese, and Rizzolatti (1992) led to postulations that they are responsible for language, but exactly how is still uncertain. Kilner and Lemon (2013) note, “There is now evidence that mirror neurons are present throughout the motor system, including ventral and dorsal premotor cortices and primary motor cortex, as well as being present in different regions of the parietal cortex” (p. R1062).

Kochukhova and Gredebäck (2010) observed that infants are fed for 193 days before they shift their gaze during feeding to the mouth of their caregiver before the spoon arrives, a behavior that tied to somatic experience for infants lasts 6 months after birth. Kochukhova and Gredeback (2010) discussed experience dependency—the ability of infants to anticipate the

experience—suggesting that mirror neurons exist in infants. Approximately six months of being fed is required for babies to anticipate this action. One hundred ninety-three days—approximately 6 months—may be a period of attunement assessment. In Southgate’s (2013) paradigm of mirror neurons, “understanding the goal of another is mediated by the agent’s ‘choice’ or preference” (p. 1117). Culture will serve as a mediating factor in this interpretation as well.

Gallese, Eagle, and Migone (2007) hypothesized that:

The statistical detection of what actions most frequently follow other actions, as they are habitually performed or observed in the social environment, can constrain preferential paths chaining together different motor schemata. Ascribing simple intentions would therefore consist in predicting a forthcoming new goal. (p. 137.)

**Hypothesis III –Mirror neurons are involved in the infant’s research to assess their attachment.** I propose that the ability to determine the implications of intention—associated through the involvement of the mirror neurons—is another aspect of the infant’s attachment research methodology.

***Embodied simulation.*** The concept of embodied simulation established by Gallese and Goldman (1998) is:

In contrast with what mainstream cognitive science would maintain, action prediction and the ascription of intentions—at least of simple intentions—do not appear to belong to different cognitive realms; rather, both pertain to embodied simulation mechanisms underpinned by the activation of chains of logically related mirror neurons. (p. 137)

The simple intentions ascribed are the infant’s complex emotions, cognitions, and corresponding somatic reflexes tied to the caregiver’s most likely response to a particular infant

need, as demonstrated by their past behavior when a similar request was made by the infant. These simple intentions, the infant's goal, shifts the parent's intention toward the infant's own intention, a survival intention, possibly the most lofty of goals, are not simple at all. The complexity of the mathematics involved in reflecting one infant's experience of one attunement are beyond my expertise and understanding. Having learned, taught and studied statistics, it seems that the number of variables involved in regular, everyday infant attunement events, that may be important to the development of a "neural map of intention" (Siegel, 2011), requires skills well beyond that of known human processing capacity, which Halford, Baker, McCredde, and Bain (2005) have determined is no more than four variables. Here is a parenting example:

A particular parent does not enjoy changing diapers. Through observation of their child and the somatic experience of time, they observe the general amount of time between the infant feeding and when the infant's diaper needs changing to respect those in the environment, much like a therapist whose body learns when 50 minutes have past. Consciously or unconsciously, the parent tends to hand the child to another caregiver just before the diaper needs changing. The child may appreciate the attunement of the feeding experience. The parent makes the feeding gesture coordinated with the infant's opening mouth to receive the parent's spooning of their food. Smiling occurs. Wiping of the infant's face occurs, not with the parent's saliva-lubricated thumb, but a cold wet washcloth, yet kind words and tone from the parent are communicated. The child notices the bowl, once filled with food, now almost empty, senses an end to the attunement, and begins to fuss. The parent becomes frustrated, trying to get the child to open their mouth for the last few bites, wishing for an end to the attunement and what may feel like impending emotional escalation, decides that the child is probably ready for a nap, and asks the other caregiver to take over. The child's last few bites of food are no longer tied to the video-

recordable attunement that just ended, but to the residual event that lingers (mirror neurons) in the child's statistic-taking mind. Gallese et al. (2007) stated, "Action prediction and the ascription of intentions are related phenomena, underpinned by the same functional mechanism, embodied simulation" (p. 137).

The replacement caregiver may be met with the child's tantrum or communication of dissatisfaction with the regime change which may influence their attunement with the infant—an example of a second mirror neuron chain.

***Mirror neurons and intention.*** Siegel (2011), referred to the system that involves the mirror neurons, "When you know an intention behind an action, a different system in your brain is activated." According to Siegel (2011) the system involving mirror neurons is activated when you know the intention behind an action of another person. Siegel (2011) stated:

When you can predict that sequence, you can determine what the implication of that sequence is. That ability to understand the sensory implications . . . of motor actions that you're perceiving, allows you to create a map in the mind . . . a neural map of my intention in your head. Beyond seeing behavior, we see intention beneath the behavior from the very beginning. That is how we create the human capacity to imitate human behavior.

Multidisciplinary contributions to theoretical dialogue inform research attempts to understand the influence of mirror neurons; however, this discussion is still in its infancy with regard to illuminating the language acquisition systems that emerge in infants from conception. The study of infant language may shed new light on this burgeoning area of neuroscientific inquiry of great significance to understanding the intersection of neuroscience, psychology, speech, and socioemotional development.

To understand the complexity of the mirror neuron system, consider this example from an experience of adulthood: When you are driving and see a police car, you may experience a sudden surge in anxiety. When a police car pulls behind you, that feeling is intensified, perhaps 100 times; 1000 times if the lights are flashing and the siren is running. Also consider that your experience of the squad car on the street, not driving behind you may be 1000 times more activating if you are a person of color. Your response to the simple description of this situation is a somatic, socio-emotionally-constructed experience that is also cognitive. The real-life version is at least more intense. Returning to the discussion of infant experience, consider the example of an abusive scenario that has just played out. A mother hit her infant. She was angry that the infant was crying and would not seem to stop. The next time the mother goes to feed the child, the infant may not behave interested in the food offered. The mother may become angry again. The scenario can play out in many different ways, however, what is important to this discussion is that the infant may remember the quality of attunements.

Another example: the mother hits her infant for crying that would not seem to stop. The infant begins to cry. The mother feels regret for her behavior and reaches to comfort the child. The child may recoil, or accept the affection. These scenarios would create confusion for anyone in a relationship. The infant's next response is dependent on previous experience and the infant's prediction for the potential outcome of the exchange. The failed attunement, where one party is trying to attune and the other is not, is still an attunement. When people say, "I don't understand why she stays in an abusive relationship," this may be why.

The mathematics of the attunement—the quantitative data collection of the infant—may be interrupted by somatic emotional flooding. It is possible that any type of disruption to the data collection of the infant could lead to math-fear, which might translate into something like this,

“If I calculate the quality of this attunement which may lead to my communication of an emotion, I may not get anything I need.” Also related would be difficulty or failure to assess danger in other, including flooding, or dissociation when information cannot successfully move from short to long term memory, or procrastination—another attunement seesaw where one side is judgment and conflict, and the other side is avoidance of the imagined end of attunements with a caregiver. All of these speak to the emotional interpretation of intention through the assessment of attunement statistics and qualitative contextual inquiry, tied to somatic experience, imprinted in cognition and related to mirror neurons.

## Chapter II: Literature Review and Rationale for the Program

### The Experience of Attunement

The Still-Face Experiment was developed and conducted by Tronick, Adamson, Als, and Brazelton (1975). A mother faces her baby. The researcher asks the mother to hold a “still face” in which the mother does not react or respond to the baby’s behaviors. The baby is observed.

Tronick (2009) narrated a video remake of the experiment:

She gives a greeting to the baby, the baby gives a greeting back to her. This baby starts pointing at different places in the world and the mother is trying to engage her and play with her. They’re working to coordinate their emotions and their intentions, what they want to do in the world. That’s really what the baby is used to.

When you watch this example of parent-infant synchrony where both parties are fully engaged, you witness attunement.

**Mutual responsiveness.** Then the mother is asked to not respond to the baby. Tronick (2009) says:

The baby very quickly picks up on this and then she uses all of her abilities to try and get the mother back . . . she smiles at the mother. She points because she is used to the mother looking where she points. The baby puts both hands up in front of her and says, “What’s happening here?” She makes that screechy sound at the mother like “C’mon, why aren’t we doing this?” Even in this 2 minutes when they [the infant] don’t get the normal reaction, they react with negative emotions. They turn away. They feel the stress of it. They actually may lose control of their posture because of the stress that they’re experiencing.



The baby assists in the coordination of attunement with the parent, using gestures, facial expressions, sound, and language to remind the parent to return to being present when the parent's attention is not focused. Attunements occur when both the child and the parent are attentive and responsive to each other. Bowlby (1982) outlined a reciprocal caregiving system in the parent that responds to the attachment behavioral system of the infant organized in relation to the set-goal, providing protection for the child.

The mother begins to respond to the child again. They play together. The child recovers from the experience of neglect; the mother repairs with the child through emotional attunement. The mother looks at the child, reaches for the child, and communicates with the child emotionally. Tronick (2009) notes, "It's a little like the good, the bad, and the ugly. The good is that normal stuff that goes on, that we all do with our kids. The bad is when something bad happens, but the infant can overcome it."

The attention that the infant receives from their caregiver ensures the infant's survival. Caregiving attention may be intentional on the part of the caregiver, but the infant elicits this attention whether or not the caregiver pays attention to them, at least until the infant notices that the caregiver's attention is not desirable, consistent, or helpful. A parent may perceive that the infant's needs are extremely important or not, but the infant holds that their needs are extremely important at all times and communicates them, unless their communication is repeatedly ignored and/or the chances of their needs being met are slim or otherwise detrimental, as in cases of extreme child abuse and torture.

**Conceptualizing "The Good."** Ainsworth, Bell, and Stayton (1971), and Ainsworth, Blehar, Waters, and Wall (1978) found that children who have developed secure attachment are confident that the attachment figure will meet their needs. These children experience the

attachment figure as a safe base to explore the environment and seek the attachment figure in times of distress (Main & Cassidy, 1988). Bowlby (1988) identified the biological function of attachment as protection. Bowlby (1951) believed that the infant's mental health is dependent on attachment with a primary caregiver: "The infant and young child should experience a warm, intimate, and continuous relationship with his mother (or permanent mother substitute) in which both find satisfaction and enjoyment" (p. 13). Winnicott (1960a) shared this belief:

The mental health of the individual, in the sense of freedom from psychosis or liability to psychosis (schizophrenia), is laid down by this maternal care, which when it goes well is scarcely noticed, and is a continuation of the physiological provision that characterizes the prenatal state. (p. 592)

It is this author's contention that secure attachment that occurs between infant and primary caregiver, arises from a preponderance of attunement accumulations between the child and primary caregivers.

In their 1996 study, George and Solomon confirmed that disorganized caregiving is associated with self-perceptions of helplessness. The parent or caregiver may not understand why an infant seems to move to crying so quickly, why the infant seems to disengage, and why they do not seem to respond positively to the care they are given. The infant is depending on the caregiver to meet all their needs each time the need arises. They are dependent on others for survival. Multiple caregivers will have multiple caregiving approaches that the infant must navigate. Waiting on someone to meet your needs can be frustrating, confusing, and anxiety-provoking. Periods of waiting for care may cause tension and anger in the infant to escalate quickly. Parents may forget that the infant, who may be attuning to all the emotion in their

environment and experiencing the stress as the adults are, is not in control and cannot take care of themselves when they notice that the parent cannot.

**Conceptualizing “The Bad.”** The process of addressing the infant’s needs may look different each time. Parents may run through the infant needs checklist in the same order, but others go through the list in whatever order comes to mind, which makes the process very stressful for an infant and also for the parent. Without receiving a helpful response, the infant’s request may be repeated multiple times, louder and louder, as a forceful command which escalates to an angry scream, cry, or wailing. This infant communication, snowballing in emotion, volume, and intensity, will lead to activated reflexes and neurochemical flooding of the brain, or a meltdown in the infant, and possibly the caregiver.

If a child is communicating and not heard by a caregiver until they become upset, they are likely to become unnecessarily stressed. Infant escalation may be met by a parent who feels irritated, confused, angry, helpless—one who disengages or matches what they perceive to be the child’s affect. Such exchanges can easily lead to cycles of frustration, fatigue, and sometimes anger, or even abuse. Gilkerson and Gray (2014) state that crying is a trigger of abuse.

Bowlby (1988) wrote, “Human infants, we can safely conclude, like infants of other species, are preprogrammed to develop in a socially cooperative way; whether they do so or not turns in high degree on how they were treated” (p. 9). When an infant cannot count on the caregiver to attune, the caregiver, aware or not, is playing an emotional game of roulette where the child’s safety, health, and development hangs in the balance, along with their in-the-moment needs. As the child grows, their tolerance for this game decreases. The infant may become easily reactive, respond intermittently to the parent, or stop responding altogether. These are adaptive responses to stress and trauma that reflect fight, flight or freeze responses to stress, also seen in

older children and adults. Once a pattern of failed communication, disconnection, and stress has formed, it can be difficult for both the infant and the caregiver to respond to and with attunement.

According to Powles (1992), emotion regulation is a socioemotional pattern of neurobiological homeostasis that is tied directly to the caregiver's response from the infant's request for help. It is also direct communication about the perceived safety of the environment. Emotional communication in the form of cries may communicate, "Come close, I need you," or screams "Warning, danger!! I told you already I need your help," may repel a caregiver who cannot hear or respond to the infant's needs at that time because the last time they did, their effort failed, they are too tired, busy with someone or something else, or emotionally flooded themselves from stress. The infant recognizes that no response is a response. A repair from the caregiver is always possible; without one, things can get ugly.

**Conceptualizing "The Ugly."** All parents fail to attune at times and make other mistakes in parenting, however, when the failure continues and creates a pattern, the child loses opportunities to trust and securely attach to their parent, to feel assured and learn that the parent will protect them. The parent does not become their safe base from which to seek comfort or to explore the world (Main & Cassidy, 1988). The child becomes vigilant and focused on the caregiver or other needed attention instead of focused on their learning in the world. "The Ugly" becomes the child's strategy for negotiating their needs in the world when they have come to not trust those responsible for their well-being.

When the child develops behaviors that are adaptive but do not lead them to positive interactions, connections or attunements with others, the parent may interpret that something is wrong with the child instead of understanding their role and the need for them to consistently

attune to the child. The parent may become angry, abusive, or more neglectful if a child protests the neglect, which validates the sense the child already has developed from the pileup of failed attunements, that they should ignore their emotions. Parents may experience that the child's emotions are the problem, where control seems like a natural solution.

“The Ugly” shows up in the doctor's office. Parental acceptance of responsibility for “the Ugly” may be unlikely once a pattern of failed or missing attunements has developed, however, the obvious signs of depression and anxiety may generate concern and action. Parents are most likely to bring their child to a pediatrician for support. According to Stern (1995), in infants from birth to three years, the pathologies identified “consist largely of relationship disturbances which may present as eating or sleeping disorders, attachment disturbances, early conduct disorders in the infant, or as parental anxieties, and other problems” (p. 2).

If the physician does not remedy the problems and the behavior continues, a psychologist, master's level psychotherapist, or clinical social worker may be included in the intervention. The child is often perceived and presented as difficult, reactive, a problem child, even manipulative. Therapists may be asked to intervene between the parents and child, teach the child how to behave, accept reality, and keep the bad behavior to a minimum, especially at school or in public. Talk therapy for children, with the exceptions of art and play therapies, is often focused on behavior modification, emotion regulation, and compliance, behavior management, and teaching the child how to understand and accept complex dynamics that they cannot control.

**Adaptive behavior: toward survival or healthy development?** The child's adaptive behavior is a battle cry indicating their emotional refusal to accept neglect. Teaching a child to become an expert at modulating emotions that are normal in the face of disconnection, fear, and

neglect will be an exercise in teaching a child to ignore their emotions, their body's response to those emotions and to themselves, their needs, desires and hopes. One more attachment figure teaching the child to ignore their needs will not be helpful; the therapy itself can be re-traumatizing. Physical manifestations of the incongruence of neglect, including emotional neglect that results from dismissive or critical parenting, are treated with candy-flavored medicines intended to calm the child. Without any emotional soothing, the child becomes numb and dissociated. Lyons-Ruth, Dutra, Schuder, and Bianchi (2006) described that in two longitudinal studies on dissociation and trauma in low income populations, "Caregiving predictors related to dissociation in these two longitudinal studies converge in underscoring aspects of the mother's unavailability to respond to the infant's attachment cues as key precursors to dissociative symptoms" (p. 67).

A child living with "the Ugly" may stay focused on their own survival, may appear selfish, or self-absorbed. It requires a great deal of energy to maintain vigilance and to survive or to mirror their parent's survival-focused behavior, and do not learn to self-regulate their emotions. On the other extreme, some children are given the role of primary caregiver which, neglects their identity and development as a child. Children whose parents must work multiple jobs to provide a better life, who take time off of parenting to engage in the demands or activities of adult life, whose time is consumed with other relationships, substance abuse, or who have abandoned them altogether—children left responsible for others for long periods without supervision long before they are developmentally able to care for themselves—children who spend all of their energy focused on ensuring the survival of their more attuned caregiver—a life insurance policy, or on caring for the adult who should be caring for them—these children experience neglect.

As children grow, they try on many social roles where their cumulative attunement experience will be tested. In school, we may think of examples of children who are high achievers, who accomplish many things, who do not appear to be struggling at all. Children stuck in neglect may do well in school because it is the first place they experience structure, consequences, and assurance that their needs will be minimally met in the school environment. They may thrive in an environment where they are receiving attention, attunement, and connection from a special teacher or coach who sees their gifts. The next year, with a new, less-attuned teacher, the story may change.

***Maladaptive behavior.*** Other children may do poorly in school because the environment and expectations are foreign to them. Developmental barriers to learning were never addressed. They lack the adaptive skills to connect with others because it was never consistently safe to do so, and those issues create barriers that might not be addressed, especially if an attuned teacher never comes along. They may have trouble with motor skills due to poor nutrition, getting to school on time from insomnia, lack of structure and support. They may be a student in special education class or an honors student and valedictorian. They may get involved in conflicts with teachers and students, find themselves bullied or bullying, or left out of the social realm altogether. They might skip school, get suspended, end up homeless or a runaway. They may become CEO of a company, student council president, a pregnant teen, a candidate for senate, or an Olympic athlete. All types of people come to therapy, end up in court-ordered programming, or even living on the street.

People who have experienced neglect may appear highly competent and perfectionistic, but those are sometimes façades, hiding extreme concern with what others think and high anxiety. Others may seem avoidant, distracted, or otherwise disengaged from their own well—

being, spending time with characters who use their own “Ugly” strategies to get their needs met, finding themselves in situations that have similar dynamics to the ones they survived early on.

There is not one profile that manifests as a result of chronic neglect; this is another reason why the repercussions of neglect may be dismissed as a child’s poor choices, a lack of will, or their failure to make a plan. Parents do not always understand that their expectations for child behavior may not correspond with their child’s development. Fisher, a psychologist and research scientist interviewed by Weir (2014), noted that children who have experienced neglect with a history of neglect “are known to have trouble with executive functioning. One way that presents itself is that the kids don’t show much brain response to corrective feedback; instead, they often make the same mistakes over and over” (para. 29). Children of neglect are missing important cues. For all young children, making choices quickly, waiting patiently, or holding their feelings in are not behaviors that can be expected.

Children live in an emotional world that we have all lived in where their survival is dependent on someone else’s experience of the world, and their sense of self and connection hinges on others’ sense of responsibility, love, and desire to protect the child. While a pediatrician may suggest developmental benchmarks for behavior, each child develops at their own pace and in response to the treatment they receive from caregivers. Infants are not tiny adults who have had years of experience navigating the emotional world, and they need a great deal more care, and attunements to set the foundation for healthy behavior that is modeled to them by their caregivers. Children do what they see, not what they are told.

**Attunement and emotion regulation.** In the Still-Face video remake (Tronick, 2009), when the child does not get an attuned response because the parent is making the “still face”—



emotionally disengaging from the child even though they are still present to them—the infant turns away, feels the stress, and reacts with negative emotions. Stern (1985) wrote,

It becomes obvious that infants exert major control over the initiation, maintenance, termination, and avoidance of social contact with mother; in other words, they help to regulate engagement. Furthermore, by controlling their own direction of gaze, they self-regulate the level and amount of social stimulation to which they are subject (p. 21).

Over time, this turning away becomes avoidance of the caregiver. The infant may come to favor a calming state through self-soothing. The infant may rock back and forth as if an invisible adult were caring for them. In cases of severe neglect, such as some of the 170,000 children living in Romanian orphanages, documented in the Bucharest Project, Sheridan, Fox, Zeanah, McLaughlin, and Nelson III (2012) found that these children had smaller brains, a lower volume of grey and white matter and attention issues were prevalent. Symptoms of depression, reactive attachment, as well as hitting, kicking, tantrums, attention issues, learning and reading problems, indiscriminate friendliness, and even fecal spreading, have been reported in institutionalized children; each behavior an adaptive response to neglect (Chisholm, 1998; Chisholm, Carter, Ames, & Morison, 1995; Lassi, Mahmud, Syed, & Janjua, 2011; Wiik et al., 2011; Zeanah, Smyke, Koga, & Carlson, 2005). The consequences of avoidance of authority can lead a child to fear authority, to not accept responsibility as they grow older, and to not accept their identity as their personal authority in adulthood. Some children who experience neglect challenge authority at every opportunity and do not protect themselves from harm, but to provoke it, reaching a momentary homeostasis after the fallout, until the next time they are faced with authority. The realities of neglect are as diverse as human experience, they are lifelong, as

common as mental health diagnoses, as challenging to address as addictions, post traumatic stress disorder, depression, and many other conditions and they are preventable.

Thompson (1994) defined emotion regulation as “the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one’s goals” (pp. 27–28). An infant’s goals—to eat, to sleep, to be held, and to feel comfort—can only be met through attunements with caregivers. The process of emotion regulation is relational learning through modeling on the part of the caregiver and attunement, which aids in calming the body down during times of stress. An infant’s ability to control or manage their emotions toward optimal development and relationship depends on the socioemotional learning that occurs in relational dynamics with their caregivers.

Emotion regulation may be more global and reflective of the level of engagement and consistency with which their caregivers attune. Depression exhibited by an infant who experiences little to no attunement or dissociation may reflect one form of emotion regulation. Depression reflected by a child who experiences abuse is a complex emotional response to the predictable or unpredictable behavior of those around them. Conserving emotional resources, such as the demonstration of flat affect, does not promote the release of feel-good brain-bathing chemicals, but it does hold one firm in a cautious perspective of the emotional safety of the environment, and signals to those around them that something is not right. Hypervigilance toward one’s abuser may be diagnosed as insomnia, and ruminating on the emotional experience of neglect or failed attunements could fuel the intensity of fight, flight, or freeze, and may be a complex form of emotion regulation. What have been identified by the psychological community as maladaptive patterns of behavior—mood disorders or personality disorders—may be unique,

patterned socioemotional, behavioral, and sensory responses to missing or failed attunements. Behavioral problems require a relational response in order to shift energy, focus, and attunement.

*Lost attunements are failed attunements.* Gabor Maté (2015) stated,

Parents who are stressed have been shown not to be able to be as attuned to their infants and children as parents who are not stressed. Not their fault. Not because they don't love the child. Not because they're not dedicated, devoted, committed. Simply because stress effect impedes their ability—not to love their child—but to attune with their child, so that mutual responsiveness is interfered with. And that has an impact on brain development.

Attunement attempts fail at times. The child or parent may lose interest. Past attunement failures leading to trust issues, including those with a parent's own attachment figures, may get in the way. Many barriers may lead to a failure of the two in coordinating the attunement, including substance abuse or addiction, mental health issues, behavioral challenges, learning disabilities, and sensory development issues. When we must depend on others to meet our needs, attunement failures can be fatal.

The literature review section of this dissertation provides a justification for the design of this program through an awareness of the realities and challenges of parenting an infant, as well as the needs of the infant, parents, caregivers, and families.

### **The Family Context of Abuse and Neglect**

In 2014, the U. S. Department of Health and Human Services (US DHHS, Child Maltreatment, 2014) reported that child abuse and neglect are most often experienced in the context of the family. Abuse and neglect generally take place at home or nearby, at the hands of the child's mother and/or father, 379,885 parent perpetrators (78.1%) or other relative 30,838 (6.3%; US DHHS, 2014, p. 13). In a report to U.S. Congress, Sedlak et al. (2010) reported that

92% of countable children were neglected by biological parents (p. 1). These statistics, from the Fourth National Incidence Study of Child Abuse and Neglect (NIS-4), include children who were investigated by CPS agencies and also attempts to obtain data on other children who were not reported to CPS or who were screened out by CPS without investigation; children recognized as maltreated by community professionals (Sedlak et al., 2010).

In 2014, there were more than 3.9 million reports of child abuse with 702,000 victims (US DHHS, Child Maltreatment, 2014, p. 20–21). Children experience different types of abuse and may suffer more than one type of maltreatment. The majority (78.3%) of reported and validated child abuse claims were cases of child neglect, with other abuse categorized as physical abuse, 17.6 %, sexual abuse, 9.2 %, psychological maltreatment, 8.1%, and medical neglect, 2.4%. In addition, 10.3% of victims experienced such other types of maltreatment as abandonment, threats of harm to the child, or congenital drug addiction. “These percentages sum to more than 100.0 percent because a child may have suffered more than one type of maltreatment” (US DHHS, 2011, p. 36). While shocking, these statistics do not clearly represent the number of child abuse incidents that go unreported and are experienced each day and night in the lives of children.

The cases reflected by these statistics may be severe, however, many more abuse and neglect incidents go unreported to authorities each year. Many people do not report suspected abuse or neglect. Very few alleged abusers call in to CPS and ask for support, respite care or parenting courses, only .1% (1,129), of 2,061,307 reports made in 2014 were made by the alleged abuser and only .3 of alleged victims (6,432) made a report (US DHHS, Child Maltreatment, 2014, p. 13). Parents may be afraid they will lose their child if they ask for parenting support.

**Infants are most vulnerable to neglect.** Children under age one are the most dependent and vulnerable of all children and make up 24.7% of all child victims (US DHHS, Child Maltreatment 2014, p. 23). Infants are most likely to be isolated in the family home, they cannot explain their abuse and neglect to child protective services, and their age leaves generally leaves them with the least contact with these professionals. Even if they end up with bruises, broken bones, or other injuries, they may not interface with someone who can or will help them. Wellness checks for infants are not mandatory and there is no way to force families to access services without a report. Very young children may not have access to outside support before they reach school age, as it is normal for many families to keep children at home, mostly or only around immediate family members. They cannot leave home on their own when things become chaotic, as some older children do. Young children who experience an unsafe family life may begin to learn that abuse is normal and mimic and even adopt patterns of behavior that they experience. Green, Whitney, and Potegal (2011) note that excessive tantrums in early childhood can predict future maladjustment and even psychopathology (p. 1124). Potegal and Davidson (2003) found crying to be the most frequent vocal expression in tantrums, occurring 86% of the time (p. 142). According to Schmitt (1987), tantrums increase the risk of abuse. The child's response to stress may appear dramatic if the infant has not developed emotion regulation skills learned through attunements with a caregiver who can regulate their own emotions, or if the child has not experienced consistent attunements with caregivers.

***Neglect linked to other problems.*** Neglect is a failure to notice, to listen, to be present with, to respond, and to attune. It may be the result of a parent's health issues or developmental limitations, the grief of death of a family member, lack of time due to the financial demands facing many single and two-parent families, or post traumatic stress experienced by a caregiver.

Neglect is not necessarily malicious or cruel, however, intention is missing. Children focused on their own survival without the intentions and attuned actions of caregivers face an open door to other dangerous realities, including violence and abuse, children left alone without supervision, bullying, abandonment, and even death. According to Hildyard and Wolfe (2002), problems that emerge with child neglect include social withdrawal, coping issues, poor impulse control, challenges in emotion regulation, low self-esteem, tantrums, stealing, tics, self-punishment, low academic achievement and stunted intellectual functioning.

Child abuse and neglect reports are most often made by professionals who do not provide in-home support—adults who come into contact with the child for legal reasons (372,750 reports by law enforcement), at school (364,728 reports), day care (13,974 reports), the doctor’s office or emergency room staff (190,298 reports), a therapist (116,148), a social worker (226,083) or by a vigilant neighbor or friend (89,759 reports; US DHHS, Child Maltreatment, 2014, p. 13). So many professionals come into contact with children who have been abused and neglected and their ability to support families is limited to addressing the aftermath. Such professionals are placed in an adversarial role with parents in these circumstances reinforcing family isolation, parental fear, and lack of motivation to engage with them to receive support.

In cases where abuse and/or neglect have become the norm (domestic violence is occurring, including intimate partner violence, parents or caregivers are using substances, or severe post-partum depression is present), an infant’s survival may be dependent on interface with adults outside the family home, likely at a hospital or pediatrician’s office following an accident or injury. Abuse does escalate and children have died as a result. According to the U.S. Department of Health & Human Services in 2014, it was estimated that 1,580 children died from abuse and neglect (US DHHS, Child Maltreatment 2014, p. 51). 70.7% percent of all child

fatalities were younger than age three (US DHHS, Child Maltreatment, 2014, p. 52). At least 72.3% of these deaths were the result of neglect and sometimes multiple forms of maltreatment (US DHHS, Child Maltreatment, 2014, p. 55). Child death is preventable.

*Neglect and abandonment, death, and disability.* During 2014 in the United States, 653,000 children found themselves in the foster care system; for some children this happened more than once. One-hundred eight thousand children waited for adoption, and of these, 60,900 times parental rights were terminated (US DHHS, 2016d). Children who experienced trauma often had to adjust to more than one new environment, which can cause additional trauma. In that same year in the United States, an estimated 1,580 children died of abuse and neglect (US DHHS, 2016c). Nearly 71 (70.7%) of all child fatalities were younger than three years and the child fatality rates mostly decreased with age. Children who were younger than one year old died from maltreatment at nearly three times the fatality rate for children who were one year old (US DHHS, 2016, p. 52). The youngest children are the most vulnerable to death from abuse and neglect. Baladerian (2013) reported that approximately one quarter of all children with disabilities acquired the disability as a result of abuse, and 52% of neglected children acquire a disability that is permanent. According to a report titled Levels and Trends in Child Mortality, released by UNICEF, World Health Organization (WHO), World Bank, and UN-DESA Population Division (2014), long-term disabilities often associated with violence against children include traumatic brain injury, physical and cognitive impairments, psychological trauma, sensory disability, limb deformation with mobility impairment, and paralysis. Infants need to feel protected and emotionally connected to their caregivers so that they can learn.

*Neglect and toxic stress.* Medical providers such as pediatricians and family physicians may notice toxic stress in a child experiencing neglect. According to Shonkoff et al. (2012),

tolerable, positive, and toxic stress influence development, “A tolerable stress response, in contrast to positive stress, is associated with exposure to nonnormative experiences that present a greater magnitude of adversity or threat” (p. e232); a child’s family or other caregivers may serve as a buffer to stress responses that could otherwise, lead to physiological hard and long-term consequences to health and learning (p. e235). The third and most dangerous form of stress response, is toxic stress, when the child endures extensive periods of stress without relief or support from a caregiver (p. e236). According to this report, “The biology of early childhood adversity reveals the important role of toxic stress in disrupting developing brain architecture and adversely affecting the concurrent development of other organ systems and regulatory functions” (p. e243). Lyons-Ruth, et al. (2006) noted, “Traumatic events are often discrete occurrences, whereas disturbed parental affective communications are often an enduring, day-in-day-out feature of the childhood years” (p. 78).

*Neglect and post traumatic stress.* Psychotherapists, social workers, and child advocates are focused on the socioemotional and behavioral effects of stress in a child facing neglect. “For reasons that are basic to survival, traumatic experiences, long after they are over, continue to take priority in the thoughts, emotions, and behavior of children, adolescents and adults” (The National Child Traumatic Stress Network, 2012, para. 6). The effects of abuse and neglect can be identified in a child. Symptoms which follow the perceived threat of serious injury or death, also called post traumatic stress, include flashbacks to upsetting images of the traumatic experience, thoughts of the harm, nightmares, strong emotional and physical reactions following reminders which may be part of daily life (as in domestic violence), overreactions to other things that happen, as if what happened before were going to happen again, avoidance of thoughts, feelings and images that remind us, situational avoidance or avoidance of a person or place, and even



repression. The body can stay in a high arousal state making it hard for us to detect danger. Insomnia, irritability, elevated startle response, and even somatic symptoms such as stomachaches and headaches can result from the experience of trauma (Belsky & de Haan, 2011; The National Child Traumatic Stress Network, 2012; Tufnell, 2008; Tufnell & DeJong, 2009). The realities of these stresses create challenges for children, their parents, and the social environments in which the child engages.

*Neglect and social problems.* Traumatic stress results in observable behavior, which raises long-term barriers to healthy functioning. About 80% of 21 year olds that were abused as children met criteria for at least one psychological disorder (US DHHS, 2006). Children who experience child abuse and neglect are 59% more likely to be arrested as a juvenile, 28% more likely to be arrested as an adult, and 30% more likely to commit violent crime and become involved in our legal system and with human services (US DHHS, 2006).

*Neglect and parenting from siblings.* Older children are often put in charge of siblings, yet they may not be mature enough for the responsibility. They may be able to attune to the infant sometimes, but at other times their developmental immaturity may prevent them from playing the unconditionally loving parental role which is needed during heightened need-based and confusing situations. Minor caregivers may lack patience, understanding, and awareness that is needed from adult caregivers. Brain development in older children may reflect a lack of emotion regulation ability. If older children experienced abuse and neglect from the parents, their repertoire of stress responses in parenting situations may be limited or even non-existent. Researchers (Caffaro, 2014; Caffaro & Conn-Caffaro, 1998; Straus, 1979; Straus & Gelles, 1990; Straus, Gelles, & Steinmetz, 1980) found that incidences of sibling abuse and neglect are greatly underreported, and several studies indicate that sibling abuse is more commonly

experienced than other types of intra-family abuse, including abuse from parents (Caffaro & Conn-Caffaro, 2005; Frazier & Hayes, 1994). In 1990, Goodwin and Roscoe used the Conflict Tactics Scale (Straus, 1979) with 272 high school students and found that 60% reported being a victim or perpetrator of sibling abuse. In the same year, a national study of 8,145 families by Straus and Gelles (1990) identified that 80% of children ages 3 to 17 commit some form of violence against a sibling. Sibling abuse may be treated as normal, but it is abuse; learned behavior reflecting unhealthy family dynamics.

*Neglect and teen parenting.* Some parents' brains have not yet fully developed, as is the case for teen parents. Prenatal care is a concern for this population as well as other practical issues such as nutrition, sleep, and support. Financial support to cover living expenses, such as housing, transportation, food, health care and other basic needs, may involve working multiple jobs, bargaining with family or friends, accessing and navigating government assistance programs and other methods of survival. Teen parents' immediate families may or may not be supportive of their decision to have a child. Sometimes they do not even know! These young adults may be attending school while trying to raise a child. They may find it difficult to relate to their peer group who does not understand their new reality. Young couples' experiences of heightened levels of stress can lead to engagement in abusive patterns with each other and loved ones, especially their children. Walsh and Bennett (2005) note that young parents, whose brains are less developed, are still developing their capacity for handling stress, change and impulse control. In an interview by Frontline of Jay Giedd (2012), he stated that the brain continues to develop from pre-adolescence through young adulthood. Problem solving and reasoning centers in the frontal lobes will develop into the 20s. The abilities to control emotions, communicate consistently and clearly and function in a healthy way are not yet fully developed. Teen parents

may benefit from attunement training.

In review of a longitudinal study of at-risk-for-violence teen parent and baby intervention, Honig and Morin (2001) concluded, “Initiation of home visits prior to infant birth made a significant difference in preventing child abuse and neglect,” and determined that prenatal services for adolescents may be a cost-effective boost for positive mother-child interaction and the mental health of the infant” (pp. 453–454).

**Parents’ own issues may get in the way.** Steele et al. (2016) validated that adverse childhood experiences of parents have an impact on the parenting relationship with their child (p. 32). Barriers to healthy development include environments where there is domestic violence, addiction, substance abuse or traumatic brain injury. The U.S. Department of Health and Human Services (2014) reported that “One-third to two-thirds of child maltreatment cases involve parental substance use to some degree” and other researchers believe those estimates to be low (Barth, 2009; Traube, James, Zhang, & Landsverk, 2012).

Ongoing experiences of abuse, violence, and trauma, have an impact on the parents’ ability to care for their child. Parents who cannot provide a stable emotional environment for their child may have difficulty responding to the needs of the child, feeling competent, and communicating verbally and nonverbally with the child that things are OK. The child’s presence in an already complicated situation where dynamics of violence are playing out will add stress and confusion. Steele et al. (2016) note that stress is challenging to parent–child relationships, and “high levels of parenting stress are particularly problematic because of their direct influence on parenting behavior and consequent child outcomes.” According to Belsky (1993), stress in parenting contributes to infant neglect.

*Neglect occurs easily.* How easy it is for neglect patterns to develop may be surprising. For this example, put yourself in the role of the infant: a mother, tired from staying up with her baby who did not sleep through the night, has to get to work this morning. She has to feed her baby but does not have time to prepare or eat her own breakfast. Her body needs food to operate properly, to concentrate and do well with managing information and relationships at her office job. Mom calls her office mate on speakerphone and the exchange focuses on the stress of the work ahead. “Shoot, I’m not prepared for the meeting I will be walking into!! I was supposed to write up a list of To-Dos which I can’t remember, and report on the event planning I haven’t tackled yet!! My boss is going to be furious,” Mom says. “And I still have to feed this baby. I have to go.”

Mom’s breast milk won’t pump easily, she becomes frustrated and angry. Now she is late. she is noticeably upset, her tone is no longer the loving voice you heard this morning as she held you tightly, rocking you gently at 2 a.m., 3 a.m., and 4 a.m. Her mood has changed. Mom gives up on the breast pumping, grabs a frozen bottle and heads for the door without you. You look confused then begin to cry. She comes back for you, doesn’t look in your face, mutters a few words, and leaves the house for the day care center. The car ride is fast and scary. The car seems out of control as Mom slams on the breaks in time to avoid another car in the road. You arrive at the day care center where you are set on the floor in your car seat in front of that day care woman, the one who seems to look down to her smartphone to text whenever you look in her face. It’s freezing cold in here! Mom forgot your coat in the hurry and there’s no blanket over you as usual. You look back and Mom is gone, another long day ahead. It is unclear whether your needs will be met. You haven’t eaten since 4 a.m., you are cold and sleepy and your tummy hurts.

How many examples of neglect may be found in this story? Perceptions of neglect may differ. Parents and caregivers may have different answers to this question based on their current skill level of attunement, varying realities of parental stress, and variances in ability to receive cues, self-reflection abilities and awareness, and diverse cultural beliefs and expectations. In order to understand the need for attunement parenting, we must put ourselves in the booties of the infant. Most of us cannot remember when we were babies, so it may be difficult for us to understand their point of view. It can be difficult to imagine being an infant again. We can learn what the baby needs if we tune in to the baby's cues. Anyone can learn to attune.

While anyone may learn to attune, I hypothesize that currently, most parents are not skilled at attuning to children, based on the vast number of cases of neglect and abuse reported to Child Protective Services each year across the United States. Some parents are unaware of attunement and they do not know how to practice attuning to their infant. Other parents may attune here and there; some refer to this as "quality time." However, both a quantity and quality attunements are required for the healthy development of the infant. Even for a parent who becomes skilled at attuning, life stress can take over and it may be challenging to make time or find the energy to attune. The child may present with a condition that makes attunement more challenging, such as colic. The parent may experience exhaustion, high anxiety, attention or focus problems, which challenge their motivation to attune. Training all infant caregivers to attune will increase the probability that the infant experiences attunements. The coordination of attunement between a caregiver and an infant may reduce stress for the parents, caregivers, and most importantly, the infant. This is important to note as the coordination of attunement requires more time, awareness, and attention than handing a baby a bottle. Trained attunement support providers can help parents and caregivers reduce their stress and keep motivated for attunements.

*Reliance on nonverbal cues & gaze may not help.* Sometimes a parent catches the baby's request when it is first made because they are looking at their baby or paying attention to see a nonverbal signal. Nonverbal signals may be helpful, but they can have different meanings and seem confusing to infants, children, and adults. For example, someone who has their arms crossed in front of their chest might be communicating that they lack confidence, are defensive, are displaying dominance, holding a position of high status, or feeling physically cold. Some people have a difficult time reading nonverbal cues due to developmental challenges.

Daniel Stern (1974) noticed that infants are highly sensitive to gaze. Stern (1985) held that self/other differentiation begins at birth or before, and with the self-state in place from the very beginning, the infant's developmental task is the creation of ties with others—increasing relatedness (p. xiii). His conceptualization of the infant's emergent self was a belief in a much more powerful infant who demonstrates autonomy and independence long before motor control.

Stern (1985) wrote:

The interaction between mother and infant as carried on with gaze behavior during the three to six-month period, for instance, is strikingly like the interaction between mother and infant as carried out with locomotor behaviors during the twelve- to eighteen-month period . . . When watching the gaze patterns of mother and infant during this life period, one is watching two people with almost equal facility and control over the same behavior. (p. 21)

Evidence for the unique relationship between maternal oxytocin response and mother-to-infant gaze was found by Kim, Fonagy, Koos, Dorsett, and Strathearn (2013) who found that “Maternal oxytocin may be substantially implicated in the mother's responsive engagement with her infant, particularly at times when the infant's need for the mother is greatest” (p. 33). For

some people eye contact is very difficult and it is possible that lack of attunements, or neglect, results from the parent not seeing, noticing, or a lack of ability to hold gaze with the infant. Some gaze barriers are influenced by stress, and may be related to oxytocin levels in the mother.

Nonverbal cues are contextual and decoding them requires contextual experience. To add complexity, the meaning of a nonverbal communication can change as the environment changes or the people, mood, intentions, or people around change. Think of a wink. Sometimes it means, “Hey, I see you.” It could mean, “I want to see you—yeah, you,” or “Something is stuck in my eye.” Discussion of the complexity of nonverbal communication and its multidimensional multimodality is much like the complexity of emotional communication. There is another mode we can more easily decode, verbal language cues.

### **Infant Language Invites Attunement**

Infants have the ability to identify their own needs and elicit help from their caregivers. Infants speak a language all their own. In 1998, Priscilla Dunstan began decoding infant language in her own son, and since that time has observed thousands of infants speaking infant language across cultures throughout the world (Dunstan, 2011, 2012). Dunstan was able to hear the language across cultures because, according to Masgutova (2017), “Innate somatic reflexes are genetically programmed and present in everyone’s body regardless of cultural, socio-economic, or neuro-physiological differences” (para. 1). Initially, Dunstan (2012) decoded five words that infants speak to communicate their needs to parents and caregivers between birth and three months of age, including: “Neh” is hunger; “Owh” is sleepy; “Eh” is burp. Dunstan (2012) notes that these words are words spoken by a newborn: “Heh” is discomfort; “Eair” is lower gas, “Hehehe” means hot, and “Horh” means cold. According to Dunstan these four words are spoken around six weeks of age. According to Dunstan at about 12 weeks, the infant will add these

words to more specifically describe their qualitative experience: “Nuh” is thirsty, “Heir” means irritated skin, “gen” is teething, “augh” is overwhelmed; the infant reflects their emotional state, and “lowel” is lonely; the infant comments on their relational attachment state. These words, learned by parents and caregivers, offer insight into the experience of the infant and cues to quality control in addressing infant caregiving needs that are specific to the communicating child.

Infant language is an attunement strategy that can be utilized to guide caregiving. Infant language learning, comprehension, and attunement skill demonstrations by caregivers may protect the infant, increase healthy development, and decrease infant, parental and family stress. A caregiver participating in this program who comes to learn infant language will hear the baby say the word “Eh” which translates to “I have wind,” recognizes that the infant needs to burp and wants help with this (Dunstan, 2012, pp. 38–39). The father picks up the child and burps her. The baby does not fuss or cry. The parent does not experience the stress of trying to figure out what is wrong. The period the infant waits for the caregiver to respond is significantly shortened. There is no need to run through a checklist of helpful possibilities, warm a bottle, or get a diaper, especially when those other things will not address the needs of the infant. The caregiver does not need to soothe a frustrated baby. The caregiver has attuned to the baby. Both the baby and the father feel content. The caregiver feels competent to care for their child. Parents and caregivers who learn this intervention and experience attunement may be interested in other ways that engagement in family support programming may be helpful in parenting an infant.

### **Addressing Family Support Needs**

Family support needs vary greatly and will not likely be addressed by teaching infant language to caregivers. The program involves the work of psychologists and doctoral students in



psychology, currently underutilized in community-based public health initiatives, and professionally competent to address attunement for parents and caregivers, family stress reduction, expansion of the infant support structure and customized support for all families.

“The Ugly” is preventable. “The Ugly” may be the result of parenting that is more focused on a smartphone than on their child’s face. Attunement, time, and task management are issues that psychologists are skilled at working with clients on. “The Ugly” may result from situations where more than one child needs tending to. When infant caregiving is left with an adult who is still stuck in their own childhood “Ugly,” the child’s needs may be treated as secondary or even less important and may go unmet. Sometimes what a parent thinks is helpful (maybe it is the opposite of what they experienced from their parents) actually creates unhealthy models for children, such as emotional avoidance. Parents feel hurt or scared, cry, and have strong emotions too, and some believe they should not show those emotions or conflicted interactions to their child. They may go away behind closed doors to emote, fight with their partner, or otherwise decompress from the stress they are experiencing. In those cases, no modeling of emotion or emotion regulation occurs for the child. Psychologists are adept at working with parents in addressing history, and emotions and behavioral patterns that can interfere with parenting and attunement to a child.

When an infant is often left alone with a sibling caregiver, who may become upset by and unable to respond appropriately to the infant, both children are put in a bad situation where the expectations of adults are too big and too risky to be dependent on the skills and abilities of a child to care for another. Meyers (2014) found that children who experience parents who are not emotionally responsive may be at-risk for abuse at the hands of a sibling. Sibling caregiving, especially of a most vulnerable infant without supervision, training, or support, puts the infant at-

risk. Psychologists who have received special training in developmental trauma (Kinniburgh, Blaustein, Spinazzola, & van der Kolk, 2005) can assist parents in discerning when a sibling or other caregiver might be a helpful support, and what roles are appropriate and helpful to the infant and family.

When an infant is left with an adult whose attention is consumed by substance abuse or domestic violence, the infant's healthy development is at risk; so is their survival. Psychologists learn about addiction, family and relational dysfunction and can assist in repair, healing, and finding appropriate referrals toward family health and wellness.

It is hard to visualize the aggregate of neglect in children when they are developing and changing. We may be hopeful, say that children are resilient, and see the detrimental effects of failed attunement as growing pains, a socially-acknowledged stage of natural development such as “the terrible twos,” or a problem to be overcome, solved, or addressed with therapy, medication, or time, however, the aggregate of neglect—a preponderance of failed or few quality attunements—will likely create patterns of disconnection that could lead to serious mental health issues, addictions, relationship failures, homelessness, violence, chronic job loss, even suicide. These are issues that psychologists are trained to respond to and help to prevent.

**Learning attunement may help parents.** “The Ugly,” an infant being stuck in disconnection without the caregiver's repair, may not be the result of malicious and abusive parenting--although there are cases when the horrific nature of some parenting failures lead people who have never met the family to become physically ill upon hearing the tales of children raised in cages and the like. Parenting that lacks attunement, not just to the child, but the parent's attunement to self can create barriers to child's learning of healthy behavior. Many adults are unaware of or ignore their own needs, have trouble meeting their own basic needs, and neglect

themselves. Not eating for hours during the day, not for lack of access to food, but because of busy work schedules, housework, the needs of others come first, are all reasons that people use to explain their self-neglect. They may wait to use the restroom once they return home from work, hours later, instead of listening to their body, which tells them what it needs. They may operate on a schedule that dictates how their body will need to function for them. They may have experienced childhood trauma, neglect, or witnessed self-neglect behaviors in their own parents, not connecting that self-care may be an important factor in emotional stability needed to care for children. Parents may be unaware that their behavior could influence the development of their child or unsure of how to shift their self-care given the limited time they have. The experience of gastrointestinal issues, high anxiety, and other mental health issues have been noted amongst adults who experienced neglect and abuse as children (Felitti, 1991; Koloski, Talley, & Boyce, 2005; Talley, Fett, Zinsmeister, & Melton, 1994; Walker et al., 1999) and are reflected in developing children who are taught to ignore their reflexes and feelings by their models. According to Van Tilburg et al. (2010), “Youth who have been maltreated are at increased risk for unexplained gastrointestinal symptoms, and this relation is partially mediated by psychological distress” (p. 136).

Many adults dismiss their own experience of neglect. Some parents talk of their own abuse history as “character-building,” “just part of life,” or “the best they [their parents] knew how at the time.” Neglect is not alarming to most people and that is because one isolated experience of neglect is normal, it is often touted as “No big deal,” “It’s just something that happens,” “We learn to deal with disconnections.” Many adults live with the residual effects of neglect unnecessarily, to the detriment of their physical and mental health; unaware of the connections (Felitti et al., 1998).

Adaptive responses to disconnection develop very early on. Dunstan (2012) noticed that in babies from birth to three months of age, reflexes turn on and off. Dunstan (2012) observed that if the baby says a word of infant language and it has not been responded to, the baby stops saying the word. When the infant's attempt to communicate is repeatedly ignored, they stop trying to help the caregiver meet their needs. A child asking for food will stop asking when they have experienced an inconsistent or non-responsive caregiving. The reflex to ask will turn off and not return. Similarly, Galbally, Lewis, van Ijzendoorn, and Permezel (2011) noted that oxytocin production in mothers is maintained postnatally by lactation and also in response to innate infant behaviors including the infant's vocal calls (p. 11). At the same time, mothers who are having difficulty attuning to their bodies or their infants may not notice these cues and become stressed and even agitated by the infant's cry.

***Parents need stress relief.*** Parenting stress effects the whole family (Nidangmayam & Khadi, 2012). If your baby asks you for food, and instead of listening to the words they use to ask for help, you change their diaper and put them down to nap, their mood will change quickly for the worse. Your baby is hungry and needs to eat. Cries will become screams. We may be used to the stress in life and do not notice many things that a baby might feel scared or become worried by. We may be used to going to work on little sleep, accommodate when we forget basic things we need to bring with us when we have left home, or save our self-care for a particular time at the end of the day after all the requirements are met. Infants do not have these luxuries or abilities. Self-neglect behavior may be confusing, alarming or strange to a child. Bandura (2004) wrote, "Behavior is also partly regulated by the social reactions it evokes" (p. 144). Some infants never witness adults taking care of themselves. Modeling self-care for children helps them to understand and learn self-care. According to Bandura (1971), "New patterns of behavior can be

acquired through direct experience or by observing the behavior of others” (p. 3).

As adults we have learned behaviors that help us to connect with others. We may learn not to complain when our needs are not met, and we cannot expect others to take care of our basic needs because we are no longer dependent. We may not remember how scary and difficult it might have been to depend completely on others to meet our basic needs.

Neglect is not an experience that is isolated to relationships in infancy. It is felt in every subsequent relationship and its patterns, in the form of toxic stress. The effects of neglect are pervasive, lifelong (Shonkoff, Boyce, & McEwen, 2009), and far reaching. The problem of neglect has an impact on all systems of influence from education, to public health, public safety, healthcare, relationships, and the workplace. Findings in psychological, neuropsychological, and neuroscientific research, have reflected impairments in brain development (Hanson et al., 2013; Stamoulis, Vanderwert, Zeanah, Fox, & Nelson, 2015), along with increased risk for physical health issues (Felitti et al., 1998; Nemeroff, 2016), family problems such as physical abuse and incest, and social problems, including homelessness, substance abuse, criminal behavior, all tied to neglect.

Reflecting on the parenting you received and comparing it with your own approach, especially if some or many of the experiences were traumatic and painful, may be too much for a person to do unsupported. Parental lack of insight or resources for change may cause stress for everyone. In a study of 291 mothers interacting with their infants in the home, Pereira et al. (2012) found that mothers who reported neglect in childhood and greater parenting stress were less sensitive to their infants, and mothers who reported more current parenting stress were also less sensitive. Whiteside-Mansell et al. (2007) confirmed that parenting stress is linked to a child’s risk of maltreatment. Parents who are stressed are also more punitive and less attuned to

their child. Being out of awareness in the present, and of the past, makes it difficult to imagine or try new approaches. Having few models or none of healthy parenting can cause stress and feelings of incompetence.

***Families need accessible support services.*** Therapy is still seen as financially inaccessible by many Americans, despite the Mental Health Parity Act of 2008 (Civic Impulse, 2017), federal mental health legislation which requires mental and behavioral health coverage to be equal to or better than coverage for physical health and the Patient Protection and Affordable Care Act (2010). The American Psychological Association conducted a survey in 2014 and found that only four percent of Americans were aware of this expanded support (American Psychological Association, 2014, para. 2).

***Families need support services that address cultural barriers.*** Professionals have knowledge, information, and skills to support families, however, new parents may not access therapists to help them reduce stress, to learn other helpful skills needed for parenting, or to receive support when they are stressed. Parents may assume that when it comes to parenting, seeking help from a professional might cause more problems than it helps to address. The stigma of seeking support is culture-based and culture is a primary shaping force in parenting. A report to the U. S. Surgeon General entitled *Mental Health: Culture, Race, and Ethnicity* (US DHHS, 2001) spells out that “cultural misunderstandings between patient and clinician, clinician bias, and the fragmentation of mental health services deter minorities from accessing and utilizing care and prevent them from receiving appropriate care” (p. 25).

Families may be leery of the idea of seeking support in the form of therapy, working with therapists, sharing family dynamics, problems or behavior which is usually kept hidden and not discussed outside the family, being judged, seen as dysfunctional, or worse, fear of the

involvement of CPS and even removal of the child from the home. Discussing the various roles psychologists play, Wahass (2005) noted that psychology is represented in virtually every health care delivery system where state and federal governments are contracting services. Despite this, most parents are not accessing psychologists at a hospital or clinic, a high-risk environment for an infant. There is a need for more accessible approaches to parenting support that leverage the skills, assets, and strengths of communities to support healthy infant development.

***Families need programming that addresses disconnections in existing public support.***

Public programming designed to address and prevent abuse and neglect across the United States, or even in a single state, does not report on the same interventions, approaches, issues, or barriers to service, and most new parents do not access available public services for other reasons, such as ineffective marketing strategies, service limits and investments are often set by state governments who allocate the funding, and a lack of qualified providers working in accessible locations because they may be operated and funded by different government agencies who takes different approaches to the work. For example, the Centers for Disease Control and Prevention (US DHHS, 1999) drew from 112 theoretical program evaluation references to outline their approach to evaluation models for public health programming which has evolved to 2016 language inviting requests for proposals that includes “hints for conducting strong evaluations” and a non-prescriptive tool for evaluation so that diverse and creative programmatic ideas can be supported toward increased understanding of populations and issues. A more inclusive yet non-restrictive approach yields inconsistent reporting which may not reflect problems with the data, address the sensitive nature of reporting abuse and neglect, identify, and address cultural and geographic differences in parenting approaches, or acknowledge barriers to support that start with inconsistent definitions of the problem. Scarcella, Bess, Hecht Zielewski, Warner, and Geen

(2007) illuminated that each state, county, and city has its own set of procedural approaches, politics, and budgets that influence whether and how child welfare services are accessed, allocated, and provided. The general public does not understand the consequences of abuse and neglect, how to address them, or that the resources to do so must be available and accessible.

What follows is a program for all families and caregivers as close to home as the nearest public elementary school.

***Families need customized family support.*** Providing customized support for all caregivers in the family's community will improve access to support and increase the probability that the infant will develop in a healthy family and community context. Active encouragement of fathers, mothers, partners, grandparents, siblings, child care providers, and other supportive caregivers is a primary role of the attunement therapist, making this intervention helpful and useful for all family configurations, cultures, and support structures. Training of all caregivers has the potential to increase the overall number of responses to infant needs, create consistency in caregiving responses that the infant experiences, and increase awareness of the importance of caregiving sensitivity to infant needs.

### **Psychologist Trainees Utilize Skills**

Psychologists and doctoral students, especially those interested in community and developmental psychology, are uniquely qualified to address the issues of healthy development, parenting stress, and family support. Their work involves the following: program design and evaluation, teaching and training, facilitating support groups, family therapy, couples therapy, and individual therapy, creating community relationships and partnerships of mutual benefit, and providing relevant referrals. They earn skills to assess and address infant development, learning needs, developmental challenges, and family support needs. They can assist in addressing



emotional stressors through mindfulness workshops, teach relaxation techniques, address time management, and assist participants in building social support networks. They will conduct psychological assessments, design accommodations to address diverse learning needs and abilities, identify systemic issues, and remove barriers to health through various roles in advocacy, public policy influence, and research.

Graduate students in psychology currently facing a severe shortage in the number of psychology internships and practicums available could find opportunity in this program which offers unlimited opportunities to complete psychological training with breadth and depth. Under supervision, interns and practicum students would enhance assessment skills, gain group, family, and individual therapy experience, expand understanding of therapeutic models, and engage in the practical application of psychological theories for community-based public health programing. Graduate students in psychology will learn the benefits and challenges of working across fields, providing support in context, and develop greater cultural competence.

**Reducing stigma and increasing support access.** Therapists can help parents reduce stress, to learn other helpful skills needed for parenting, or to provide support when they are stressed. Finding a psychotherapist can be an exhausting, expensive, and complicated experience. The work effort involved in matching a potential therapist with family's insurance plan or plans, locating someone who is knowledgeable about insurance coverage and assists with the paperwork, identifying someone nearby who has openings that match with a family's schedule, can be overwhelming and time consuming.

Psychotherapists may not be the first resource that comes to mind for parents. The parents may already have a support system including their pediatrician, social worker, birthing coach, doula, midwife, physician's assistants, and nurses who specialize in breastfeeding

education and infant health issues, family, and friends. The public needs to become aware that psychologists are trained in many areas that support the diverse needs of expecting families, already work collaboratively across fields to provide wrap-around services, and they take on many roles to support the experience of individuals, couples, and families experiencing transition and change. Attunement therapists in this program will meet the diverse families in the community where they live, when they need help, support, and resources. Increasing the visibility and accessibility of psychologists to all families will serve as a systemic change resulting from this program.

**Assessment.** Psychologist trainees learn about, become competent to administer, and develop many tools for helping to understand complex relational dynamics toward healthy development.

***Affect Attunement Protocol (AAP).*** Stern, Hofer, Haft, and Dore (1985) developed the Affect Attunement Protocol (AAP), which could be utilized in this program with additional training for interns. Stern's concept of affective attunement is the basis for the infant language training that parents and caregivers will receive in this Attune With Baby Intervention.

***Genogram.*** The AT will create a genogram, which according to its developers, Jolly, Froom, and Rosen (1980) is a practical tool to record and view family structure and dynamics using symbols to denote behavioral patterns and dynamics. The genogram will aid in supervision of the AT. The tool will also be used to help members of the family understand behavioral patterns and dynamics and develop awareness about their support roles.

***Strengths-based assessment.*** The AT will assess the family strengths utilizing a case management approach. Rapp, Saleebey, and Sullivan (2005) used a composite of four diverse

strengths-based practices (Becker & Drake, 2003; Kretzmann & McKnight, 1993; Miller, Hubble, & Duncan, 1996; Rapp, 1998) to identify six hallmarks:

1. goal-oriented;
2. includes a systematic strength assessment;
3. utilizes a perspective of rich environmental resources;
4. includes explicit methods use for identifying environmental strengths and goal attainment;
5. the relationship between therapist and participant induces hope;
6. provides explicit opportunities for participants to make meaningful choices with authority (p. 81–82).

Green, McAllister, and Tarte (2004) noted that clients with whom a strengths-based approach is used are more involved in program services, families are more empowered to build relationship and social support. In addition, Green et al. (2004) reported that a strengths approach increased service access and participation, parenting competence, and enhanced family interaction among family members. With regard to the use of a strengths perspective in the study of vulnerable populations, Johnson and Rhodes (2000) asserted that this approach can address oppression, especially when power relations are attended to.

***Parenting Stress Index.*** The AT will use the Parenting Stress Index™, 4<sup>th</sup> Edition, Short Form (PSI™-4-SF, Abidin, 2012), to assess stress in the infant’s parents and caregivers. This assessment will be given to the program parents beginning when the infant is one month old, every six months thereafter, and at any other time that the therapist interprets it to be useful in identifying and addressing barriers to attunement. The PSI™-4-SF is helpful in treatment planning, for setting priorities, and for follow-up (Abidin, 2012). The tool has been found to be

useful with diverse populations and indicates a high degree of internal consistency with reliability coefficients for the child and parent domains and the total Stress scale at .96 or greater (Abidin, 2012). The short form takes approximately 10 minutes as is designed for parents with a child from 1 month to age 12.

**Research.** Research opportunities are available. Student therapists could become well-versed in providing many services to the public of great value to their professional careers. They may also be more likely to find an internship in a location where they would choose to live, develop ties and trust with the community, become a model for public service, help to facilitate relationships of support between community members who will raise their children together and invest in relationships that may outlast their work with this program. They would be creating relationships of mutual benefit. Psychologists must play a more active and visible role in our communities. Valuable research findings should be utilized to create accessible community-based programs that are required to induce social changes necessary to protect infants and support healthy development of each individual.

Advances in neuroscience offer psychologists unique opportunities to collaborate in research and practice. Research that integrates the study of emotional attunement as it relates to Barrett's Conceptual Act Theory (2014) and recommended research methodology would complement a program like this. A unique research team of doctoral students would be required; opportunities to understand emotional learning, epigenetics, and communication in context would offer developmental insights with practical applications to inform programming directions.

***Developmental evaluation.*** This is "an approach to program evaluation that supports innovative development to guide adaptation to emergent and dynamic realities in complex

environments” (Patton, 2011, p. 1). Patton notes five different complex situations and developmental purposes that are a match to the approach of developmental evaluation, including:

- 1) ongoing development such as adapting a strategy to a fluid behavioral dynamic such as familial violence,
- 2) adapting effective general principles to a new context as ideas and innovations are taken from elsewhere and developed within a new setting, the work of developmental evaluation in the dynamic middle between top-down and bottom-up forces of change”-a complex idea which reflects the hand-picking of theoretical foundations to ground a therapeutic program, seemingly in mid-air--situated between the power dynamics of the family and the legal system,
- 3) developing a rapid response, required of parents to their infants, but also of the therapist to parents seeking new models of healthy relating,
- 4) preformative development of a potentially scalable innovation to the point where it is ready for traditional formative and summative evaluation”-the ultimate goal of a manualized treatment, and
- 5) major systems change and cross-scale developmental evaluation-the feedback loop that opens itself to all input, even that which is not accessible to the loop. This is about communication and openness, and envisioning the change that can be—a psychologist’s dream. (Patton, 2011, pp. 21-22)

Patton (2011) describes complex environments for social interventions and innovations as “those in which what you do to solve problems is uncertain and key stakeholders are in conflict about how to proceed” (p. 1). The reality of family violence is that key stakeholders are not always in positions of power; the child is the key stakeholder. Parents may take roles of power in

the dynamic, only to lose it unless they transform into a different type of stakeholder-the difference between a person who wins at a slot machine and someone who retires well after many years of hard work. The therapist also plays the role of stakeholder. Even when a community psychology approach is not utilized or accepted, the therapist will not become part of the family, but they may live in the community where the family is living, be noticed engaging in other activities outside the role in the community, while continuing to play an active role in the life of the family.

A more practical evaluation concern is the nature of some family relationships. While it may seem a challenge, this family support program has been developed with that reality in mind. First, if the infant's parents do not stay together, learning attunement skills can still be beneficial for the parents and their child. If they split and share custody, they can use their skills regardless. Also, if one parent remains with the child and begins in another relationship or two or three, it is possible to quickly and easily engage them in learning infant language and attunement skills. The family support plan (FSP) will change with any structural changes to the family and adapt with the infant to the new dynamics, providing greater support, such as grief counseling, support groups, and referrals such as child care, if needed.

### **An Ecological Model For Human Development**

According to Trickett (2009), "Conceptually, the ecological perspective provides a framework for understanding people in community context and the community context itself. It adopts a coping and adaptation perspective on individual behavior in community context and assumes that people are agentic and not passive responders to their environment" (p. 396). Every family context is different. Family support must be customized to the group's structure, complex dynamics, and strengths.

**Reciprocal interaction.** Bronfenbrenner (1994) wrote that two propositions define Ecological Models of Human Development (Bronfenbrenner, 1974, 1976, 1977, 1979, 1989, 1990; Bronfenbrenner & Ceci, 1993). Bronfenbrenner (1994) discussed that “human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate environment” requiring regular interaction over extended periods of time (p. 38). “Enduring forms of interaction referred to as ‘proximal processes,’ have the general effect of reducing or buffering against environmental differences in developmental outcome” (Bronfenbrenner, 1994, p. 38). Examples of Bronfenbrenner’s (1994) “proximal processes” in this program are parent or caregiver attunements to the infant, attunement of the therapist with the family, and family support services where the family interfaces with the community.

Expanding infant and family support in the context of the family home and community must begin with a trust relationship. According to Li and Julian (2012), “Developmental relationships are the foundational metric with which to judge the quality and forecast the impact of interventions for at-risk children and youth” (p. 157). Their analysis of program design efficacy included home visiting programs where the parent is in the role of developing person. Li and Julian (2012) note, “When there is a strong home visitor–parent relationship and a focus on parenting strategies, families benefit (in Korfmacher, Kitzman, & Olds, 1998; p. 162). Li and Julian (2012) report that an effective home visitor develops a relationship of trust with the parent and “support is reciprocally matched to the parent’s emerging competencies and needs” (p. 162), and provides referrals and connection to a social community network that lasts beyond the intervention. The developmental relationship between the attunement therapist and parent will assist in preventing these commonly programmatic barriers to trust, noted by Li and Julian

(2012): a home visitor may visit infrequently, visits may be split between multiple home visitors for one parent, or home visitors may adhere rigidly to planned curriculum content for visits without responding contingently to a parent's current competencies and needs (p. 162).

**Dynamic forces.** Bronfenbrenner (1994) outlined, "A second defining property identifies the three-fold source of these dynamic forces: form, power, content, and direction of the proximal processes effecting development vary systematically as a joint function" of the following:

- the characteristics of the developing person (program lens: relationship and roles in the family structure, family dynamics, strengths, attachment experience, communication style, conflict styles, culture, oppression, stress including socioeconomic and other stressors, and barriers to attunement; p. 38);
- of the environment--both immediate and more remote—in which the processes are taking place (program lens: with the infant, in the family home environment, community and family support center, between, amongst and with developing persons; p. 38);
- and the nature of the developmental outcomes under consideration (program purpose: toward attachment and healthy development; p. 38).

**Environment-as-contexts-of-development.** Bronfenbrenner (1994) proposed that another feature of Ecological Models is the environment—as-contexts—of—development, its "highly differentiated reconceptualization of the environment from the perspective of the developing person," where microsystems are the innermost doll of a set of nesting dolls (p. 39). Bronfenbrenner (1994) defined "microsystems" as "a pattern of activities, social roles, and interpersonal relations experienced by the developing person—with particular physical, social,



and symbolic features that invite, permit, or inhibit engagement” (p. 39). First-time parents may become focused on adapting to the changes that come with a new baby, as well as to the new baby’s needs. Parents, especially the infant’s mother, may be very tired, not feeling normal, and support and recharge time that might have been there before may not be there now, such as social activities with friends or time for exercise. The pattern of activities and roles may have shifted or changed altogether. At a time when the great support is needed for the care of the infant, parents may be hunkering down with a new baby and trying to get through the days instead of gathering support for themselves to ease the stress of change.

***Mesosystems.*** Bronfenbrenner (1994) defined “mesosystems” as “the linkages and processes taking place between two or more settings containing the developing person” (p. 40); relations between the infant and the parents, infant and caregivers, caregivers and community, attunement therapist and each of those, attunement therapist and supervisor, attunement therapist and referral sources, etc. Bronfenbrenner’s (1994) “exosystems” are the “linkages and processes taking place between two or more settings, at least one does not contain the developing person” (p. 40), for example, family and community, parents and referral service provider, such as a couples’ counselor, the parent and parenting support group at the family support center, parents and their friends, or parents and their workplaces. Families may be more interested in program engagement opportunities that reflect program staff’s awareness of the interplay between “exosystems.” For example, when most parents in the community work outside the home, a program that provides childcare for family support events and holds events after first shift work hours might see more participants. Similarly, when most parents in the community do not have access to a cellphone or landline, identifying alternative modes of communication or making a

referral to a subsidized program for a phone, if it is desirable, could facilitate more regular communication.

***Macrosystems.*** Bronfenbrenner (1994) conceptualized “macrosystems” as the overarching pattern of these systems characteristic of the cultures, beliefs, hazards, and opportunities embedded in each system (p. 40). For a family, “macrosystems” may be tied to cultural groups or identities, geographic diversity, even stressors. Finally, Bronfenbrenner (1994) added “chronosystems,” which involves the study of time as it relates to development; for example, considering the effects of upward mobility or gentrification on multiple generations living in the home and how those issues might impact community networking, trust-building, socioeconomics, or even housing accessibility. Any transitions, as defined by Bronfenbrenner (1986) as “normative” (such as marriage, returning to work after maternity leave, dissolution of a partner relationship), and “nonnormative” (a sudden trauma, receiving a windfall when an extended family member died, terminal illness at a young age, or becoming president of the United States) may indicate changes to the entire family system, whether or not they are shared with or addressed by the attunement therapist (p. 724). What is “normative” for one family, may be “nonnormative” for another family. A family situated in a community of veterans might consider leaving the family home for military duty as a “normative” transition. In another community with few veterans, where the experience of community members may be less similar, a family member leaving for duty might be experienced as “nonnormative.”

Each of Bronfenbrenner’s (1994) systems will serve as a compass to discovery of the diverse experiences of families in context and guide them to family learning and expanded support. What currently goes on behind the closed doors of many family homes is not conducive to healthy child development. Bronfenbrenner’s Systems (1994) are lenses through which

research may be focused. These perspectives will contribute to the development of community-based programming including events, opportunities for growth and connection that must reflect attunement the community, toward the goal of creating healthy environments for children, families, and all others. Attunement therapists, program directors and supervisors, as well as families, will identify the unique existing community structures and systems, needs and strengths and together define where to put effort, build relationships, and evaluate those efforts.

### **Chapter III: Program Methodology**

My program development, implementation and evaluation experience as well as my experience working with clients, program participants, and families and study of attunement led me to the design of this program. The first section is a discussion followed by a list of the program goals, objectives and outcomes, roles, materials, resources, evaluations, opportunities and funding.

#### **Goals, Objectives and Outcomes of the Attune With Baby Intervention**

Goals will be met through the meeting of objectives, which identify the corresponding requirements of support for infant caregiving.

**Goal 1. Family engagement.** This goal has the following objective components:

1. Meet the expecting family in the primary caregiving context----at their home.
2. Establish therapeutic relationships with all caregivers from parents to day care providers, to sibling caregiver supports.
3. Manage program orientation, enrollment, and informed consent, and
4. Provide weekly opportunities for the family to receive support, and
5. Work to maintain family support as long as it is needed.

ATs will make access to family–support–in–context simple and easy for caregivers.

When a family is required to reach out for help they may hesitate, wait until damage has been done, or not access support at all because of inconvenience, shame, or fear of losing their child. Families will become familiar with the skills, expertise, and support provided by therapists who are able to assist with a variety of relevant family issues including stress management, anxiety, relationship challenges, healthy development, learning, and grief. Through this program, all parents, including first-time parents, mothers experiencing post-partum depression, parents

struggling alone without expanded family support, or with a parenting history that does not give them many clues about attunement, will receive support.

**Goal 2. Assessing the infant's support system.** This goal will be met by the AT through the following program objectives:

1. Identify the strengths of the family and assume a strengths-based approach throughout the family's experience, and
2. Assess family stress utilizing a therapeutic tool, the Parenting Stress Index™, 4<sup>th</sup> Edition, Short Form (PSI™-4-SF, Abidin, 2012),
3. Work with the family and caregivers to identify and address potential barriers to attunement, and
4. Create a family profile that reflects the unique dynamics of the infant's support structure.

Assessment of the family's strengths may provide the family with a sense of their assets in parenting, build confidence and trust, and clarify supports needed. Assessing the family stress levels will provide information about the support individual needs of parents and caregivers, needs which are often forgotten. Stress management interventions, including meditation and yoga, respite child care, and opportunities to connect with other families, may provide needed self-care and motivation for caregivers toward attunement. Parents and caregivers will be involved in identifying potential barriers to attunement because they know themselves best and will be responsible for infant attunements. Learning to attune may develop and strengthen relational skills, which will serve the family throughout the child's lifetime and in all other aspects of life. The creation of a family profile will reflect the family's unique caregiving

structure, strengths, and needs, and provide awareness of and support for the complex needs of modern families. The program is designed to meet families where they are at the time.

**Goal 3. Strengthen the infant's support system.** This goal will be met through the implementation of the Attunement to Baby Intervention. Family members and caregivers will:

1. Learn the Dunstan Infant Language (Dunstan 2011, 2012) and receive AT support to increase attunement skills, and identify appropriate responses to infant language;
2. Make video recordings of infant language in the family's own infant to assist with identification of infant language;
3. Learn to decode infant language to identify the need the infant is requesting help to meet;
4. Practice attunement skills with the infant. The AT will ensure the caregivers match the infant need to an appropriate response; and
5. Receive validation and support. The AT will observe and validate attunements in all infant caregivers on an ongoing basis. Once the infant begins to speak the language(s) of the family, attunements continue and family support will also continue.

These objectives will assist the caregivers in identifying and decoding the language their infant is using to communicate their needs. Attunement practice attempts will continue to yield validation from the infant, family members, and AT, and the AT will provide support for the caregivers to motivate continuing attunements. Attunements will continue once the infant acquires the family language(s) and throughout development. Family support will adapt with the family's development. Additional attunement skill training and practice, such as Kangaroo Care, and mindfulness techniques will be included to aid in the development of attunement skills between the caregiver and the infant.

**Goal 4. Expand the infant's support system.** This final program goal will be met through the following objectives:

1. The AT will coordinate, initiate, and assist the family in implementing family supports identified in the FSP;
2. The AT will introduce the family to the Family Support Center (FSC) resources,
3. the AT will identify any additional supports needed;
4. The AT will identify appropriate family support referrals; and
5. The AT will connect families with other families in the community through programming, such as groups and classes and family events.

The family will be introduced to the Family Support Center (FSC) where they can connect with resources, referrals, programming, and other families while normalizing the experiences of attunement barriers and family support. Children can connect with other neighborhood children for play. The FSC at the public elementary school in the family's neighborhood will serve as an accessible hub for parenting information, resources, and services.

**Objectives A thru S.** The following objectives provide administrative directives tied to program outcomes. Program evaluation will inform program staff to more accurately project outcomes, matching individual program resources, phase of development, and referral responses with program competencies.

Goal I: The AT will engage the family in the Family Support Program (FSP).

The therapeutic alliance developed with each family member and the infant caregivers by the Attunement Therapist (AT) will be the catalyst for family participation, assessment, strengthening of the infant support system, infant language learning, attunement to the infant,

family program retention, and the expansion of the infant support network, including the development of community relationships.

Objective A: The AT will set up an initial meeting and meet family where they are most comfortable (e.g., family home, the hospital, the Family Support Center where program services, groups, and resources will be housed). The FSP is the location where additional services will be provided, and community families will connect. The AT will meet the family in context, and introduce the program. The AT will describe the program, provide program materials, and respond to questions.

Objective B: The AT will establish therapeutic relationships with all caregivers. The AT will develop a therapeutic relationship and rapport with each family, including parents and caregivers who will be involved (grandparents, babysitters, child care providers, and caregiver supports, such as siblings).

Objective C: The AT will manage program orientation, enrollment, and informed consent. The AT will read over and assist family and caregivers in completing program paperwork, address program guidelines, and gather completed consent forms, considering reading levels and abilities.

Objective D: Together with the family, the AT will create a picture of the unique infant support structure, using the therapeutic tool, the genogram. (Jolly, Froom, & Rosen, 1980)

Outcome 1: One hundred percent of neighborhood families referred to the program will be enrolled, and Outcome 2: The family is assigned an AT for support who will establish therapeutic relationships with all the infant's caregivers.

Goal II: Assessment of the Infant's Support System



Objective E: Stress Assessment. The AT will gather information about stress experienced by the infant's parents and caregivers utilizing a tool devised by Abidin (2012), The Parenting Stress Index™, Fourth Edition Short Form (PSI™-4-SF).

Objective F: The AT will identify potential barriers to attunement. The AT will assess the family dynamics and note any barriers to healthy parenting that might prevent the parents and caregivers from attuning to the infant.

Objective G: The AT will assess family strengths. Utilizing the therapeutic tool: Strengths-based assessment. The AT will conduct a strengths-based assessment, a social work tool that uses a positive frame for family functioning, reduces the power differential between the therapist "expert" and the family, suggesting that the family has expertise and insight into their own functioning that should be explored. According to Green, McAllister, and Tarte (2004), the benefits of a strengths-based approach include: (1) influencing the extent of clients' engagement in program services; (2) by increasing family efficacy and empowerment; and (3) by enhancing families' relationship-building capacity and social support networks. The family will consider their strengths so they are aware that the foundation they are building upon is their own. Examples of strengths include: a grandparent who continues to be supportive; a healthy child; parents who seek support; laughter and having fun as family values; or interest in establishing connection to their community. The AT will gather information about the parenting experience of each new parent, including any experience they have had caring for infants or young children including their own siblings.

Objective H: The AT will create a family profile that reflects the family's unique structure, dynamics, and support needs.

Outcome 3: One hundred percent of enrolled families will receive a customized family support plan from the AT.

Outcome 4: The AT will gather input and feedback on the family support plan from all infant caregivers in each family.

Goal III: Strengthening of the Infant's Support System: Implementation of the Attune With Baby Intervention

Objective I: The AT will teach the Dunstan Infant Language (DIL) and attunement skills, and assist caregivers in identifying appropriate responses to infant language.

Objective J: Video recording of infant language (identification) of caregiving requests, and DIL, decoding (identification of the infant need). The AT will video record the baby's own infant language to assist the caregivers.

Objective K: The AT will assist the caregivers in matching the infant need to the appropriate response.

Objective L: AT supports attunement with the infant. The AT helps caregivers to learn alternative responses to the infant when needed, for example, when the infant displays signs of colic, such as predictable crying episodes and postural changes (Mayo Clinic, 2014, May 14).

Objective M: The AT will observe, and validate the attunements observed in caregivers.

Outcome 5: Therapeutic relationships are maintained. At the end of the first year of the program, therapeutic relationships will be maintained with 100% of enrolled families as evidenced by regularly scheduled and attended appointments of all infant caregivers with the AT.

Outcome 6: One hundred percent of enrolled families develop Attune With Baby skills.

Outcome 7: One hundred percent of families report strengthened support for their infant.

Goal IV: Expanding the Infant's Support System (continues through transition to preschool)

Objective N: The AT will coordinate, initiate, and implement the FSP adjusting support as needed, including new referrals, or adapting the FSP to accommodate changes in family status (moving, arising health issues, barriers to caregiving, or loss of a parent to separation, divorce, or death, etc.).

Objective O: The AT will help the family to reduce stress. The following objectives will demonstrate goal achievement: (1) The AT will assist the caregiver in identifying appropriate individualized stress-reduction approaches, such as respite care, creating a family or community support plan, deep breathing or relaxation tools, developing organization tools, or offering support in the form of support groups, mindfulness meditation work, or teaching cues when a parent or caregiver does not know how to read them, the AT identifies any additional needed support and makes referrals; (2) the AT continues to re-assess stress in parents, caregivers and the infant even after stress appears reduced; and (3) the AT offers additional support or referrals as needed.

Objective P: The AT will address any barriers to infant attunement.

Objective Q: The AT will introduce the family to the FSC resources available.

Objective R: The AT will connect the family with other community families.

Objective S: Family retention. If a family shows signs of disinterest or drops out of the program, information will be gathered by the AT and an attempt to retain the family will be made. A second intervention will be attempted by a different AT if the therapeutic relationship failed, and a plan of support for other issues to be addressed will be created by the AT in collaboration with the attunement supervisor (AS; referrals to other services will be provided for

families moving elsewhere, health issues or hospitalization, grief and loss, separation of the infant's parents, etc.).

Outcome 8: One hundred percent of enrolled families will report that their family support system has expanded as a result of the services provided.

Outcome 9: Therapeutic relationships are maintained through transition to preschool. At the end of the second year of the program, therapeutic relationships will be maintained with 100% of enrolled families as evidenced by regularly scheduled and attended appointments of all infant caregivers with the AT.

**Program timeline.** Program Recruitment is initiated anytime between 16-week gestation and birth. Infant language reflexes are on from birth to three months. After this period, if the reflex is not engaged by a caregiver, it has been observed by Dunstan (2012) that the reflexes will no longer turn on or stay on.

### **Expanding the Family Support Context**

**Family Support Center (FSC).** The FSCs will be located onsite at public elementary schools to assist families in becoming aware of the community which their child will become a part. At the FSC the family will encounter other families receiving support, meet parent mentors, other children of their families, school staff, teachers, and administrators of the school site, supervisors of the graduate students, and FSC program directors, from whom they will receive psychoeducation, information about FSC parenting support groups, couples and individual counseling opportunities, child assessment and relevant referrals. They may encounter other professional family support personnel there, such as breastfeeding/nursing coaches and public health nurses. The FSC will serve as a hub, connecting families to existing resources. Through partnerships with hospitals, public schools, and day care providers, program participants will

experience a continuum of care and services that meet the needs of the family from birth and beyond.

Contextual strategies that assist in the removal of barriers to accessing training and parenting support toward neglect and abuse prevention are needed. Local community access and visibility of resources and support services reduces parenting support stigma and increases the chance that a family will have the support they need to raise healthy, thriving children.

Children spend most of their developmental years in school. One of the most difficult challenges facing teachers and students is lack of parental support in education. Teaching families about services that can be accessed in their communities will provide greater support and awareness and help teachers and school staff to gain support from parents to provide optimal child support. Connecting with other parents in their child's school will expand the family's support structure.

**Parents and caregivers.** This program can help parents and caregivers. First-time parents, parents who may have difficulty identifying, interpreting, and responding to infant cues, foster parents, adoptive parents, and child guardians, will also find this program helpful. Each family will have an extended support network of identified caregivers who may have limited exposure to a particular infant; however, they must address the infant's needs during the time they do have together, such as hospital care providers, child care providers, sick child care workers, parents of twins, triplets, or other multiples, family members, siblings as caregiver supports, nannies and babysitters.

***The cultural context of parenting.*** The purpose of the program is not to negate the gifts parents bring to caregiving or to suggest that one cultural approach to parenting is better than another. It is to assist parents in becoming aware that their own baby tells them more about their

needs than anyone else, to help them hear and respond to the cues the infant gives toward their own healthy development with the support of the family's community context. By learning infant language, parents will be able to understand what their child is asking for, attend to their communication, and respond appropriately—attunement to the infant. Attunement is to be in tune, to be aware, to notice, to listen, to pay attention and to respond thoughtfully, appropriately, and kindly. Attunement is useful in all relationships.

It will be important for ATs to understand cultural roles, rules, expectations, rituals, preferences, beliefs, and behavior before attempting to teach parents infant language. Culture is very important to infant caregiving. Dunstan (2012) has taught parents to decode infant language in many cultures where she observed babies making the same sounds, including Thailand, Sweden, Turkey, New Zealand, Australia, and Tahiti (pp. 212, 214). She noticed cultural differences in the pronunciations of the infant words, needs that some infants have that others do not, such as those related to climate, for example, hydration. Cultural norms related to parenting differ, such as the identities and roles required for teaching infant language in some cultures. Dunstan became aware of possible protective factors for the infant, such as cultures with more confinement in living spaces where neglect would be more difficult, and perhaps less likely. Dunstan found that religion, cultural practices, and beliefs are important factors to consider in providing support for infant language learning.

**Attunement Therapists (AT).** This program will utilize the training, skills, and gifts of doctoral students in psychology, training to be psychologists who will take on the role of Attunement Therapists (AT). Psychologists are aware of the needs of infants, the challenges of parenting and they have skills and training around reporting child abuse and neglect. The support they can provide would likely be a mitigating factor in decisions made by the courts toward

custody, parenting support and training needs, and child welfare issues. Therapists are uniquely qualified to create violence prevention interventions, address risk factors, patterns of domestic violence, partner violence, protective service reporting and support, address trauma in the context of the family, support all members of the family individually, and as a system.

Therapist trainees arrive with expertise and training that supports the needs addressed by those working in hospitals and schools, and the boundaries held by providers. HIPAA and FERPA compliance, confidentiality rules and guidelines, child protective services reporting protocol, and neuropsychology are areas of training that therapist trainees receive and maintain competence. Therapists can identify other support services and appropriate referrals beyond this scope when they are needed such as couple's counseling, individual therapy, housing assistance, and health care advocacy.

ATs will assist with participant recruitment as they will work with the program director to create a referral network and identify community partners who may send referrals. Through established relationships and contacts, participant recruitment will take place at hospital maternity wards, through hospital social workers, doulas, midwives, pregnancy support groups, human resource departments, health insurance companies, and through social media websites and apps. The Attune With Baby Training will be provided for all referral providers and anyone in the community who may benefit from this knowledge, including nurses, CNAs, social workers, doctors, masters level psychotherapists, and teachers.

***Attunement therapist roles.***

Direct Service

- Clinical assessment
- Client training

- Record keeping
- Community presentations

#### Program Administration

- Program development planning
- Program evaluation
- Outreach coordination
- Training scheduling and coordination
- Partnership development and communication
- Fundraising and grant writing
- Advocate/community liaison with other providers and supports
- Report writing

#### *Supervisory roles.*

#### Licensed Clinical Psychologist or Licensed Masters Level Therapist Roles (2 minimum)

- With the student interns create a relationship with the community
- Identify infant referral sources and outreach
- Identify agencies to partnership with and outreach
- Secure training sites in hospitals and public schools
- Adapt curriculum, training, procedures, and schedule to address community needs
- Train student therapists in their roles
- Supervise student work with clients and partners
- Sign off on clinical hours toward licensure
- Address any issues that arise



- Oversee assessment of clients
- Grant writing

**Program expansion opportunities.** Offering respite care supports parents and children. Fatigue and stress are normal parts of parenting experience. Sleep deprivation, loss of valuable time for self-care including healthy eating or cooking, compound stress from workplace issues and performance expectations, relationship dynamic and role changes, postpartum depression and parenting anxiety, especially for first time parents, as well as fear of failing in parenting may increase the risk for abuse and neglect. Geographically accessible respite child care, including sick child care, available 24/7 in a known, safe location is the first support service that should be added to this program. The Lifespan Respite Care Program was authorized by Congress in 2006 under Title XXIX of the Public Health Service Act (42 U.S.C 201). Lifespan Respite Care programs are coordinated systems of accessible, community-based respite care services for family caregivers of children and adults of all ages with special needs. (US DHHS, 2016b). Providing therapy and in-home coaching and training to parents and caregivers may reduce the stigma of seeking mental health support for parenting; however, in order to normalize support-seeking and utilization of community resources toward the raising of healthy children, parents must have access to support around the clock, whenever they are feeling stressed or too tired and need rest to provide attuned support to their child or children. Expansion of this program to include onsite on-demand respite child care would validate that help-seeking is not only acceptable, but a part of building healthy families and communities.

Increasing health care access may prevent neglect. Many high schools, middle schools and elementary schools have onsite health care clinics where youth can access providers for screening, medication administration and referrals, emergency assistance, psychotherapist and

social works, as well as information and support. The same services should be available to families with an infant who, through this program, will come to find themselves more connected to the school community as their child grows. Extending these services to community families accessing the FSP would strengthen parenting support services for all parents and increase visibility to the community. Such partnerships could also reduce health care costs for individuals, families and even the school as many providers are contracted employees of local insurance programs with expertise, experience, and their own comprehensive liability coverage.

Expanding the program to begin earlier during pregnancy, providing greater support to pregnant mothers before the birth, may reduce isolating behaviors often seen with post partem depression. Expanding the program through preschool and the transition to elementary school would provide opportunities for ATs to assist children in adapting to school environments, provide teachers with needed support, and increase research opportunities to learn the effects of this attunement intervention over time.

***Increasing community awareness.*** Educating the community on infant needs benefits everyone. Not everyone wants to have or raise children, but all people experience the social stressors resulting from neglect. Wang and Holton (2007) compiled data drawn from a variety of sources that included reported cases only and estimated the annual cost of child abuse and neglect at a conservative estimate of \$25 billion in 2007 (p. 2). The authors reviewed statistics from the U.S. Department of Commerce, the Child Welfare Information Gateway, the National Institute of Justice, and the NIS-3, among other reports, and concluded, “The costs of responding to the impact of child abuse and neglect are borne by the victims and their families but also by society” (Wang & Holton, 2007, p. 1). Using Wang and Holton’s calculations, Gelles and Perlman (2012) recalculated and estimated the direct and indirect cost of child maltreatment at

\$78,405,740,013, including “two new categories of costs—indirect costs of early intervention (\$247,804,537) and emergency/transitional housing (\$1,606,866,538) increasing the total costs to \$80,260,411,087” (p. 2). This is the annual cost of addressing child and abuse and neglect, not the lifetime cost. The lifetime cost of child abuse and neglect is difficult to fathom. Through research causation cannot be proven; therefore, any investment in the prevention of neglect and abuse of children requires a leap of faith, that efforts toward prevention will make a difference. In a culture where child welfare is primarily addressed after mistakes appear to have been made, where abuse and neglect rates are high and parental neglect is very expensive, often hidden, and complicated to address, efforts to reduce the shame and stigma of accessing and utilizing parenting support are needed as well as education, research, and training on the impact of attunement in all relationships.

Training young adults for skilled community leadership benefits families and employers. Local public high school students could be trained to provide child care services to earn required community service hours toward high school graduation. Training high school students on infant language can prepare them for parenthood, if that becomes their path. It may help them to support parenting in their own homes, or at private child care centers where they may work.

Teaching infant language modules in health classes for all ages beginning with preschool would increase the number of people skilled in understanding infants and competent to support their needs. Teaching this infant language to children of all ages—teenagers and young adults—can cause them to become interested in the infant they may help with at home. Relearning a language we once used may remind us of our connectedness.

## Family Support Tools

### **Attunement training for caregivers.**

***Attune With Baby Intervention.*** The following resources, materials, and program supplies are needed by ATs to assist caregivers in learning and decoding infant language in their own infant:

- 1) a video of the Dunstan Infant Language (DIL) training video to preview in advance of the first scheduled meeting with the AT;
- 2) customized family training for all caregivers on Dunstan's Infant Language (2011) with basic caregiving responses, which includes discussion of ways in which parents, especially first-time parents and caregivers, can use this system to increase attunements to infant and reduce familial stress;
- 3) The Attune With Baby protocol. ATs will use the Attune With Baby Intervention protocol (p. 160), add family support pieces, groups, individual sessions, and community events to include the family and provide clarity around AT responsibilities to the family and for program evaluation and development, in consultation with their supervisor;
- 4) DIL and attunement training tools, developed by the AT, such as flashcards or coloring book with each infant word and appropriate caregiver responses to each word that will be used in video recording, including "Neh" is hunger, "Owh" is sleepy, "Heh" is discomfort, "Eair" is lower gas, and "Eh" is burp;
- 5) One to two baby dolls for demonstration of DIL and attunement skills;
- 6) Recording devices, or, if the caregivers have smartphones, instructions for how to use a smartphone to record.

***Kangaroo Care.*** Bakermans-Kranenburg, van IJzendoorn, and Juffer (2003), who conducted a meta-analysis of 70 sensitivity and attachment interventions, “When an intervention is rather successful in enhancing maternal sensitivity, this change appears to be accompanied by a parallel positive change in infant attachment security” (p. 211). Attunement therapists will provide tools to families to increase attunement. One such tool is a somatic touch therapy, Kangaroo Care. Skin-to-skin contact, known to parents of premature infants as Kangaroo Care (KC; Anderson, Marks, & Wahlberg, 1986), has many benefits, including potential for the active engagement of fathers; according to Ludington-Hoe and Hosseini (2005), the reduction of infant pain and stress, and a positive impact on neural network development through adolescence in premature infants that continues through adolescence (Schneider, Charpak, Ruiz-Peláez, & Tessier, 2012).

Lee and Shin (2007) found that KC (Anderson et al., 1986) was effective in relieving maternal anxiety in preterm infants, but that it was not effective for maternal attachment. Attunement involves eye contact, related to the processes of mirror neurons (Rizzolatti & Craighero, 2004). KC (Anderson et al., 1986) may be helpful in teaching parents who need practice with physical touch. When infants spend more time held on the bodies of caregivers in KC (Anderson et al., 1986), infant language may be much more easily heard and decoded. Also, in KC, more cues may be actively contributing to the caregiver’s awareness of the infant’s needs. A mother may be able to physically feel the somatic reflexes that the infant’s body transmits as it provokes infant language. Utilizing as many tools as parents can manage should be a consideration in the development of individualized stress-reduction programming for parents.

***Attunement skills training evaluation.*** Evaluations such as this will be developed by the ATs to gather information from families about the effectiveness of interventions they are using and to keep help ATs work with caregivers to address issues particular to each family.

1. Parents demonstrate their skills in practical situations only or in practice if barriers arise, 10 minutes of videotape are made once a month documenting the parents' success utilizing the Attune with Baby Intervention Program.
2. Progress is discussed.
3. Any barriers or challenges are discussed.

**Therapeutic tools and training for ATs.** ATs will administer, evaluate results, gather information and facilitate training sessions utilizing the following therapeutic tools and others as deemed appropriate:

- 1) Genogram software or other standardized system/key and resource (Jolly, Froom, & Rosen, 1980)
- 2) Strengths-based approach resources (Rapp, 1998)
- 3) Parenting Stress Index (PSI-4-SF; Abidin, 2012) & Evaluation Manual
- 4) Developmental Evaluation resources (Patton, 2011)
- 5) Ethics and Safety Considerations
- 6) Training on the use of program forms, consent forms and mandated reporter disclosure forms, adapted for each legal environment (i.e. state or country) where the intervention is applied.
- 7) Knowledge of applicable local laws, state and federal laws, program guidelines, policies will inform the development of resources that protect infants, families, and individuals.

***Attunement assessment.*** Stern, et al. (1985) developed the first Affect Attunement Protocol (AAP), the first known attempt to empirically investigate reliability and internal validity of a mother-child attunement measure. The AAP is a measure that involves examination of previously recorded mother–child interactions which are analyzed to identify sequences in which the mother's and the infant's behavior match along different dimensions related to emotional attunement. The Maternal Attunement Scale (MAAS) was undertaken by Bartling et al. (2010), who coded infant–mother play sessions in a laboratory setting on the dimensions of Maintaining Attention and Warm Sensitivity (which are composed of the subscales of positive affect, warm concern, and social responsiveness (p. 1). These assessments may be incorporated into this program if there were funds allocated toward the training of psychology interns on test administration and utilization, and program expansion opportunities toward the integration of research outcomes into program design.

***Additional training topics.*** Depending on the intended population for this intervention, adaptations could be made such as the inclusion of other measures that look at communication patterns between parents; cognitive development of the child, emotional intelligence, attachment, and even domestic violence or trauma.

Parenting training including topics such as stress reduction, self-care, healthy relationship skills and attunement in partner relationships, sleep and nutrition workshops, and Babysitting 101 for sibling caregiver supports. Guest speakers from referral sources may present additional topics relevant to community families.

**Program evaluation.** Supervised weekly didactics will include all ATs at one or more sites. No family meetings shall be scheduled during these sessions. These group supervision sessions will be focused on clinical issues arising with program families, as well as larger

program development and systemic issues. Topics may include: at-risk behavior in infants, community-based versus community-placed programming, diverse family needs, inclusion and outreach in programming, and more technical training issues such as quarterly report expectations, case note strategies, and child protective services and mandated reporting. Group supervision sessions will assist program developers in defining AT needs, family support needs, and community needs and provide opportunities for ATs to take on leadership roles addressing training issues or client support challenges and community-building strategies.

Quarterly reporting will assist evaluation efforts toward program development. The AT ensures that intake paperwork, program guidelines, paperwork and informed consent are complete and updated after each contact attempted for every enrolled family. A quarterly report from the AT will reflect program statistics and compliance. Family support needs addressed by the program or new needs that could be addressed should be included. A program administration and staff informed by family support plans and demographics will be more competent to assist in the development of plans for funding, program expansion, addressing staffing needs and reporting to funders and stakeholders, including community and family members that meets the needs of the community.

**Funding.** The program director should be adept at grant writing and securing federal funding for public health or community support programs, or have access to professionals who do. This program creates opportunities for ATs and other support staff to learn the process of grant writing, securing funding, and maintaining a program. Grant funding or fundraising will be needed for supplies such as demonstration baby dolls, books, flash drives for introductory video clips, and technology such as personal recording devices for observations, and supplies needed for groups, such as art supplies.



This Attune With Baby Program should be seen as an add-on program that complements two existing federally-funded programs that support the development of infant children, both of which have demonstrated a reduction in abuse and neglect of children. Partnership with the Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) increases access to all families. The MIECHV, also called the Federal Home Visiting Program, “gives pregnant women and families, particularly those considered at-risk, necessary resources and skills to raise children who are physically, socially, and emotionally healthy and ready to learn” (US DHHS, 2016a, para. 1). As a result of 2.3 million home visits that were provided between 2012 and 2015 and of these funded programs, more than half, 66%, improved performance measures for child injuries, neglect, abuse or maltreatment. For example, the program’s front-line workers noted reduced ER visits, reduced injuries, and suspected maltreatment reports were reduced. This effort (authorized by the Social Security Act, Title V, Section 511 (42 U.S.C. 711), as added by Section 2951 of the Patient Protection and Affordable Care Act (2010; P.L., 111-148), is a significant expansion of federal funding for voluntary, evidence-based home visiting programs for expectant families and families with young children up to entry into kindergarten. It was reauthorized in April 2015 by the Medicare Access and Children’s Health Insurance Program Reauthorization Act of 2015 (42 U.S.C. 1305). While these parent support programs are available in each state of the United States, they are not currently accessible to everyone in these states and counties (US DHHS, 2016a). The programs do not currently use the same measures of program efficacy or consistent data collection processes across programs which would aid in the determination of their effectiveness in the prevention of child abuse and neglect. Support from psychologists who are knowledgeable about program evaluation and are skilled at developing methodologies that reflect evidence-based approaches guided by population needs and best practices, would increase

the value of a partnership between the MIECHV Visiting Program and this family support program. A summary of program benefits is outlined in the following section.

### **Program Benefits**

The benefits of this program for the field of psychology includes new and innovative doctoral internship programs that can run anywhere in the United States. The program will be sustained by practitioners-in-training who are learning the most up to date theory and practices, increasing visibility and public faith in psychologists. Student schedules tend to be more flexible, allowing for adaptation to the needs of families.

The benefits of this program for the infant include an early intervention program, toward supporting development. Infant-directed communication will shift thinking about the knowledge of infants. A child's experience with caregivers who listen to them, attune to them, and respond appropriately more often from birth will shape their development.

The benefits of this program for families include acknowledging that the uniqueness of each family will lead to new perspectives on modern family structures, strengths, and support needed. This intervention acknowledges the difficult job parents and caregivers have, the reality of stress, family structure changes, and the changing nature of infant development. Fathers, mothers, and all caregivers should and will receive support. This training and program is inexpensive, operating on existing program funding and benefits accessible to all insured and utilizing the resources of the community. The program is community-based and meets families where they are: at home, and in their neighborhoods.

## **Chapter IV: Summary**

The dissertation presented here includes a plan for an innovative attunement program to assist families with an infant. The author's clinical experience and bias were shared to illuminate the developmental experience of neglect, a few examples of so many, that are real for children who do not experience consistent attunement from caregivers, the ways in which our field can shift outcomes and increase healing. Child abuse and neglect statistics were included to broaden the scope of the problems our clients face and challenges of preventing neglect when it happens almost effortlessly as the caregiver's awareness moves from the infant to other foci.

A theoretical foundation, framework, and complementary interventions provide a program structure that can be customized and adapted to any family's needs, to address the diverse and vast needs of vulnerable infants. The program itself can be creatively costly and expansive, or thoughtfully inexpensive--where the goals are simply to teach infant language to caregivers and provide emotional support to the family experiencing the transitions that come along with the arrival of an infant.

The program outlined in this dissertation is founded on attachment theory and reliant on the concept of synchronistic somatic attunement that may be coordinated between infants and their caregivers. It is a program designed to improve the lives of all children, setting and honing the patterns of attunement that will lead to healthy attachment. These patterns set the pulse and relational expectations for the entire developmental experience of the child through adulthood. This dissertation includes an innovative approach to attunement by teaching parents the language that infants speak—a language all adults once spoke—to increase accurate and efficient responses to the needs of infants. Infants know their own needs. They speak them and respond to the caregiving response they receive.

A discussion of the potential implications of a universal infant language and the value of an innate communication and attachment tool are beyond the scope and work included here, however, this reflex language suggests our shared somatic experience is clear, researchable, measureable, and quite useful. The history of caregiving responses to infant communication of somatic reflexes, the connected emotions, cognitions, and sensory experiences, including the stress of the environment and level of attunement of those in it, is the data that the infant draws conclusions from about the state of their survival and attachment that influences all other development.

There is a great deal to be done to help people access and bring awareness to the ties between the somatic-emotional experience of our lived and generationally transmitted attachment patterns. The program and theory outlined here is meant to be a jumping off point, designed to be adapted for any family structure, supportive of all infants and caregivers.

### **Program Limitations & Adaptations**

This program and intervention are limited to infants who verbally communicate and caregivers who can hear them. To address the needs of more children, it will be important for this intervention to be adapted for parents with hearing impairment or loss. Focusing effort on translating the body language associated with each verbalization made by infants may be helpful, as will illumination of infant body language through the study of infants with hearing loss, impairment, or lack of verbal communication.

This intervention is prepared to be adapted for any geographic location. HIPPA privacy regulations, informed consent laws, state licensing laws, insurance coverage limitations and documentation requirements must be reviewed and considered prior to implementation. Liability coverage may be advisable in meeting clients in their homes.

It is possible that couples who identify as participants for this intervention split up during their engagement in this program. It will be important to provide them with clear communication regarding their ongoing participation in this intervention, if and when their custody rights change, their status as caregiver changes, and/or they lose visitation with the infant child.

## **Discussion**

The problem of abuse and neglect is evolutionary. Behavioral norms are set by neurotypical populations, yet they are expectations that must be met by all humans living in societies where cognitive-function is the preferred and valued modality in human work. Neglect and abuse cycles have been replicated throughout history, but they are no longer a primary component of the human struggle. Human beings do not need to be neglectful to a child. Evolutionarily, abuse and neglect are throwbacks that are functionally obsolete. It is time for the field to call for creativity from psychologists to increase public awareness and more active engagement in the development of attunement skill learning that begins before conception and continues through education into adulthood. There is no shortage of research that suggests parenting strategies in place are often ineffective, abusive, and neglectful. Coming to terms with this and shifting expectations for parents, families, have long been political issues. Child safety and development are public safety issues.

**Illuminating neurodiversity.** Studies of developmental processes of humans with impaired functioning applied to research designs without inclusion of relational context continue to negate the possibility of cultural knowledge that informs the statistical equation of reality: neurodiversity. We must train all humans from birth to be aware of, to accept, and to adapt to ASD and all other neurodiversity—including helping each person to recognize the neurodiversity in themselves or we will continue to label people impaired. Evolutionary science, history which

validates it, and the study of epigenetics, informs us that increasing stress on a species forces adaptation or death. Consider that ASD is a human hybrid, which has endured an incredible amount of stress in childhood trauma from abuse and neglect, bullying throughout school years, and difficulty functioning as a productive member of the workforce and social world. Despite this, ASD continues to exist and expand, potentially overtaking the species.

Populations designated as biologically impaired are grouped individuals—not groups of individuals. When a quantitative study uses people with ASD as an example of an outlier to hold the boundary of the bell curve, they are often suggesting that all people with ASD are represented. This is a fatal error in scientific logic. ASD as a population is as diverse as each member of the group in somatic sensory experience, emotional experience, and cognitive ability, as demonstrated by the earlier clinical example of Alice.

For researchers in psychology considering the inclusion of ASD populations, or any multidisciplinary research study where subjects might be thinking, feeling or experiencing something in their bodies, it is important to note that ASD includes, but is not limited to people from the following groups: (1) people who do not need more labels to become barriers to their functioning; (2) people who do not know they might have a diagnosis; (3) people who do not know of services that exist to support them; (4) people who do not know how to access or become eligible for existing services; (5) people who are somehow ineligible for services which would be appropriate to address the barriers their impairment creates to functioning (employment support; on-the-job training, coaching, and retention support, couples counseling, parenting support, and psychotherapy); (6) people who have not benefitted from any designation; (7) people who have not benefitted from resources earmarked for the purposes of support, education, or training; (8) people dropout or are terminated from programming; or (9) people who have no

idea they are impaired (the undiagnosed); and (10) and those with multiple impairments—diagnosed or not, for example, ASD with co-morbid alcoholism, all lumped into one designation “impaired.” To suggest that research has been done on an impaired population, it would be helpful to identify what clinical issues are relevant to those clients. The issues facing each are group are diverse and will vary from person to person.

Autism spectrum research will continue to propagate as people become aware of the diagnostic criteria, new research, and information that has been circulating via social media. The public is engaging in a high level of self-diagnosis—many adults realize they may have gone undiagnosed when their child is diagnosed. ASD support groups, ASD products and toys, and providers who are specializing in support for people with ASD are appearing everywhere.

I am personally and professionally concerned about the fact that our field and many others continue to validate research studies which do not delineate the aspects of ASD that are being used as baselines for impairment, especially when attachment behavior is involved. I do not see ASD as impairment. It is the response that people receive to their behavior that is problematic and the lack of guidance many receive. It is time for our field to move our culture forward by utilizing language in research that is inclusive or at least rate studies on their inclusive language. People enjoy rating things, especially with a thumbs up or down.

In American culture, the predominant measure of developmental success is productivity. An adult’s ability to contribute to society through employment is the basis for human value in society. This reality is validated by a universal cultural educational standard in the public school system that focuses teachers on “teaching to the test,” using cognitive skill development exercises to reflect a child’s aptitude for adaptive learning. This learning does not address or

incorporate the body or somatic experience. It is not emotional learning or awareness-building. It is thought-based and thought-focused; toward critical thinking.

What differentiates humans from primates is that we have honed, reinforced, refined, and now celebrate our cerebral perseveration on cognition through adaptation, denying its tie to the somatic, until it has become the robot that is capable of obliterating all of humankind. Leading up to the final scene in *I am Legend* (Lawrence & Smith, 2007), Will Smith, as Robert Neville, has to decide whether he will sacrifice himself for the greater good. The Darkseekers are the global effects of abuse and neglect on the infant's development. The terrifying, suspenseful, final moments as the Darkseekers invade Neville's laboratory is the enormity of parenting. We have the tools to help people recover from shame and grief, build awareness and support networks to support change. We need to think, feel and act more dynamically with regard to social problems that we write about, teach about and study in practice.

**Community and collaboration.** It is not the discovery of cultural behavior that takes place in therapy, research, or any human work, that makes it so. It is the relational understanding built from holding the experiences of all involved that allows us to honestly tell the stories to each other that free us from the conditions we have refused to leave behind. This is the qualitative research that humans do, a missing support in communities and homes where neglect and abuse live. Community has action potential, to both support people in times of need, and to make them accountable to living in ways which are healthier. This has gone missing from many communities in the United States.

In a shared space, we notice shared patterns that repeat on every evolutionary level of life, identify what each cultural perspective offers in the way of knowledge, and work together using tools developed of curiosity and connection, to find ways to increase the quality of the



global experience. The use of scorpion venom to treat cancer applies an indigenous approach to survival. The scorpion is a creature that has evolved to use its somatic, adaptive resources to protect life. One population borrows its adaptive strategy to another, the other population adapts its format to fit with the culture that is in community, and the potential benefits of collaboration can be experienced.

The multidisciplinary mapping of developmental knowledge which uses degrees of functional existence as borders, names popularly-held theoretical viewpoints as institutional gateways on the course to understanding, will ultimately reveal that the knowledge arrived at is simply an updated, more detailed, and easier to use map of the places research has taken us before. Without the integration of multidisciplinary qualitative research findings, inclusive theory, and honesty about what and who has been left out of the published discourse, including topics that require a political perspective and action, we will continue to avoid preventing problems that do not require technology to solve, problems that should have been eradicated generations before so that we, like the infant who has an intentional, attuned caregiver who validates and supports the use of somatic, adaptive resources to protect life in order for the infant to explore and learn what could be.

**Addressing the whole human experience.** As a field, we continue to validate cognitive therapies. Insurance covers them. Teaching a client to think healthy thoughts may be the best way to change the chemical environment of their brains in the short term, but the fact is that the unconscious, or the generational trauma or the collective unconscious, comes back around. Eventually, many clients who engaged in cognitive therapies find themselves back in the same situations they were in before the therapy, wondering why the therapy did not work. They come to think they are dysfunctional, they are the problem, they are too sick to change, they are not

loveable. Whatever their self-talk, pathology develops as a result of dynamics of dysfunctions. It takes at least two humans to make those.

The success of therapies like Eye Movement Desensitization and Reprocessing (EMDR; Shapiro, 1989) and Dialectical Behavior Therapy (DBT; Linehan, 1993) are testaments to addressing the makeup and needs of human beings simultaneously. When only cognition is addressed, humans are taught to accept the reality they are in or get out of it. This has become a predominant approach in ASD “treatment.” If therapists do not assist clients in building support networks while changing thinking, the client usually cannot maintain the change. Helping clients to build support networks should be the primary goal to realize community health and wellness.

Human beings need more therapies that address their global experiences: their stories, their somatic sensory experience, and their emotions. Humans with trauma histories are often dealing with health issues, as was validated by the ACEs studies (Felitti, 1991). Stories—the narratives shared in therapy, the stories created to share identity and decision making strategies with others; reflect intention. They are the cognitive descriptions of experience that is contextual and cultural. Validating somatic sensory experience, helping people to become aware of their bodies, the messages their bodies send to them and to others, developing self-care, and addressing existing health and wellness goals as a partner working across fields supports the client’s whole experience. It models healthy behavior for children as well. Finally, addressing the ways in which emotional flooding can shift behavior, prevent connection, and trigger the loss of opportunities, can help clients to understand the maladaptive patterns of pathology so that they can learn emotion regulation and experience attunement and attachment with others.

## Footnote

<sup>1</sup> In this letter, Darwin is referring to “J. F. W. Herschel’s views on Old Testament chronology were expressed in a letter to Charles Lyell of 20 February 1836: ‘when we see what amount of change 2000 years has been able to produce in the languages of Greece & Italy or 1000 in those of Germany France & Spain we naturally begin to ask how long a period must have lapsed since the Chinese, the Hebrew, the Delaware & the Malesass [Malagasy] had a point in common with the German & Italian & each other.— Time! Time! Time! —we must not impugn the Scripture Chronology, but we *must* interpret it in accordance with *whatever* shall appear on fair enquiry to be the *truth* for there cannot be two truths.’ (The letter, in the American Philosophical Society collection, has been transcribed and published in Cannon, 1961. Extracts were published in Babbage, 1837.)” Retrieved from University of Cambridge Darwin Correspondence Project.

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## APPENDIX A

### Attune With Baby Intervention Protocol

*Attune With Baby Intervention Protocol*

Activity	Time Frame	Duration	Logistics
Recruitment/1 <sup>st</sup> Contact/ Scheduling	In utero	30 min	Attunement Therapist (AT) contacts parent(s); Determines eligibility; Explains the program, intervention, and supports. Schedule first at-home/in-hospital/FSC visit. Confirms contact information
Tasks	Same day as 1 <sup>st</sup> contact	20 min	AT sends program information to the family + caregivers, + book and video clip
Retention	2 days later	10 min	AT confirms information/resources received + appointment reminder + document communication
Enrollment/Or ientation	In utero	1 ho ur	All parents/caregivers present for program orientation to complete the questionnaires, consent forms, and program paperwork, AT answers any questions regarding materials, book or video clip, with the family identifies family strengths
DIL/ Attunement training/ Home Visit	Day 2 or 3 after birth	2 hours	Training, observation, and video recording focused on infant language of newborn words, attunement skills, + caregiver interactions with infant
Home Visit	1 Day during Days 7- 14	1 hour	AT observes family and caregiver attunements to infant, notes any barriers to attunement and updates the FSP
Home or FSC visit/ Retention	1 Day during Week 3	1.5 hours	AT observes attunements and supports family, confirms that all referrals have been connected with/are appropriate
Home or FSC visit	1 Day during Week 5	1 hour	AT quizzes parents/caregivers on attunement skills + collects video evidence of attunements

DIL/ Attunement skill brush- up/Home Visit	1 Day during Week 6	2 hours	Training, observation, and video recording focused on infant language of 6-week words, attunement skill brush up, + caregiver interactions with infant
Home Visit	1 Day during Week 7	1 hour	AT observes attunements and supports family
Check-In/ Retention	1 Day during Week 8	1 hour	AT requests 2 attunements from parents/caregivers
Activity	Age of infant	Duration	Logistics
Home Visit	1 Day during Week 9	1 hour	AT supports family
Check-In/ Retention	1 Day during Week 11	1 hour	AT requests 2 attunements from parents/caregivers
DIL/ Attunement skill brush- up/Home Visit	1 Day during Week 12	1 hour	Training, observation, and video recording focused on infant language of 12-week words, attunement skill brush up, + caregiver interactions with infant
Check- In/Family Support/ Retention	2 Day during Wk 13 thru preschool	1-2 hours	AT meets with the family to provide support, invite the family to participate in FSP services, events, community gatherings held at the FSC