

Learning through Social Connection



**How Intensive Interaction can help your
child with autism to learn more naturally**

**WHAT
CAN I.I.
LOOK LIKE?**

“I had a beautiful moment with my son tonight. He pressed his face to my face and looked into my eyes. It was lovely. I think there is a deep shift happening between us where all expectations have fallen away. I feel it and I hope he does to. I’m really happy I came across Intensive Interaction. I think it is making a huge difference.”

Mother of R who is 2 and has autism.

“Since doing I.I. my son initiates more social play, has begun to interact more with his younger sibling by observing and imitating him, has developed much better voice modulation (sounding like he is talking TO us and not just scripting when he wants to interact), and shows more self-confidence in general. Most of all I feel that he has developed a closer, more trusting relationship with me and also with my husband (his father) who is not even doing I.I.! I really appreciate the principles of it and how they have made life more fulfilling and less anxiety-ridden for all of us.”

Mother of M who is 4, is high-functioning, has speech delay but no formal diagnosis.

“For me, Intensive Interaction is not only the most natural and instinctive way of behaving with your child, but it is also totally without pressure. So often when you’re with your child you can find yourself worrying that you need to be doing something to help, so you try to make every moment edifying. Intensive Interaction doesn’t have that agenda. Instead, the focus is to actually enjoy the present moment with your child with the sole intention of wanting to enjoy their company.”

Mother of daughter L, who is 6 and has autism and son J, who is 5 and has a communication delay but no diagnosis



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If you have any queries on anything in this booklet or on anything Intensive Interaction or autism-related, I will be more than happy to answer them. Contact me via the “Intensive Interaction for parents” Facebook group or via the Thinking Autism email address mail@thinkingautism.co.uk. Should you want copies of this booklet, please also contact mail@thinkingautism.org.uk to make your request.

Thank you and Happy Interacting!

In the beginning

Unnatural childhood development?

Something was wrong. The full-time autism programmes we had been running over the previous five years had taught my son Tom many things. Because he is clever he had been meeting objectives and we were able to tick boxes and create impressive-looking graphs. According to the consultants, he was able to generalise and use these skills in varying situations.

At each workshop we were given new goals to work towards which filled us with hope. This was all highly motivating for the adults involved in the programmes. We were happy with each consultant and we had absolutely wonderful therapists, but gradually, with every programme, it dawned on us that something wasn't right. Why, if my son was making progress, was he becoming more demand-resistant? Why was he still unhappy, anxious, isolated and obsessive? Why were we, his family, still so stressed and depressed about our relationship with him? Although he was acquiring the skills we were teaching him, in some ways his autism was becoming more severe. How could that be?

"They can't learn in the 'normal' way."

It had been explained to us that, by breaking childhood learning down into small steps, children with autism would be able to catch up with their peers.



Tom with his film credits. Although he could speak, sing songs, read, write, tell the time and speak other languages, he wasn't social.

"The brains of people with autism are wired differently," we were told. "They cannot learn in the 'normal' way so we have found a way to teach them that does work." And they were right. Each of Tom's programmes did teach him many things with seemingly great results. We were ticking boxes and moving onto the next objective, but this learning was not affecting his autism or level of functioning. In some ways his autism was becoming worse. We urgently needed to help him.

Back on track

Luckily when Tom was 7½ I discovered Intensive Interaction (I.I.). The people who developed this educational therapy looked closely at how skills, normally impaired in autism, are acquired in natural childhood development. So, just as in typical early development, I.I. has no boxes to tick, no objectives as such, yet this beautiful,



Tom was 7 when we began Intensive Interaction but it is suitable for learners of any age

nurturing, free-flowing approach has since turned our lives around forever in ways that the other autism therapies we used did not. Intensive Interaction has changed Tom at a profound level, working on the very core of his autism and bringing about more typical and natural development.

Can childhood development be broken down into steps?

Was it possible that, by attempting to break down the immensely complicated process of typical childhood development into small steps, we had actually been creating an inferior developmental pathway for our son? What occurs during typical childhood development is so complex, so apparently chaotic, so interwoven, multi-layered and interdependent that it is currently beyond human comprehension (Hewett, 2012b). Perhaps because it is so difficult for us to grasp we are tempted to tame it, to describe it, to control it and to break it down but, in doing so, do we overlook or even further block some



I.I. gave Tom the basic learning skills essential for more typical development

naturally occurring processes that we do not fully understand?

Intensive Interaction is based on natural childhood development but this does not mean that Intensive Interaction practitioners claim to understand everything that occurs in natural development or via Intensive Interaction sessions. But, by attempting to keep this natural process more intact, we are far more likely to give our children the childhood development that other children experience and this is what I've witnessed with my son.

A very different kind of therapy

Intensive Interaction gave us our baby back and, by putting Tom back in touch with his loved ones and with the world around him, we have helped him gain the basic learning skills so essential to more typical development. He has been granted

the same basic right to be close to his family and others that typical children have and he now has a quality of life that makes it all worthwhile. Intensive Interaction has actually changed him very fundamentally and has altered the nature of his autism.

In this process I have learnt that quality of life is largely dependent upon the quality of our relationships, as much for our children as for the rest of the family. If you don't have a deeply satisfying relationship with your child, you are likely to have a poorer quality of life as a result. When I set out to do Intensive Interaction, I didn't have my own, or my family's increased quality of life as a goal. Nevertheless this is what we have achieved and I see this happening again and again for the families that opt to use Intensive Interaction.

The journey is more important than the destination—in life as in Intensive Interaction.

Intensive Interaction is a process therapy rather than an outcomes therapy. That means that the learning happens on the



Count magical moments and smiles instead of achievements and the achievements will become too many for you to count anyway!

journey or along the way. Thanks to this approach, I have learnt that success and happiness are more about how you live each day rather than about what you gather (or what boxes you tick) along the way. This is very different to the sort of 'suffer now and reap the benefit later' or 'no pain, no gain' attitude of traditional teaching and some therapies. Our children's lives are there to be enjoyed and not endured both by them and by us. Furthermore, I have learnt that the more we slow down and enjoy the ride, the faster

ILLUSTRATION: EGGLE GELAZIUTE-PETRAUSKIENE

our children actually learn, so with Intensive Interaction you actually get to enjoy life now as well as reaping the benefits now and later.

Tom's Intensive Interaction journey has been, and still is, a wonderful experience for all those who have travelled and continue to travel with him. Tom is now sociable, playful and attention-seeking. His interests are expanding and most importantly, he is very happy. Tom is now fun to be with and good company. This has meant that I.I. with Tom has been increasingly easy and fun to do. And because Tom is more and more connected to the people and the world around him he is developing more complex language and is learning an ever-expanding range of academic and non-academic skills naturally.

I am now a trained Intensive Interaction Coordinator and, in this document, want to explore just some of the reasons that I.I. has proved such a success, both for my son, and for many other children and adults with autism or other communication

WHAT CAN I.I. LOOK LIKE? You can try responding to any bits and pieces of your child's behaviour. However, it's a good idea to respond mostly to vocalisations.

Reminders

- **Childhood development is immensely complicated, not fully understood yet and too difficult or impossible, to break down into small steps.**
- **In attempting to break it down, some autism interventions may encourage an atypical developmental pathway for our children.**
- **Intensive Interaction is based on parent-infant interaction and encourages more typical development.**
- **Intensive Interaction increases quality of relationships and, therefore, quality of life, both for the child with autism, as well as for the rest of the family.**
- **Intensive Interaction is a process rather than an outcomes-based therapy or, in other words, it's all about the journey.**

difficulties. (For studies showing progress via I.I. see appendix 1). All parents have the right to know all their options regarding the health and happiness of their children. Informed choices are better choices. My hope is that anyone who cares about the well-being of someone with autism or other communication difficulty—regardless of their age—will find this booklet valuable.

Human Communication: What's it all about?

Autism Regression and Communication

From around 15 months onwards my son Tom began to disappear. The light in his eyes that you see here in this photo went out as he regressed into autism. Superficially, I can tell you what that means. I can describe the outward symptoms of his regression: he lost all speech, all eye contact, stopped babbling, stopped looking at books and playing with toys, stopped interacting with us, stopped smiling and laughing and making facial expressions, lost all interest in the world around him and disappeared into a world of spinning objects and unhappy silence.

But something much more profound than a set of skills had gone. Although we hadn't stopped loving Tom and Tom hadn't stopped loving us, what had slipped away was the full and fluent ability to express our love to one another through social interactions, eye contacts, snuggles, fun and games. The frequent locking together of minds that happens in close relationships had gone. We could no longer easily find ways to connect with him and thus help him to develop and learn in 'our world', the world any family shares. Because we struggled to reach one another Tom was no longer able to access



typical development via his relationship with us and the world around him. He seemed to block us out, to reject us. We could see his body and we could care for him physically but we weren't able to see his personality or to know what he was thinking. In retrospect, we—his parents—were not the only ones struggling to make contact, as Tom also struggled to reach us and to connect with us. We were cut off from our son and utterly devastated. At the time I was unable to read how Tom felt, but now I realise that he must have felt cut off and devastated too.

How does it feel to have a communication impairment?

At the core of a diagnosis of autism is a difficulty with communication. Even those very high functioning individuals who are capable of great academic achievement struggle with some of The Fundamentals of Communication. But how does it feel to be less able to communicate than other human beings? What exactly are



Tom after regression into autism

our children missing out on? What do the rest of us get from our communicative interactions?

Lonely in a crowd

We all know that feeling of being lonely in a crowd: not accepted by colleagues in your new job, just arrived in a new city with no friends, not 'clicking' with anyone at the party. It is a powerfully isolating feeling to be surrounded by people yet connected to none of them. Somehow being disconnected amongst connected people can feel lonelier than when you are actually alone. Viewing happy relationships, laughter and chatter from the outside when we have no-one to chat to and laugh with ourselves, no-one to listen to us, recognise us and reassure us that we are ok to be with can be painful. For most of us these moments end. Outside particular situations which isolate us we have healthy and fulfilling relationships. Or, if we are going through a bad patch, it ends and we make friends and reconnect at some stage. How does this relate to our children?

People with autism have the same basic human needs as anyone else. Do our children with autism also experience these feelings of loneliness and disconnection? Could it be that they feel lonely even amongst family members who love them? What about when they appear to reject our attempts to interact more fully with them? Or seem to show insufficient interest in us? When they choose objects, computers or their 'stims' over playmates? Could it actually be that they long to connect with us as much as we long to connect with them?

At the risk of stating the obvious, people with autism are human beings and, as such, have the same basic human needs as anyone else. Autism is not a lifestyle choice. People who have difficulty socialising NEED to socialise just as people who have difficulty breathing NEED to breathe. It is up to the rest of us to assist them to overcome these difficulties.

Intensive Interaction has shown us that our son Tom was always desperate to interact and play even though we were unaware of this at the time. In my work as an Intensive Interaction Coordinator I repeatedly witness that when children or adults with autism start to do Intensive Interaction, it becomes apparent that they always longed to be better able to communicate socially.

The function of human communication

"...what is the main source of our internal sense of goodness and well-being? Surely, the main source is not our achievements, our qualifications, the increasing development of our skills and performances, our increasing wealth or, even, that other people tell you that you are a good person. Is not the main source of well-being the simple, mostly unspoken quality and quantity of our fulfilling relationships and communications with everyone around us?" (Hewett, 2012, p.12)

It is estimated that only about 30 to 35% of all human communication carries important information. That means a huge 65 to 70% of our communication is for something else (Dunbar, 1996; Emler, 1992). Chit-chat, jokes, gossip, reminiscing, emotion and experience-sharing, as well as seemingly empty exchanges such as 'Nice to see a bit of sunshine for a change, isn't it?' all help to bond us socially with one another, to keep us interconnected and to feed our need to socialise and belong. Heart-breakingly, all of the above are difficult for people with autism.

Being human

Although the content of our social conversations may often be unimportant, the actual act of taking part in such exchanges is very important indeed. In typical childhood



Good social relationships are CRUCIAL to people's happiness

development, the skills required to be able to take part in these social exchanges are learnt first, speech content to flesh out these exchanges is learnt later (Nind & Hewett, 2005, chap. 2).

Human beings are highly social animals and we have an overwhelming need to belong: to a family, to a community, to a group of friends, to a special person. Good social relationships are crucial to people's happiness even more than wealth, fame or physical health (Cacioppo & Patrick, 2008). Through this belonging and through our social interactions we gain a sense of security, we find out who we are, that we have value and that others deem us worth spending time with. Crucial to our understanding of how to bring up our children with autism is the knowledge that strong social connection is necessary for typical development. (Reddy, 2010; Rogoff, 1990)

The reverse is also true. Social isolation is bad for us: bad for our physical health,



I.I. has shown me that Tom always longed to be better able to communicate socially

for our mental health and for general childhood development. If we are unable to fully take part in social communications we are likely to lack a sense of belonging, to feel insecure, to not know ourselves, and to be unhappy. In fact, a good sense of social connection is known to correlate with good mental health (Vaillant, 2003), whereas loneliness and disconnection are known to lead to an inability to self-regulate and to irrational behaviours (Cacioppo & Patrick, 2008). It is worth considering that, at least some of our children's more 'different' behaviours might stem from their inability to fully connect with others.

If only my child could talk!

Our children are frequently labelled as 'non-verbal', a misleading description of their difficulties. The term 'non-verbal' might be better used to refer to a social child who can communicate in all sorts of ways other than via speech. A better label for our children might be something like 'non-communicative' or 'communication-impaired'. Professionals labelled my son as 'non-verbal' and I set out to make him verbal. That is, I wanted, above all else, for him to acquire speech. I mistakenly believed that once he could speak he would be able to converse with me. Unfortunately this misinformed thinking also forms the basis of many autism-specific interventions.

Why do we make this mistake? It's because the real skills needed to communicate and connect socially come so easily to the rest of us, are acquired so early on, and, as parents, we teach them so effortlessly and non-consciously to our

WHAT CAN I.I. LOOK LIKE?

"Intensive Interaction has enabled me to connect with my daughter, it has helped us build a bridge on which we meet to share looks, touches, smiles and yes even words. As an approach I have to say it is the only one that has made any kind of impact on my daughter's social communication and has enabled us to have an emotional connection that was unavailable before we began it." *Mother of H who is 19 and has severe autism, 'behaviour that challenges' and is mainly non-verbal. She is also a creative artist with a mischievous nature and a great eye for design*

typically-developing children, that we tend to pay them very little attention. Most of us are unaware of their huge importance or even that they exist at all! These skills are so crucial to our survival and to our well-being, that Mother Nature ensures they are learnt very early on in typical development, before less important skills such as speaking and walking. To guarantee the learner's success at acquiring these skills Mother Nature also ensures that they are an absolute pleasure both to acquire and to teach. Typically these skills are acquired during pleasurable play sessions with the child's parents or other adults or even with older children (Nind & Hewett, 2005, chap. 2). Intensive Interaction is based on these parent-infant interactions and also consists of wonderfully pleasurable activities.

What are these social connection and communication skills that are impaired in people with autism? They range from the ability to truly enjoy, relax, create and grow in another person's company to the ability to share playfulness and humour, to create and read body language, facial expressions, cues, and the many different



Mostly, non-verbal communication is subconscious, very subtle, very important and very very fast.

types of eye contact. They are the most foundational and core skills and abilities that keep us connected to one another. In Intensive Interaction we refer to these skills as 'The Fundamentals of Communication' but, in reality, they are also the fundamental requirements of many other aspects of typical development such as play and learning.

The Vital Importance of Non-Verbal Communication

In typical adulthood, these 'Fundamentals of Communication', acquired so early on, remain vital for conversations and interactions. For example, we participate in non-verbal communication all the time.

WHAT CAN I.I. LOOK LIKE?

"Learning about I.I. after only really knowing about behaviour therapies helped bring back some of the enjoyment in playing and being with our son. The love had always been there but we hadn't been able to feel it properly for a long while."

Mother of K who is 7 who has autism.

WHAT CAN I.I. LOOK LIKE?

"I was humbled by the light in my son's eyes when we made that first connection. They were short connections to start that grew to 45 minutes to an hour and more. They call autism a jigsaw.

This was the bit of the jigsaw where the darkness becomes light for all of us. As the relationship develops it becomes just normal parenting. I.I. is about trust and beauty. I.I. is also therapeutic and for child and parent alike."

Mother of C who is 11 and has moderate autism.

Think of the looks you exchange with your best friend, the body language you can read so easily even standing beside a complete stranger in a waiting room, the hugs you share with your partner, the intonation you use to express surprise, or how infectious you find your best friend's laugh. These are examples of more-or-less conscious use and reading of non-verbal communication. However, for the most part, what is transmitted and read non-verbally happens subconsciously, is very subtle, very important and very very fast. In fact it is produced and read so quickly that it is too fast for the conscious brain to process. Most non-verbal communication can only be processed at a non-conscious level (Goleman, 2007). Creators of interventions that try to teach these complex subtleties in a conscious way (for example, labelling line drawings of faces that express different emotions) ignore this vital fact and may encourage the kind of developmental pathway that won't support the incredible amount of learning that our children will encounter. What's more, by breaking the learning down into 'teachable'

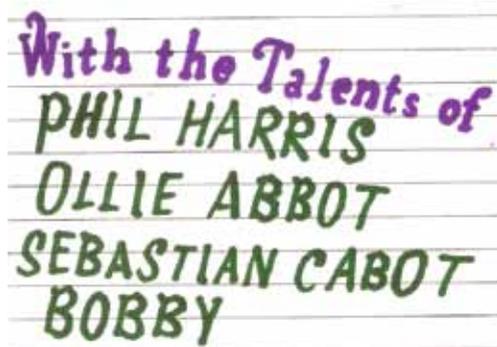
steps or resources it becomes more boring, more static and more difficult to learn. Try watching a group of friends together from a distance: Notice how easily they pick up on one another's cues; See how they all look like they belong to the group and how they share a similar energy and mood; look at how skilfully and quickly they use and read facial expressions, body language, and other non-verbals. Notice how much pleasure they get from just being together and talking mostly rubbish! Notice how they laugh or frown together, how they have similar energy and how an atmosphere is created.

How this applies to our children

Those of us who yearn for our children to (re)acquire spoken language need only spend a few moments with a typically developing infant or watch a few baby videos on YouTube, to realise that typically-developing babies are very communicative long before they acquire speech. Perhaps even more importantly, typical infants have many skills that children and adults with autism struggle with—even those

people with autism who are verbal. This set of communicative skills is known by Intensive Interaction practitioners as 'The Fundamentals of Communication' and is also the set of learning outcomes typically seen in Intensive Interaction (Appendix 2). Whether your child has never acquired these skills or whether, like my son who regressed, your child needs to re-acquire these skills, the process is the same.

When we began Tom's home programmes I was desperate to hear him speak. I had no idea of the second heartbreak awaiting us: Tom was to acquire speech—lots of it—but without social communication. Tom's home programmes left us with a boy who could speak but could not connect, who could read and write but not communicate. He spent his days 'scripting', for example, repeating bits of DVDs or computer games from memory and writing out film credits repeatedly. We had given him what we thought were communication tools (speech, pronunciation, vocabulary, reading and writing) but those were absolutely not the tools that would help him socialise and connect with people. When choosing programmes for children with autism, parents and professionals need to be absolutely clear that speech does not equal communication, that communication is more important than speech and that people with autism usually have impaired social communication skills whether or not



Tom spent all his time repeatedly writing out film credits.

they can speak.

Why don't our children socialise more?

There are two main reasons my son had difficulty socialising before Intensive Interaction. Firstly and most obviously, he lacked some very basic skills such as an ability to truly enjoy another person's company, an ability to mind-read or share experiences, humour, fun, drama, emotions and to deeply connect with someone else. I had much less awareness of the second reason for his difficulties: we, his parents, other family members and teachers also lacked the basic communication skills necessary to communicate with him! What our children need is for us to socialise and play in a way that is meaningful to them and that they can access. I needed to make the same sorts of adjustments that mothers make when playing and socialising with their typically-developing younger children. (Nind & Hewett, 2005, chap. 2)



Could mind-blindness be a treatable part of autism?

But my child is sociable

For those children with autism who already have a strong social connection, who already regularly seek you out for cuddles, tickles or even chats, Intensive Interaction will help to further develop fundamental social and cognitive abilities, universally impaired in individuals qualifying for a diagnosis of autism. The knock-on effect will be a better connection with and a better understanding of the people and the world your child lives in.

Autism, mind-blindness and mind-reading

Can you mind-read? I will re-phrase that question. Can you get to know people? Do you participate in friendships and engage

with your loved ones? Or, are you simply a bystander or an observer somehow outside and apart from people? How would you answer those questions in regard to your child with ASD? It is commonly believed by autism 'experts' that 'mind-blindness' (an inability to read what is going on in other people's minds, or a failure to even understand that other people's minds are different from our own) is a permanent and core feature of autism (Baron-Cohen, 1995). It is believed that mirror neurons, (brain cells that fire in recognition of another's actions and emotions and are thought to be involved in feelings of empathy) are permanently impaired in people with autism. Intensive Interaction has shown me that my son and other people with autism can become as capable as the rest of us at mind-reading, that is, of knowing others, of allowing themselves to be known and of engaging fully with others. Could mind-blindness in fact be a secondary or knock-on effect, or even a treatable 'comorbidity' of autism?

Tom reaches for the volume control on his CD player just before the very loud part of the story. Because I know what

WHAT CAN I.I. LOOK LIKE?

"Intensive Interaction reassured me I was already doing the right thing with my daughter and gave me a better focus on how to gain more from our interactions."

Mother of J who is 20 and has Angelman's syndrome.

he likes to do and because I see his actions I can see his intention or, in other words, sort of read his mind. I know he is going to turn the volume right up to make the loud part of the story really loud - it amuses him. "Uh-oh!" I



Tom plays ball in an I.I. session with his father, Remis

I say, smiling. Tom catches my eye (references me), he becomes weak with laughter as he realises that he's been caught out and that I know what he's up to. In just a split second Tom has not only read my mind but sees that I am reading his. Yet the mind-blindness theory would have us believe that, because Tom has autism, he has the permanent cognitive deficit of mind-blindness, an inability to understand that others' minds are different from his own. Not that long ago, the above scenario did seem like an impossible dream for Tom. Had I not discovered Intensive Interaction or had I believed that people with autism have permanent mind-blindness, there is no doubt in my mind that Tom would still not be able to do this – denying this pleasure and developmental stage not only to him but to me and to all his loved ones. While we still do not have all the answers

about autism it is exceedingly important not to believe too readily in unfounded contentions that place limits on our children. Believing that our children have limits is exactly what limits them.

"...if the mirror neuron systems of people with autism are permanently broken, or fundamental deficits exist within their cognitive processes, then we should not gain the outcomes that are repeatedly seen in Intensive Interaction. A large corpus of video material has now been collected within the Intensive Interaction field, depicting people with autism doing all sorts of things they shouldn't be able to do if they have the kind of core cognitive or social deficits described in mainstream accounts of autism." (Zeedyk, 2012, p.66)

Reminders

- **The primary function** of human communication is social connection.
- **At the heart of a diagnosis of autism** is a difficulty with social communication and engagement. Some interventions do not address this difficulty at all. In other words those interventions do not address the core of your child's autism.
- **Non-verbal communication** is very important. Much of it can only be processed by the subconscious mind. Breaking it down and teaching it consciously results in something different and inferior.
- **Allowing the sharing of emotions** encourages the (re)connection of minds and the building of relationships, thus working on some core deficits of autism, including non-verbals.
- **Intensive Interaction recognises** that in typical development we are excellent social communicators long before we acquire speech.
- **Learning to be a social communicator** happens in a fun, motivating and actively participatory way both in typical development and via Intensive Interaction.
- **Social connection is necessary** for typical development. Not all interventions encourage this connection and some may even, inadvertently, weaken social connections while simultaneously strengthening the child's relationship with objects or 'stims'.
- **I.I. seems to be showing us** that an inability to communicate and connect socially may not be an irreversible feature of autism.

In fact mirror neurons are not wholly innate nor are they fixed once acquired. To some extent our mirror neurons develop via social interaction (Catmur, et al., 2007). It is likely then, that the mirror neurons in people with autism are not 'broken'

but simply underdeveloped or somehow 'covered'. It seems to me that Intensive Interaction allows people with autism to interact socially and thereby develop and/or uncover their mirror neuron systems.

What is Intensive Interaction? How is it done?

How exactly do the rest of us learn to be good communicators?

When designing Intensive Interaction, Dr Hewett and team looked closely at how communication is learnt in typical development, that is, at how the rest of us learnt the skills that people with autism lose during regression or simply don't acquire. Research shows that typically developing infants learn these communication 'skills' during enjoyable, often playful sessions with the mother or main caregiver or sometimes with other adults or children (Nind & Hewett, 2005, chap. 2). Although each mother or 'teacher-person' appears to have a different approach or style, researchers found that there are some universal features being subconsciously and universally applied during these sessions. It is because of these underlying principles that infants learn to communicate, to play and to be able to share humour and jokes. In short, they learn the skills of engagement that will enable them to connect, learn and develop for the rest of their lives. Because of what their caregivers do, infants learn to truly enjoy, relax and develop in the company of others. They become increasingly aware of self and of others, and, in doing so expand



Baby Sofia learning to become a communicator with her mother, Liz

their own consciousness, cognition, knowledge, creativity, imagination and skills. They learn 'The Fundamentals of Communication' (Appendix 1), skills involving the ability to make and read body language, facial expressions, eye contacts and social cues. When using Intensive Interaction we see the same or similar learning outcomes.

The Principles of Intensive Interaction

These parent-infant interaction principles have been adjusted to suit our children who are no longer infants, perhaps are even adult children, and are known as 'The Principles of Intensive Interaction' (Appendix 2). Three of these principles underlie all the other principles. The first of these is to be really tuned in to your child. Of course we parents already know our children well and are already more tuned into them than anybody else is. However, many parents find that Intensive Interaction can help them to tune in even



The three main principles of I.I. are Tune In, Enjoy, Respond.

more finely to what is going on for their child. Tuning in is a skill that will grow over time as parents become more adept at being Intensive Interaction practitioners. Being wonderfully tuned in means you will become more confident about the content and pace of your sessions with your child. Are you challenging your child enough? Are you helping with your child's flexibility and learning? Or are you perhaps inadvertently overwhelming your child with demands, too much language or new content, or too fast a pace? Parent and practitioner skills improve over time as they become increasingly aware of the impact of their own behaviour and body language.

The second of these three main principles is enjoyment. Switch off your phones, put worries, household chores, other expectations and personal agendas out of your mind. Approach your child in the knowledge that this session together is going to be enjoyable for both of you.

Intensive Interaction sessions are usually light-hearted or playful though they can also involve just being with our children if that's what's needed at the time.

The third main principle is responsiveness. Whereas some other programmes focus on 'getting' our children to respond to us, Intensive Interaction parents and practitioners largely respond to their children's behaviours. This ensures that the content is motivating and meaningful to the child and that the pace is right. The child feels listened to and begins to develop a sense of self and self-worth, realising that he or she is important and interesting. Because we are largely following the child's lead, the child learns to initiate, become more involved in and even take control during social situations. There are various ways of responding to our children including joining in, mirroring behaviours, responding vocally (ooo, ah, wow, etc.), responding with facial expressions (a smile, mild surprise, etc.), using a running commentary, responding with language or responding with different but related behaviours. Your choice of response will depend on your child's reaction but remember that your main aim, if you have one, is enjoyment.

The other principles of Intensive Interaction arise from these first three underlying principles. As a result of tuning into the

child and the light-hearted enjoyable approach, parents or practitioners will also tend to go slowly, holding back their language and behaviour and allowing the child to take the lead. Intensive Interaction sessions often have a sense of minimalism although they can also be loud and boisterous. The parent or practitioner needs to be relaxed and unhurried and will greatly limit the number of questions and demands placed on the child. There will be frequent pauses during activities as the parent or practitioner waits for the child to re-start or process and respond. Generally speaking we avoid any urge to drive the activity forward, rather we often allow our children to slowly develop their own ideas and agendas. Intensive Interaction activities are often messy, without a clear beginning, middle or end and they stop when the learner has had enough. Lastly, Intensive Interaction sessions need to be repeated often, as often as your child can manage. It's fine to run other therapies alongside Intensive Interaction but the greater your child's problems with social communication, the more Intensive Interaction they will need.

Natural Development happens via easy engagement, participation or connection

"...where children with autism find it difficult to participate in ordinary everyday engagements involving various aspects of mind...their difficulties highlight what might be involved in more typical development: an easier engagement with other people. Developmental trajectories (like knowledge) seem fundamentally influenced by participation." (Reddy, 2010, p. 42)

Before we began Intensive Interaction, my son Tom did not relate to us socially and did not voluntarily participate in activities with us. His relationships were with his obsessions or 'stims'. Tom's 'friends' were film credits, alphabets, numbers and electronics. He was locked into a world of repetition, constantly relating to these same things again and again and thereby strengthening his attachment to them. Perhaps his behavioural programmes had encouraged these relationships by making them even more desirable as 'rewards' or 'prizes'. At the same time,



Tom spent many years of his young life doing behavioural therapy instead of playing and relating

we humans were becoming less desirable as things to relate to because, instead of being tuned in and enjoyable, we were placing near constant demands on him. Without meaning to we gave the unspoken message "in order to get to your friends the 'stims' you have to first get past us demanding humans." This is not the way human relationships develop for typical infants. In typical development, the unspoken message you give your infant is something like this: "I care for, believe in, enjoy and trust you which will help you to learn to care for, believe in, enjoy and trust me. Via the emerging relationship you will learn about me, yourself, relationships, other humans and the world around you." This is the type of unspoken message we aim to give during Intensive Interaction sessions.

Previously we used rewards or reinforcers in order to 'get' Tom to learn new skills

so, although Tom appeared to be making progress and ticking boxes, he wasn't truly participating or engaging with us or with our learning objectives. In retrospect, his true participation, connection, or, very sadly, growing relationships were with whichever reward we were using at the time. He hadn't volunteered to take part in the learning we were presenting, so he remained outside—outside 'our world', outside us, outside the learning even though he understood it and seemed to assimilate it. To teach him we had to manipulate him with rewards, praise, encouragement and coercion, often rendering the learning meaningless or shallow. Although Tom appeared to be learning new skills, he was actually becoming more autistic in the sense that his relationship with objects was becoming stronger and his relationship with us was becoming weaker.

Nowadays he is fully motivated and fully involved, both with us and with learning that he finds meaningful and important. He has become an active and willing participant, in his relationships with other people, in his own learning and in getting to know the world around him and THAT is why we see him developing more typically.

Passive versus Active Learning

Another way of viewing these ideas is

WHAT CAN I.I. LOOK LIKE?

"I.I. has really helped me to connect with my son. In particular, learning to see behaviours as communication has had a profound effect on him. When I stopped trying to manage behaviours and instead just communicated, he calmed down way more." *Mother of A, who is 15, non-verbal, has severe autism, challenging behaviour and is very clever*

through the labels 'passive learning' and 'active learning'. In a passive learning situation knowledge is transmitted to the learner via formal, instructional, teaching methods. The learner is a passive recipient of the information and the teacher rather than the student decides what is to be learnt and how. In an active learning situation learners are engaged in their own learning. The subject matter is highly motivating and, as a result of being fully active in the learning process, learners are able to construct their own understanding of a concept, issue or experience to fit in with or alter their current understanding. Intensive Interaction is an active learning process (Firth, et al., 2010).

How Intensive Interaction teaches at a more profound level: for example, eye contact.

There are interventions that attempt to address the outward, observable symptoms of autism in a superficial manner. Often the approach to teaching communication skills such as 'eye contact', for example, is to 'get' the child to make eye contact via external commands, praise or reward. Approaches of this kind show little depth of understanding in four very important ways:

(a) In typical development infants do not learn to make eye contact in order to be praised or rewarded so these programmes are teaching a novel and different function



Tom learning how to read and use facial expressions and eye contacts in a more natural way with his cousin, Sam

of eye contact.

(b) The functions of eye contact in typical development are largely ignored by this approach, for example referencing, checking in, making and reading facial expressions, showing and reading cues for humour and turn-taking, sharing of emotions and experiences, or following an eye gaze to share interest or to locate an object, to name just a few. Addressing eye contact in this superficial manner means excluding these children from the very many benefits of eye contacts acquired in a more natural manner.

(c) This approach ignores the reasons behind the impaired eye contact, and the difficulties the person with autism may feel when asked to look into someone's eyes. For example, weak eye muscles may make it difficult for eyes to converge and focus, meaning that peripheral vision may be used to look at us (Bluestone, 2005). Some individuals find looking and listening difficult to do at the same time and may look away

in order to hear us (Bluestone, 2005). Insisting on eye contact may even cause a degree of discomfort and actually make communication more difficult.

(d) These approaches ignore the fact that staring into another person's eyes usually implies great depth of emotion or feeling (for example love, sexual attraction or anger). Some autism programmes encourage this type of prolonged, intense eye contact but typical eye contact also involves a lot of looking away and quick glances. In typical development, knowing how to make eye contact also involves knowing (subconsciously) how long to look for and when to look away.

In typical development, parents do not have teaching objectives or a lesson plan that involves 'eye contact' or even more specific types of eye contact such as 'following an eye gaze to locate an object', nor do they then fill in a graph or tick boxes to show that these skills are now learnt. For

typically-developing children, these 'skills' are acquired in a sort of glorious mess of enjoyable and internally-motivated social interaction, engagement and play. To try to isolate them and teach them consciously is to change their function and to turn them into something else – often something less enjoyable. Intensive Interaction encourages highly motivating and natural acquisition of the various eye contacts and, as happens in typical development, manages to combine exceptionally complex, interwoven development and learning with simple, light-hearted, enjoyable interactions.

Academics

I often meet people who think that academics cannot be learnt through Intensive Interaction. However, during I.I. sessions, the learner and the parent or practitioner are equal partners in the 'conversation' or 'joint activity'. Usually this means the parent or practitioner concedes much of the control to the learner in order

WHAT CAN I.I. LOOK LIKE?

"I think it's hard for people to let go of the idea that constantly pushing children with disabilities to attain certain goals is the best way to "intervene" and help them. In the USA we are a very achievement-oriented culture and I think people are honestly afraid to take a slower, more trusting and child led approach. There is a need on the part of parents to feel they've "done everything they could" to help their child "reach his fullest potential" and so this idea of listening, observing, and letting your child lead YOU is deeply countercultural!"

Mother of M who is 4 and has speech delay but no formal diagnosis

to create this equality but the parent or practitioner also has input. In theory this means that any topic, school subject, teaching point, fact, activity or game can be introduced. In reality, tuning into the learner means that this will always be at just the right level of learning for them and won't go beyond their capabilities or current interests. Nowadays my son Tom explores a range of social and academic

learning as he builds his own understanding of the world around him. A typical Intensive Interaction session for him might involve anything from geography, foreign languages or maths to role-plays, singing, jokes or tickles. Sessions still involve his 'stims'. We have learnt to trust him as a learner and a willing participant with us and he has learnt to trust us as guides and willing participants with him.

Reminders

- **When parents engage** with their typically-developing infants, they unknowingly apply a set of principles.
- **Intensive Interaction principles** are based on parent-infant principles.
- **Because of these principles** Intensive Interaction learners begin to develop social communication skills, play skills and the skills needed for all other learning.
- **The three most important** principles are to tune in, enjoy yourself and be responsive.
- **Applying these principles** means that the content and pace of your interactions will be just right for your child so the learning will be optimal.
- **Children with autism** do not develop as typical children do because of (at least in part) a lack of active participation or engagement with others, with their learning and with the world around them. Intensive Interaction encourages this more typical participation and engagement and therefore a more typical developmental trajectory.
- **Intensive Interaction is** an example of 'active learning'; learners are highly involved in and extremely motivated by the learning.
- **Some autism interventions** isolate skills as a crucial part of the programme. In doing so, they may actually be teaching something else, make the learning more difficult, missing the subtle complexities of learning done in a more natural process and constantly reinforcing the message that learning is not enjoyable.
- **Although we expect** to see our children learning *The Fundamentals of Communication* through their I.I. sessions (see appendix one), there are an infinite number of other possible learning outcomes, including academics.

Inclusion

Whose responsibility?

The mother in this drawing is desperate to communicate with her son who has autism. She feels that if she could just teach him some communication skills everything would be alright. What she doesn't realise is that her son is already trying to communicate with her in ways that she is not tuned into. Before Intensive Interaction Tom was attempting to communicate with me but I lacked the skills to understand him. His poor eye contact, atypical vocalisations, body language, facial expressions and scripts meant that I didn't realise he was 'talking' to me. A lack of volume in his repetitive speech and vocalisations, an inability to face me and direct communication at me meant that I always assumed he was talking to himself. When Tom saw that his attempts to communicate with me failed, I imagine that he became dispirited and less likely to try to communicate with me again.

ILLUSTRATION: EGLE GELAZIUTE-PETRAUSKIENE

Empowering

Communication between two people is interactive, it is two-way. When it breaks down, it breaks down for both participants. We tend to focus on the deficits of the person with a disability and to assume that the communication breakdown is entirely because of the disability. In response we try to 'get' our children to



be better communicators. Instead of tuning into and encouraging their current communications, as we do with typically developing infants, we try to 'teach' our children ways to communicate that we will understand. Imagine doing that with a typical baby! Imagine thinking "I won't laugh, smile or play with you because I have no idea what 'goo goo ga ga' means. I will formally teach you some vocabulary and speech sounds and when you have achieved a certain level, we will communicate." Unintentionally, we may sometimes give the message that our children's communications are

not yet good enough for us to even attempt to laugh and play with them. We inadvertently put the responsibility for any breakdown in communication on our children's shoulders. As adults who don't have a communication disorder it makes a lot more sense for us to accept some of the responsibility for the breakdown in communication and for us to make more adjustments in order to allow communication to take place. People with autism and/or learning disabilities are amongst the most disempowered people in our society. Intensive Interaction is an approach that empowers our children as social communicators and as people who have a right to be listened to and to be included socially.

By facilitating their communication we enable our children. When we become able to include them in the social communications, friendships and family life that they need and have a right



By adjusting our communication style, we socially include our children

to, they begin to understand their own potential and to grow in confidence. In short, experiencing Intensive Interaction gives our children practice at being social communicators. The more practice they get, the better they will become at social interaction. The more we include them, the more practice they get and the better they will become at social communication.

There is little doubt in my mind that Tom knew he was a poor communicator, that he had tried and failed many times to communicate, that he used to observe

good communicators all around him and realise that he was less skilled. I believe that he saw our previous teaching as further evidence that his communication skills were inadequate. Over time he learnt to communicate less as he realised that his attempts would be poorly received or not understood by us.

Not our fault

I emphasise that this was not because I was a poor mother but because Tom's social communication abilities were much less than those of a typically developing infant. Tom had undergone a dramatic loss of skills, development and personality from around 15 months onwards. It is not natural to have to adjust one's interactive style for a child who is going backwards instead of forwards. My maternal instincts, which had previously helped me to play and interact with him, now made me stressed and desperate to help him as I watched him disappear. I was also petrified about his future. Feelings of stress, desperation and fear are not well suited to the sort of light-hearted and accepting interaction that he needed from me. Research suggests that when someone's actions are outside our experience or typical expectations of communicative or 'normal' behaviour, our brains are less likely to register those actions (Catmur, et al., 2007). It is likely that we may fail to recognise our children's

unusual communications as such, or even to register them at all! That means that our natural communication and parenting skills may not be triggered. Of course I realised that things were going wrong and, as a loving mother, I sought advice and read all I could about autism, but I never came across information on the importance of the mother's ability to tune into and enjoy her child's attempts at communication. The advice I received from various sources was the opposite: to create teaching objectives for my son and to 'get' him to do things. As a teacher and an inexperienced mother I followed this advice very enthusiastically indeed. However, not 'listening' to my child's attempts to communicate with me led to a further breakdown in communication. This adversely impacted the development of his communication skills and caused a worsening of some of his autism symptoms.

Who should be trained in Intensive Interaction?

Social inclusion is a basic human right. 'Time out' and 'solitary confinement' are used as punishment because it is understood how painful social separation and rejection can feel. Many people with autism and other communication difficulties have been given a permanent time-out or exclusion from social life by their disability and it is up to us to find ways to counteract this and to make sure our children have

WHAT CAN I.I. LOOK LIKE?

"When my son was diagnosed with autism, I was deeply depressed. I couldn't afford ABA, which turned out to be the best thing for him, so I quit my job and stayed at home with him. He was very distant but my instinct told me to follow him around and stay close to him. I had no idea what I was doing then but I now know it was the right thing to do. I truly believe it helped us both enormously. Now I do I.I. with him and I wish every parent of a child with autism felt they could slow down and just spend time together. It's so beneficial for both of you."

Mother of L who is 8, non-verbal with a diagnosis of autism.

rich, rewarding, social experiences like the rest of us. In an ideal world everyone your child encounters would have had some training in Intensive Interaction: school staff, transport staff, respite workers, grandparents, family friends and neighbours. In reality, of course, this is difficult but the fact remains that the more people we have on board the better it will be for our children.

Reminders

- **Communication** is interactive or two-way. When it breaks down, it breaks down for both or all parties.
- **Adults without communication disorders or who are at an advanced stage of development as communicators should make adjustments to their communication style so that the person with a communication difficulty can be included socially.**
- **Parents are usually desperate to help their children but are often not advised to adjust their communication style in this way.**
- **By adjusting our communication style we both include our children socially and give them practice so that they become better social communicators.**



Nowadays Tom is naturally playful

The vital importance of play

All children play, don't they?

Autism broke my heart in countless ways. One thing that persistently distressed me was Tom's lack of play. I suspected that a happy childhood and play went hand in hand so it was painful to watch Tom's expressionless face engaged in the same obsessive and repetitive activities, hour after hour, day after day. Over the years I spent ridiculous amounts of money on toys 'just in case' I found that one special toy that would somehow launch Tom's play development. I arranged play dates in the vain hope that he would magically begin to interact and play with another child. We taught superficial 'play skills' in the mistaken belief that rewarding him for pushing a car and saying 'brrrr', for



Play is important for brain development, language and communication

example, might miraculously transform into internally-motivated, creative and imaginary playfulness. Nothing worked. More confusing still was that, on two or three occasions, when he was physically well, Tom began to play and in ways that we had never taught or encouraged. This would be short-lived and it would all disappear again. My instinct told me that play was important, that he was really missing out and that he was capable of play, but the same instinct failed to tell me how to help him.

Why is play important?

"Play ... has earned new respect as biologists, neuroscientists, psychologists, and others see that play is indeed serious business and is perhaps equally as important as other basic drives of sleep, rest, and food." (Frost, J.L., 1998, p.2)

We know that play is crucial for any child's

social, emotional, cognitive and physical well-being and an essential part of typical childhood development (Ginsburg, 2007). For children with autism who have difficulty playing, Intensive Interaction sessions are designed to encourage the natural development of internally-motivated and self-directed play. Play allows children to become confident and competent at new skills and to build resilience to face unknown future challenges (Frost, J.L., 1998). The United Nations High Commission for Human Right states that play is the right of every child. (UNHCR, 1990). My son Tom would otherwise have been denied this access to self-directed, internally-motivated play had Intensive Interaction not ensured that this basic human need is regularly met.

Play is important for brain development and is closely associated with the development of language and communication (Frost, 1998; Tamis-Lemonda et al., 2004). When children learn through child-centred or self-directed play rather than via instruction they show much deeper levels of engagement and motivation. In fact, learning outcomes and self-regulation are often greater when an activity is perceived by the child as play rather than as directed learning from an adult (McInnes et al., 2009). Self-directed play is not the same thing as playing alone and playing with an adult is desirable

(Ginsburg, 2007; Tamis-LeMonda et al., 2004). In fact, playing with another person or other people may help to develop important thinking skills (Dunn & Herwig, 1992). For children who have not developed play or communication skills adult involvement is essential.

Sadly many interventions designed to help our children with autism do not acknowledge or understand the importance of child-centred, self-directed play. Frequently autism interventions are prescriptive, adult-centred and non-creative. They fail to acknowledge the child's potential to develop in a more typical manner through self-directed play. If your child's programme or school has neither Intensive Interaction nor self-directed play on the time-table then consider doing some Intensive Interaction yourself at home.

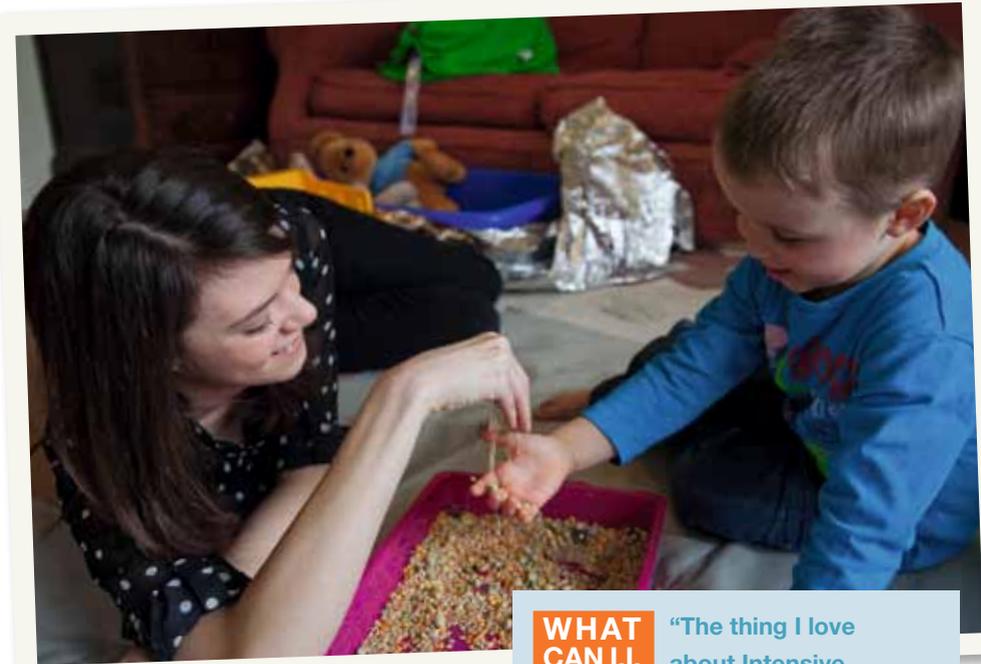
What is play?

Hurwitz (2002/2003) defines play in the following ways: It is a process where the outcome is less important than the process itself. True play must be child-initiated and occurs 'for no other reason than the child wants to do it'. Everything and anything can (and should be allowed by the adult to) happen. Rules, patterns, beginnings and endings, appear and disappear as directed by the child. Content, rules and patterns may be simple

or complex and will be created according to the child's previous knowledge or level of development. Parents need to remember that play, while seemingly a mostly physical activity, primarily involves the child's mind in an active process and can be deeply engaging as the child investigates, explores, enquires, assimilates and understands. Ginsburg (2007) calls play "a simple joy that is a cherished part of childhood."

What play isn't

Adults and children view play differently. Adult definitions of play are likely to include words such as 'games' and 'fun', to exclude the concept of 'playfulness' and to place no importance on whether the activity is adult- or child-led. Children's definitions, on the other hand, are likely to describe play as something that is not imposed on them by an adult and that involves a particular approach or state of mind, i.e. 'playfulness' (Sheridan, 2011, McInnes et al., 2009). It is important that we do not impose our views of play on our children because, in doing so, we might actually change it from play into something else. Likewise, teaching 'play skills' as objectives or using rewards to 'get' children to play will result in something other than the desired free-flowing, child-centred, self-directed, true play. These approaches are unlikely to encourage typical development in terms of play.



WHAT CAN I.I. LOOK LIKE?

"The thing I love about Intensive Interaction is the trusting relationship that it builds between myself and my clients. This secure feeling means I can introduce them to things they might not otherwise try, safe in the knowledge that I won't push them too far." *Anne Barker, I.I. Coordinator, working with families. Seen here with Aled, age 3, who has high functioning autism*

How does Intensive Interaction teach play and how does that help learning?

Early childhood learning (for learners of any age) is both vital and complex. It is so vital and so complex that it can only happen in situations that, as well as being extremely complex, must also be highly motivating. Nature has designed the perfect teaching and learning environment in which to acquire these early skills and we call it 'play'.

"...the most significant learning of a person's life occurs early, it is very complicated learning and it takes places in complex, dynamic situations – such as play." (Hewett, 2006)

Intensive Interaction sessions, like parent-infant interaction sessions, are wonderful, enjoyable, complex, dynamic play sessions that motivate our children to engage, interact and learn essential and

foundational skills. Tuning into and largely following our children's lead ensures that they are not only engaged but that they feel emotionally safe and secure and that there is enough trust in the adult to begin to explore the emotional, social and physical environment.

The adult approaches Intensive Interaction expecting the sessions to be enjoyable. A light-hearted, playful and lightly dramatic approach enables the child to also develop a playful, exploratory attitude and disposition and is the beginning of a more typical developmental trajectory in terms of play, communication and all other learning.

But I don't want to encourage my child's repetitive behaviours!

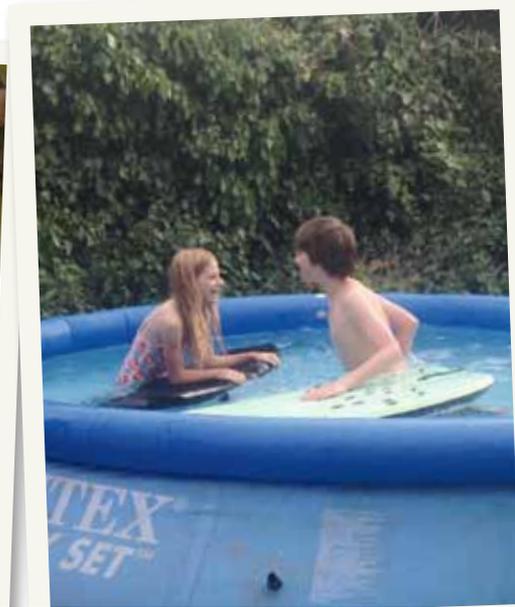
Our children's repetitive, obsessive behaviours do not have all the characteristics and advantages of true play. However they have some of the characteristics of play and are a good starting point in that they are meaningful, interesting and motivating to the children themselves. Responding to these behaviours in an accepting and light-hearted manner shows our children that we are attempting to connect, listen and enjoy time together with them. Although both Intensive Interaction and parent-infant sessions may appear, at first, to be repetitive, careful observations reveal them to be the perfect environment in which to

acquire and practise the most fundamental skills needed by our children to engage more fully in our society. Frequent repetition of activities means that children can use safe and known boundaries to explore and practise new skills, to deepen understanding and to explore and develop at their own pace. In the early days of Intensive Interaction with Tom, we, his parents, began slowly to become a small part of his routines and of the 'relationship' that he had with his repetitive activities, which had the near-immediate effect of ending his isolation. It was powerful to witness.

Intensive Interaction sessions, like typical parent-infant sessions, allow the learner to be fully socially active in the 'conversation' or 'game' that develops. They allow the learner to control the pace, the content, the level of learning and the environment. When everything is going well, our children relax, become playful, enjoy, discover, engage, interact and acquire The Fundamentals of Communication as well as all sorts of other learning outcomes.

Relationships blossom via play

The essential parent-infant relationship is reinforced and developed over time through play: "Children's developmental trajectory is critically mediated by appropriate, affective relationships with loving and consistent caregivers as



WHAT CAN I.I. LOOK LIKE?

"Although my son was never unreachable, he has become even more connected and playful and our relationship has improved dramatically since the inception of I.I. into our lives. A major benefit has been the improvement in the relationship he has with his sisters who now have wonderful moments of shared fun with their brother which is a joy to see. It is genuine and unstructured, just like typical play. I.I. has brought happiness into our interactions once again."

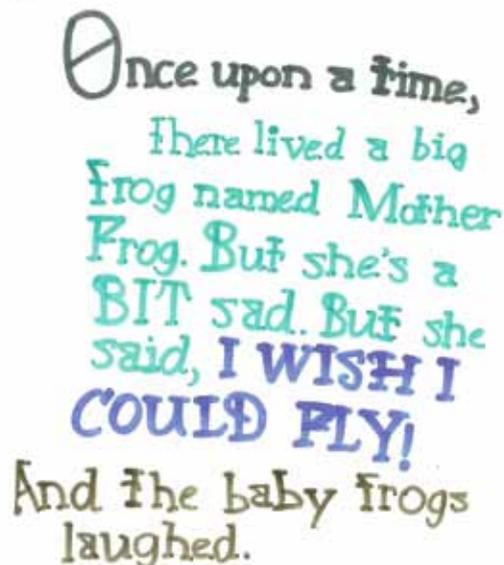
Mother of A who is 11 and has a diagnosis of autism.

they relate to children through play." (Ginsburg, 2007). During play we witness our children creating a world of their own, ideally suited to their needs at that particular moment. Joining them in their play gives us great insight into their personalities, their difficulties and problems, their interests, their strengths, their level of development, their humour, their current emotional state. Ginsburg adds that, by observing and joining our children at play, we parents begin

to see the world as our children see it. Children become aware that their parents are tuning in, paying them full attention and understanding them better which promotes self-esteem, self-awareness and provides a base on which they can build all future enduring relationships. Intensive Interaction allows us to play with our children with autism and play allows our children, including the less verbal ones, to be able to express their views, experiences and frustrations.

Tom's play

Tom's activity choices were very restricted in the early days of our Intensive Interaction sessions with him (mainly film credits, numbers and alphabets) but his interests have expanded greatly in the four years that he's been doing Intensive Interaction. Recent activities entirely of his choice have included ball games, studying globes and maps and talking (in still quite simple language) about his holidays, simple maths, listening to and then recounting or writing stories from CDs, adapting or making his own versions of stories he knows, playing peekaboo in various forms, tying balloons to his arms to see if he can fly, treasure hunts, role-plays, dressing up, cycling, all sorts of trampoline games, climbing trees, learning various foreign languages, assigning roles, acting out and changing what used to be 'scripts' (whole DVD soundtracks that Tom used to repeat to himself) and much more. It is worth mentioning that Tom



Once upon a time,
There lived a big
Frog named Mother
Frog. But she's a
BIT sad. But she
said, I WISH I
COULD FLY!
And the baby frogs
laughed.

Nowadays Tom, completely voluntarily, chooses to write stories, usually based on his Lithuanian cartoons. The English he's using is all his own

still spends time on film credits, numbers and alphabets but these activities have become more sophisticated and much less restricted. Recently, for example, he created an 'Ocean Alphabet' book with beautiful illustrations for each letter.

Can Intensive Interaction promote physical health?

In the early days of Intensive Interaction it puzzled me that my son was doing so well on 'just' an educational programme. Improvements were dramatic. Surely something other than learning new skills had to be taking place for him. Tom had (and still has) long-term medical issues including abdominal pain and other bowel problems, difficulty with sleep, mood swings and headaches. As an Intensive Interaction coordinator who has also seen this approach help many learners with autism to take dramatic steps forward, I wanted to explore the possibility that Intensive Interaction might also be benefiting our children physically.

"Positive emotional states are rewarding and regenerative to the heart, immune system, and hormonal system, while negative emotions drain these same systems." (Chldre & Martin, 1999, p.19)

"Numerous studies have revealed that feeling loved and cared for, along with caring for others around us, actually plays a greater role in increasing our health and longevity than physical factors such as age, blood pressure, cholesterol, or smoking." (Chldre & Martin, 1999, p. 15)

I suspected that the positive emotional

states that Intensive Interaction was encouraging, together with the increasing quality of his relationships with other people, might both have been having a beneficial impact on Tom's physical and medical health so I decided to investigate.

Medically ill children

Science tells us that people with autism are more likely than the rest of the population to suffer from a whole range of medical conditions, including numerous digestive and bowel problems, headaches, migraines, high anxiety (autonomic nervous system dysfunction), immune system problems, epilepsy, allergies, asthma, eczema and more, including premature death (Treating Autism et al., 2014). Obviously medical problems require medical treatments, and the emotional effects of pain or long-term illness require comfort and moral support, but, as with most things in the world of autism, it's not that simple.

Communication breakdown

How do people with (severe) communication difficulties tell us about their medical problems? How do they tell us, for example, that they have abdominal pain or a headache? Do they look us in the eye, point to the affected area and say 'ow'? Sadly this is far from possible for many of our children. Communicating pain can be difficult even for those with more

Reminders

- **Play is crucial** for social, emotional, cognitive and physical well-being and is an essential part of typical childhood development
- **When children perceive** an activity as 'play', learning outcomes are greater.
- **Play allows children** or people who have developmental delay to rehearse *The Fundamentals of Communication*, explore, role-play, learn, develop, create, imagine, review, experiment, rehearse, understand and make sense of experiences and the world around them.
- **Intensive Interaction allows** our children to access a more typical developmental trajectory in terms of play, communication and other learning.

advanced communication skills due to problems such as poor body awareness, sensory difficulties and high pain thresholds. Parents and carers should expect that our children's need for medical attention might be expressed in unusual ways, and we should become tuned into their particular way of communicating pain and discomfort. A consensus report on gastrointestinal problems in autism published in the journal of the American Academy of Pediatrics (AAP), states that: "Care providers should be aware that problem behavior in patients with ASDs may be the primary or sole symptom of the underlying medical condition, including some gastrointestinal disorders." (Buie et al., 2010). The report states that self-injury, aggression, sleep disturbance, irritability, posturing or simple daily tasks and routines being perceived by the child as more aversive than usual can all be symptoms of pain or discomfort.

Misinterpretations

Heartbreakingly, even when we parents do manage to successfully interpret our children's unusual communications of pain or coping strategies as such, we may be faced with medical or other professionals who believe in a range



ILLUSTRATION: EGLE GELAZIUTE-PETRAUSKIENE

of myths about autism. We need to be wary of professionals who, without a thorough medical examination, attribute our children's communications of pain or coping strategies to 'inappropriate' or 'maladaptive' behaviours caused by psychological, emotional or mental health

problems, or who even pass them off as 'just part of the autism'. When a child has communication difficulties, the onus must be on us the parents, carers, medics and other professionals to make absolutely sure that we do not let medical problems go untreated and that we do not allow our children to live in pain or discomfort.

Tuned In

Intensive Interaction parents and practitioners become expert at tuning into our children's moods and thoughts. We do not redirect behaviours because they are 'inappropriate' or 'maladaptive', thus we allow our children to cope or communicate in the ways that they know best. We are well placed to be able to read these signs and symptoms correctly and, therefore, to ensure that we rule out medical conditions and pain before jumping to conclusions about other possible causes. That is not to say that all Intensive Interaction practitioners are currently skilled at tuning into communications of medical problems. Awareness of these medical issues needs to be increased amongst all parents and carers of people with autism.

Psychological effects of Social Isolation versus Social Connection

"In the absence of social interactions, various forms of maladaptive behaviours and illness may be expressed." (Porges, 2011, p.287)

Scientists have long been aware that a lack of social connection can cause mental health problems such as stress, depression, anxiety and a lack of self-confidence. We also know that quality relationships, being social and generally experiencing happy feelings such as those generated by Intensive Interaction will impact positively on our mental health and emotional well-being. Emotional well-being is closely linked to both emotional development and to quality of life. Nind (2012, p.32) explains how Intensive Interaction promotes all three.

"Mutual pleasure in the interactions helps the interactive partners to feel relaxed and secure – to lose themselves in the interaction. It motivates both partners to want to repeat the experience and so sustains an ongoing process of communicative, social and emotional engagement. Thus [the learner] is enabled to achieve states of self-experience (joy, suspense, excitement) as...happens in infants."

Can Social Isolation make you ill?

Scientists have, more recently, begun to uncover evidence that social isolation can also negatively impact on our physical health (Shankar et al., 2011). Interestingly, social isolation does not simply mean having too few people in our lives, or even spending too little time in the company

of others; rather social isolation means a lack of quality relationships and a lack of quality social encounters (Cacioppo & Patrick, 2009). Even people with high functioning autism report having a lack of friends and feeling lonely (Bauminger & Kasari, 2000). Socially isolated or lonely people are more likely to suffer from poor sleep, neuroendocrine problems and inflammation (Steptoe et al., 2004) and other medical problems (Albus, 2010). Sadly, they also take more time to recover from illness (Steptoe & Marmot, 2006). Intensive Interaction is a way of ensuring that our children experience quality social time and build quality social relationships.

Can Social Connection improve your Physical Health?

“The coordinated regulation of social communication and visceral systems helps explain the relationship between positive social experiences and health.” (Porges, 2011, p.288)

Good social connections are essential for our emotional well-being (Diener & Seligman, 2002) and emotional well-being, in turn, contributes to our biological and physical health, in part by boosting our immune system and therefore our resistance to and recovery from disease (Cohen et al., 2006; Steptoe et al., 2007; Howell et al., 2007; Salovey et al., 2000). Laughter and humour, for example, have



Laughter helps improve the immune, neuroendocrine and cardiovascular systems

been shown to bring about improvements in immune function, neuroendocrine and cardiovascular systems (Tugade et al., 2004; Uchino, 2006). Socially connected people recover more rapidly from negative emotions, are happier and have improved cardiovascular health (Ong & Allaire, 2005). Experiencing positive emotions on a daily basis helps to both moderate and build resistance against stress and anxiety (Ong et al., 2006); promotes better sleep (Steptoe et al., 2008); and lowers cortisol (Steptoe & Wardle, 2005). There is some evidence that experiencing positive emotions is an independent predictor of health outcomes and correlates with health-protective biological responses. “It is possible that sustained positive affect leads to reductions in neuroendocrine, autonomic and immune activation through deactivation of the prefrontal-limbic circuits responsible for stress reactivity.” (Steptoe et al., 2009).

Emotional well-being is also associated with reduced death rates (Chida & Steptoe 2008). Inflammatory molecule interleukin-6 is raised in autism and is also indicated as playing a pathological or causative role in autism (Wei et al., 2011). This inflammatory marker is also raised in caregivers who suffer from chronic stress (Kiecolt-Glaser et al., 2003). Having positive social relationships is known to lower levels of Interleukin-6 (Friedman et al., 2007). Good relationships and quality social time are good for both our mental and physical health. How sad that many people with autism, who are already more likely to be suffering with various health problems, are denied the daily pleasures that can improve well-being.

Intensive Interaction

“Mother (and father too) can get ‘in synch’ with the baby, and the pair can act as a unit, sharing rhythms, each regulating the other, or both ‘coregulating’ together. Synchrony or ‘coregulating’ is a whole-body process, affecting everything from brain to hormones to stress response to immune system to digestion. It enriches and coordinates all the senses. It puts the family in a natural state of unconditional

love. It can be as good as it gets...” (Herbert, 2012, p.236)

A loving mother, attuned to her child, communicates a harmonious, coherent heart rhythm. When she responds to her child’s emotions, the child’s neural circuits are positively reinforced and the good news for Intensive Interaction parents is that the brain is plastic and can be re-educated or re-trained for this to happen at any age (Childre & Martin, 1999). Repeatedly experiencing synchrony or coregulation will strengthen these neural circuits and create ‘a pathway to calmness’ and the body learns to regulate the hormones and neurotransmitters for having empathy and being social and happy (Zeedyk, 2012). Presumably then, when our children frequently experience Intensive Interaction-type exchanges, their bodies and minds become trained for empathy, calmness, being social and happy. Child-centred free play is also critical to this kind of brain and body training (Zeedyk, 2012, p.61).

Intensive Interaction parents and practitioners also get ‘in synch’ with the learner. At first this was difficult with Tom

WHAT CAN I.I. LOOK LIKE?

“I.I. is incredible in that it opens things up for both children and adults. I feel it releasing my own sadness.”

Mother of R who is 2 and has autism.

**WHAT
CAN I.I.
LOOK LIKE?**

“Since doing I.I. my son initiates more social play, has begun to interact more with his younger sibling by observing and imitating him, has developed much better voice modulation (sounding like he is talking TO us and not just scripting when he wants to interact), and shows more self-confidence in general. Most of all I feel that he has developed a closer, more trusting relationship with me and also with my husband (his father) who is not even doing I.I.! I really appreciate the principles of it and how they have made life more fulfilling and less anxiety-ridden for all of us.”

Mother of M who is 4, is high-functioning, has speech delay but no formal diagnosis.

and we adjusted our behaviour a lot in order to allow him to be a fully participating member in these exchanges. Nowadays Tom realises that socialising makes him feel better. He is attention seeking and quickly becomes regulated, calm and happy in our company.

Healing Touch

People at an early stage of their development as communicators use touch as a major form of communication. Therefore affectionate, caring or loving touch often forms an important part of Intensive Interaction sessions, as it does in parent-infant interaction. Touch is essential for good physical health. It strengthens our immune system and releases hormones necessary for neural functioning and learning. Without an appropriate amount of affectionate touch we can become ill or even die. (Montagu, 1987; Bailey, 2000; Field, 2003)

Senses working over-time?

“Life is a sensory experience. During every moment of our lives, we experience the world through our varied sensory systems. Sensory experiences drive our behavior and contribute to the organization of our thoughts and emotions.” (Porges, 2011, p.75)

“The problem for people with autism is that although their sensory organs, the eyes, ears and touch sensors, may be working perfectly and feeding in the correct signals, the processing system, the ability to sift and isolate one thing, to relate it to another and to put it in context, may, at best be working intermittently: in some people at the extreme end of the autistic spectrum, it may not be working at all. They live in a chaotic soup of unprocessed stimuli, a condition that is not only confusing and stressful but can also be terrifying and painful.” (Caldwell, 2008, p.16)

All learning happens through the senses and all knowledge is acquired via the senses (Hannaford, 1995). For some children with autism, sensory processing difficulties make the experience of life difficult. A whisper may become a shout, a friendly face or a friendly question might be overwhelmingly unpleasant, an overhead light might cause sensory overload (Herbert, 2012). Sensory processing also involves internal states such as pain, hunger, anxiety or calm, nausea and emotions and as we have already seen, our children are more likely than children who don't have autism, to be anxious and to experience pain or discomfort. Negative sensory experiences will cause our children to disengage socially and with much of the world around them. Likewise, tuning into our children and helping make their sensory experience positive and accessible will promote social engagement and engagement with the world around them (Porges, 2011). Many people with autism report that they spend much of their time trying to regulate their sensory experience

of the environment. For example, one of the functions of repetitive movement might be to gain a better sense of one's own body and where it is in time and space (Herbert, 2012). Intensive Interaction parents tune in and gain an awareness that enables us to help our children to achieve sensory regulation. This, in turn, frees them up to enjoy life, to play, to learn and to make progress. As a bonus, recognising our children's 'behaviours' as communications should boost their own ability to perceive and make sense of sensory input and should eventually also help them to better communicate these experiences with us. On the other hand, seeing such communications as 'maladaptive' 'inappropriate' or 'undesired' behaviours may lead us to block coping skills and communications thus making enjoyment of life, play, learning and progress more difficult.

Intensive Interaction parents modify their own behaviour to allow their children to access social activities and “conversations”

**WHAT
CAN I.I.
LOOK LIKE?**

“Something does seem different with my son. It really does feel like we're heading down the right path. Eye contact has gone through the roof and he's making big progress with his speech. The 'eeee' vocalisations he used to scream every couple of minutes have all but disappeared. This in itself has made a huge difference. Those vocalisations used to drive us nuts!”

Father of E who is 4 and has a diagnosis of autism.

as equal partners. Our children are provided with an accessible social environment and sufficient processing time to allow them to participate and learn.

Processing sensory input requires physical movement (Hannaford, 1995). When sensory processing is difficult, more movement may help. This may partially explain the success of some physical interventions for our children, as well as some of their own choices of activity. Intensive Interaction sessions are free-flowing, going where the child goes, allowing the child to self-regulate and to make use of toys, equipment and activities that may help them (trampolines, bouncy toys, swings, massage, pressure or squeezes, musical instruments or rough-and-tumble play, etc.)

Emotional Care

Typically-developing children are able to seek out comfort when in pain, upset or ill and their parents are usually fortunate enough to be able to comfort them. My son Tom spent many years of his young life unable to seek out comfort at all. I



Rough-and-tumble-play has many benefits.

also know that he spent a lot of that time in pain with chronic and severe digestive problems as well as severe headaches and often I just had to watch him suffer. Under adverse conditions, being comforted helps to calm us and to lower levels of the stress hormone cortisol in our bodies, but the extent to which we are comforted correlates directly with the quality of the relationship we have with the person who is comforting us (Coan, et al., 2006). Science also tells us that people who are in emotionally-supportive relationships have lower levels of biological stress indicators such as cortisol generally (Goleman, 2007, p. 239). It seems that the emotional comfort my son has become able to



Tom spent many years of his young life unable to seek out comfort at all

receive thanks to Intensive Interaction is likely to be benefiting him physically as well as emotionally.

Stress/ High Anxiety

We know that children and adults with autism suffer from abnormally high levels of anxiety (Toichi & Kamio, 2003; Charlot et al., 2008; Daluwatte et al., 2013; Van Steensel et al., 2012) and that the severity of anxiety may correlate with the severity of the autism (Freeth et al., 2013). Many parents report that their child's anxiety is actually more disabling than the autism itself (Ozsivadjian et al., 2012).

Our children with autism suffer from increased anxiety whether or not they have outward symptoms or signs (Ming et al., 2005). So, whether you are aware or not, the chances are your child with autism is often highly anxious. Parents of typically developing children find it difficult to recognise when their child is stressed (Humphrey, J., 1988; Witting, 1999). How much more difficult then, or even impossible, for us parents whose children have difficulty communicating with us?

The problem with long-term stress or anxiety

In an emergency situation, survival becomes a priority, and the Fight-or-Flight response, triggered by the sympathetic nervous system, diverts energy and resources away from slow, non-emergency bodily functions to help us to fight or flee the emergency situation. In people with autism this response is too strong (Cheshire, 2012), it is activated too easily and individuals spend too long in this state. Heightened senses, increased heart

WHAT CAN I.I. LOOK LIKE?

Many parents find that simply lying down and looking relaxed on the floor, settee, or bed, results in the child with autism initiating rough-and-tumble play.

WHAT CAN I.I. LOOK LIKE?

Incidentally, for those parents just starting out with Intensive Interaction, comforting is something that can begin to grow right from the start. As well as using touch to help regulate your child's emotions, Intensive Interaction parents can also use body language, breathing and vocalisations to firstly mirror (and thereby acknowledge) a child's feelings and then, secondly, begin to comfort the child by making our mirrored actions gradually calmer and more positive.

rate and blood pressure, sweating, erratic breathing, and weakened digestion and immune systems make chronic stress bad for our physical as well as emotional or mental health. Under stress, reactions become more impulsive, more limited and more defensive. Thinking becomes foggy to help us avoid feelings of emotional pain or of being overwhelmed. Rational and clear thinking becomes difficult (Mead, 2004-2014). Anxiety can generate aggression, a lack of cooperation, temper tantrums, or can cause some children to become withdrawn or 'spaced out'. (Goleman, 1997). Stress can lead to feelings of helplessness, despair and further anxiety. Stress lowers levels of the neurotransmitter serotonin which can lead to aggression, OCD and depression. Stress can cause either an overproduction of dopamine resulting in anxiety and hypervigilance or an underproduction of dopamine which can make a person withdraw, tune out and become inattentive and unmotivated (Tennant, V., 2005). Everyday living, learning and development become difficult. Stress, whether or not it has a physical cause, will take an emotional toll on the child and intervention at an emotional level is essential.

Rest-and-Digest

In a healthy body, when an emergency situation passes, the parasympathetic nervous system responds to restore the

body to a state of what is often called rest-and-digest. Bodily functions such as breathing and heart-rate are slowed down and this allows us to do the slow things that our children with autism often struggle so much with: socialising, playing, digesting their food, learning, healing, exploring, experimenting, discovering, creating, paying attention, thinking clearly and on a higher level. In people with autism the response of the parasympathetic nervous system is weak (Cheshire, 2012), and we need to find ways to strengthen it.

Anxious Tom

If only I had known all this when my son Tom was little! Tom did have signs and symptoms of high anxiety but I was unable to read them: huge pupils, poor temperature control, not sociable, difficulty with natural learning, not relaxed and playful, 'stimmy', 'spaced out', sensory sensitivities, digestion and bowel problems, difficulty with sleep, unusual breathing and his heart was often pounding away in his little chest. As he grew older he developed mood swings and aggression. If only a professional had encouraged me to use Intensive Interaction skills (or reassured me that I could rely on my natural parenting instinct) to stay in tune with my child and know that I was doing my best to decrease his anxiety. I wish I had known that, by tuning into my child and attempting to enjoy his company, I would have been



Good social relationships reduce the activity of the sympathetic nervous system and increase the activity of the parasympathetic nervous system

helping him to both relax and learn. What was happening to Tom's body while I was unintentionally ignoring his anxiety?

"... stress can trigger inflammation, in the brain and in the whole body. ... These in turn set off a cascade of responses that suppress the immune system and increase inflammation over time. If stress persists and becomes chronic, the inflammation becomes harder to quiet down." (Herbert, 2012, p.128).

Can Intensive Interaction strengthen the rest-and-digest response?

"Mummy changed!"

I hadn't realised the stress Tom was under before Intensive Interaction. I had been misinterpreting the symptoms of his anxiety as 'just autism' or 'just Tom'. But Tom's apparent 'autism' or 'personality' changed when we changed.

Dropping the demands of his adult-led programmes removed a huge burden from his little shoulders and he visibly relaxed. He stopped asking constantly to go outdoors which made us realise, with shame, that we had always made fewer demands on him when we were out and about. By using I.I., we were ending his social isolation and slowly, slowly he was choosing to be closer to us. Within days of beginning Intensive Interaction, Tom felt it so important to communicate to us that we were doing the right thing for him, that he somehow managed to find words (way above his normal level of expressive language ability) to explain his feelings: "yes, joining, yes, do it, do it," he smiled at me. In the early days of I.I., after a particularly wonderful bedtime when I had been making an extra effort to follow I.I. principles with Tom, he lay back on the pillow, looked me in the eyes and said, "Mummy changed." We were both equally delighted with the change in one another.

Through Intensive Interaction sessions, children and adults visibly spend longer and longer periods of time in rest and digest mode. Research by Childre & Martin (1999) found that good social relationships actually reduce the activity of the sympathetic nervous system and increase the activity of the parasympathetic nervous system, thereby strengthening it, and positive feelings produce a harmonious,

coherent heart pattern. Coherent heart rhythms, in turn, produce coherent brain waves that allow the brain to optimally receive and make sense of incoming information.

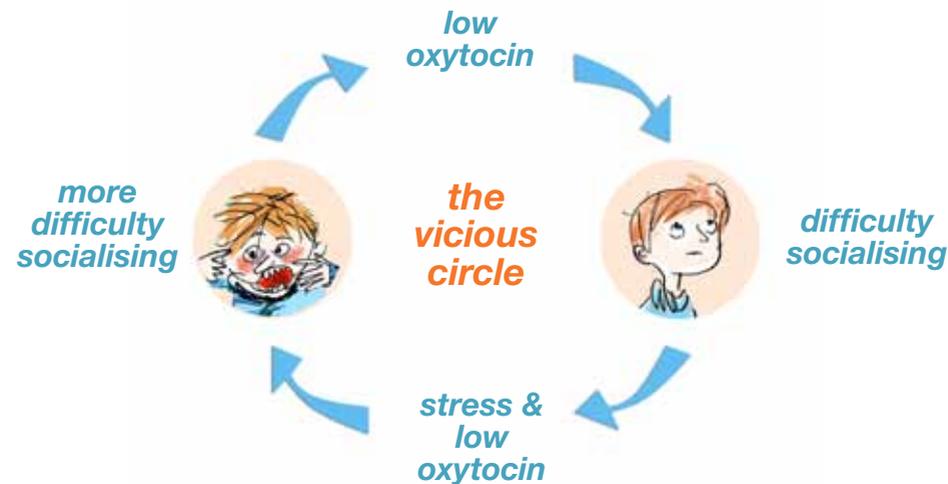
It seems likely that frequently experiencing Intensive Interaction will weaken the fight-or-flight response, strengthen the rest-and-digest response, increase happiness, increase physical health and increase the potential of the brain.

Oxytocin

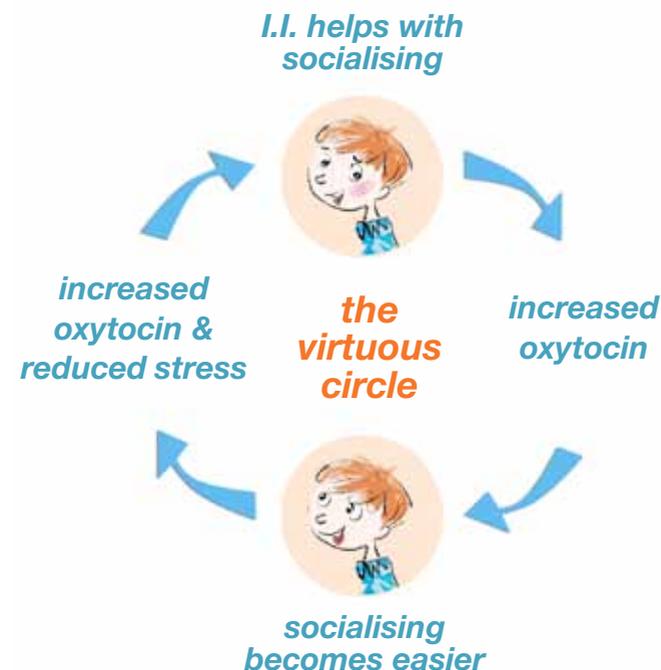
People with autism are likely to have low levels of the hormone oxytocin (Kirsch & Meyer-Lindenberg, 2010). Oxytocin is crucial in some of the core areas our children struggle with, such as socialising and making friends. Oxytocin has the power to de-stress and relax us into a state of rest-and-digest, necessary for relaxation, learning, digestion, socialising and development. Affectionate, warm

touch, which is a part of Intensive Interaction, has the power to soothe and calm precisely because it releases oxytocin (Goleman, 2007).

Without sufficient oxytocin we are unable to perceive our environment as safe, making it difficult or impossible for us to reach a state of rest-and-digest. The body needs oxytocin in order to relax and socialise but, in turn, socialising increases oxytocin in the body (Porges, 2011). Thus we probably have a chicken and egg situation for our children with autism: insufficient oxytocin makes it difficult to socialise and a lack of social interaction will result in insufficient oxytocin. Intensive Interaction allows our children to socialise, despite their difficulties and, in doing so, presumably increases the presence of oxytocin in their bodies. In one study, oxytocin-deficient mice, like our children with autism, were shown to have disrupted autonomic nervous systems



Both the vicious and the virtuous circle can make incremental daily changes to quality of life



ILLUSTRATIONS: EGLE GELAZIUTE-PETRAUSKIENE

WHAT CAN I.I. LOOK LIKE?

"This evening I was able to leave my son in the garden, playing with his brother and another child D, while I did the washing up. Such a small, everyday thing for a typical family but huge for us. I could hear him asking for chasing and tickling games and when I sneaked to the door to watch, I could see him pointing to D and absolutely demanding his attention, referencing faces and responding to their suggestions and requests. It felt so normal! This has all come about through I.I. giving my son the confidence to initiate play, not just with trusted adults, but also with other kids."

Mother of H who is 11 and has autism and learning difficulties

and an impaired ability to cope with stress (Michellini et al., 2003). Intensive Interaction is a way of creating a virtuous circle that improves quality of life in many ways. Oxytocin helps build the strong emotional bonds needed for good relationships



Tom and his Grandma

and friendships. We know that the natural parent-infant interactions that Intensive Interaction is based on produce an increase in oxytocin in the bodies of both the parent and the infant (Goleman, 2007). It seems credible, therefore, that Intensive Interaction learners and their practitioners produce more oxytocin during an Intensive Interaction session and it would be interesting to see future research into the oxytocin levels of Intensive Interaction learners.

Nothing I have read in my research or experienced as a parent leads me to believe that serious health issues can be resolved solely using Intensive Interaction. What is clear to me is that for all human beings we can learn better and live better when we feel better. I.I. can make everyone involved feel better and can play a fundamental role in the journey towards a healthier, more productive, more socially engaged life.

WHAT CAN I.I. LOOK LIKE?

G's parents invited me to work with him in his home. G is 7, has autism and is non-verbal. I found him sitting in a corner of the garden facing the fence. I sat behind him. I noticed that he was picking up sticks, passing them in front of his eyes, squinting, then looking at them out of the corners of his eyes and finally, throwing them into the bushes. I began to pass him sticks. He accepted them and before long was showing me exactly where I was to find the next stick. I began to respond to his vocalisations which became louder as a result. G leant into me, he never looked into my eyes but I knew we had made a connection.

Reminders

- **People with autism** are more likely than the rest of the population to suffer from medical conditions involving the gut, inflammation, autoimmune issues and other comorbidities.
- **Due to communication difficulties** people with autism are unlikely to be able to communicate pain or discomfort clearly. Parents and carers should ensure that medical problems are ruled out in the case of problem behaviours such as self-injury, aggression, sleep disturbance, irritability, posturing or negative changes in behaviour.
- **Medical problems** should be ruled out before other conclusions are jumped to and behaviours labelled as 'maladaptive', as having 'emotional, psychological or mental health causes' or as 'just part of the autism'.
- I.I. practitioners and parents, **once made aware of the medical problems common in ASD**, are in a good position to be able to tune in and help identify symptoms, signs and possibly even causes.
- **Social connection** is good for our mental as well as physical health.
- **Social connection** refers to quality relationships and quality social time such as I.I. can provide for our children.
- **Social isolation** is bad for our physical as well as our mental health.
- **Someone with autism** may be socially isolated even when surrounded by people.
- **Parent-infant interaction** and presumably Intensive Interaction provide whole body synchrony and regulation.
- **Frequently experiencing** this kind of synchrony (re)trains the mind and body to be healthy.
- **Being comforted** by someone with whom we have a good relationship lowers cortisol and calms us. I.I. encourages this.
- **I.I. encourages** affectionate and healing touch—essential for good health.
- **People with autism** suffer from chronic stress or anxiety which is bad for their physical and emotional health.
- **People with ASD** have a weak rest-or-digest response, making it difficult for them to do many of the things we relate to the core deficits of autism: relax, digest, learn, play, socialise and heal. I.I. sessions may help to strengthen this response.
- **A lack of oxytocin** in autism may make it difficult to socialise. I.I. makes socialising easier and possibly increases oxytocin production.

Getting started with Intensive Interaction

Changing Attitudes

Tom's behavioural and adult-led programmes had left me with a certain mindset that had to change! In order to become a good Intensive Interaction practitioner, I had to go through some quite substantial transformations in terms of my attitude towards Tom and his autism. I would like to share some of those transformations.

Before I.I., I very much disliked Tom's repetitive, obsessive activities or 'stims'. I felt that they were a barrier that prevented me from reaching him. I mistakenly believed that if only I could get him to stop 'stimming' he would begin to play and interact with me. Intensive Interaction has shown me that, rather than being my enemy, Tom's 'stims' were actually the key to reaching him. As soon as I began

to accept them and to join him or respond to him in his choice of activity I opened the door and he started to become reachable and sociable. His 'stims' went from being something that stole my son away to something that gave him back to me. Furthermore, as soon as I joined him, his 'stims' stopped being something that isolated him and, slowly, they transformed into joint or social activities. As he became more social and, as we became a growing part of the 'stims', so the activities expanded and began to vary from session to session. In the early days they remained quite repetitive and 'samey' while he was practising The Fundamentals of Communication and learning how to become 'playful', but, as he became more communicative, more sociable and more flexible, he was able to apply creativity, playfulness and imagination to them and they transformed into a springboard for a whole host of learning and growing opportunities.



Once I had acquired more advanced communication skills, Tom's development and interaction began to take off!

I had previously labelled Tom as 'distant', 'unreachable' and 'lacking in communication skills'. Slowly it dawned on me that I was part of the problem and, therefore the solution: I was also distant and unreachable for him and I definitely lacked the necessary communication skills to interact socially with my son. By adjusting my behaviour and communication style, I became accessible and understandable, and the communication between us took off!

Although I understood the concept of 'emergent outcomes', I remember being truly amazed when I actually witnessed the amount of learning that Tom achieved once we had removed goals and objectives. Intensive Interaction doesn't have objectives and a curriculum as such so learning outcomes are emergent, meaning

that when everything in the learning environment is right for our children, they blossom and develop, much as typical children do. I now believe that the targets we used to have in place for Tom may have been blocking this natural learning. Once we tuned into him, took notice of his interests and learning style, interacted and played with him, he became motivated to learn in depth, widely, naturally and quickly.

My instinct told me that play was important but, before I.I., I hadn't truly grasped the extent to which a child learns through internally-motivated free play shared with an adult. I also hadn't realised that 'play' and 'playfulness' begin to develop in the early, light-hearted parent-infant interactions that I.I. is based on.

Before Intensive Interaction I had no real idea of my own importance in Tom's development. I saw that Tom had autism so I believed Tom required the treatments, the attention, the interventions. Now that I understand that learning happens through light-hearted social connection, I take much better care of myself, both mentally and physically. I feel so much better and Tom reaps the benefits. Intensive Interaction has not only given me my son back, it's given me myself back too!

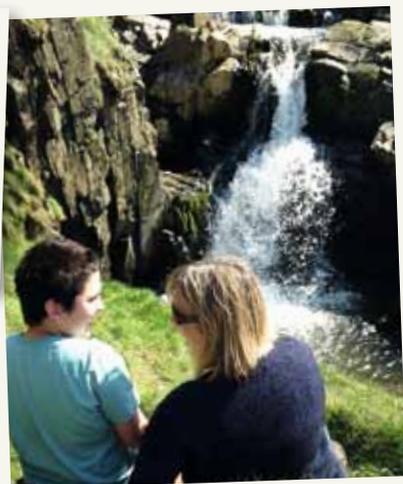
WHAT CAN I.I. LOOK LIKE?

"For me, Intensive Interaction is not only the most natural and instinctive way of behaving with your child, but it is also totally without pressure. So often when you're with your child you can find yourself worrying that you need to be doing something to help, so you try to make every moment edifying. Intensive Interaction doesn't have that agenda. Instead, the focus is to actually enjoy the present moment with your child with the sole intention of wanting to enjoy their company."

Mother of daughter L, who is 6 and has autism and son J, who is 5 and has a communication delay but no diagnosis

Training

There are several ways to access Intensive Interaction. Depending on your learning style you could just 'have a go' first and then read up and reflect later, if you are the kind of person who learns through doing. Some people prefer to have a deeper understanding of what it's all about before starting out. There are DVDs and many books available to help you on your journey, mostly available at the Intensive Interaction website shop: <http://www.intensiveinteraction.co.uk/shop/>. You could attend a one day workshop given by Dave Hewett, details available on his website www.davehewett.com. There are also some useful training videos on Dave Hewett's Youtube channel: <https://www.youtube.com/user/III209> or you could find out, via Dave Hewett's secretary, if there is an Intensive Interaction coordinator available in your area who could come and train you in your home: <http://davehewett.com/contact/>. There are regional support groups around the U.K. where you can share tips,



"We did I.I. next to this waterfall. Henry was lit up and saying "Wow!" repeatedly to me." (Sue, mother of Henry, age 11, who has autism and learning difficulties)

good practice, ask questions, get support, etc. Upcoming meetings are advertised on the Intensive Interaction website: www.intensiveinteraction.co.uk/regional-networks. You can subscribe to the I.I. newsletter here <http://intensiveinteraction.co.uk/blog/leeds-ii-newsletters/>. There is a Facebook group "Intensive Interaction users" <https://www.facebook.com/groups/13657123715/> and another that I run specifically for parents "Intensive Interaction for parents" <https://www.facebook.com/groups/>

WHAT CAN I.I. LOOK LIKE?

"I had to take a big leap of faith for my son after years of ABA. I didn't allow myself to view ABA as wasted years—my son had all those skills to bring to our I.I. approach. But I.I. has provided the social context to those skills. Since I.I. we have spontaneity and my son has the language of someone who knows who he is. I.I. is therapeutic for both parent and child." *Mother of C who is 11 and has moderate autism.*

IntensiveInteractionForParents/. Please join us!

Practicalities

Intensive Interaction is flexible! You don't need a special room—it can be done almost anywhere! No equipment or extra resources are necessary although these can be used if they suit your child. There is no need to find a quiet space unless that is what suits your child. Some people report that a (noisy) swimming pool, for example, is a good place to do I.I. with their child. Often it helps to find somewhere quiet to begin with and then, as the child acquires more skills this becomes less necessary. There is no set way for your child to receive

Intensive Interaction. I happen to run a full-time Intensive Interaction home-based programme for my son and receive funds from the Local Educational Authority. I train and pay a team of practitioners to work with him—and he doesn't go to school. But mine is just one possible set-up. Some people are lucky enough to be able to send their child to a school that offers good quality Intensive Interaction, while they also do Intensive Interaction at home. There are also speech and language therapists, Portage workers, nurses and other professionals trained in Intensive Interaction who may be available to work with you or your child. Sometimes parents train up family members, neighbours or transport workers to ensure their child

WHAT CAN I.I. LOOK LIKE?

We began using the II approach alongside another child-led therapy with my son 13 years ago now! Our son began life quite 'normally' and then regressed into autism at 21 months. When we began our programme we had no eye contact, no speech or communication. Within weeks he began to engage with us and we've never stopped since. We still have his 'therapy' room which doubles as a home ed room but our II is 24:7 and it's used by all those who live and work with him. It has been the most effective tool we have used. We have introduced an eclectic mix of approaches into his programme now but II still forms the cornerstone of our approach. Our son is described as the happiest young man everyone meets. He has moderate to severe learning difficulties but has speech now and communicates with us all the time. We have no anxiety and no challenging behaviour whatsoever because we accept him 100% for who he is and have total respect for him. We still have three of the original people working with us who have worked with him since he was 3. Best thing we ever did and always will be! *Mother of C who is 16 and has autism and learning difficulties*

gets sufficient I.I. There are families who have trained their child's teaching assistant in a school that doesn't otherwise do Intensive Interaction. In the U.K., some families train respite workers who are paid via Direct Payments www.gov.uk/apply-direct-payments. For your own particular set-up, follow your instinct and stay in charge of what's happening for your child, you, your family and your circumstances so that you do what suits you best.

Other Interventions

There is no need to drop other programmes and therapies when you start Intensive Interaction. Some families run I.I. alongside other home programmes and this works well for them. Because of the different attitudes involved, it may be best to have different people running different programmes (though not everyone does it this way). I.I. builds relationships so it's probably the best one for parents to get involved in. It may be difficult to decide how much Intensive Interaction your child needs and how to balance that with another programme. Remember that Intensive Interaction

teaches the first learning, the learning that is learnt very early on for typically developing children, before many of the skills that we teach on other autism programmes. For a more typical developmental trajectory it's important that your child acquires skills in a natural order. As a rule of thumb, if your child is at an early stage of development as a communicator or in terms of play, then some Intensive Interaction is advisable. Likewise, the earlier stage of development he or she is at, the more Intensive Interaction will be beneficial. Some children with autism, like my son, will benefit from many hours of Intensive Interaction per day. Many hours may be too much for parents to deliver alone and getting other people involved is a very good idea.

Whatever happens, don't let the idea that your programme may be imperfect stop you—development, learning, growth, happiness: none of these require perfection. Do what you can. Train who you can. Learn as you go. You will see that your programme will grow and change just as you and your child do.

The Fundamentals of Communication

- *enjoying being with another person*
- *developing the ability to attend to that person*
- *concentration and attention span*
- *learning to do sequences of activity with a person*
- *taking turns in exchanges of behaviour*
- *sharing personal space*
- *learning to regulate and control arousal levels*
- *using and understanding eye contacts*
- *using and understanding facial expressions*
- *using and understanding physical contacts*
- *using and understanding other non-verbal communications*
- *vocalising and using vocalisations meaningfully (including speech)*
- *emotional understandings and outcomes*

The Principles of Intensive Interaction

- *The parent 'tunes-in'*
- *There is mutual enjoyment (quality one-to-one time)*
- *The parent is responsive. (There are many ways of responding, but imitation/copying/joining-in are frequently seen)*
- *Mostly, the parent holds back and waits for the learner to do things*
- *The parent is relaxed and unhurried*
- *The parent constructs the content and flow of the activity by responding to what the learner does*
- *There is lots of watching & waiting, & PAUSES!!!!*
- *It stops when the learner has had enough*

WHAT CAN I.I. LOOK LIKE?

Our first attempts at I.I. with Tom consisted of us copying the film credits that he continually and repetitively wrote out. He hated it! His film credits were beautiful and artistic. Ours weren't! Running commentary on what he was writing or the colours he was choosing didn't work either because our words overwhelmed him. We learnt to comment with sounds like, "ooo", "ah", "wow". Tom liked it. We had found a way in.

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Appendix 1

Papers on the efficacy of Intensive Interaction

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