

WHY VERVE PLACES PARENTS AT THE HEART

'Part of being a human is to be dependent upon another human' (Siegel 2013¹). In early life when we are highly vulnerable we need a key other person/s (**attachments**) to provide a feeling of calmness and safety (Bowlby '69², Ainsworth 78³) from which we can experiment and explore with whatever we want to – both with them and then increasingly in their absence. For most of us the first key *attachment figures in our lives are our **parents**.

It is with these key people that we learn how to communicate and learn. We do so through trial, feedback and fun. Tiny babies provide signals, and watch for and read signals. There is a two way sharing of control between children and parents (neither one of us dominates), interaction flowing back and forth between us (Gerhardt 2009⁴) and a Rhythm (Bateson '71⁵, Trevarthen '89⁶) which is based on **watching** each other, **copying** each others actions, **taking turns** and **playing with and using sound**. We see and copy each (mirror) others behaviours **without even knowing** it (Schoore 2001⁷). It is below the level of consciousness. Reading each others signals provides us with a clear framework on which we then pin words and language. Learning and communication are not separate skills and are completely dependent on each other..

These sites have some excellent explanations of the role of attachment and how parents and babies learn from one another.

<http://www.your-baby.org.uk/early-interactions>

<https://www.psychologistworld.com/developmental/attachment-theory.php>,

BEING CALM AND PULLING SKILLS TOGETHER

Siegel (2015) describes how from birth (and before) we need to draw together all our developing skills in to an **organised** smooth running system (Neural integration). He explains how complicated this is (particularly in the early years) and why **significant relationships** are essential in establishing, steadying and **regulating** our ability to organize ourselves. Through these key relationships we learn to **self-regulate** become calm, organize our own bodies and abilities and become flexible in order to respond adaptively to things going on outside of ourselves.

Self - regulation underpins attention control, impulse regulation, information processing and planning and emotional and social intelligence (Goleman 1996).

¹ Siegel.D, (2015) – The Developing Mind: How Relationships and the Brain Interact to Shape who we are. Guildford Press.

² Bowlby, J. (1969), Attachment and loss, Vol. 1: Attachment. New York: Basic Books.

³ Ainsworth (1973)- The development of infant-mother attachment. In B.M Caldwell & H.M Ricciuti (Eds) Review of child development research 3 (pp1-94) New York: Russell Sage Foundation

⁴ Gerhardt- (2004) Why Love matters – how affection shapes a babies brain , Routledge

⁵ Bateson, M. C. (1971). The interpersonal context of infant vocalization. Quarterly Progress Report of the Research Laboratory of Electronics, 100, 170–176.

⁶ Trevarthen C & Aitken J (2001)- Infant Intersubjectivity: Research, Theory, and Clinical Applications, J. Child Psychol. Psychiatry. Vol. 42, No. 1, pp. 3–48, 2001 Cambridge University Press 9 2001 Association for Child Psychology and Psychiatry

⁷ Schoore AN (2001). The effects of a secure attachment relationship on right brain development, affect regulation, and infant mental health. Infant Mental Health J. 2001;22: 7– 66

For an introduction to Siegel's work see <https://youtu.be/LiyaSr5aeho>
For social emotional and social intelligence see Golemans⁸ work - <https://youtu.be/twJLI2C6R-Y>

BALANCE – A STEADY FOUNDATION FOR LEARNING. HOW DOES THE FACE HELP?

Porges (2015⁹) identifies just how significant **the face** is in developing self regulation and physical and emotional wellbeing.

The Vagus Nerve (and the central Nervous system) is responsible for the smooth balance of all of our functioning. It runs back and forth between the brain internal and external organs and between all of our senses. Our sixth sense (in addition to smell, touch, taste, hearing and sight) monitors our internal states i.e. thoughts and emotions and bodily processes e.g, heart ,stomach, liver and other organs. When we are newly born this sixth sense drives and preoccupies our behaviour (need for sleep, food, water, and warmth).

In the early stages of life we need to focus on internal equilibrium. Before we can fully engage and build up our engagement and responses to our external senses and the outside world, we need to be able to focus and calm/ balance our internal system. Our sixth sense decides which part of our system needs the most attention at any given time e.g. fever, emotional distress, aerobic exercise and keeps balance, adapting and feeding energy to the bit that needs it.

At this stage we are completely dependent on our parents to manage everything external for us (we focus on the inside, they protect us on the outside). We can rely on them to protect and support us from any external threat and we are highly tuned in to any signals they may give that implies threat.

To hear Porges - https://youtu.be/SRTkkYjQ_HU

SAFE SPACE AND FACE:

The kinetic energy (the energy that bounces off our bodies) of our parents, their touch, warmth and physical nearness provides a protective bubble. When we are in close proximity (the listening space) their bodies when relaxed let us know that we are safe. We can see (even if we do not appear to be looking directly at them) when they are relaxed.

It is the movement of their 'face and limbs' (Porges 2015) which shows and influences whether we sense any 'risk' and we are wired to 'alert' to any sense of danger. If we see the slightest concern or fear in our parents face (which leads to tension in their body) we will immediately go in to an 'alert' state and 'fight, flight or freeze (a natural protective reaction). When we are in this 'state' of tension we are unable to absorb anything else. We need support in self regulating out of our shut down.

Porges clarifies just why the Vagus nerve is so significant in our ability to self regulate: The Vagus Nerve connects the neural structures involved in social and

⁸ Goleman D (1996) Emotional intelligence:Why it can matter more than IQ. Bloomsbury

⁹ Porges S (2011) : The Polyvagal theory:Neurophysiological foundations of emotions, attachment, communication and self-regulation. Norton

emotional behaviours and connects the brain with the eyes (e.g. looking), facial muscles (e.g. emotional expressions), middle ear muscles (e.g. extracting human voice from background noise), muscles involved in eating, Muscles involved in voice and head-turning muscles (e.g. social gesture and orientation).

When we look at a relaxed or encouraging face we **relax**, modulate our middle ear muscles to **tune in to human voice** (and screen out background noise), **'mirror'** (copy) what the other person is doing and focus on **what is being said** and **how to say it**. We mirror one another (without knowing) and as our own face copies the other persons face the Vagus nerve directly feeds back to the brain and triggers our emotions, reactions and heart rate. A relaxed face automatically causes the other persons **face to relax and a relaxed face** leads to a **relaxed heart rate**. A tense face leads to increased heart rate. When we are relaxed we can pay attention to the information on the other persons face, watch the impact of what we say or do and tune in to what they have to add. When we are tense we shutdown ready to protect ourselves.

Interestingly clear evidence e.g. Schore (2001) shows the impact that facial expressions have on **hormone release** and how we are feeling. When a baby sees a mother smiling (and vice versa) beta-endorphin and dopamine (feel good hormones which lead to relaxation) are released. Negative facial expressions and negative communication trigger the stress hormone cortisol (stress hormone) which affects the babies internal harmony. Similarly eye contact triggers a chemical centre in the frontal lobe of the brain that triggers an opiate reaction i.e. immediate rush of feel good factor (Strathearn & Fonagy, 2009¹⁰).

MAGNETISING CALM

When relaxed and feeling confident the adult **naturally manages** the state of the baby. For example the baby shows a wobbly bottom lip and the parent **momentarily** mirrors what they see i.e. wobbles their bottom lip. This shows the baby that the parent feels and understands their sadness. Then the adult relaxes their own face and body. This shows the baby that all is ok. The adult reassures the baby through body language. The baby mirrors and is 'magnetised' in to feeling calm. When the adult 'mirrors' (e.g wobbles their lip in the same way as the baby) it is known as attunement. Magnetising the baby in to a calm state is known as purposeful Misattunement (Stern 1995¹¹). It is purposeful because having shown we understand why the baby is upset (and empathised with a wobbly lip) and then purposefully magnetised the child away from their anxious state. The baby becomes calm. **No words** are necessary. Having experienced how to become calm the child becomes more and more able to do so on their own.

As adults our own Vagus nerve remains highly sensitive and tuned in to the signals on other people's faces. We are wired to mirror. If our child looks anxious we will be automatically pulled (usually without knowing) towards 'mirroring' their behaviour (emotion) and may look anxious ourselves (if we haven't then purposefully misattuned). They now see our anxious face and automatically

¹⁰ Strathearn L, Fonagy P, Amico J, Montague PR (2009) Adult Attachment Predicts Maternal Brain and Oxytocin Response to Infant Cues. *Neuropsychopharmacology*.

¹¹ Stern D (1977, 2002) The first relationship, Infant and Mother, Harvard University Press.

mirror and feel more anxious. Our negative feelings bounce off each other and escalate.

A child cannot manage this in them selves. The responsibility to support regulation falls on us - the adult.

Children and babies not only observe faces to check that they are safe from danger but also to help them manage their inner state of **excitement/arousal**. Everything in life is new and exciting, which has the potential to put the child in a **permanent state of arousal** (whether it be excitement or anxiety). This is exhausting and cannot go on for long. Children need time to calm themselves. When doing something new, parents help the child to manage this state of arousal (**self regulate**) by **mirroring and purposefully misattuning**. The parent sees and mirrors the excited/aroused face momentarily and then purposefully misattunes showing a calm reassuring facial expression. The child mirrors this and calms through their excitement in order to absorb the new experience. With each experience of regulation by the parent the baby/child becomes more and more adept at regulating themselves both in the same situations, in the future and in new situations.

THE IMPORTANCE OF SILENCE

Interaction itself is frequently over-stimulating. When a baby and parent are relaxed and there is no threat the baby and parent engage in a synchrony of interaction that goes back and forth between them. The **baby can only take on short bursts** at a time before they are **overloaded**. They need time of **no stimulation**. They manage the adults input by **looking away** and taking 'time out episodes' in which they self-regulate and absorb what they have seen and heard. When they **look away** the **adult stops** speaking, the child regulates and when they are calm and ready to take on more - they look back at the adult (Stern 2002, Banks 2011¹²). These silences are essential to the child's ability to learn. Looking away from the adult is a clear signal for the adult to stop. Looking at the adult shows when the child is ready. When the child is ready and looking at the safe face of the adult, they are tuned in to human voice. When the child is doing something else and not looking, they are tuned out. They need peace to concentrate.

When children are developing language they use their own 'private speech' (Vgotsky 1997¹³) in which to think things through out loud, silence offers them the opportunity to do this without adult interference. If they are not looking at the adult but are talking – they are practicing private speech.

FACE WATCHING FOR SPEECH and UNDERSTANDING:

Being regulated, relaxed and tuned in to of another persons face helps the speaker and the listener to observe ((Stackhouse and Wells, 1997 ¹⁴) and read all

¹² Banks, A. (2011) The mythic reality of the autonomous individual: Developing the capacity to connect. *Zygon*, 46(1).

¹³ Vgotsky *The history of the development of higher mental functions*, (pp. 1–26). New York: Plenum. (Original work published 1960)

¹⁴ Stackhouse and Wells (1997) *Children's speech and literacy difficulties: A psycholinguistic framework*. Wiley

the significant parts of a language e.g. melody, syllables, the way the mouth makes sounds at the moment the sound is made and the tiny distinctions between each sound within words e.g. 'fish' and 'dish'. Seeing the word on another's face helps us to memorise, sequence and store words. We then programme our mouth muscles to make words and then say them. As we speak we feel (and feedback to our brain) how the words are made whilst watching the other persons face to see if we have been understood.

DEVELOPING VOCABULARY, SENTENCE STRUCTURES and CLARITY OF SPEECH through face watching:

Parents naturally develop children's language through recasting and extending their child's utterances. A recast, as described by Saxton (2005¹⁵), is where a more experienced speaker responds to what a child says or does by giving a word, expanding, deleting, or changing their utterances while maintaining the meaning. This helps the child to develop their own skills and to hear how close their word or sentence is to the 'grown up' one. This often leads to a re-attempt with success the next time. The adult naturally supports the element that is currently vulnerable, e.g., stressing difficult speech sounds (child says 'dit' adult says 'sssit') or repeating the inaccurate sentence a child said by stressing the correct grammar (child says 'we go car', adult says 'yes, we **went** in the car'. This naturally stretches the child to the next stage of their development

FEEDBACK AND REPAIR:

As the child develops in their face watching so they learn to watch the adult's reaction or to monitor the response of the other person and repair any breakdowns in communication (Cummins 2015¹⁶). In interacting, people create meaning jointly, It is frequently far from perfect and involves each partner watching the other closely repairing any breakdowns through repetition and re-clarification. Each person says something and monitors the other's reaction to see if any repair or augmentation is required. General dialogue is full of false starts, ill formed utterances and misperceptions.

HOW IS THIS ALL RELEVANT TO OUR CHILDREN?

Confident communicators have had a smoother ride in which to learn to self-regulate both in relation to an activity (anything they choose to do, or something someone else has chosen) and in relation to their interactions. They are confident in experimenting and exploring for relatively lengthy periods both when their parents are present and when they are in other situations. They will try out many things in an organised way and will confidently engage with other people. Everything they do is based on them trying it out, seeing what happens

¹⁵ Saxton (2005) "Recast" in a new light: Insights for practice from typical language studies. *Child Language Teaching and Therapy*, 21(1), 23–38.

¹⁶ Cummins K (2015) – chapter 4. Using video to catch, develop and propagate emerging skills with parents, children educators and therapists. Stokes J and McCormick (Eds). *Speech and language therapy and professional identity: challenging received wisdom*. J&R Press Ltd.

and if the outcome is positive trying it again. They manage their interactions and conversations with others firstly through their body language and proximity. They go up to others, regardless of where they are in the room, **look** directly in to their **faces** to show they wish to engage, say something, watching and listening to whether they have been understood, and then to the other persons responses and recasts. They repair any breakdown and then **look away** to show they are finished and need time to think. When they look away it is a clear signal for both people to stop talking. The confident communicator manages the interaction non-verbally and then builds the interaction up using their language. They become tuned in to human voice and so when someone else goes up to them and says something, even if they are not looking, they feel and hear the signal to engage and look up and respond accordingly. Adults without knowing provide lots of silence and wait for the child to use their eyes to start and stop interactions.

Children who are not as confident in their communication and who may have had some additional challenges in their health and physical development will have found it difficult to self regulate at a number of levels, their underpinning system becoming less organised which in turn makes it difficult to tidily build on new skills and integrate them with the old. It becomes difficult to know what to focus on and with the noise of the busy world becomes overwhelming.

Each child will manage this in a different way. For some, the overload will make them extra busy (in to all things, never stopping and frequently getting in to mischief) others may seem withdrawn and uninterested, others may appear to be engaged in most of the interactions but not seem interested in clarity of speech and others may appear to struggle with what they wish to say. They frequently appear not to be listening or may seem to dominate the conversation but actually they cannot focus on the other persons agenda because it is unclear to them and the speed of signals, sounds and language around them is overwhelming. In the majority of instances their communicative intent (Dewart and Summers 1995¹⁷) and ability to communicate what they wish to is affected. The main challenge for them is that others start to become concerned and tend to overcompensate. The child's use of their face watching to switch the adults mouth on and off becomes affected. When they are looking down the adult continues to speak (but the child is not ready or able to hear). The child has to tune out in order to calm themselves but the adult often goes on 'badgering' with their voice. The child often has to tune out and the adults voice becomes 'white noise' in the background. The adult often thinks the child has 'selective hearing' but the child has had to tune out.

For children with communication difficulties focusing (regulating) requires more energy than most. They are having to balance their skills in a way that lots of their friends didn't need to. They need additional peace and additional time in which to regulate themselves and work things out.

¹⁷ Dewart and Summers (1995) The Pragmatics Profile of Everyday Communication skills in children.

THE PROCESS OF VERVE:

Through **VERVE** we help each child to organise their system so that they can engage in what they want to as well as what they are asked to and can start, hold, absorb and tidy up their interactions with others and others interactions with them.

By taking time to support the child in regulating and managing their 'signals' in communication and their involvement in feedback and repair each child is able to support others in knowing what to do when in interacting with them and when to scaffold on words and language (signs and symbols).

Parents re-pattern each child's communication habits by making really clear in their own adult behaviours the key signals that start interaction and by giving their child clear 'safe' times in which to develop them. By starting with self-regulation skills, their desire and interest in communication and face watching develops and other communicative skill starts to tidily build on top. With each adult fully tuned in to their child's subtle signals, each child goes on to tune in to interaction, gesture, sign and language developing their listening, understanding, grammar, speech sounds and fluency.

5 minute special times are initially set up so that each child can influence the adult consistently and 'feel' the new habit.

The first week between sessions of VERVE is the hardest because each child is adjusting to the 'new' habit and experimenting with the change. Adults often feel that in the first couple of days, little is happening. This makes it really tough but as the parent stays steady so the child starts to feel what works and manages the silence opportunity and the communication. The emphasis is on enjoying the time together and experimenting and exploring. It is fine for the whole special time to be silent. The adult is indicating that thinking and doing are just as important as talking. Most importantly the adult is showing that they are interested and engaged and respectful of the child's eyes as an indicator of when words are required.

The video a week later highlights the subtle, highly significant skills in the child that are shifting and which are essential for the child's independent use of communication. The emphasis starts to shift from the adult being the one that facilitates to the child being the one that supports the adult. Visible on screen are the changes from the preceding week – clear emerging skills.

Over the period of weeks each child (and adult) will start to use their new habits during other times in the day both with the adults they initially practised it with and then increasingly with others adults and other children.

In developing their self-regulation they are then able to settle and focus on something – on their own, or with others. By being respected in their own timing they become increasingly tuned in to and respectful of other peoples timing. They become confident in creating unique interactions one:one and with others, benefitting like all children from recasts that support specific areas of their communication. Increasingly they develop their attention control, impulse regulation, information processing and planning and become confident in their experimentation and learning taking on the demands that Early years and

schooling start to place on them. They enjoy doing things for doing things sake.

Shifting our focus of attention

Children with a perceived diagnosis need additional time to develop equilibrium inside and out. Often children with communication difficulties are pushed too fast through the process of developing a 'shared focus' (usually the adults) and the emphasis is placed on words. VERVE shows how the use of silence and time to settle with something with the adult engaged and respectful of that choice leads to child self-regulation and shared-focus of attention. By the adult showing how to be attentive and responsive, the child increasingly takes the initiative and is reinforced, sees the pleasure in staying with things, interacting with others experimenting, repairing and conversing. They become resilient and confident.

It is all in a smile.